



14697 - A Cepheid Distance to NGC 4051

Cycle: 24, 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) NGC-4051	WFC3/IR WFC3/UVIS	1	07-Sep-2016 18:14:23.0	yes
02	(1) NGC-4051	WFC3/UVIS	1	07-Sep-2016 18:14:24.0	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>
03	(1) NGC-4051	WFC3/UVIS	1	07-Sep-2016 18:14:24.0	yes
04	(1) NGC-4051	WFC3/IR WFC3/UVIS	1	07-Sep-2016 18:14:25.0	yes
05	(1) NGC-4051	WFC3/UVIS	1	07-Sep-2016 18:14:26.0	yes
06	(1) NGC-4051	WFC3/IR WFC3/UVIS	1	07-Sep-2016 18:14:27.0	yes
07	(1) NGC-4051	WFC3/UVIS	1	07-Sep-2016 18:14:27.0	yes
08	(1) NGC-4051	WFC3/IR WFC3/UVIS	1	07-Sep-2016 18:14:28.0	yes
09	(1) NGC-4051	WFC3/UVIS	1	07-Sep-2016 18:14:29.0	yes
10	(1) NGC-4051	WFC3/IR WFC3/UVIS	1	07-Sep-2016 18:14:30.0	yes
11	(1) NGC-4051	WFC3/UVIS	1	07-Sep-2016 18:14:30.0	yes
12	(1) NGC-4051	WFC3/IR WFC3/UVIS	1	07-Sep-2016 18:14:31.0	yes

12 Total Orbits Used

ABSTRACT

We propose to measure an accurate Cepheid-based distance to the narrow-line Seyfert 1 (NLS1) galaxy NGC 4051, the nearest and one of the best-studied objects in its class. Distances quoted in recent literature range from 9 to 18 Mpc. A precision distance is necessary in order to understand the gas flow energetics to better than a factor of four, and indeed to determine whether the accretion rate is typical of other NLS1s (if at the maximum distance currently assumed) or simply typical of normal Seyfert 1 galaxies (if at the minimum distance). A precision distance is also required to effect a direct comparison of (distance-dependent) stellar and gas dynamical measurements of the central black hole mass with that measured by (distance-independent) reverberation mapping. NGC 4051 is one of fewer than 10 nearby reverberation-mapped AGNs, and the only one classified as an NLS1, for which such black hole mass comparisons currently are possible, and for which there is no other path to a precise distance.

OBSERVING DESCRIPTION

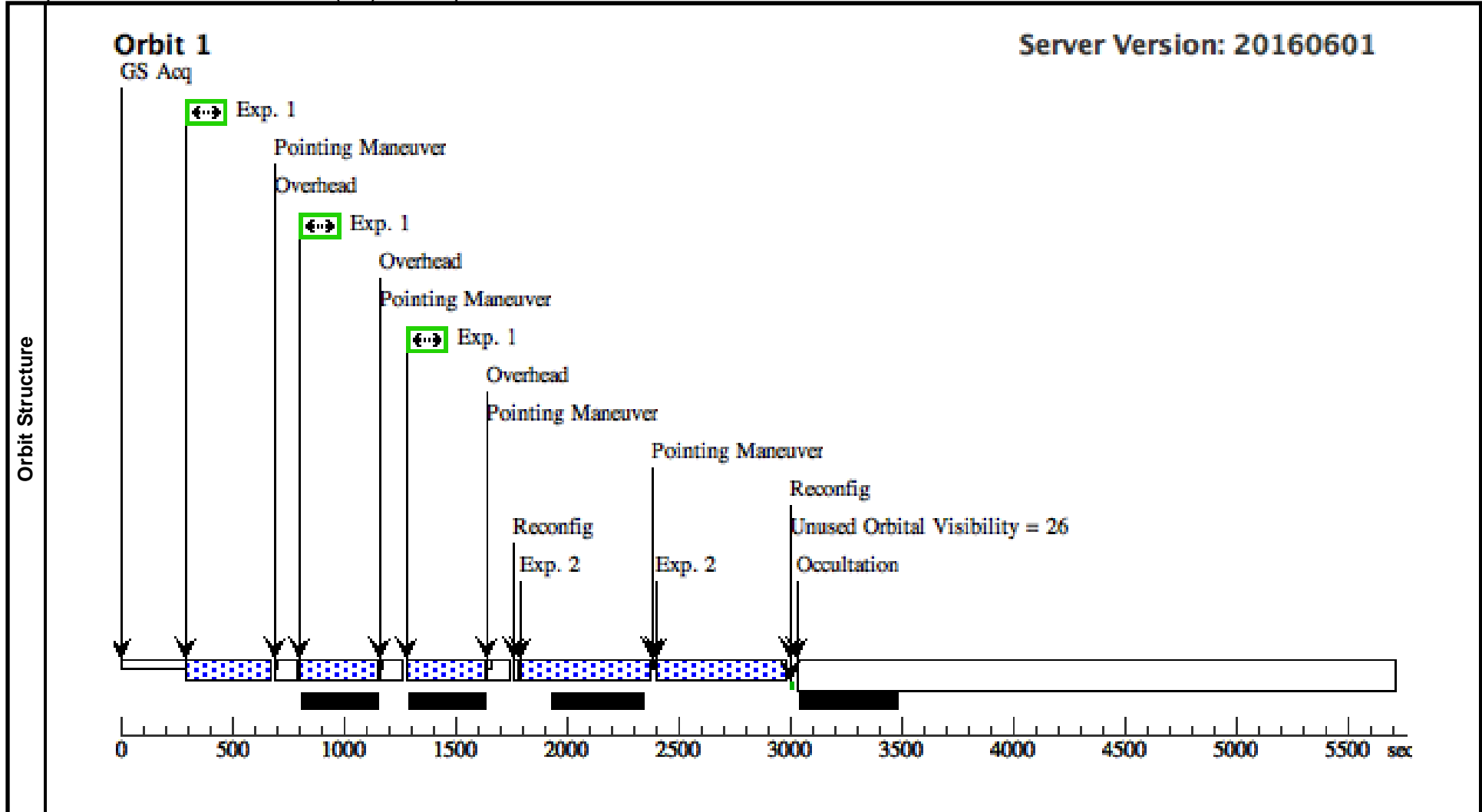
Optical time-series observations of NGC 4051 with the aim of discovering Cepheids

Near-infrared observations to obtain mean magnitudes of Cepheids for distance determination

Proposal 14697 - N4051-H01 (01) - A Cepheid Distance to NGC 4051

Wed Sep 07 22:14:32 GMT 2016

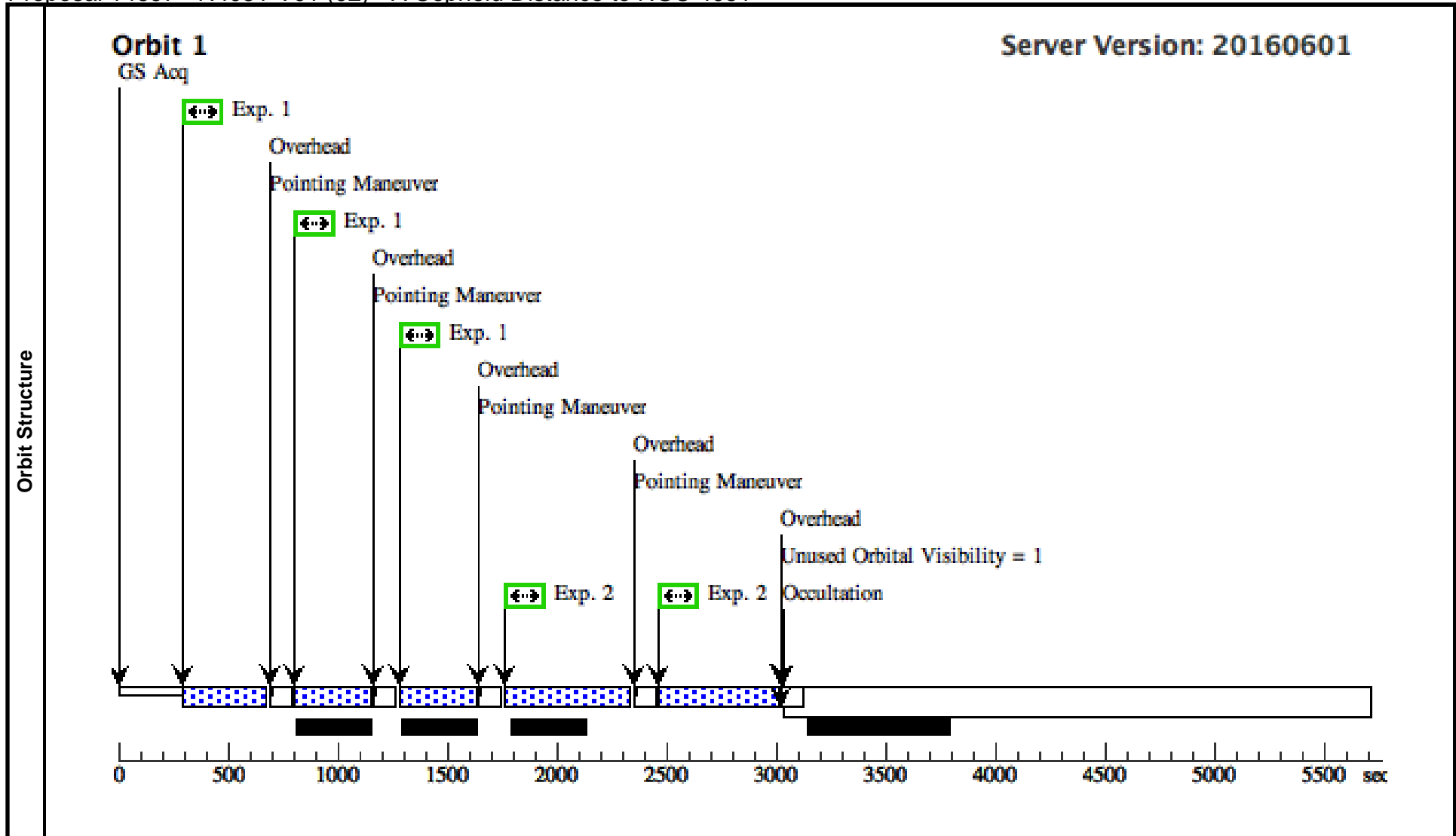
Visit	Proposal 14697, N4051-H01 (01), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, WFC3/UVIS Special Requirements: SCHED 90%: ORIENT 278.9D TO 278.9 D									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(1)	Pattern Type=WFC3-UVIS-DITHER- LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1)				
	(2)	Pattern Type=WFC3-IR-DITHER- LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false		(2)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(1)	NGC-4051	RA: 12 03 12.5559 (180.8023163d) Dec: +44 32 13.28 (44.53702d) Equinox: J2000		V=12.92	Reference Frame: SIMBAD				
<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) NGC-4051	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP			GS ACQ SCENARI O BASE1B3	Pattern 1, Exps 1-1 i n N4051-H01 (01) (1)	350 Secs (1050 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)]
2		(1) NGC-4051	WFC3/IR, MULTIACCUM, IR-UVIS-CENTER	F160W		NSAMP=12; SAMP-SEQ=SPAR S50	POS TARG -1.06,15 .11	Pattern 2, Exps 2-2 i n N4051-H01 (01) (2)	552.937252 Secs (1105.875 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]



Proposal 14697 - N4051-V01 (02) - A Cepheid Distance to NGC 4051

Wed Sep 07 22:14:32 GMT 2016

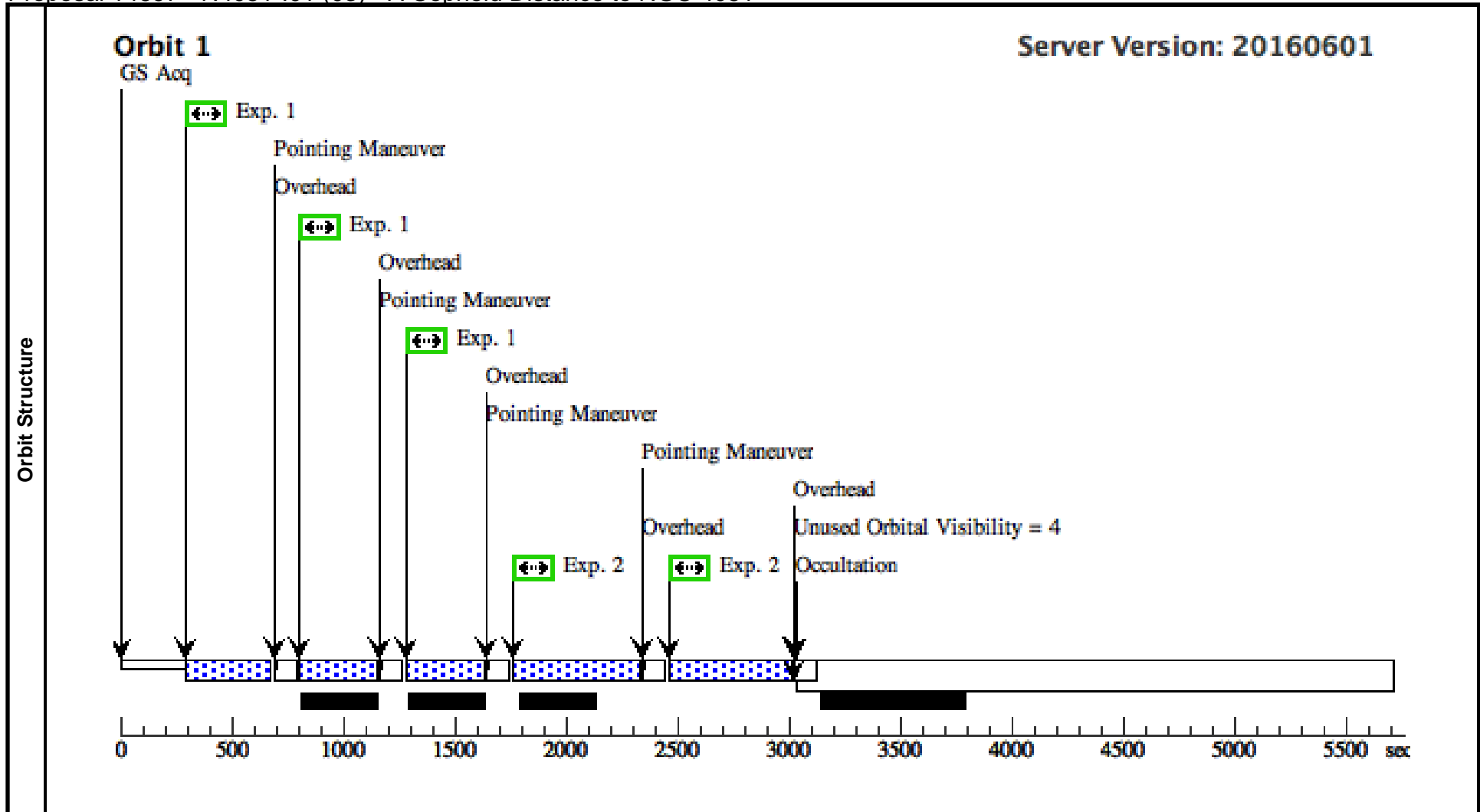
Visit	Proposal 14697, N4051-V01 (02), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 90%; SAME ORIENT AS 01; AFTER 01 BY 18.10 D TO 18.60 D									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
(1)		Pattern Type=WFC3-UVIS-DITHER- LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing= Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1)						
(3)		Pattern Type=WFC3-UVIS-DITHER- LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing= Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(2)						
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(1)	NGC-4051	RA: 12 03 12.5559 (180.8023163d) Dec: +44 32 13.28 (44.53702d) Equinox: J2000		V=12.92	Reference Frame: SIMBAD				
<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) NGC-4051	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		GS ACQ SCENARI O BASE1B3	Pattern 1, Exps 1-1 i n N4051-V01 (02) (1)	350 Secs (1050 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)]	[1]
	2		(1) NGC-4051	WFC3/UVIS, ACCUM, UVIS-CENTER	F555W			Pattern 3, Exps 2-2 i n N4051-V01 (02) (3)	550 Secs (1100 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]



Proposal 14697 - N4051-I01 (03) - A Cepheid Distance to NGC 4051

Wed Sep 07 22:14:32 GMT 2016

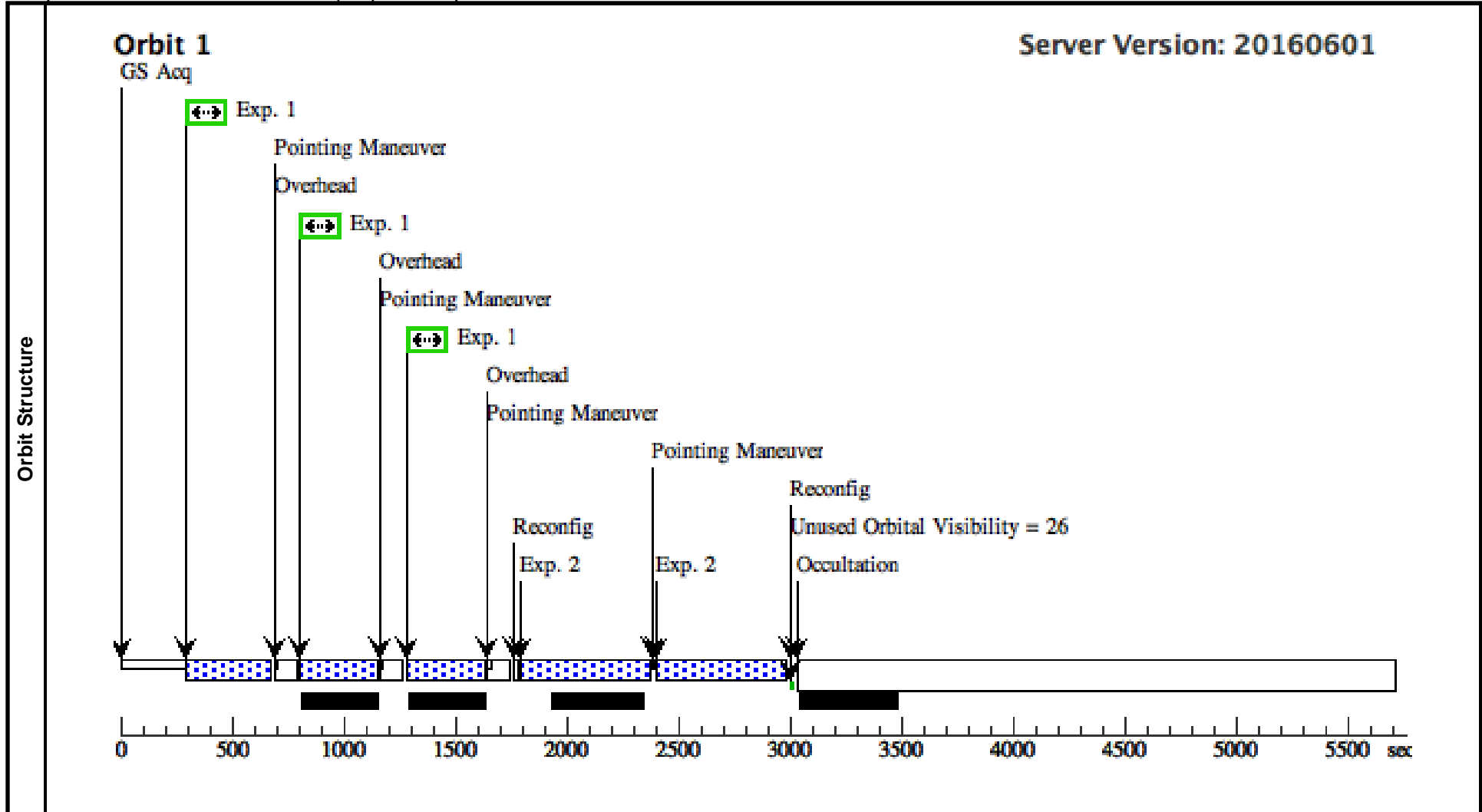
Visit	Proposal 14697, N4051-I01 (03), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 90%; SAME ORIENT AS 01; AFTER 01 BY 22.66 D TO 23.16 D									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
(1)		Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing= Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1)						
(3)		Pattern Type=WFC3-UVIS-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing= Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(2)						
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(1)	NGC-4051	RA: 12 03 12.5559 (180.8023163d) Dec: +44 32 13.28 (44.53702d) Equinox: J2000		V=12.92	Reference Frame: SIMBAD				
<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) NGC-4051	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		GS ACQ SCENARI O BASE1B3	Pattern 1, Exps 1-1 i n N4051-I01 (03) (1)	350 Secs (1050 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)]	[1]
	2		(1) NGC-4051	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W			Pattern 3, Exps 2-2 i n N4051-I01 (03) (3)	550 Secs (1100 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]



Proposal 14697 - N4051-H02 (04) - A Cepheid Distance to NGC 4051

Wed Sep 07 22:14:32 GMT 2016

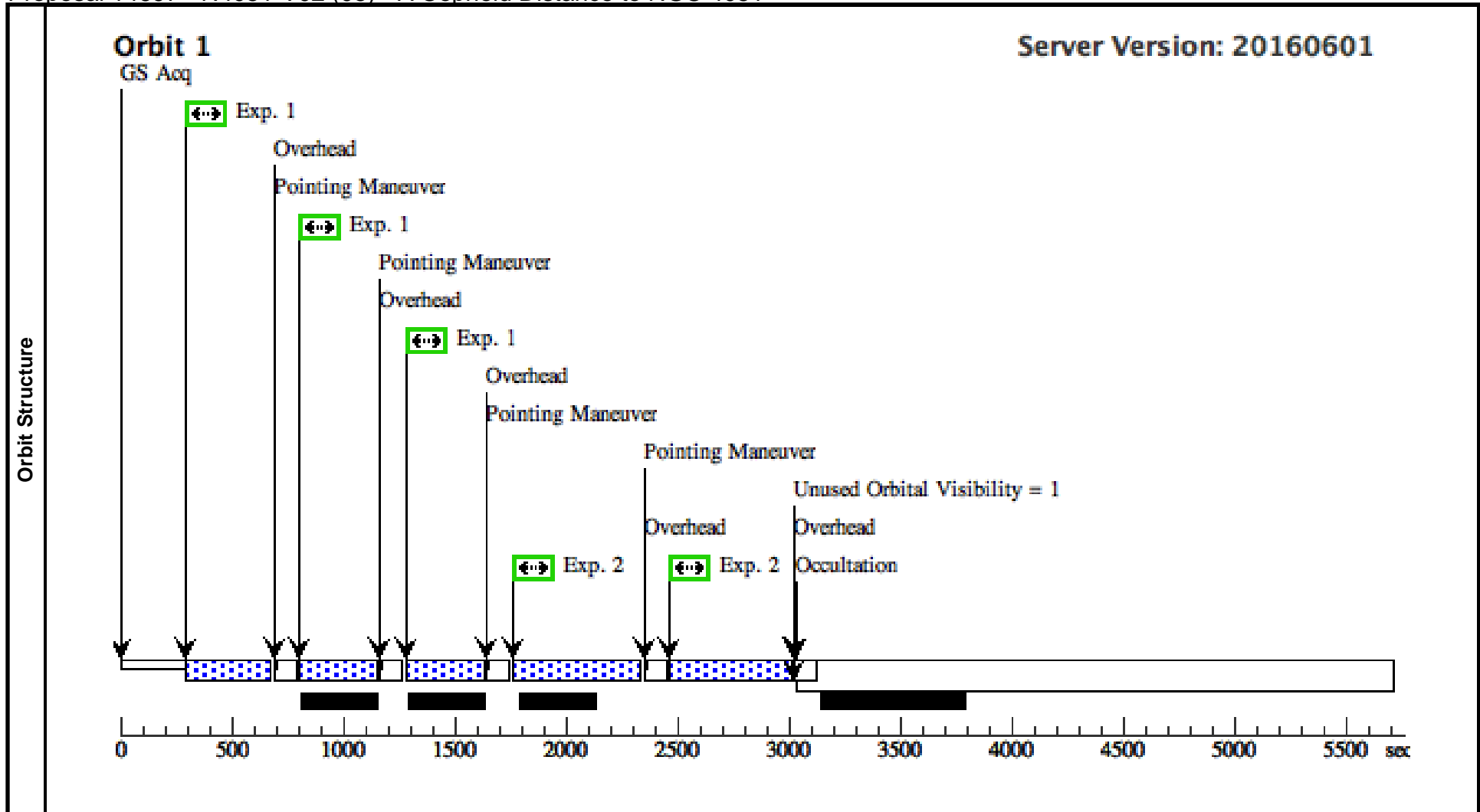
Visit	Proposal 14697, N4051-H02 (04), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, WFC3/UVIS Special Requirements: SCHED 90%; SAME ORIENT AS 01; AFTER 01 BY 27.66 D TO 28.16 D									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(1)	Pattern Type=WFC3-UVIS-DITHER- LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1)				
	(2)	Pattern Type=WFC3-IR-DITHER- LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false		(2)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(1)	NGC-4051	RA: 12 03 12.5559 (180.8023163d) Dec: +44 32 13.28 (44.53702d) Equinox: J2000		V=12.92	Reference Frame: SIMBAD				
<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) NGC-4051	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP			GS ACQ SCENARI O BASE1B3	Pattern 1, Exps 1-1 i n N4051-H02 (04) (1) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)]	350 Secs (1050 Secs)
2		(1) NGC-4051	WFC3/IR, MULTIACCUM, IR-UVIS-CENTER	F160W		NSAMP=12; SAMP-SEQ=SPAR S50	POS TARG -1.06,15 .11	Pattern 2, Exps 2-2 i n N4051-H02 (04) (2) [==>(Pattern 1)] [==>(Pattern 2)]	552.937252 Secs (1105.875 Secs)	[1]



Proposal 14697 - N4051-V02 (05) - A Cepheid Distance to NGC 4051

Wed Sep 07 22:14:32 GMT 2016

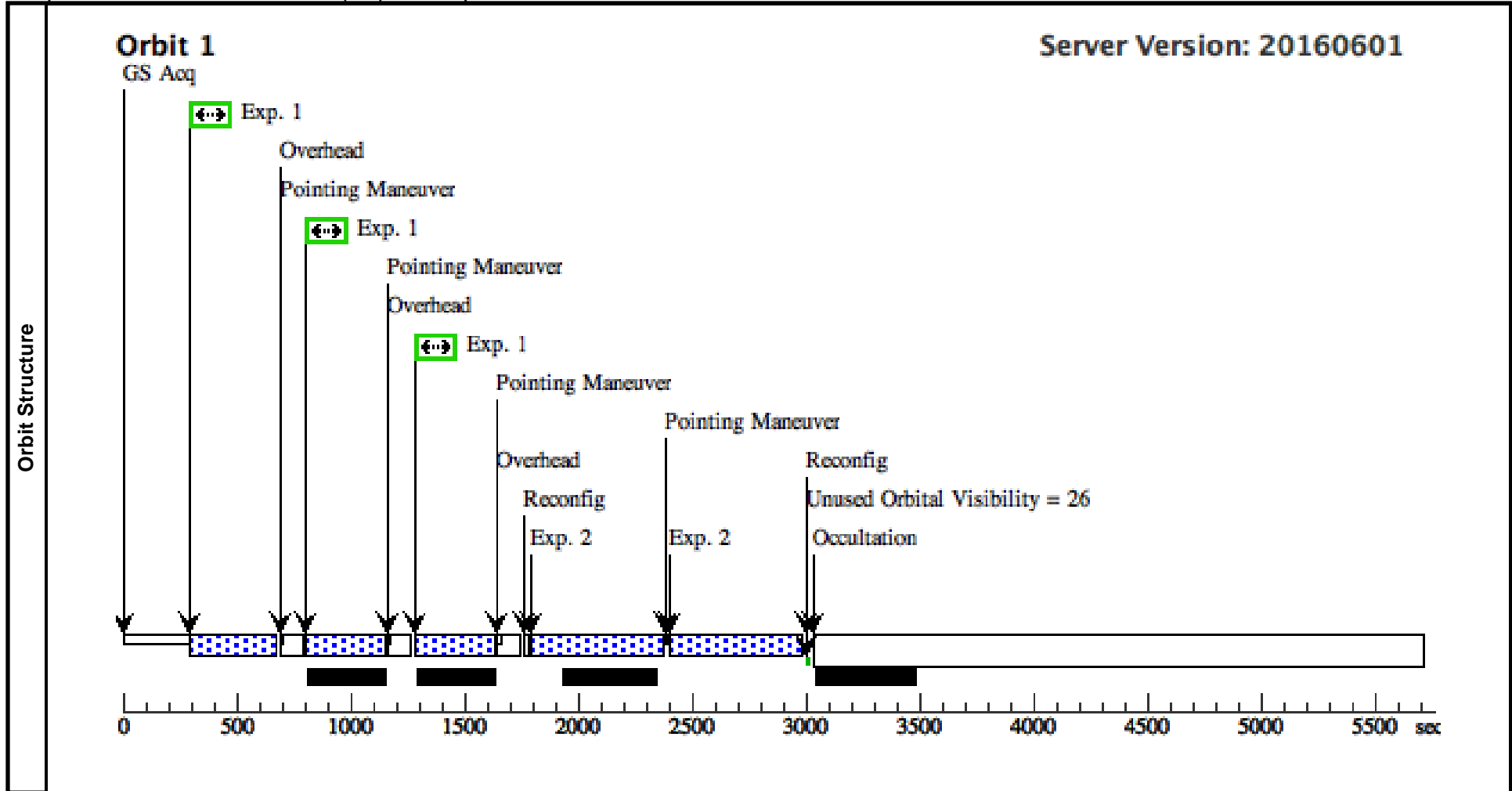
Visit	Proposal 14697, N4051-V02 (05), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 90%; SAME ORIENT AS 01; AFTER 01 BY 33.36 D TO 33.86 D									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
(1)		Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1)					
(3)		Pattern Type=WFC3-UVIS-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(2)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(1)	NGC-4051	RA: 12 03 12.5559 (180.8023163d) Dec: +44 32 13.28 (44.53702d) Equinox: J2000		V=12.92	Reference Frame: SIMBAD				
<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) NGC-4051	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		GS ACQ SCENARI O BASE1B3	Pattern 1, Exps 1-1 in N4051-V02 (05) (1)	350 Secs (1050 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)]	[1]
	2		(1) NGC-4051	WFC3/UVIS, ACCUM, UVIS-CENTER	F555W			Pattern 3, Exps 2-2 in N4051-V02 (05) (3)	550 Secs (1100 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]



Proposal 14697 - N4051-H03 (06) - A Cepheid Distance to NGC 4051

Wed Sep 07 22:14:32 GMT 2016

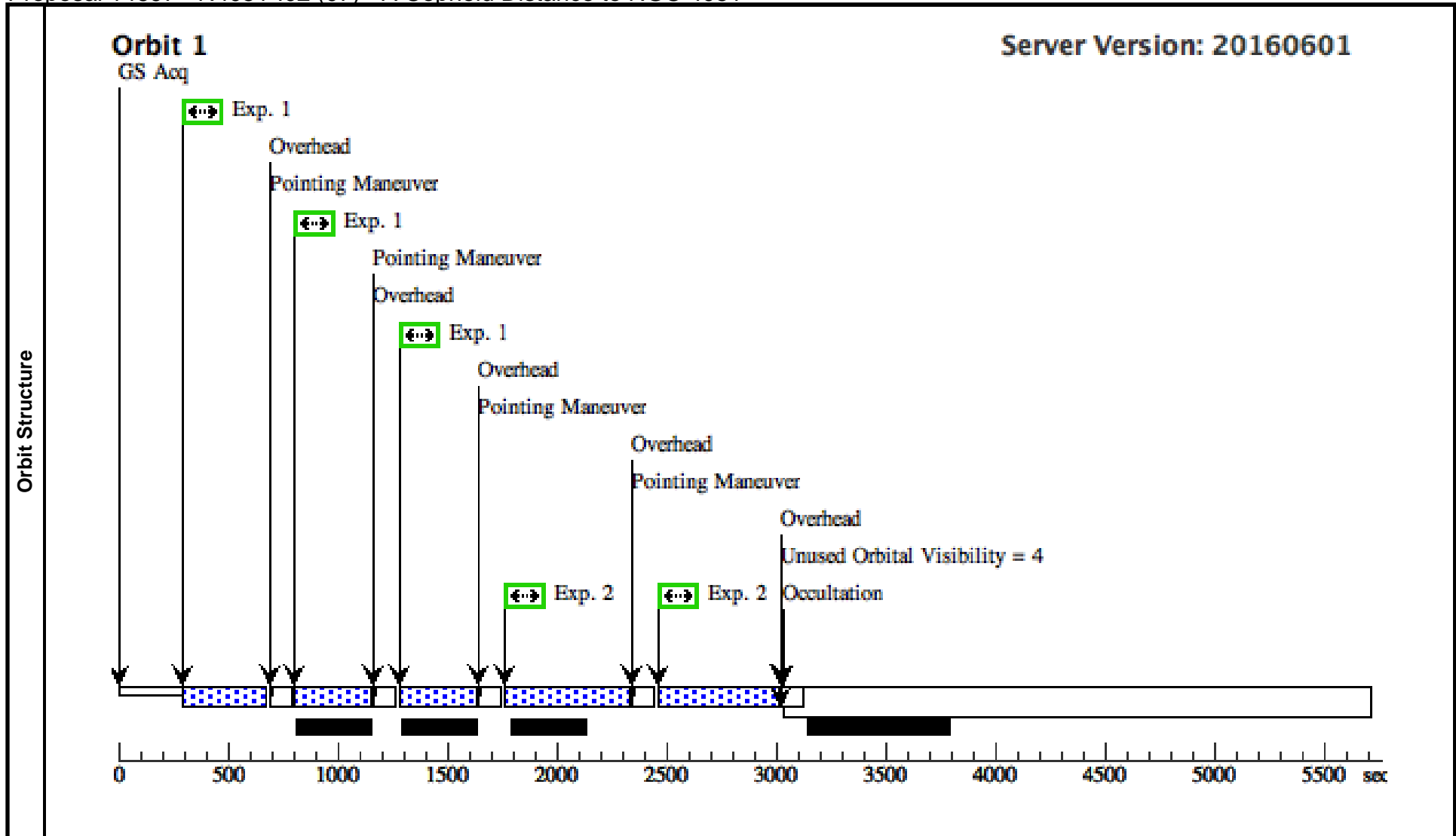
Visit	Proposal 14697, N4051-H03 (06), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, WFC3/UVIS Special Requirements: SCHED 90%; SAME ORIENT AS 01; AFTER 01 BY 39.63 D TO 40.13 D									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(1)	Pattern Type=WFC3-UVIS-DITHER- LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1)				
	(2)	Pattern Type=WFC3-IR-DITHER- LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false		(2)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(1)	NGC-4051	RA: 12 03 12.5559 (180.8023163d) Dec: +44 32 13.28 (44.53702d) Equinox: J2000		V=12.92	Reference Frame: SIMBAD				
<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) NGC-4051	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP			GS ACQ SCENARI O BASE1B3	Pattern 1, Exps 1-1 i n N4051-H03 (06) (1) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)]	350 Secs (1050 Secs)
2		(1) NGC-4051	WFC3/IR, MULTIACCUM, IR-UVIS-CENTER	F160W		NSAMP=12; SAMP-SEQ=SPAR S50	POS TARG -1.06,15 .11	Pattern 2, Exps 2-2 i n N4051-H03 (06) (2) [==>(Pattern 1)] [==>(Pattern 2)]	552.937252 Secs (1105.875 Secs)	[1]



Proposal 14697 - N4051-I02 (07) - A Cepheid Distance to NGC 4051

Wed Sep 07 22:14:32 GMT 2016

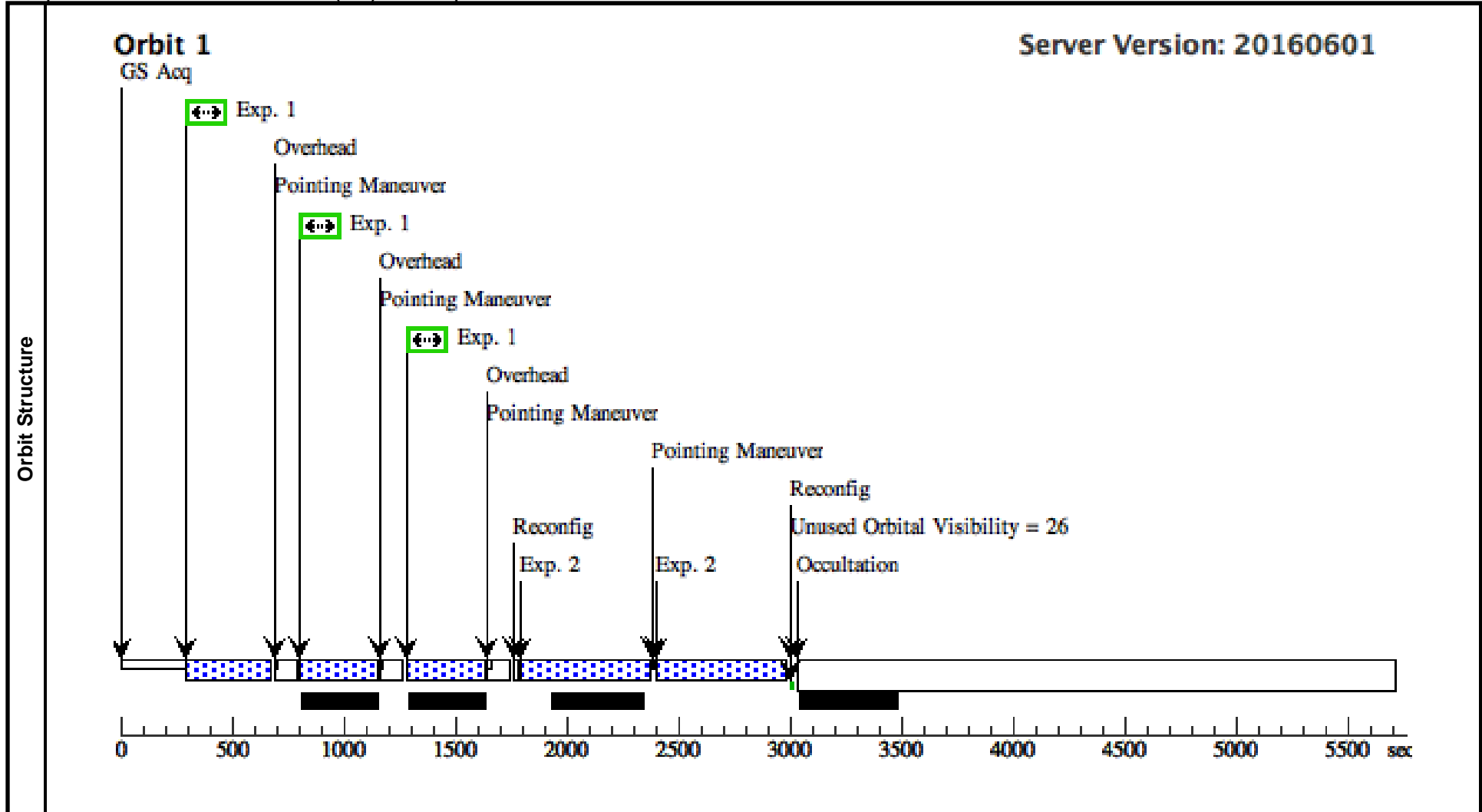
Visit	Proposal 14697, N4051-I02 (07), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 90%; ORIENT 252.0D TO 252.0 D; AFTER 01 BY 45.94 D TO 46.44 D									
	#	Primary Pattern	Secondary Pattern	Exposures						
Patterns	(1)	Pattern Type=WFC3-UVIS-DITHER- LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing= Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1)						
	(3)	Pattern Type=WFC3-UVIS-DITHER- LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing= Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(2)						
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(1)	NGC-4051	RA: 12 03 12.5559 (180.8023163d) Dec: +44 32 13.28 (44.53702d) Equinox: J2000		V=12.92	Reference Frame: SIMBAD				
<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) NGC-4051	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		GS ACQ SCENARI O BASE1B3	Pattern 1, Exps 1-1 i n N4051-I02 (07) (1)	350 Secs (1050 Secs) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)]	[1]
2		(1) NGC-4051	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W			Pattern 3, Exps 2-2 i n N4051-I02 (07) (3)	550 Secs (1100 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]	



Proposal 14697 - N4051-H04 (08) - A Cepheid Distance to NGC 4051

Wed Sep 07 22:14:32 GMT 2016

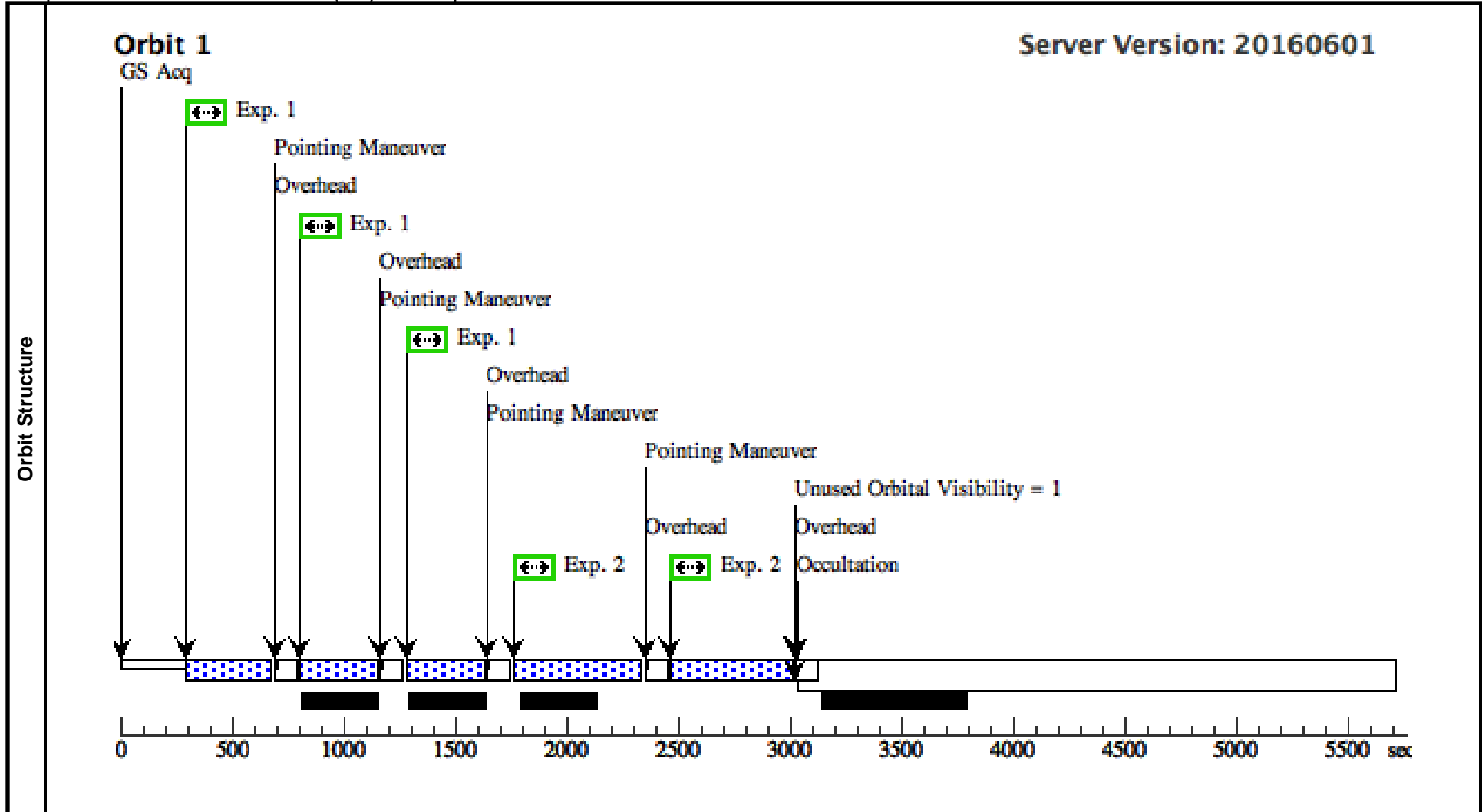
Visit	Proposal 14697, N4051-H04 (08), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, WFC3/UVIS Special Requirements: SCHED 90%; SAME ORIENT AS 07; AFTER 01 BY 51.60 D TO 52.10 D									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(1)	Pattern Type=WFC3-UVIS-DITHER- LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1)				
	(2)	Pattern Type=WFC3-IR-DITHER- LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false		(2)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(1)	NGC-4051	RA: 12 03 12.5559 (180.8023163d) Dec: +44 32 13.28 (44.53702d) Equinox: J2000		V=12.92	Reference Frame: SIMBAD				
<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) NGC-4051	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP			GS ACQ SCENARI O BASE1B3	Pattern 1, Exps 1-1 i n N4051-H04 (08) (1) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)]	350 Secs (1050 Secs)
2		(1) NGC-4051	WFC3/IR, MULTIACCUM, IR-UVIS-CENTER	F160W		NSAMP=12; SAMP-SEQ=SPAR S50	POS TARG -1.06,15 .11	Pattern 2, Exps 2-2 i n N4051-H04 (08) (2) [==>(Pattern 1)] [==>(Pattern 2)]	552.937252 Secs (1105.875 Secs)	[1]



Proposal 14697 - N4051-V03 (09) - A Cepheid Distance to NGC 4051

Wed Sep 07 22:14:32 GMT 2016

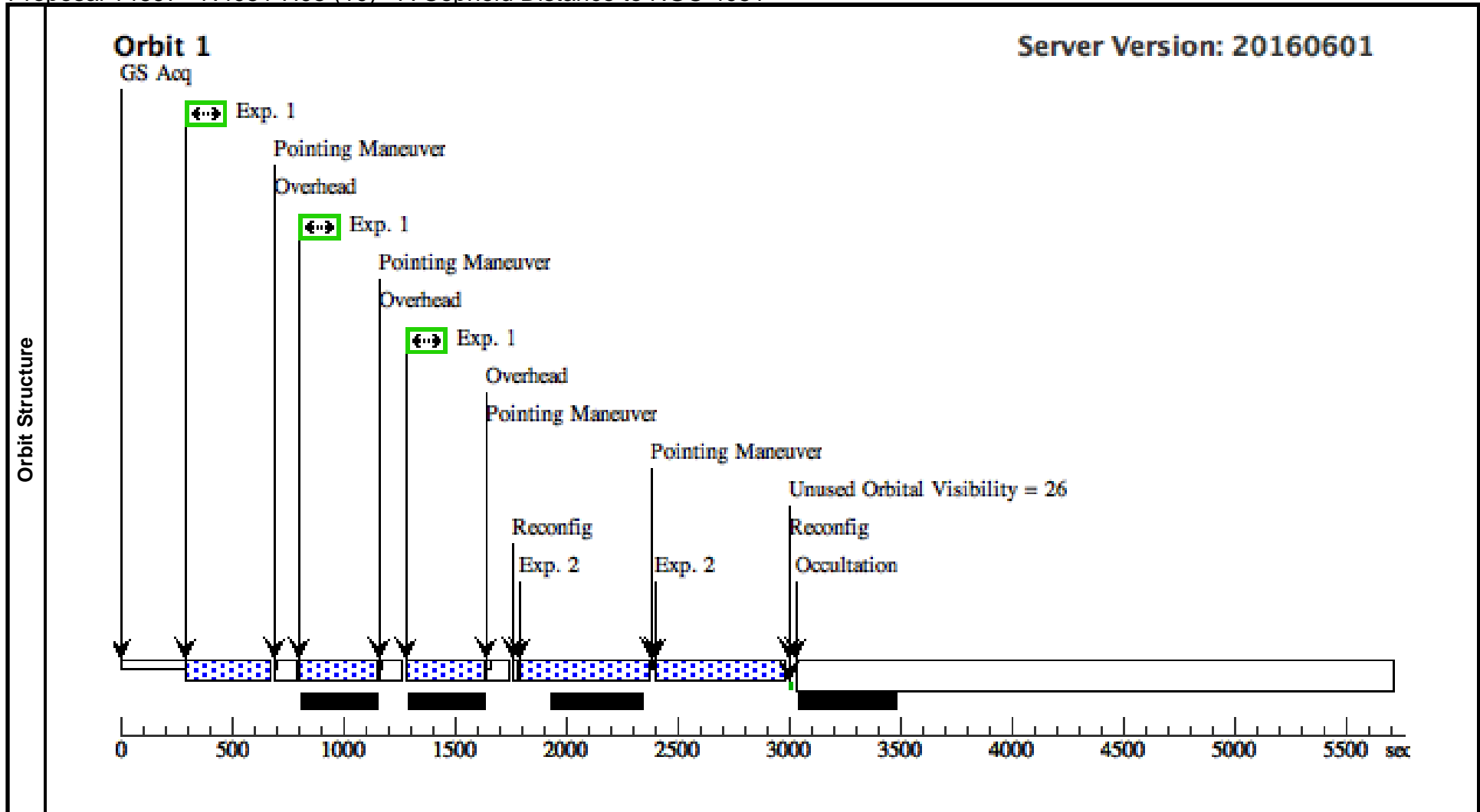
Visit	Proposal 14697, N4051-V03 (09), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 90%; SAME ORIENT AS 07; AFTER 01 BY 55.65 D TO 56.15 D									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(1)	Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1)				
	(3)	Pattern Type=WFC3-UVIS-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(2)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(1)	NGC-4051	RA: 12 03 12.5559 (180.8023163d) Dec: +44 32 13.28 (44.53702d) Equinox: J2000		V=12.92	Reference Frame: SIMBAD				
<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) NGC-4051	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		GS ACQ SCENARI O BASE1B3	Pattern 1, Exps 1-1 in N4051-V03 (09) (1)	350 Secs (1050 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)]	[1]
2		(1) NGC-4051	WFC3/UVIS, ACCUM, UVIS-CENTER	F555W			Pattern 3, Exps 2-2 in N4051-V03 (09) (3)	550 Secs (1100 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]	



Proposal 14697 - N4051-H05 (10) - A Cepheid Distance to NGC 4051

Wed Sep 07 22:14:32 GMT 2016

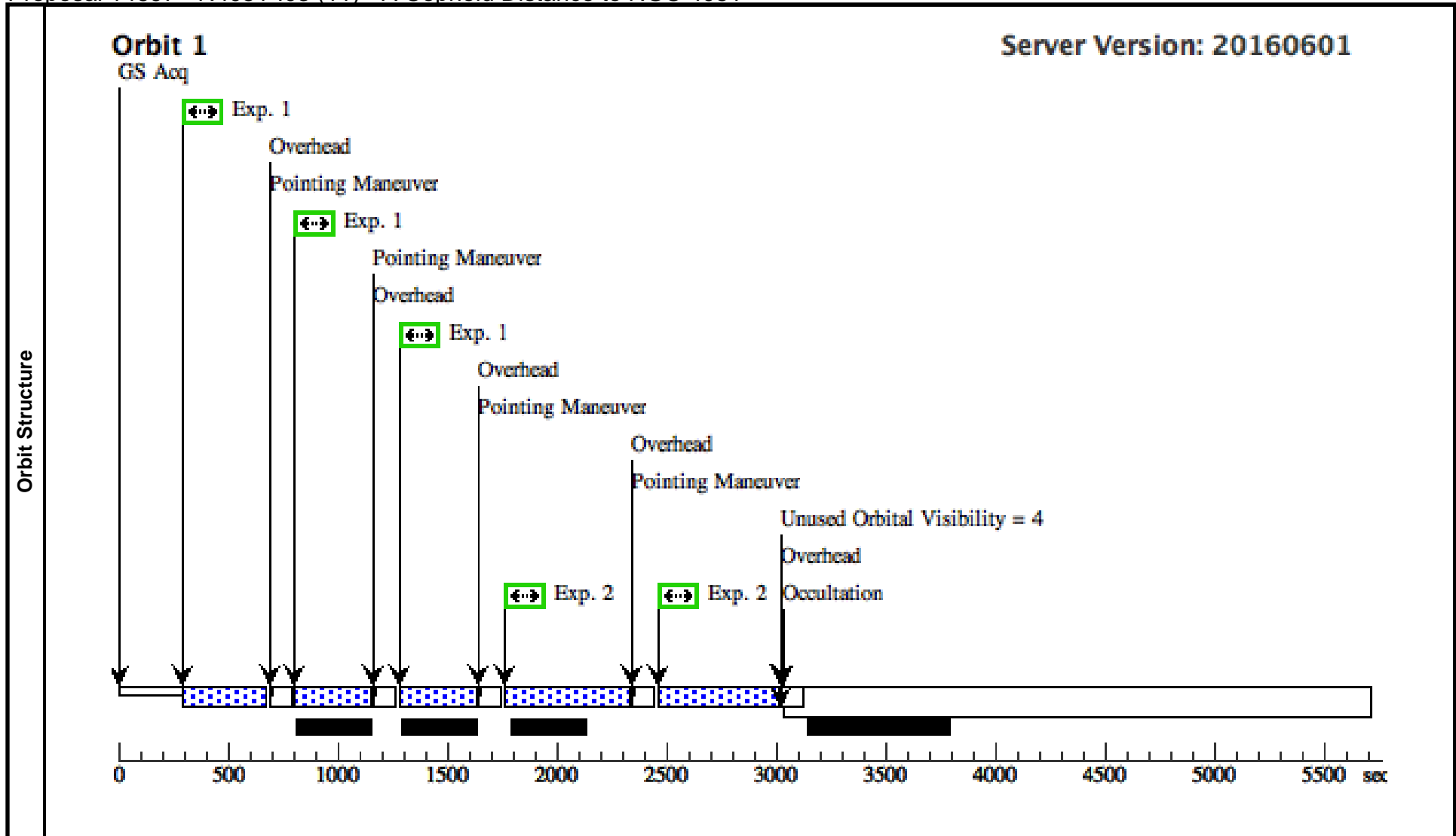
Visit	Proposal 14697, N4051-H05 (10), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, WFC3/UVIS Special Requirements: SCHED 90%; SAME ORIENT AS 07; AFTER 01 BY 60.18 D TO 60.68 D									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(1)	Pattern Type=WFC3-UVIS-DITHER- LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1)				
	(2)	Pattern Type=WFC3-IR-DITHER- LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false		(2)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(1)	NGC-4051	RA: 12 03 12.5559 (180.8023163d) Dec: +44 32 13.28 (44.53702d) Equinox: J2000		V=12.92	Reference Frame: SIMBAD				
<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) NGC-4051	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP			GS ACQ SCENARI O BASE1B3	Pattern 1, Exps 1-1 i n N4051-H05 (10) (1) [==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)]	350 Secs (1050 Secs)
2		(1) NGC-4051	WFC3/IR, MULTIACCUM, IR-UVIS-CENTER	F160W		NSAMP=12; SAMP-SEQ=SPAR S50	POS TARG 8.79,20. 91	Pattern 2, Exps 2-2 i n N4051-H05 (10) (2) [==>(Pattern 1)] [==>(Pattern 2)]	552.937252 Secs (1105.875 Secs)	[1]



Proposal 14697 - N4051-I03 (11) - A Cepheid Distance to NGC 4051

Wed Sep 07 22:14:32 GMT 2016

Visit	Proposal 14697, N4051-I03 (11), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: SCHED 90%; SAME ORIENT AS 07; AFTER 01 BY 65.75 D TO 66.25 D									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
(1)		Pattern Type=WFC3-UVIS-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1)					
(3)		Pattern Type=WFC3-UVIS-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(2)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(1)	NGC-4051	RA: 12 03 12.5559 (180.8023163d) Dec: +44 32 13.28 (44.53702d) Equinox: J2000		V=12.92	Reference Frame: SIMBAD				
<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) NGC-4051	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP		GS ACQ SCENARI O BASE1B3	Pattern 1, Exps 1-1 i n N4051-I03 (11) (1)	350 Secs (1050 Secs) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)]	[1]
	2		(1) NGC-4051	WFC3/UVIS, ACCUM, UVIS-CENTER	F814W			Pattern 3, Exps 2-2 i n N4051-I03 (11) (3)	550 Secs (1100 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]



Proposal 14697 - N4051-H06 (12) - A Cepheid Distance to NGC 4051

Wed Sep 07 22:14:32 GMT 2016

Visit	Proposal 14697, N4051-H06 (12), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR, WFC3/UVIS Special Requirements: SCHED 90%; SAME ORIENT AS 07; AFTER 01 BY 72.75 D TO 73.25 D									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(1)	Pattern Type=WFC3-UVIS-DITHER- LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=0.135 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1)				
	(2)	Pattern Type=WFC3-IR-DITHER- LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false		(2)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(1)	NGC-4051	RA: 12 03 12.5559 (180.8023163d) Dec: +44 32 13.28 (44.53702d) Equinox: J2000		V=12.92	Reference Frame: SIMBAD				
<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) NGC-4051	WFC3/UVIS, ACCUM, UVIS-CENTER	F350LP			GS ACQ SCENARI O BASE1B3	Pattern 1, Exps 1-1 i n N4051-H06 (12) (1) [=>(Pattern 1)] [=>(Pattern 2)] [=>(Pattern 3)]	350 Secs (1050 Secs)
2		(1) NGC-4051	WFC3/IR, MULTIACCUM, IR-UVIS-CENTER	F160W		NSAMP=12; SAMP-SEQ=SPAR S50	POS TARG 8.79,20. 91	Pattern 2, Exps 2-2 i n N4051-H06 (12) (2) [=>(Pattern 1)] [=>(Pattern 2)]	552.937252 Secs (1105.875 Secs)	[1]

