



12490 - The WFC3 Mosaic of The Star-Forming Galaxy M51 in Paschen beta

Cycle: 19, 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	(2) M-51-V01	WFC3/IR	1	21-Aug-2012 21:39:31.0	yes
02	(3) M-51-V02	WFC3/IR	1	21-Aug-2012 21:39:41.0	yes
03	(4) M-51-V03	WFC3/IR	1	21-Aug-2012 21:39:48.0	yes
04	(5) M-51-V04	WFC3/IR	1	21-Aug-2012 21:39:55.0	yes
05	(6) M-51-V05	WFC3/IR	1	21-Aug-2012 21:40:03.0	yes
16	(7) M-51-V06	WFC3/IR	1	21-Aug-2012 21:40:10.0	yes
17	(8) M-51-V07	WFC3/IR	1	21-Aug-2012 21:40:17.0	yes
18	(9) M-51-V08	WFC3/IR	1	21-Aug-2012 21:40:24.0	yes
19	(10) M-51-V09	WFC3/IR	1	21-Aug-2012 21:40:31.0	yes
20	(11) M-51-V10	WFC3/IR	1	21-Aug-2012 21:40:38.0	yes

10 Total Orbits Used

ABSTRACT

We propose WFC3/IR Paschen beta imaging of the entire star-forming disk of M51 in a 10-point mosaic. This proposal is motivated by a new picture of gas evolution in galaxies from our recent observations in carbon-monoxide (CO) emission, namely one driven by galactic dynamics. The Paschen beta and archival ACS/Halpha images will enable correction for extinction throughout the entire M51 disk, and show an unprecedented map of star forming activity across the entire galaxy. By comparing this map with our new CO intensity and velocity maps, we will (1) place star formation in this new context of gas evolution, (2) study the triggering of star formation by correlating the star formation efficiency of individual GMC with global galactic structures (such as observed spiral shear motions and local gas convergence), and (3) investigate the physics that underlie the Schmidt law by resolving the early-phases of star formation and its environment. The extinction-corrected map of star formation activity will become a reference for future calibration of other tracers of star formation activity and will have an unparalleled archival value.

OBSERVING DESCRIPTION

The goal of this proposal is to make a map of extinction-corrected star formation activity over the entire star-forming disk of M51 with WFC3/IR Paschen beta imaging (in F128N and F110W). An archival ACS/Halpha image is available, and the Pa beta/H alpha line ratio will enable extinction correction.

A 10-point mosaic will cover the entire disk in 10 orbits. The position angles of 26-61 degrees and 216-241 degrees are the best to cover the entire disk, but the ranges of 23-70 degrees and 203-250 degrees are ok with the pointing setup in this APT. If the observations need to be executed outside the specified ranges of position angle, that is possible, but we would like to work on the mosaic pattern for the allocated, specific window to maximize the coverage of important structures in M51.

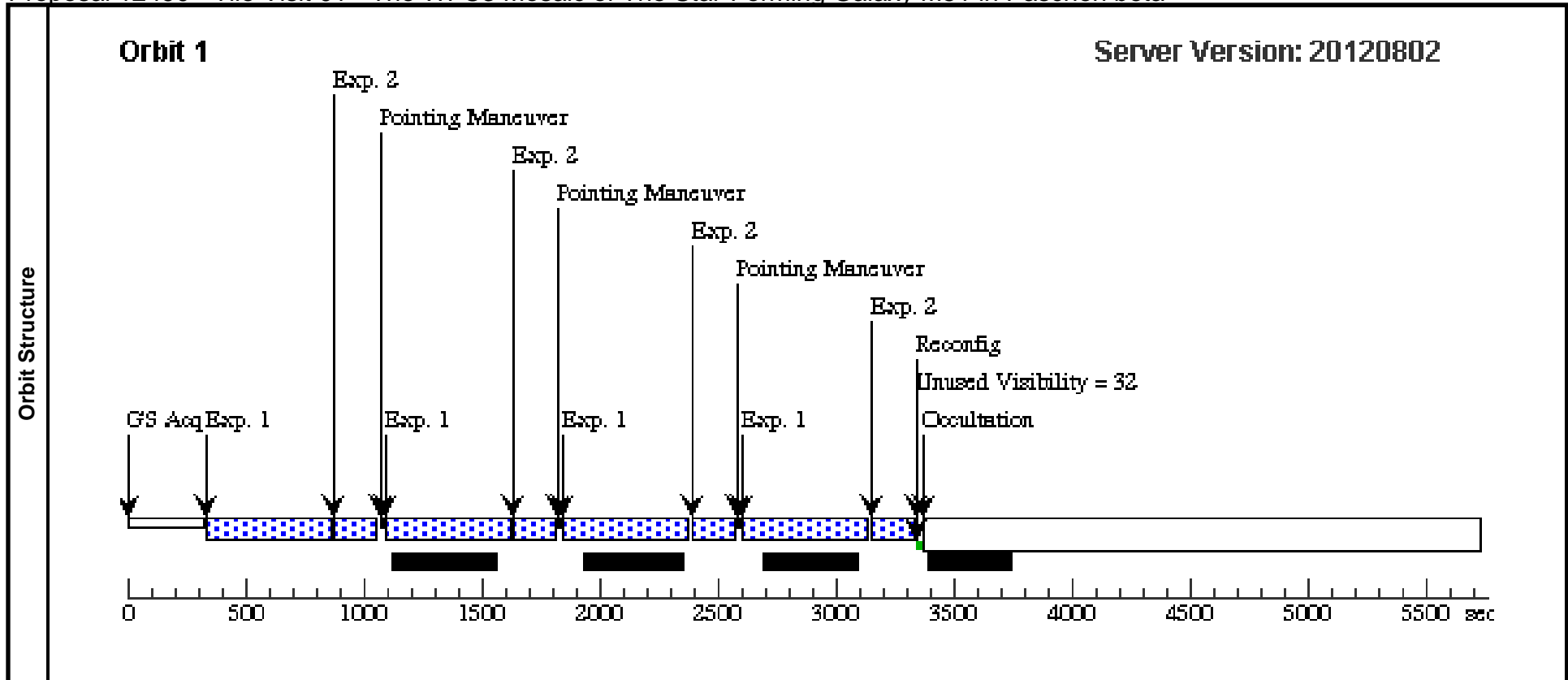
ADDITIONAL COMMENTS

A 10-point mosaic will cover the entire disk in 10 orbits. The position angles of 26-61 degrees and 216-241 degrees are the best to cover the entire disk, but the ranges of 23-70 degrees and 203-250 degrees are ok with the pointing setup in this APT. If the observations need to be executed outside the specified ranges of position angle, that is possible, but we would like to work on the mosaic pattern for the allocated, specific window to maximize the coverage of important structures in M51.

Proposal 12490 - Tile Visit 01 - The WFC3 Mosaic of The Star-Forming Galaxy M51 in Paschen beta

Wed Aug 22 01:40:48 GMT 2012

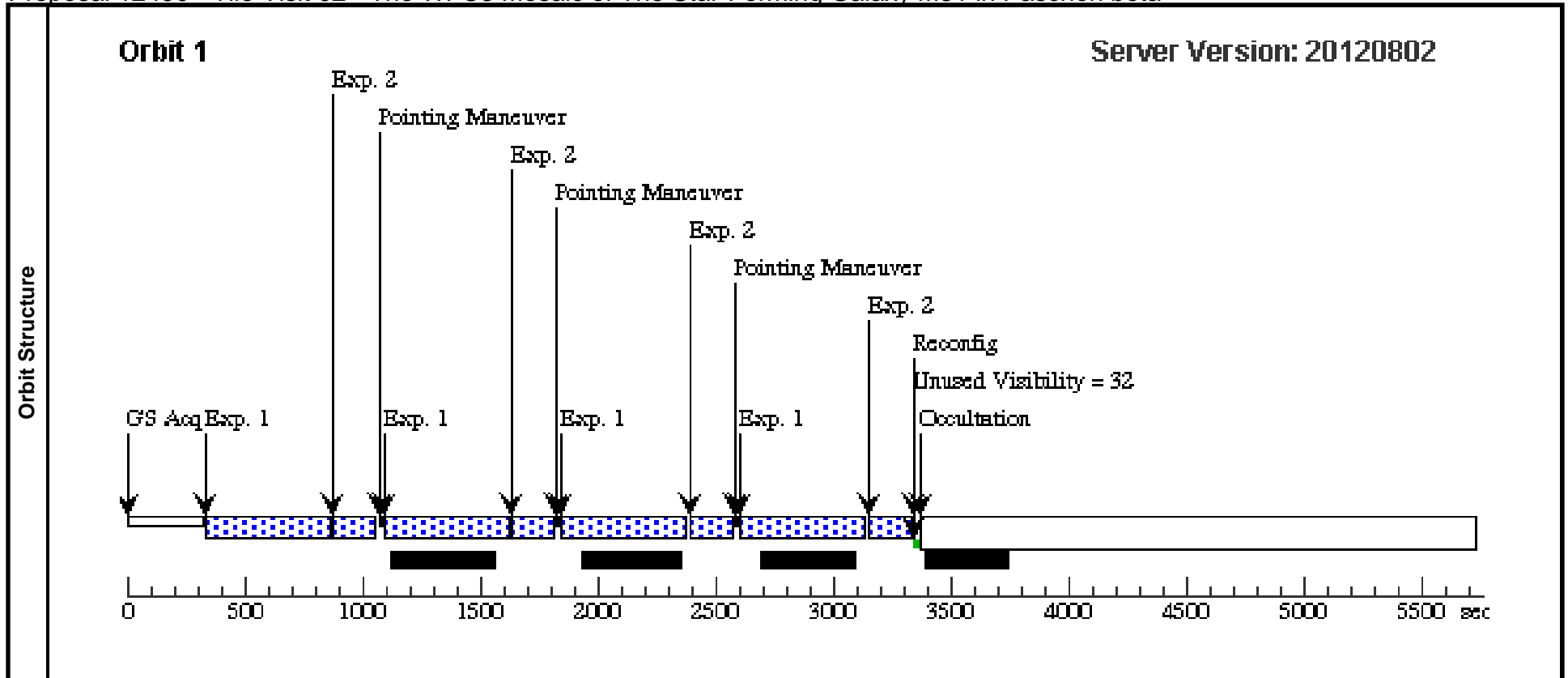
Visit	Proposal 12490, Tile Visit 01, implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: ORIENT 52D TO 52 D									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
	(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(2)	M-51-V01	RA: 13 29 40.6838 (202.4195158d) Dec: +47 09 23.20 (47.15644d) Equinox: J2000		V=8.36	Reference Frame: ICRS				
<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/[Actual Dur.]	Orbit
	1	F128N	(2) M-51-V01	WFC3/IR, MULTIACCUM, IR-FIX	F128N	SAMP-SEQ=SPARS 50; NSAMP=11	POS TARG 0.0,0.0	Pattern 1, Exps 1-2 in Tile Visit 01 (1)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	2	F110W	(2) M-51-V01	WFC3/IR, MULTIACCUM, IR-FIX	F110W	SAMP-SEQ=SPARS 25; NSAMP=7	POS TARG 0.0,0.0	Pattern 1, Exps 1-2 in Tile Visit 01 (1)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]



Proposal 12490 - Tile Visit 02 - The WFC3 Mosaic of The Star-Forming Galaxy M51 in Paschen beta

Wed Aug 22 01:40:50 GMT 2012

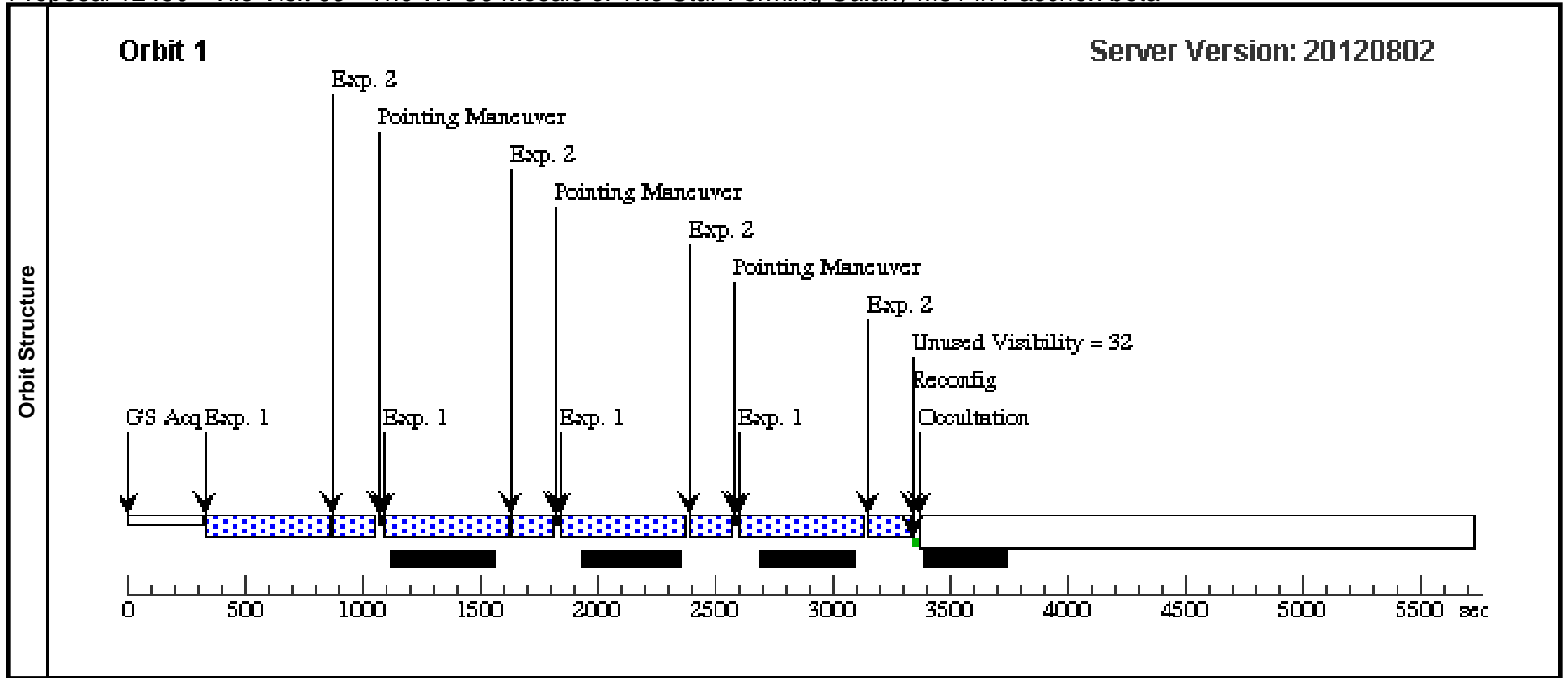
Visit	Proposal 12490, Tile Visit 02, scheduled Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: SAME ORIENT AS 01									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)				
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(3)	M-51-V02	RA: 13 29 41.9659 (202.4248579d) Dec: +47 11 11.60 (47.18656d) Equinox: J2000		V=8.36	Reference Frame: ICRS				
<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/[Actual Dur.]	Orbit
	1	F128N	(3) M-51-V02	WFC3/IR, MULTIACCUM, IR-FIX	F128N	SAMP-SEQ=SPARS 50; NSAMP=11	POS TARG 0.0,0.0	Pattern 1, Exps 1-2 in Tile Visit 02 (1)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	2	F110W	(3) M-51-V02	WFC3/IR, MULTIACCUM, IR-FIX	F110W	SAMP-SEQ=SPARS 25; NSAMP=7	POS TARG 0.0,0.0	Pattern 1, Exps 1-2 in Tile Visit 02 (1)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]



Proposal 12490 - Tile Visit 03 - The WFC3 Mosaic of The Star-Forming Galaxy M51 in Paschen beta

Wed Aug 22 01:40:51 GMT 2012

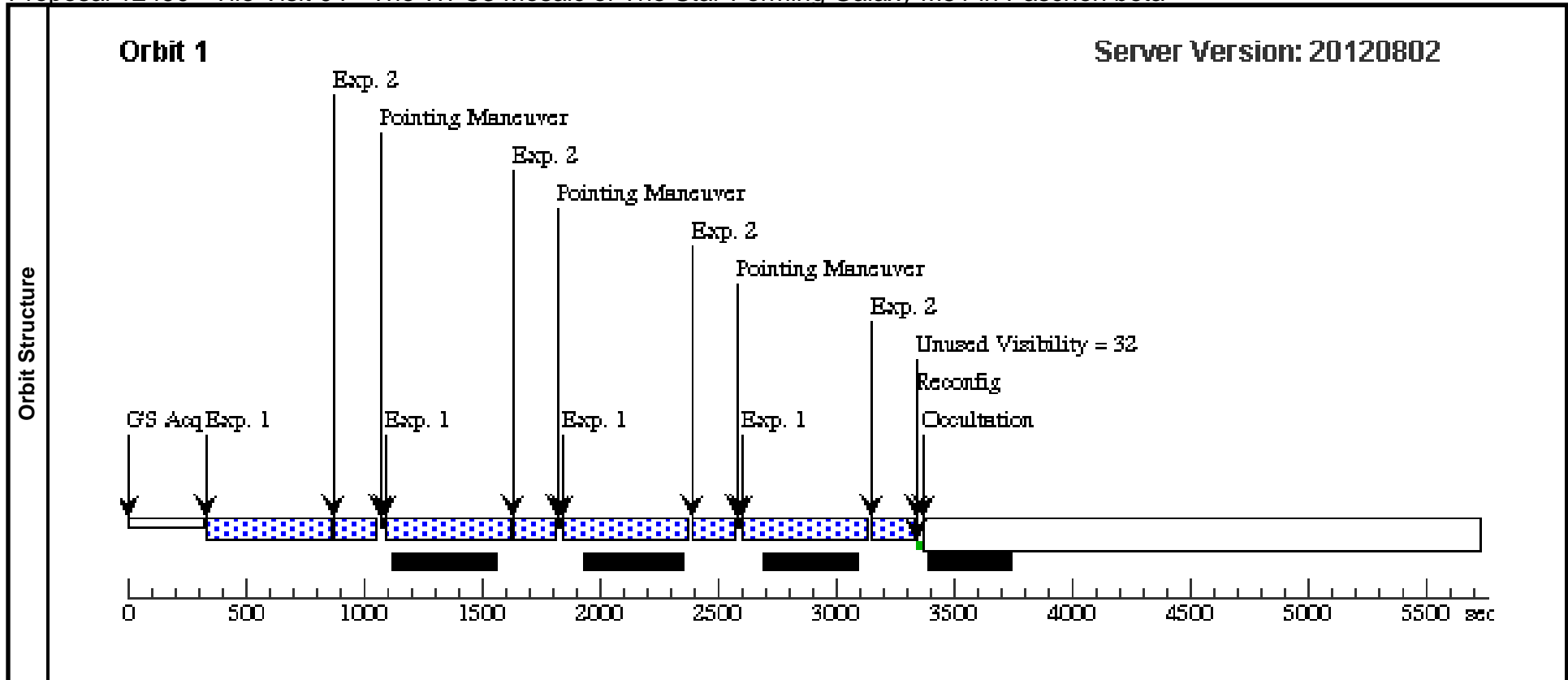
Visit	Proposal 12490, Tile Visit 03, scheduled Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: SAME ORIENT AS 01									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
	(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(4)	M-51-V03	RA: 13 29 44.8961 (202.4370671d) Dec: +47 13 9.68 (47.21936d) Equinox: J2000		V=8.36	Reference Frame: ICRS				
<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/[Actual Dur.]	Orbit
	1	F128N	(4) M-51-V03	WFC3/IR, MULTIACCUM, IR-FIX	F128N	SAMP-SEQ=SPARS 50; NSAMP=11	POS TARG 0.0,0.0; GS ACQ SCENARI O BASE1B3	Pattern 1, Exps 1-2 in Tile Visit 03 (1)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	2	F110W	(4) M-51-V03	WFC3/IR, MULTIACCUM, IR-FIX	F110W	SAMP-SEQ=SPARS 25; NSAMP=7	POS TARG 0.0,0.0	Pattern 1, Exps 1-2 in Tile Visit 03 (1)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]



Proposal 12490 - Tile Visit 04 - The WFC3 Mosaic of The Star-Forming Galaxy M51 in Paschen beta

Wed Aug 22 01:40:52 GMT 2012

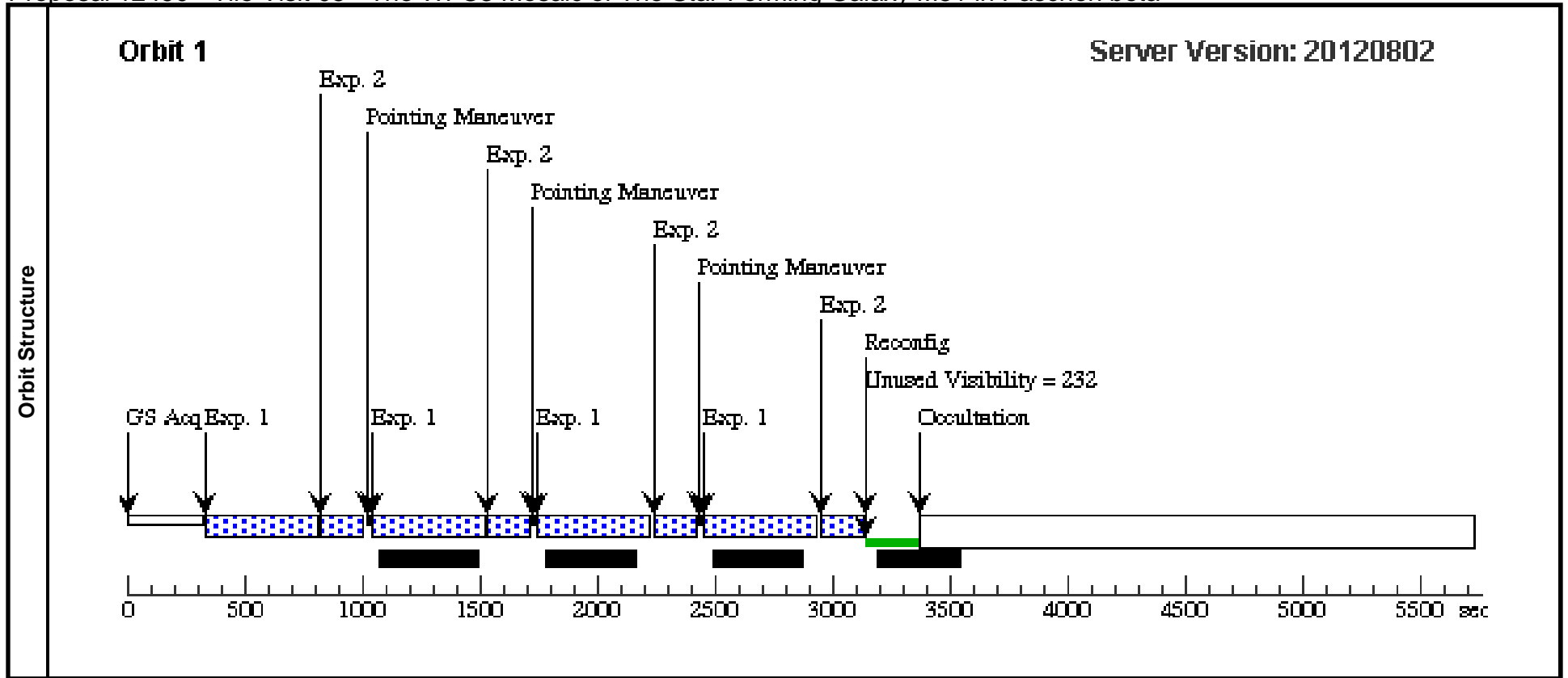
Visit	Proposal 12490, Tile Visit 04, scheduled Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: SAME ORIENT AS 01									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)				
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(5)	M-51-V04	RA: 13 29 49.8225 (202.4575937d) Dec: +47 09 19.01 (47.15528d) Equinox: J2000		V=8.36	Reference Frame: ICRS				
<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/[Actual Dur.]	Orbit
	1	F128N	(5) M-51-V04	WFC3/IR, MULTIACCUM, IR-FIX	F128N	SAMP-SEQ=SPARS 50; NSAMP=11	POS TARG 0.0,0.0	Pattern 1, Exps 1-2 in Tile Visit 04 (1)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	2	F110W	(5) M-51-V04	WFC3/IR, MULTIACCUM, IR-FIX	F110W	SAMP-SEQ=SPARS 25; NSAMP=7	POS TARG 0.0,0.0	Pattern 1, Exps 1-2 in Tile Visit 04 (1)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]



Proposal 12490 - Tile Visit 05 - The WFC3 Mosaic of The Star-Forming Galaxy M51 in Paschen beta

Wed Aug 22 01:40:53 GMT 2012

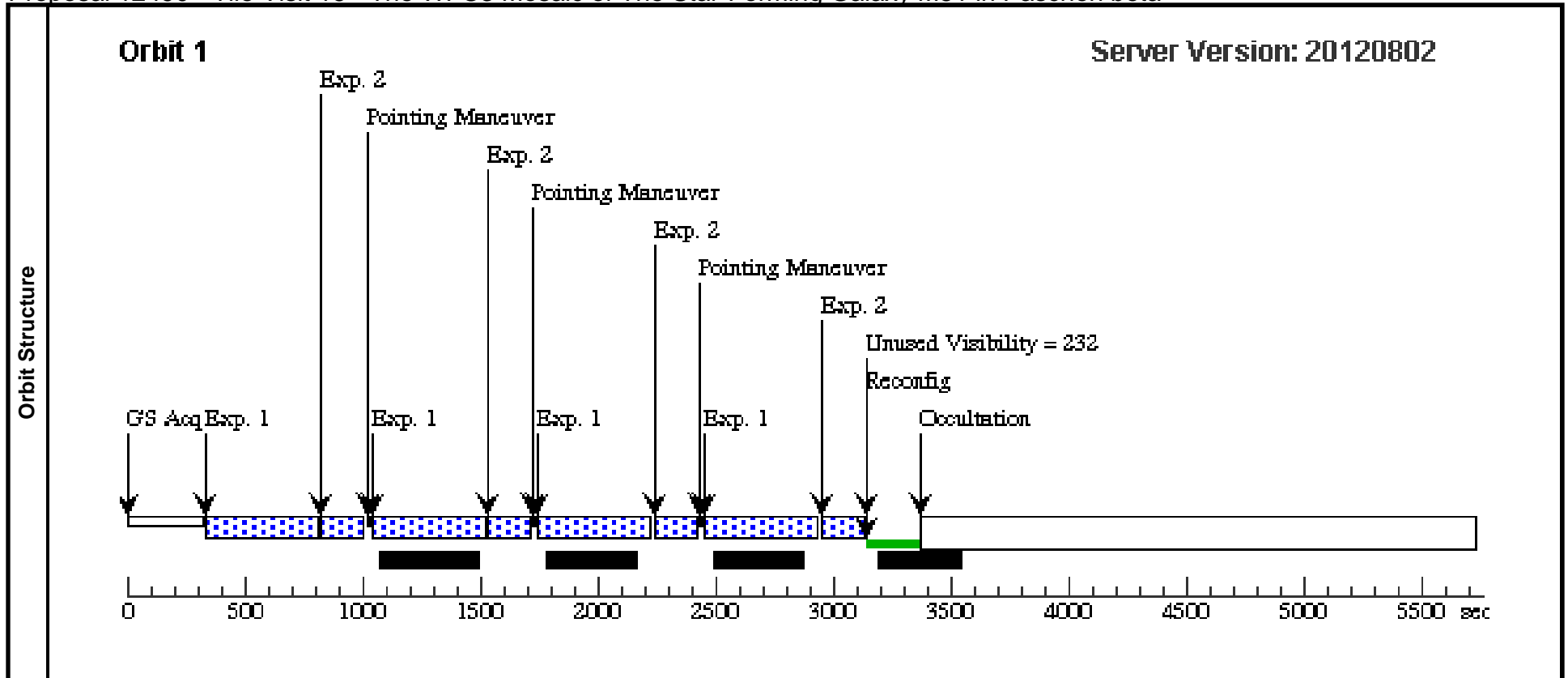
Visit	Proposal 12490, Tile Visit 05, scheduling Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: SAME ORIENT AS 01									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)				
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(6)	M-51-V05	RA: 13 29 52.9075 (202.4704479d) Dec: +47 11 16.20 (47.18783d) Equinox: J2000		V=8.36	Reference Frame: ICRS				
<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/[Actual Dur.]	Orbit
	1	F128N	(6) M-51-V05	WFC3/IR, MULTIACCUM, IR-FIX	F128N	SAMP-SEQ=SPARS 50; NSAMP=10	POS TARG 0.0,-1.4 210854715202004E- 14	Pattern 1, Exps 1-2 i n Tile Visit 05 (1)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	2	F110W	(6) M-51-V05	WFC3/IR, MULTIACCUM, IR-FIX	F110W	SAMP-SEQ=SPARS 25; NSAMP=7	POS TARG 0.0,-1.4 210854715202004E- 14	Pattern 1, Exps 1-2 i n Tile Visit 05 (1)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]



Proposal 12490 - Tile Visit 16 - The WFC3 Mosaic of The Star-Forming Galaxy M51 in Paschen beta

Wed Aug 22 01:40:54 GMT 2012

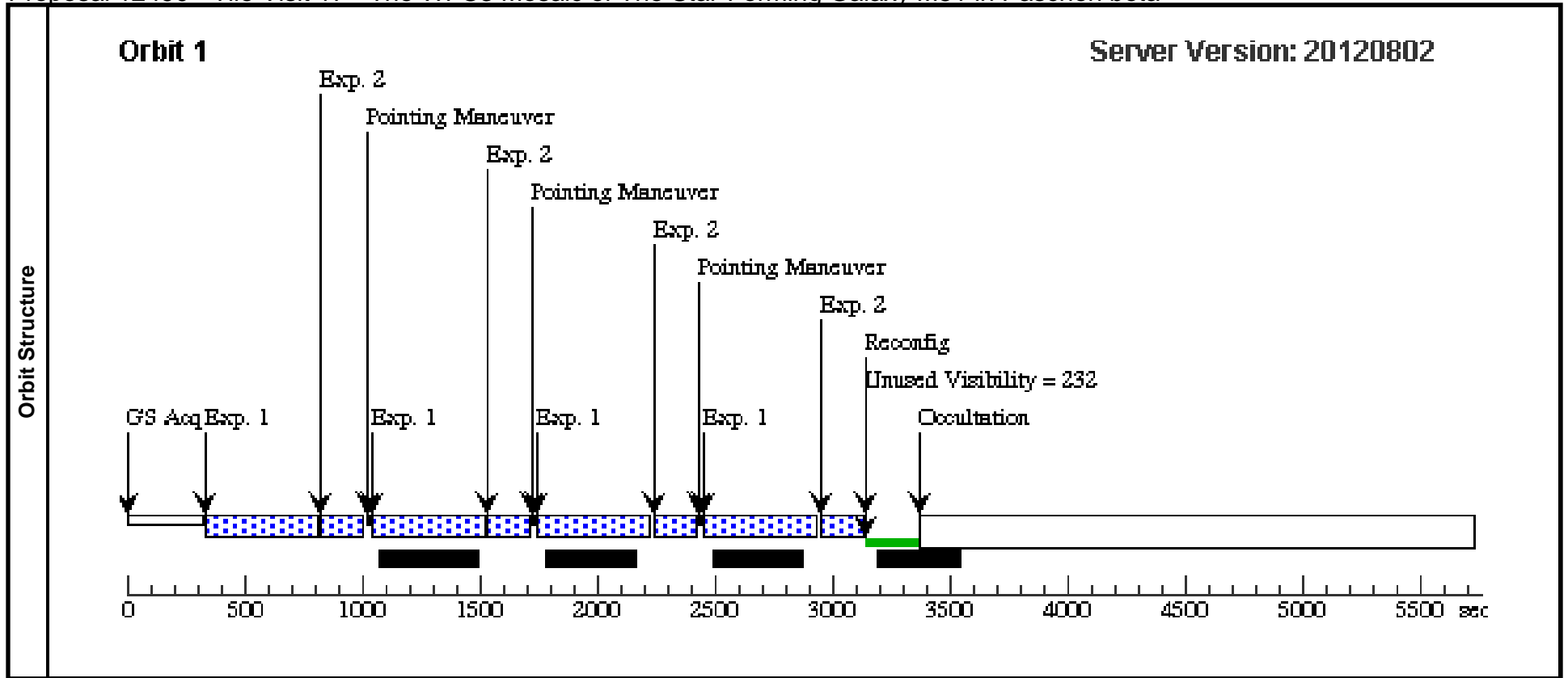
Visit	Proposal 12490, Tile Visit 16, scheduling Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: SAME ORIENT AS 01									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)				
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(7)	M-51-V06	RA: 13 29 54.8955 (202.4787312d) Dec: +47 13 18.23 (47.22173d) Equinox: J2000		V=8.36	Reference Frame: ICRS				
<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/[Actual Dur.]	Orbit
	1	F128N	(7) M-51-V06	WFC3/IR, MULTIACCUM, IR-FIX	F128N	SAMP-SEQ=SPARS 50; NSAMP=10	POS TARG 0.0,0.0		Pattern 1, Exps 1-2 in Tile Visit 16 (1)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]
2	F110W	(7) M-51-V06	WFC3/IR, MULTIACCUM, IR-FIX	F110W	SAMP-SEQ=SPARS 25; NSAMP=7	POS TARG 0.0,0.0		Pattern 1, Exps 1-2 in Tile Visit 16 (1)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]



Proposal 12490 - Tile Visit 17 - The WFC3 Mosaic of The Star-Forming Galaxy M51 in Paschen beta

Wed Aug 22 01:40:55 GMT 2012

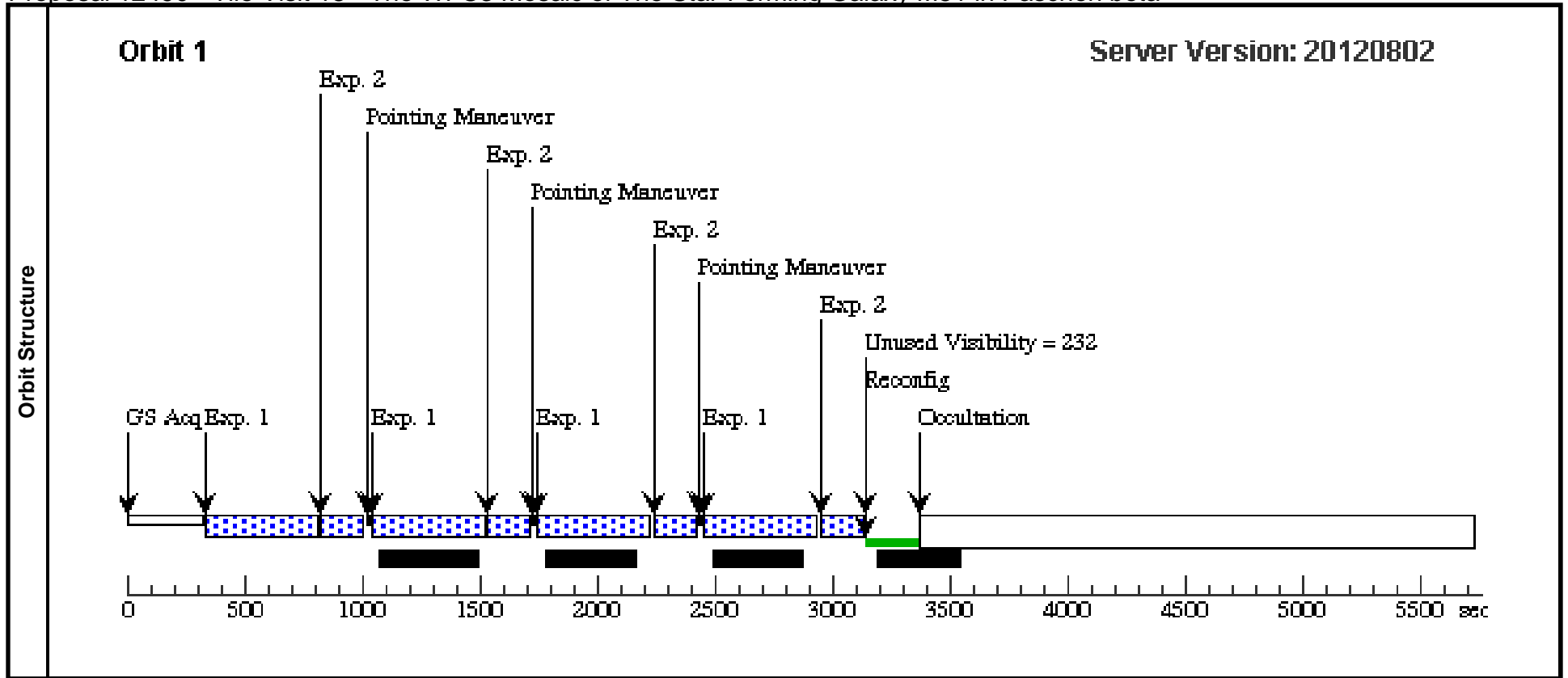
Visit	Proposal 12490, Tile Visit 17, scheduling Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: SAME ORIENT AS 16									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)				
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(8)	M-51-V07	RA: 13 30 0.0454 (202.5001892d) Dec: +47 09 25.28 (47.15702d) Equinox: J2000		V=8.36	Reference Frame: ICRS				
<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/[Actual Dur.]	Orbit
	1	F128N	(8) M-51-V07	WFC3/IR, MULTIACCUM, IR-FIX	F128N	SAMP-SEQ=SPARS 50; NSAMP=10	POS TARG 0.0,0.0		Pattern 1, Exps 1-2 in Tile Visit 17 (1)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]
2	F110W	(8) M-51-V07	WFC3/IR, MULTIACCUM, IR-FIX	F110W	SAMP-SEQ=SPARS 25; NSAMP=7	POS TARG 0.0,0.0		Pattern 1, Exps 1-2 in Tile Visit 17 (1)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]



Proposal 12490 - Tile Visit 18 - The WFC3 Mosaic of The Star-Forming Galaxy M51 in Paschen beta

Wed Aug 22 01:40:56 GMT 2012

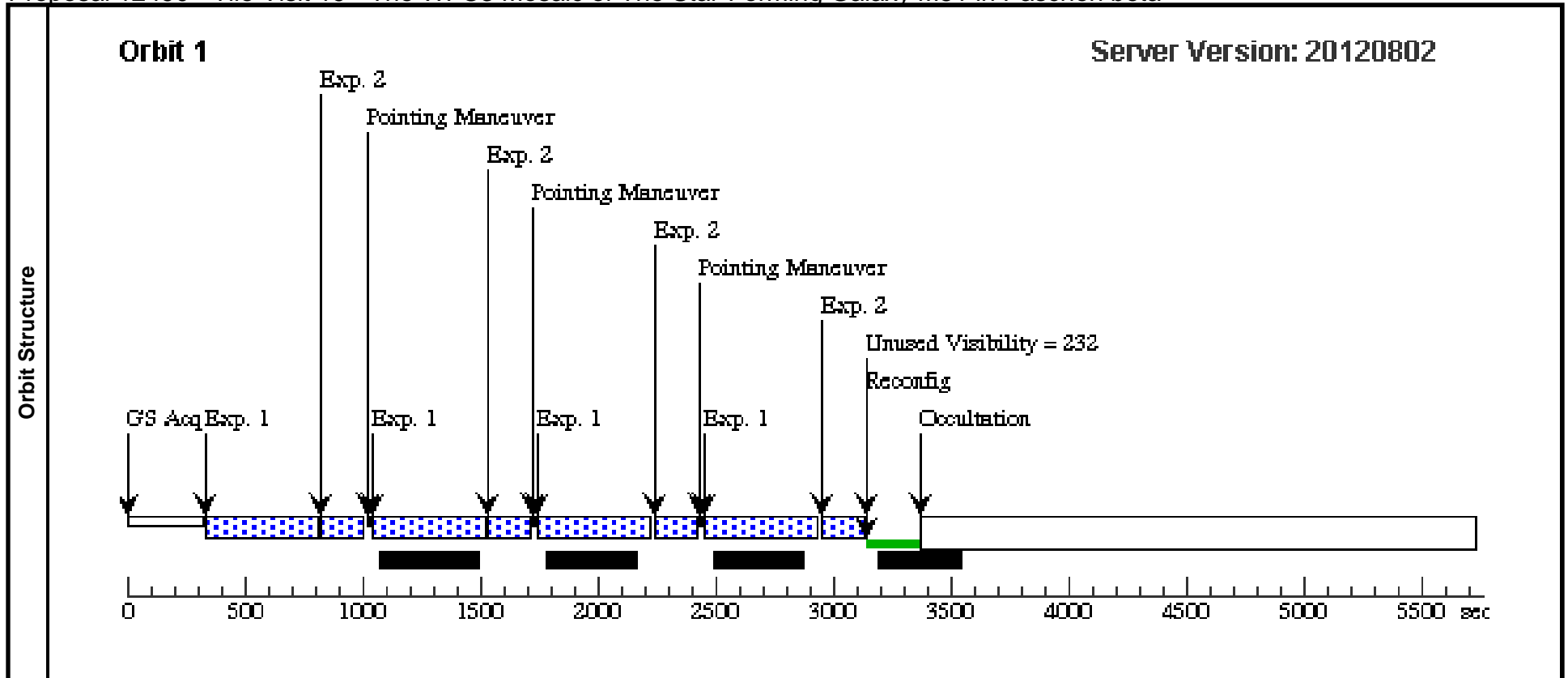
Visit	Proposal 12490, Tile Visit 18, scheduling Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: SAME ORIENT AS 16									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
	(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(9)	M-51-V08	RA: 13 30 2.4373 (202.5101554d) Dec: +47 11 24.74 (47.19021d) Equinox: J2000		V=8.36	Reference Frame: ICRS				
	<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/[Actual Dur.]	Orbit
	1	F128N	(9) M-51-V08	WFC3/IR, MULTIACCUM, IR-FIX	F128N	SAMP-SEQ=SPARS 50; NSAMP=10	POS TARG 0.0,0.0	Pattern 1, Exps 1-2 in Tile Visit 18 (1)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	2	F110W	(9) M-51-V08	WFC3/IR, MULTIACCUM, IR-FIX	F110W	SAMP-SEQ=SPARS 25; NSAMP=7	POS TARG 0.0,0.0	Pattern 1, Exps 1-2 in Tile Visit 18 (1)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]



Proposal 12490 - Tile Visit 19 - The WFC3 Mosaic of The Star-Forming Galaxy M51 in Paschen beta

Wed Aug 22 01:40:57 GMT 2012

Visit	Proposal 12490, Tile Visit 19, scheduling Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: SAME ORIENT AS 16									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(1)	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		(1-2)				
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(10)	M-51-V09	RA: 13 30 4.4237 (202.5184321d) Dec: +47 13 15.55 (47.22099d) Equinox: J2000		V=8.36	Reference Frame: ICRS				
<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/[Actual Dur.]	Orbit
	1	F128N	(10) M-51-V09	WFC3/IR, MULTIACCUM, IR-FIX	F128N	SAMP-SEQ=SPARS 50; NSAMP=10	POS TARG 0.0,0.0	Pattern 1, Exps 1-2 in Tile Visit 19 (1)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
	2	F110W	(10) M-51-V09	WFC3/IR, MULTIACCUM, IR-FIX	F110W	SAMP-SEQ=SPARS 25; NSAMP=7	POS TARG 0.0,0.0	Pattern 1, Exps 1-2 in Tile Visit 19 (1)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]



Proposal 12490 - Tile Visit 20 - The WFC3 Mosaic of The Star-Forming Galaxy M51 in Paschen beta

Wed Aug 22 01:40:58 GMT 2012

Visit	Proposal 12490, Tile Visit 20, scheduling Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: ORIENT 47D TO 47 D									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(1)	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		(1-2)				
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(11)	M-51-V10	RA: 13 30 2.0606 (202.5085858d) Dec: +47 15 12.17 (47.25338d) Equinox: J2000		V=8.36	Reference Frame: ICRS				
<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/[Actual Dur.]	Orbit
	1	F128N	(11) M-51-V10	WFC3/IR, MULTIACCUM, IR-FIX	F128N	SAMP-SEQ=SPARS 50; NSAMP=11	POS TARG 0.0,0.0; GS ACQ SCENARI O BASE1B3	Pattern 1, Exps 1-2 in Tile Visit 20 (1)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]
2	F110W	(11) M-51-V10	WFC3/IR, MULTIACCUM, IR-FIX	F110W	SAMP-SEQ=SPARS 25; NSAMP=7	POS TARG 0.0,0.0	Pattern 1, Exps 1-2 in Tile Visit 20 (1)	[==>(Pattern 1)] [==>(Pattern 2)] [==>(Pattern 3)] [==>(Pattern 4)]	[1]	

