13657 - Probing the Most Luminous Galaxies in the Universe at the Peak of Galaxy Assembly

Cycle: 22, Proposal Category: GO

(Availability Mode: SUPPORTED)

INVESTIGATORS

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VISITS

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
01	(1) HYLIRG-1+2 ANY	ACS/WFC WFC3/IR	1	14-Oct-2014 21:02:14.0	yes
02	(2) HYLIRG-3+4 ANY	ACS/WFC WFC3/IR	1	14-Oct-2014 21:02:17.0	yes
03	(3) HYLIRG-5+6 ANY	ACS/WFC WFC3/IR	1	14-Oct-2014 21:02:18.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
04	(4) HYLIRG-7+8 ANY	ACS/WFC WFC3/IR	1	14-Oct-2014 21:02:20.0	yes
05	(5) HYLIRG-9+10 ANY	ACS/WFC WFC3/IR	1	14-Oct-2014 21:02:22.0	yes
06	(6) HYLIRG-11+12 ANY	ACS/WFC WFC3/IR	1	14-Oct-2014 21:02:23.0	yes
07	(7) HYLIRG-13+14+15 ANY	ACS/WFC WFC3/IR	1	14-Oct-2014 21:02:25.0	yes
08	(8) HYLIRG-16+17 ANY	ACS/WFC WFC3/IR	1	14-Oct-2014 21:02:27.0	yes
09	(9) HYLIRG-18+19 ANY	ACS/WFC WFC3/IR	1	14-Oct-2014 21:02:28.0	yes
10	(10) HYLIRG-20+21 ANY	ACS/WFC WFC3/IR	1	14-Oct-2014 21:02:30.0	yes
11	(11) HYLIRG-22+23 ANY	ACS/WFC WFC3/IR	1	14-Oct-2014 21:02:33.0	yes
12	(12) HYLIRG-24+25+26 ANY	ACS/WFC WFC3/IR	1	14-Oct-2014 21:02:34.0	yes
13	(13) HYLIRG-27+28 ANY	ACS/WFC WFC3/IR	1	14-Oct-2014 21:02:36.0	yes
14	(14) HYLIRG-29+30 ANY	ACS/WFC WFC3/IR	1	14-Oct-2014 21:02:37.0	yes
15	(15) HYLIRG-31+32 ANY	ACS/WFC WFC3/IR	1	14-Oct-2014 21:02:39.0	yes
16	(16) HYLIRG-33+34 ANY	ACS/WFC WFC3/IR	1	14-Oct-2014 21:02:40.0	yes
17	(17) HYLIRG-35 ANY	ACS/WFC WFC3/IR	1	14-Oct-2014 21:02:41.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
18	(18) HYLIRG-36 ANY	ACS/WFC WFC3/IR	1	14-Oct-2014 21:02:43.0	yes
19	(19) HYLIRG-37 ANY	ACS/WFC WFC3/IR	1	14-Oct-2014 21:02:44.0	yes
20	(20) HYLIRG-38 ANY	ACS/WFC WFC3/IR	1	14-Oct-2014 21:02:46.0	yes
21	(21) HYLIRG-39 ANY	ACS/WFC WFC3/IR	1	14-Oct-2014 21:02:49.0	yes
22	(22) HYLIRG-40 ANY	ACS/WFC WFC3/IR	1	14-Oct-2014 21:02:51.0	yes
23	(23) HYLIRG-41 ANY	ACS/WFC WFC3/IR	1	14-Oct-2014 21:02:52.0	yes
24	(24) HYLIRG-42 ANY	ACS/WFC WFC3/IR	1	14-Oct-2014 21:02:54.0	yes
25	(25) HYLIRG-43 ANY	ACS/WFC WFC3/IR	1	14-Oct-2014 21:02:56.0	yes
26	(26) HYLIRG-44 ANY	ACS/WFC WFC3/IR	1	14-Oct-2014 21:02:57.0	yes
27	(27) HYLIRG-45 ANY	ACS/WFC WFC3/IR	1	14-Oct-2014 21:02:59.0	yes
28	(28) HYLIRG-46 ANY	ACS/WFC WFC3/IR	1	14-Oct-2014 21:03:00.0	yes
29	(29) HYLIRG-47 ANY	ACS/WFC WFC3/IR	1	14-Oct-2014 21:03:01.0	yes
30	(30) HYLIRG-48 ANY	ACS/WFC WFC3/IR	1	14-Oct-2014 21:03:03.0	yes

30 Total Orbits Used

ABSTRACT

What drives the most luminous galaxies in the universe at z~2, the peak of galaxy assembly? Is it the major merger of two gas rich disk systems as is the case in the local universe or can these extreme luminosities be driven by secular processes, such as the steady accretion of cold gas along filaments thought to play an important role in the early universe? Recent studies on the structure of high redshift luminous and ultraluminous infrared galaxies (LIRGs and ULIRGs, respectively) have stirred up this controversy but have found a range of results leading to a confused picture of star formation in the early universe. In order to solve this question, we will search for unambiguous merger signatures (i.e., pairs, double nuclei, and tidal features) among a large sample of the more rare, extremely luminous HyLIRGs (L_IR > 10^13 L_sun) and the highest luminosity ULIRGs with a wide range of properties and separate them from galaxies that are clearly not mergers (e.g., structured disks). For those objects that remain ambiguous, particularly irregular clumpy systems, we will obtain ground-based IFU follow up observations to add detailed velocity information to the observed morphologies. The large volume probed by the COSMOS field at these high redshifts is an excellent complement to the smaller area fields covered by the CANDELS survey. While CANDELS imaging is excellent for studying the properties of less luminous but more common LIRGs and ULIRGs, it completely misses the more rare, extreme sources. Combined, these data will allow the detailed study of IR galaxies across a range of luminosities spanning over two orders of magnitude.

OBSERVING DESCRIPTION

We propose to obtain rest-frame optical imaging for 101 extremely luminous infrared galaxies selected at 100 and 160 micron in the COSMOS field at 1.5 < z < 3.0. All of these sources have accurate photometric redshifts derived from the extensive multiwavelength dataset within COSMOS (Ilbert et al. 2009; Salvato et al. 2009, 2011) and ~ 10% have reliable spectroscopic redshifts from optical spectroscopy. Additionally, SPIRE observations in COSMOS (PI: S. Oliver) will allow us to better constrain LIR and the dust temperature of our sample. We are in the process of obtaining NIR spectroscopy for this sample as part of a large effort using FMOS on Subaru (Kartaltepe et al., in prep.) and MOSFIRE on Keck. These spectra will allow us to measure accurate redshifts and luminosities as well as use standard optical line diagnostics to study the relative contributions from starbursts and AGN in our sample.

The 101 objects in our sample were carefully chosen to require the fewest number of

WFC3 pointings by observing sources where more than one target can be obtained in a single WFC3 FOV. None of our targets have existing WFC3 or NICMOS imaging. We can image all 101 of these sources in 30 pointings. For each of these 30 pointings, we request single orbit integrations with WFC3 in F160W, roughly equivalent to the CANDELS wide area depth (CANDELS is 4/3 orbit in F160W Grogin et al. 2011) that will provide the imaging for the sources with LIR < 10^12.5 L_sun. The choice of the F160W filter ensures that we will obtain rest-frame optical images for our entire sample with maximum sensitivity, thus enabling us to detect faint emission from features such as tidal debris and faint disks. Each orbit will be split into four equal length exposures giving us a total integration time of 2600 sec and the four exposures will be dithered to obtain the best PSF. In one orbit we expect to achieve a 5sigma sensitivity of 26.95 mag (AB) for a point source and 25.63 for an extended source using the ETC with average background. All of our targets are detected in the Spitzer-IRAC imaging at 3.6 micron and at J and K band, therefore we expect that all of our targets will easily be detected at high S/N to allow for detailed measurements of their morphology (including low-surface brightness features) with WFC3-F160W at the requested depth. CANDELS imaging degraded to the integration times proposed here show no significant difference from the original CANDELS imaging.

Sample Size: The size of our sample will allow us to combine our data with the sample of (U)LIRGs observed by CANDELS and study trends as a function of LIR in bins of ~ 0.5 dex over two orders of magnitude in luminosity with ~ 40-60 objects per bin. This sample size will provide statistics on the presence or absence of mergers and allow us to divide the sources in other ways, such as into starburst/main sequence categories (2 bins of sSFR) or as a function of the presence/strength of an AGN identified via rest-frame optical line diagnostics, X-ray imaging, and SED analysis.

We propose parallel observations with ACS in F606W. About half of our 30 pointings can be oriented such that these parallels will cover the targets in this proposal. The remaining will cover additional (U)LIRGs and HyLIRGs in the field and will supplement existing HST

coverage of the COSMOS field.

Visit

Proposal 13657, Visit 01, implementation Wed Oct 15 01:03:04 GMT 2014

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR, ACS/WFC

Special Requirements: (none)

Patterns

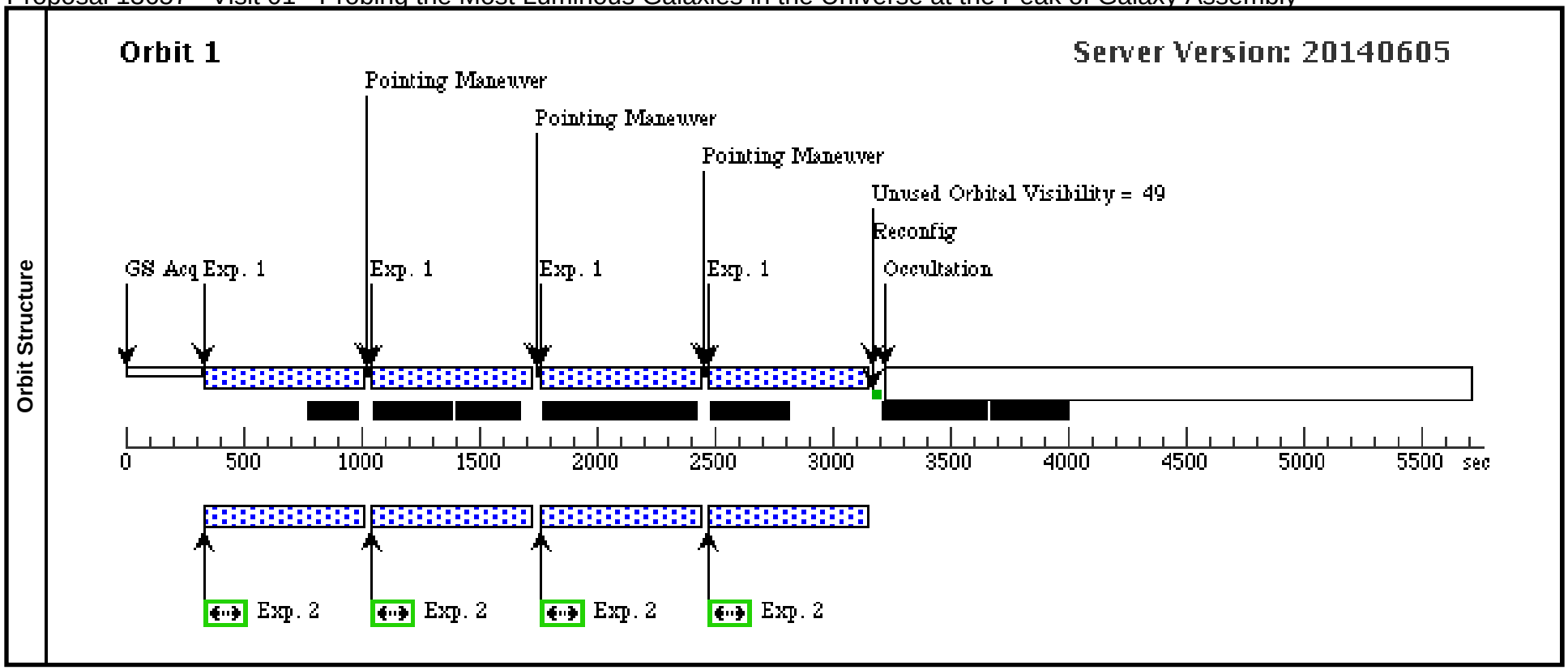
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	HYLIRG-1+2	RA: 09 59 32.4730 (149.8853042d) Dec: +02 39 48.30 (2.66342d) Equinox: J2000		V=(?) K=21.1	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(1) HYLIRG-1+2	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=14; SAMP-SEQ=SPARS50		Pattern 1, Exps 1-2 in Visit 01 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 01	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2		ANY	ACS/WFC, ACCUM, WFC	F606W			Pattern 1, Exps 1-2 in Visit 01 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 01	600 Secs (2146 Secs) *[==>475.0 Secs (Pattern 1)]* *[==>557.0 Secs (Pattern 2)]* *[==>557.0 Secs (Pattern 3)]* *[==>557.0 Secs (Pattern 4)]*	***[1]***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Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
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Reconfig
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Exp. 1
Exp. 1
Exp. 1
Occultation
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1500
2000
2500
3000
3500
4000
4500
5000
5500
sec
Exp. 2
Exp. 2
Exp. 2
Exp. 2

Visit

Proposal 13657, Visit 02, implementation Wed Oct 15 01:03:04 GMT 2014

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR, ACS/WFC

Special Requirements: ORIENT 0D TO 45 D; ORIENT 315D TO 359 D

Patterns

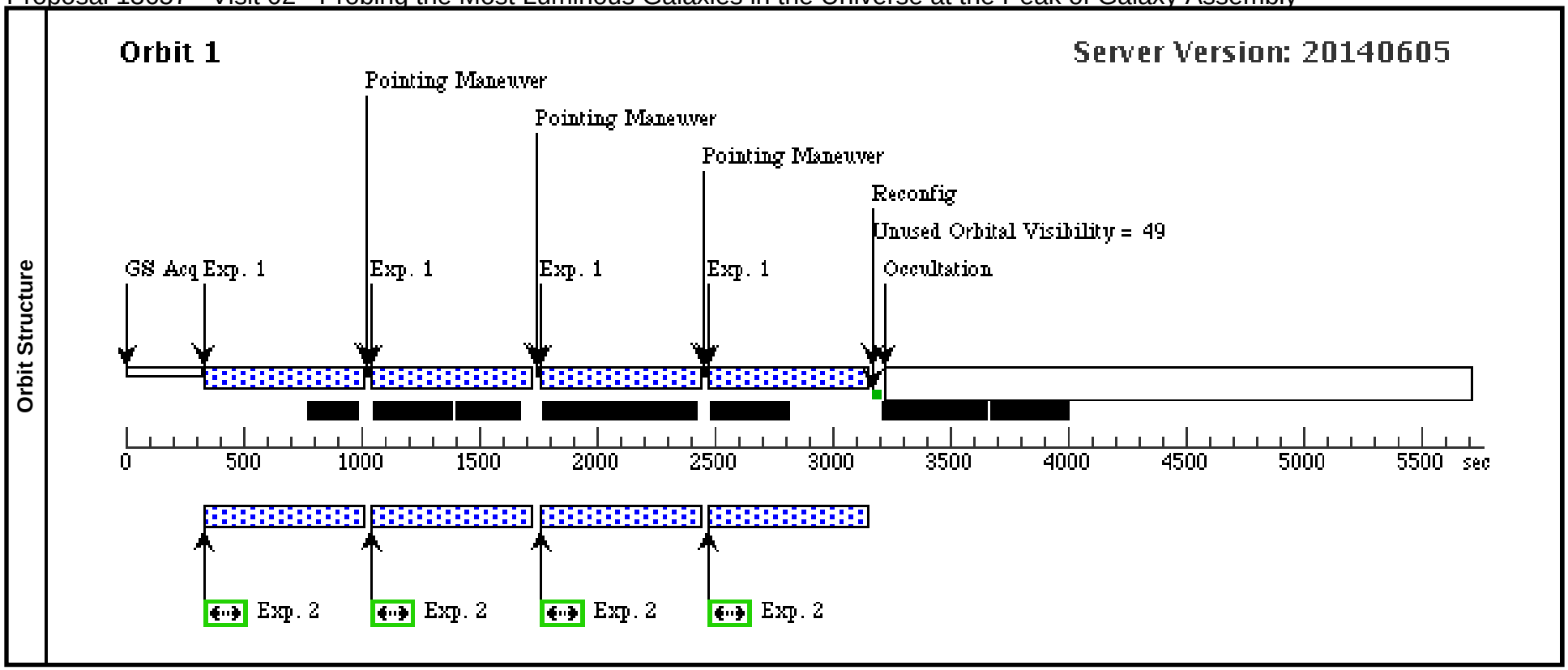
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	HYLIRG-3+4	RA: 10 01 44.1640 (150.4340167d) Dec: +02 19 7.12 (2.31864d) Equinox: J2000		V=(?) K=19.7	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(2) HYLIRG-3+4	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=14; SAMP-SEQ=SPARS50	GS ACQ SCENARIO BASE1B3	Pattern 1, Exps 1-2 in Visit 02 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 02	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2		ANY	ACS/WFC, ACCUM, WFC	F606W			Pattern 1, Exps 1-2 in Visit 02 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 02	600 Secs (2146 Secs) *[==>475.0 Secs (Pattern 1)]* *[==>557.0 Secs (Pattern 2)]* *[==>557.0 Secs (Pattern 3)]* *[==>557.0 Secs (Pattern 4)]*	***[1]***


Orbit Structure
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4500
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sec
Exp. 2
Exp. 2
Exp. 2
Exp. 2

Visit

Proposal 13657, Visit 03, implementation Wed Oct 15 01:03:04 GMT 2014

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR, ACS/WFC

Special Requirements: (none)

Patterns

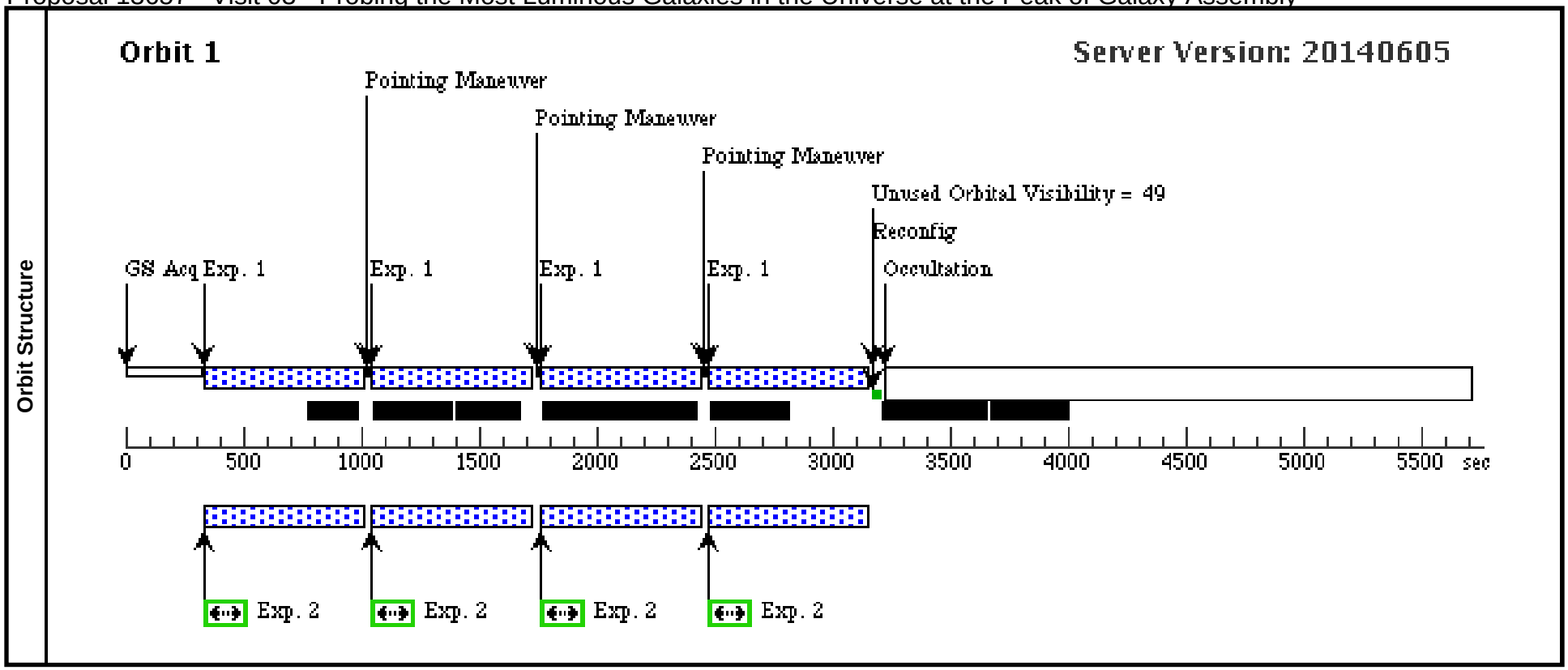
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	HYLIRG-5+6	RA: 10 01 10.6600 (150.2944167d) Dec: +01 53 11.14 (1.88643d) Equinox: J2000		V=(?) K=19.4	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(3) HYLIRG-5+6	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=14; SAMP-SEQ=SPARS50		Pattern 1, Exps 1-2 in Visit 03 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 03	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2		ANY	ACS/WFC, ACCUM, WFC	F606W			Pattern 1, Exps 1-2 in Visit 03 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 03	600 Secs (2146 Secs) *[==>475.0 Secs (Pattern 1)]* *[==>557.0 Secs (Pattern 2)]* *[==>557.0 Secs (Pattern 3)]* *[==>557.0 Secs (Pattern 4)]*	***[1]***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4500
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sec
Exp. 2
Exp. 2
Exp. 2
Exp. 2

Visit

Proposal 13657, Visit 04, implementation Wed Oct 15 01:03:05 GMT 2014

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR, ACS/WFC

Special Requirements: (none)

Patterns

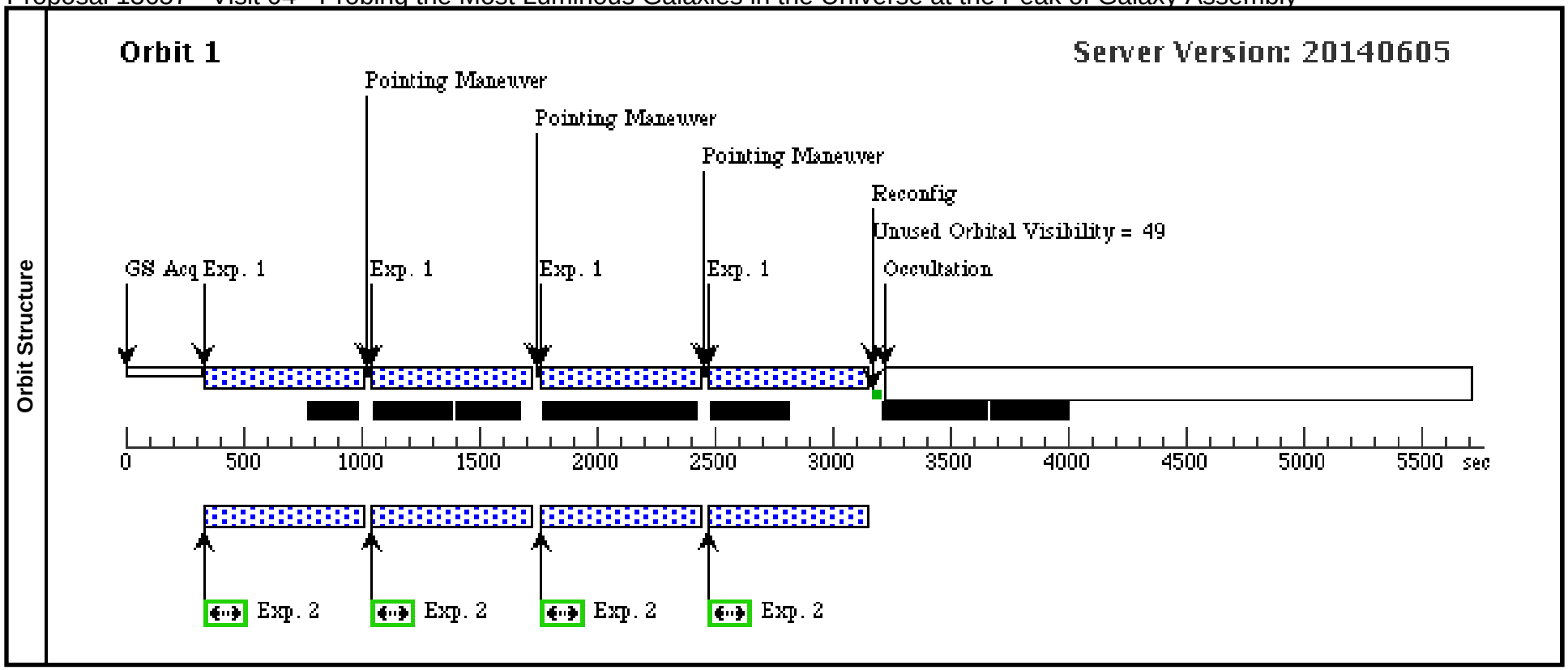
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	HYLIRG-7+8	RA: 09 59 41.1140 (149.9213083d) Dec: +02 04 47.99 (2.08000d) Equinox: J2000		V=(?) K=22.5	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(4) HYLIRG-7+8	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=14; SAMP-SEQ=SPARS50		Pattern 1, Exps 1-2 in Visit 04 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 04	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2		ANY	ACS/WFC, ACCUM, WFC	F606W			Pattern 1, Exps 1-2 in Visit 04 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 04	600 Secs (2146 Secs) *[==>475.0 Secs (Pattern 1)]* *[==>557.0 Secs (Pattern 2)]* *[==>557.0 Secs (Pattern 3)]* *[==>557.0 Secs (Pattern 4)]*	***[1]***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Exp. 2
Exp. 2
Exp. 2

Visit

Proposal 13657, Visit 05, implementation Wed Oct 15 01:03:05 GMT 2014

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR, ACS/WFC

Special Requirements: (none)

Patterns

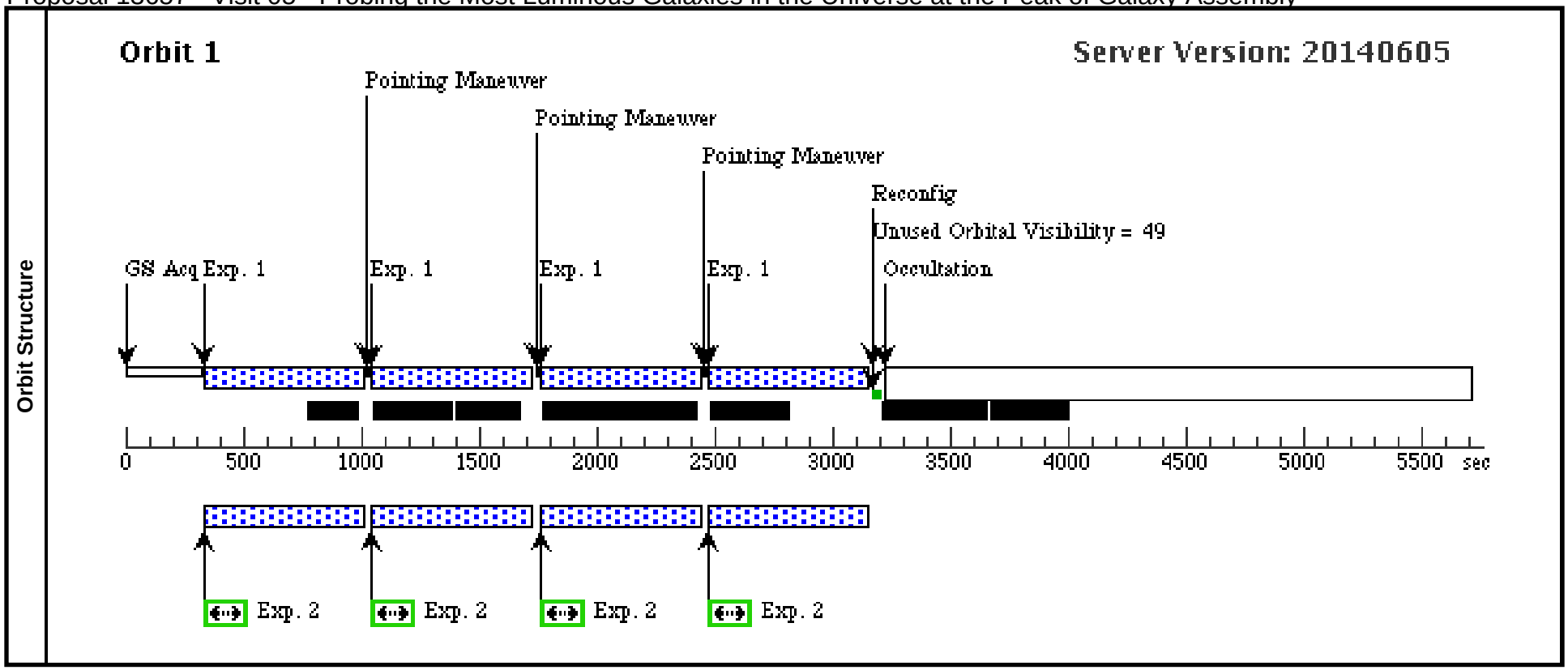
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	HYLIRG-9+10	RA: 10 01 11.4270 (150.2976125d) Dec: +01 40 21.72 (1.67270d) Equinox: J2000		V=(?) K=21.2	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(5) HYLIRG-9+10	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=14; SAMP-SEQ=SPARS50		Pattern 1, Exps 1-2 in Visit 05 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 05	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2		ANY	ACS/WFC, ACCUM, WFC	F606W			Pattern 1, Exps 1-2 in Visit 05 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 05	600 Secs (2146 Secs) *[==>475.0 Secs (Pattern 1)]* *[==>557.0 Secs (Pattern 2)]* *[==>557.0 Secs (Pattern 3)]* *[==>557.0 Secs (Pattern 4)]*	***[1]***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Exp. 2
Exp. 2
Exp. 2

Visit

Proposal 13657, Visit 06, implementation Wed Oct 15 01:03:05 GMT 2014

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR, ACS/WFC

Special Requirements: (none)

Patterns

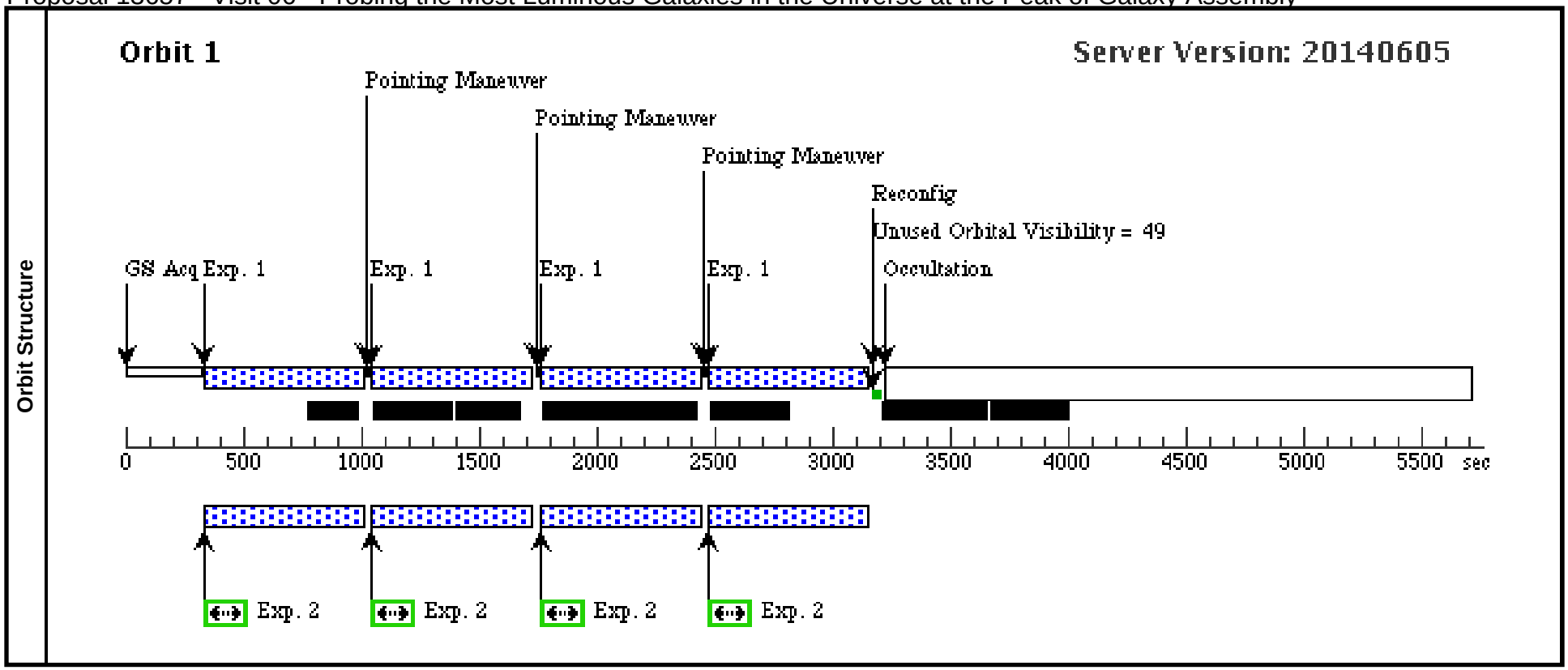
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(6)	HYLIRG-11+12	RA: 10 01 4.2760 (150.2678167d) Dec: +01 36 41.85 (1.61162d) Equinox: J2000		V=(?) K=19.5	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(6) HYLIRG-11+12	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=14; SAMP-SEQ=SPARS50		Pattern 1, Exps 1-2 in Visit 06 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 06	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2		ANY	ACS/WFC, ACCUM, WFC	F606W			Pattern 1, Exps 1-2 in Visit 06 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 06	600 Secs (2146 Secs) *[==>475.0 Secs (Pattern 1)]* *[==>557.0 Secs (Pattern 2)]* *[==>557.0 Secs (Pattern 3)]* *[==>557.0 Secs (Pattern 4)]*	***[1]***


Orbit Structure
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sec
Exp. 2
Exp. 2
Exp. 2
Exp. 2

Visit

Proposal 13657, Visit 07, implementation Wed Oct 15 01:03:05 GMT 2014

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR, ACS/WFC

Special Requirements: ORIENT 30D TO 60 D; ORIENT 210D TO 240 D

Patterns

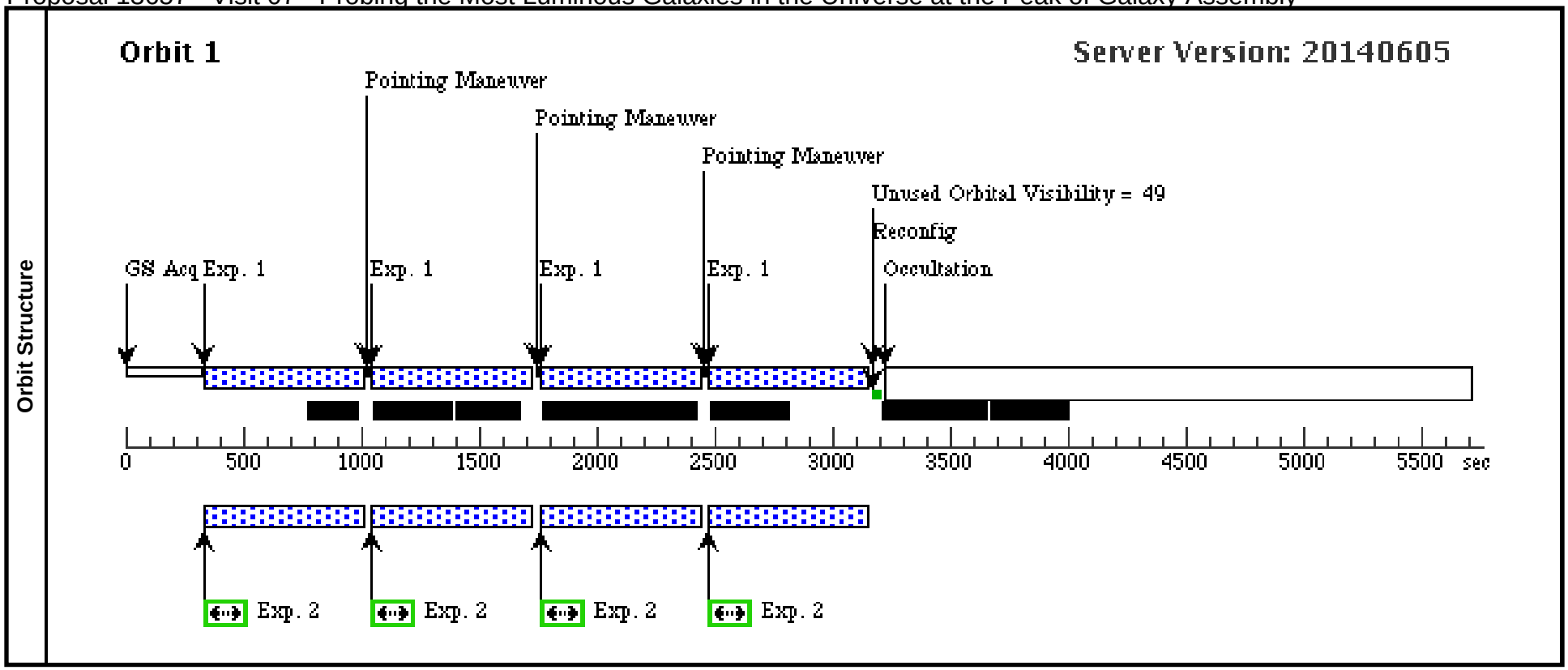
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(7)	HYLIRG-13+14+15	RA: 09 59 51.1290 (149.9630375d) Dec: +01 43 47.32 (1.72981d) Equinox: J2000		V=(?) K=20.9	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(7) HYLIRG-13+14+15	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=14; SAMP-SEQ=SPARS50		Pattern 1, Exps 1-2 in Visit 07 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 07	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2		ANY	ACS/WFC, ACCUM, WFC	F606W			Pattern 1, Exps 1-2 in Visit 07 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 07	600 Secs (2146 Secs) *[==>475.0 Secs (Pattern 1)]* *[==>557.0 Secs (Pattern 2)]* *[==>557.0 Secs (Pattern 3)]* *[==>557.0 Secs (Pattern 4)]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20140605
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Unused Orbital Visibility = 49
Reconfig
GS Acq
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec
Exp. 2
Exp. 2
Exp. 2
Exp. 2

Visit

Proposal 13657, Visit 08, implementation Wed Oct 15 01:03:05 GMT 2014

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR, ACS/WFC

Special Requirements: (none)

Patterns

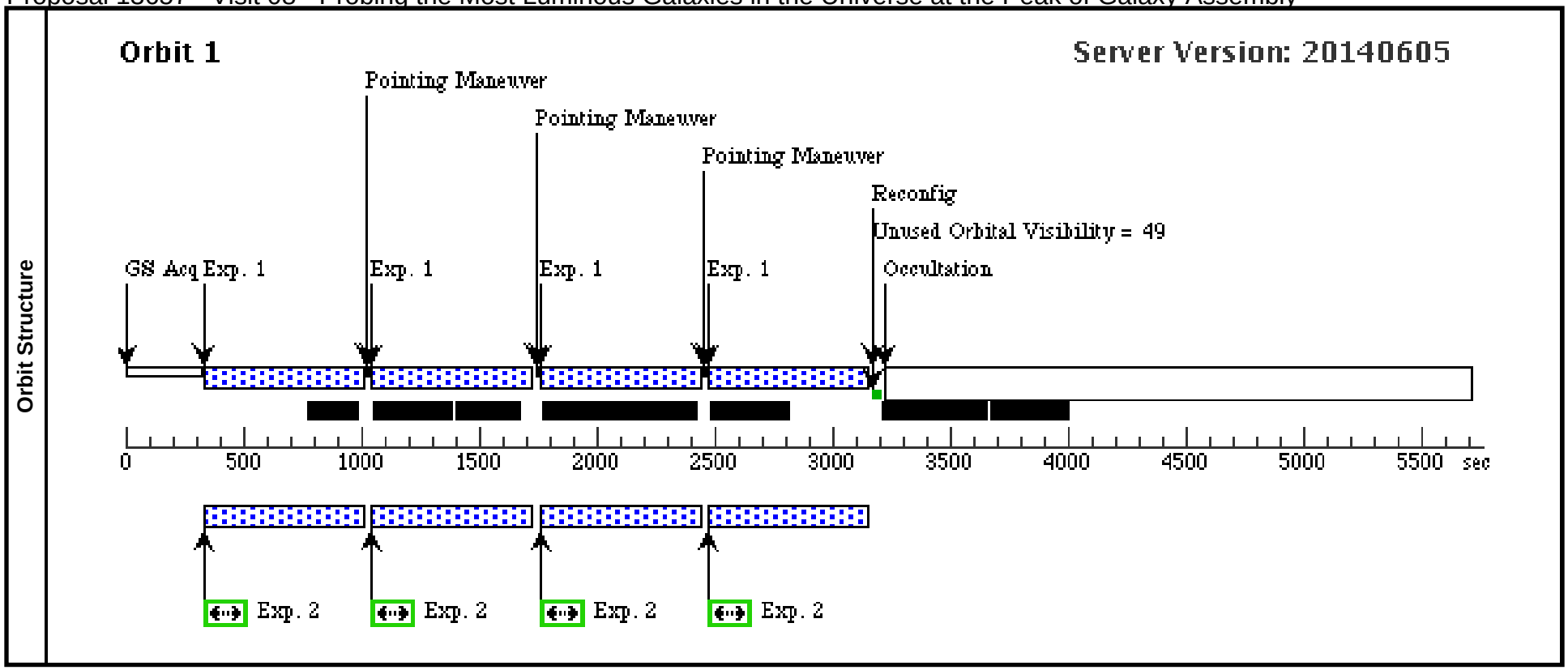
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(8)	HYLIRG-16+17	RA: 10 00 5.2000 (150.0216667d) Dec: +02 26 0.54 (2.43348d) Equinox: J2000		V=(?) K=19.8	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(8) HYLIRG-16+17	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=14; SAMP-SEQ=SPARS50		Pattern 1, Exps 1-2 in Visit 08 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 08	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2		ANY	ACS/WFC, ACCUM, WFC	F606W			Pattern 1, Exps 1-2 in Visit 08 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 08	600 Secs (2146 Secs) *[==>475.0 Secs (Pattern 1)]* *[==>557.0 Secs (Pattern 2)]* *[==>557.0 Secs (Pattern 3)]* *[==>557.0 Secs (Pattern 4)]*	***[1]***


Orbit Structure
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Server Version: 20140605
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Reconfig
Unused Orbital Visibility = 49
GS Acq
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Occultation
0
500
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3500
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4500
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5500
sec
Exp. 2
Exp. 2
Exp. 2
Exp. 2

Visit

Proposal 13657, Visit 09, implementation Wed Oct 15 01:03:05 GMT 2014

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR, ACS/WFC

Special Requirements: ORIENT 0D TO 85 D; ORIENT 335D TO 359 D

Patterns

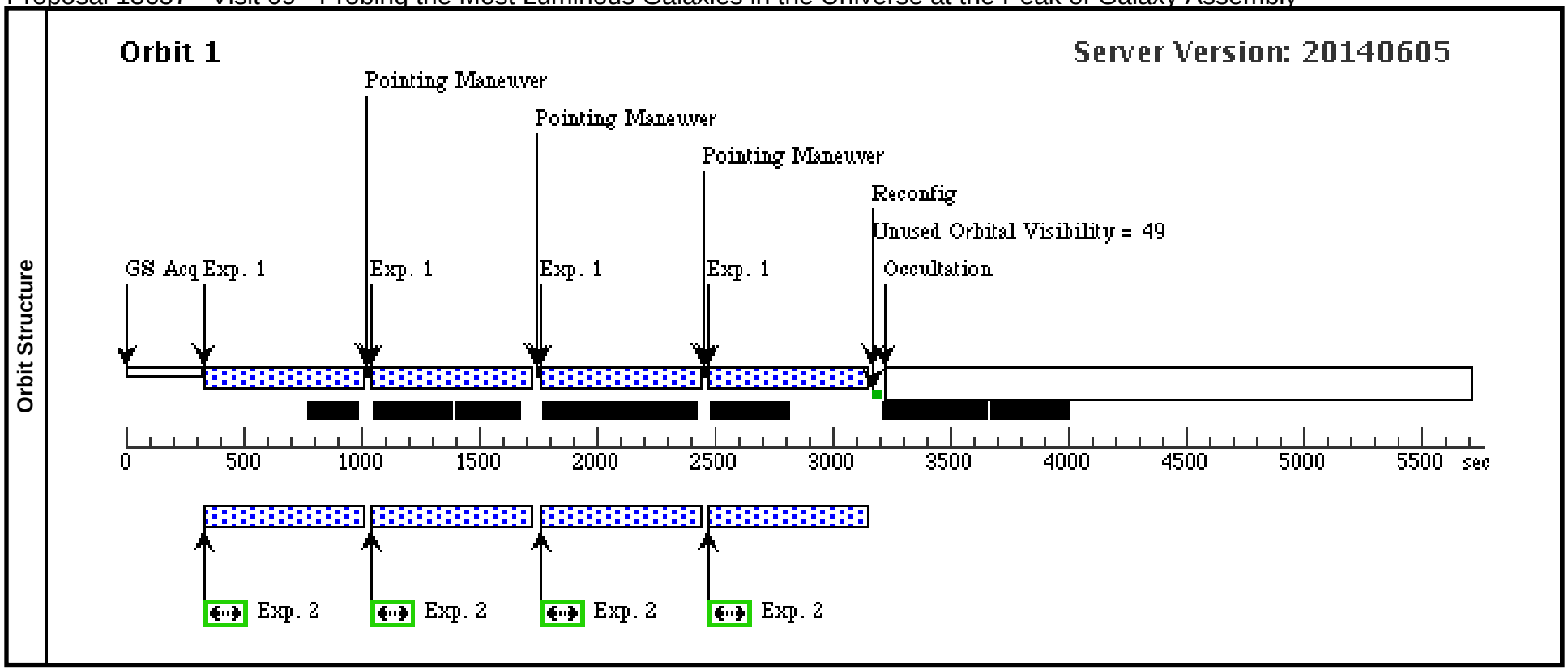
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(9)	HYLIRG-18+19	RA: 09 59 32.7000 (149.8862500d) Dec: +02 18 3.94 (2.30109d) Equinox: J2000		V=(?) K=20.4	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(9) HYLIRG-18+19	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=14; SAMP-SEQ=SPARS50		Pattern 1, Exps 1-2 in Visit 09 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 09	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2		ANY	ACS/WFC, ACCUM, WFC	F606W			Pattern 1, Exps 1-2 in Visit 09 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 09	600 Secs (2146 Secs) *[==>475.0 Secs (Pattern 1)]* *[==>557.0 Secs (Pattern 2)]* *[==>557.0 Secs (Pattern 3)]* *[==>557.0 Secs (Pattern 4)]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20140605
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Reconfig
Unused Orbital Visibility = 49
GS Acq
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Exp. 1
Exp. 1
Exp. 1
Occultation
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5500
sec
Exp. 2
Exp. 2
Exp. 2
Exp. 2

Visit

Proposal 13657, Visit 10, implementation Wed Oct 15 01:03:05 GMT 2014

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR, ACS/WFC

Special Requirements: ORIENT 0D TO 105 D; ORIENT 345D TO 359 D

Patterns

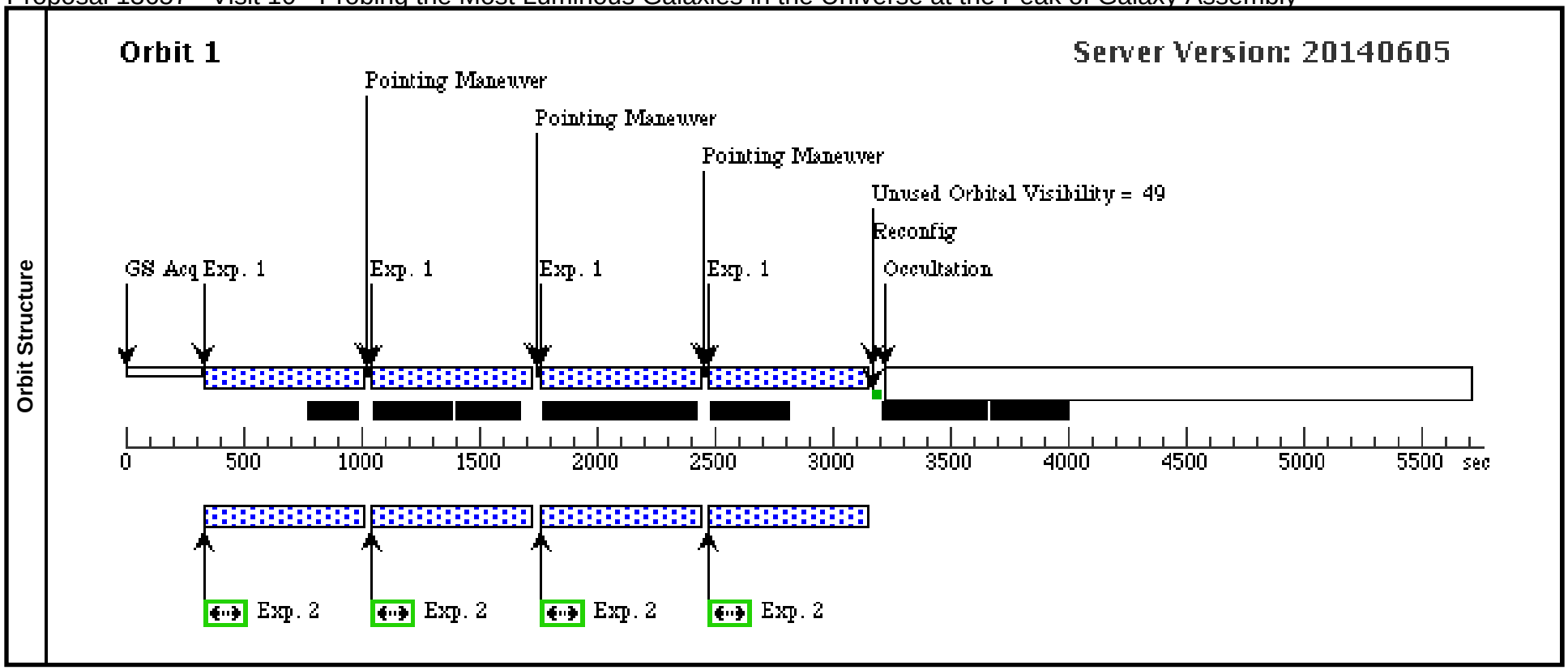
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(10)	HYLIRG-20+21	RA: 10 02 12.3550 (150.5514792d) Dec: +02 23 29.44 (2.39151d) Equinox: J2000		V=(?) K=20.1	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(10) HYLIRG-20+21	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=14; SAMP-SEQ=SPARS50		Pattern 1, Exps 1-2 in Visit 10 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 10	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2		ANY	ACS/WFC, ACCUM, WFC	F606W			Pattern 1, Exps 1-2 in Visit 10 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 10	600 Secs (2146 Secs) *[==>475.0 Secs (Pattern 1)]* *[==>557.0 Secs (Pattern 2)]* *[==>557.0 Secs (Pattern 3)]* *[==>557.0 Secs (Pattern 4)]*	***[1]***


Orbit Structure
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Server Version: 20140605
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Unused Orbital Visibility = 49
Reconfig
GS Acq
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Exp. 1
Exp. 1
Exp. 1
Occultation
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sec
Exp. 2
Exp. 2
Exp. 2
Exp. 2

Visit

Proposal 13657, Visit 11, implementation Wed Oct 15 01:03:05 GMT 2014

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR, ACS/WFC

Special Requirements: (none)

Patterns

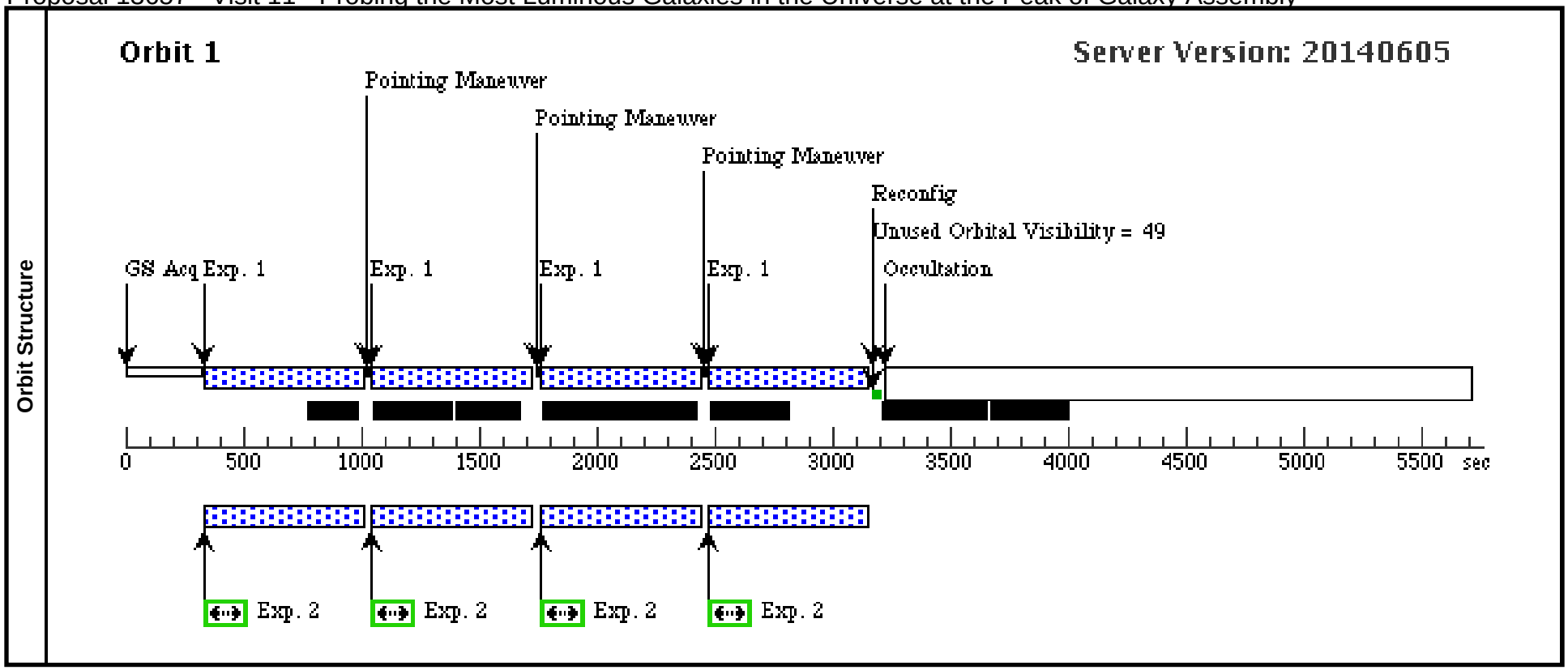
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(11)	HYLIRG-22+23	RA: 09 58 34.8270 (149.6451125d) Dec: +01 42 55.81 (1.71550d) Equinox: J2000		V=(?) K=18.5	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(11) HYLIRG-22+23	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=14; SAMP-SEQ=SPARS50		Pattern 1, Exps 1-2 in Visit 11 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 11	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2		ANY	ACS/WFC, ACCUM, WFC	F606W			Pattern 1, Exps 1-2 in Visit 11 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 11	600 Secs (2146 Secs) *[==>475.0 Secs (Pattern 1)]* *[==>557.0 Secs (Pattern 2)]* *[==>557.0 Secs (Pattern 3)]* *[==>557.0 Secs (Pattern 4)]*	***[1]***


Orbit Structure
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Server Version: 20140605
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Reconfig
Unused Orbital Visibility = 49
GS Acq
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Exp. 1
Exp. 1
Exp. 1
Occultation
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1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec
Exp. 2
Exp. 2
Exp. 2
Exp. 2

Visit

Proposal 13657, Visit 12, implementation Wed Oct 15 01:03:05 GMT 2014

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR, ACS/WFC

Special Requirements: (none)

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)

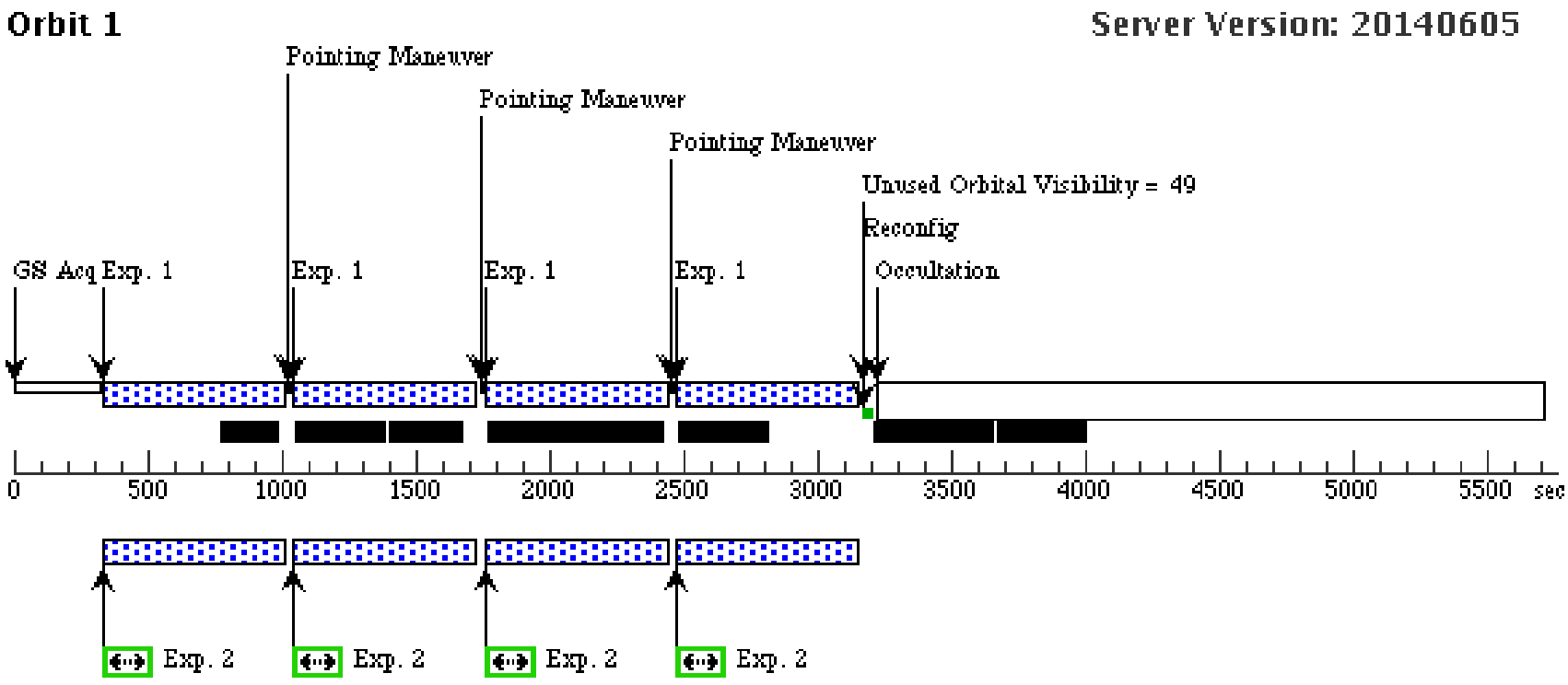
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(12)	HYLIRG-24+25+26	RA: 09 58 34.2090 (149.6425375d) Dec: +02 42 34.20 (2.70950d) Equinox: J2000		V=(?) K=21.5	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(12) HYLIRG-24+25+26	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=14; SAMP-SEQ=SPARS50		Pattern 1, Exps 1-2 in Visit 12 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 12	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2		ANY	ACS/WFC, ACCUM, WFC	F606W			Pattern 1, Exps 1-2 in Visit 12 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 12	600 Secs (2146 Secs) *[==>475.0 Secs (Pattern 1)]* *[==>557.0 Secs (Pattern 2)]* *[==>557.0 Secs (Pattern 3)]* *[==>557.0 Secs (Pattern 4)]*	***[1]***

Orbit Structure



Visit

Proposal 13657, Visit 13, implementation Wed Oct 15 01:03:06 GMT 2014

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR, ACS/WFC

Special Requirements: (none)

Patterns

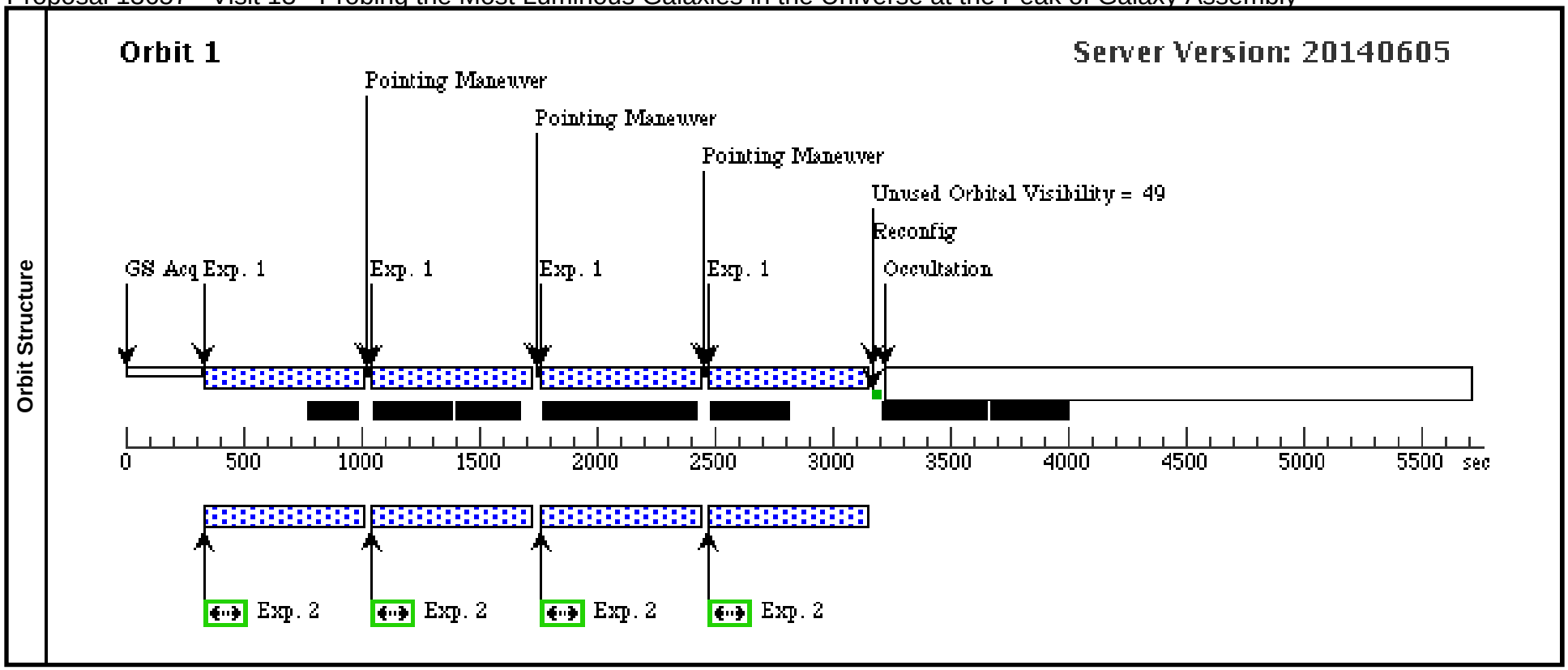
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(13)	HYLIRG-27+28	RA: 10 01 48.7820 (150.4532583d) Dec: +01 40 26.74 (1.67409d) Equinox: J2000		V=(?) K=18.6	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(13) HYLIRG-27+28	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=14; SAMP-SEQ=SPARS50		Pattern 1, Exps 1-2 in Visit 13 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 13	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2		ANY	ACS/WFC, ACCUM, WFC	F606W			Pattern 1, Exps 1-2 in Visit 13 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 13	600 Secs (2146 Secs) *[==>475.0 Secs (Pattern 1)]* *[==>557.0 Secs (Pattern 2)]* *[==>557.0 Secs (Pattern 3)]* *[==>557.0 Secs (Pattern 4)]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20140605
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Unused Orbital Visibility = 49
Reconfig
GS Acq
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Exp. 1
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1500
2000
2500
3000
3500
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4500
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5500
sec
Exp. 2
Exp. 2
Exp. 2
Exp. 2

Visit

Proposal 13657, Visit 14, implementation Wed Oct 15 01:03:06 GMT 2014

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR, ACS/WFC

Special Requirements: ORIENT 0D TO 80 D; ORIENT 335D TO 359 D

Patterns

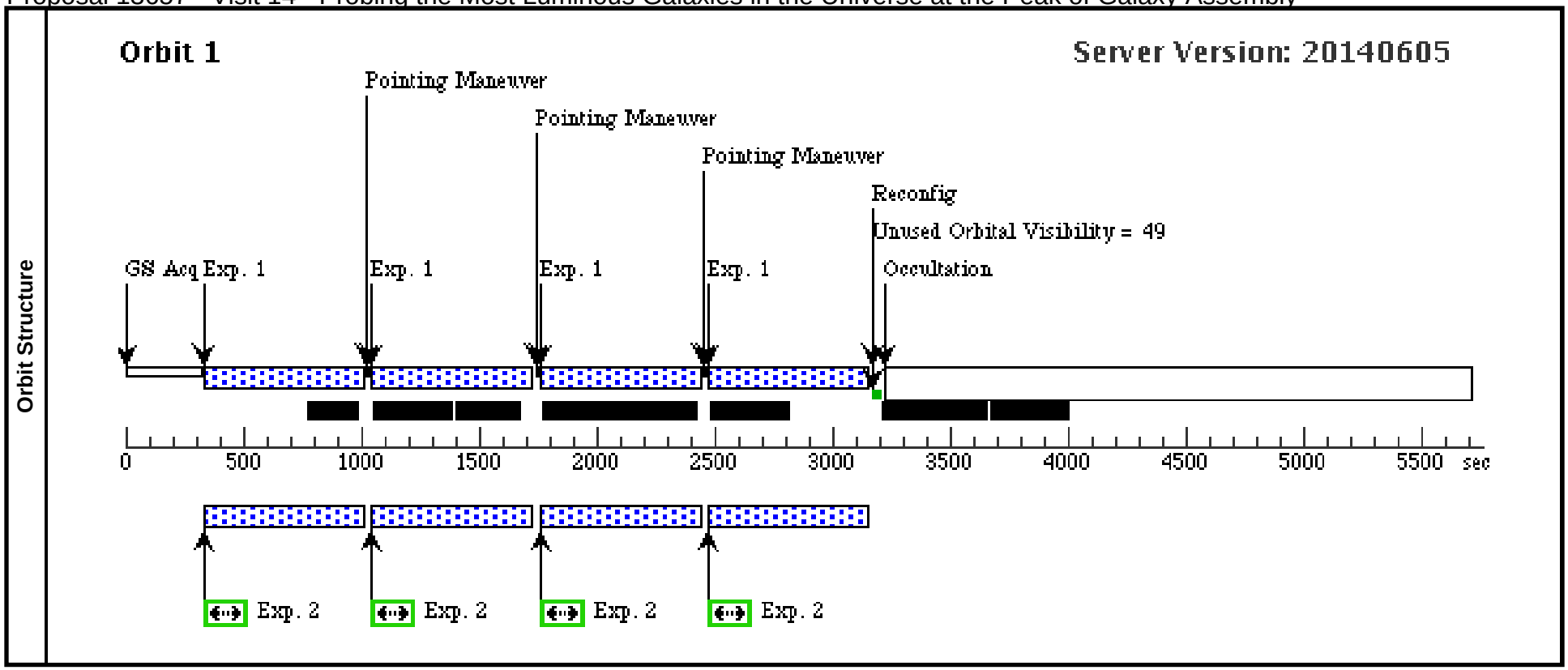
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(14)	HYLIRG-29+30	RA: 09 58 39.2080 (149.6633667d) Dec: +02 36 25.60 (2.60711d) Equinox: J2000		V=(?) K=21.3	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(14) HYLIRG-29+30	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=14; SAMP-SEQ=SPARS50		Pattern 1, Exps 1-2 in Visit 14 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 14	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2		ANY	ACS/WFC, ACCUM, WFC	F606W			Pattern 1, Exps 1-2 in Visit 14 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 14	600 Secs (2146 Secs) *[==>475.0 Secs (Pattern 1)]* *[==>557.0 Secs (Pattern 2)]* *[==>557.0 Secs (Pattern 3)]* *[==>557.0 Secs (Pattern 4)]*	***[1]***


Orbit Structure
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Server Version: 20140605
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Reconfig
Unused Orbital Visibility = 49
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Exp. 1
Exp. 1
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Occultation
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3500
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Exp. 2
Exp. 2
Exp. 2
Exp. 2

Visit

Proposal 13657, Visit 15, implementation Wed Oct 15 01:03:06 GMT 2014

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR, ACS/WFC

Special Requirements: (none)

Patterns

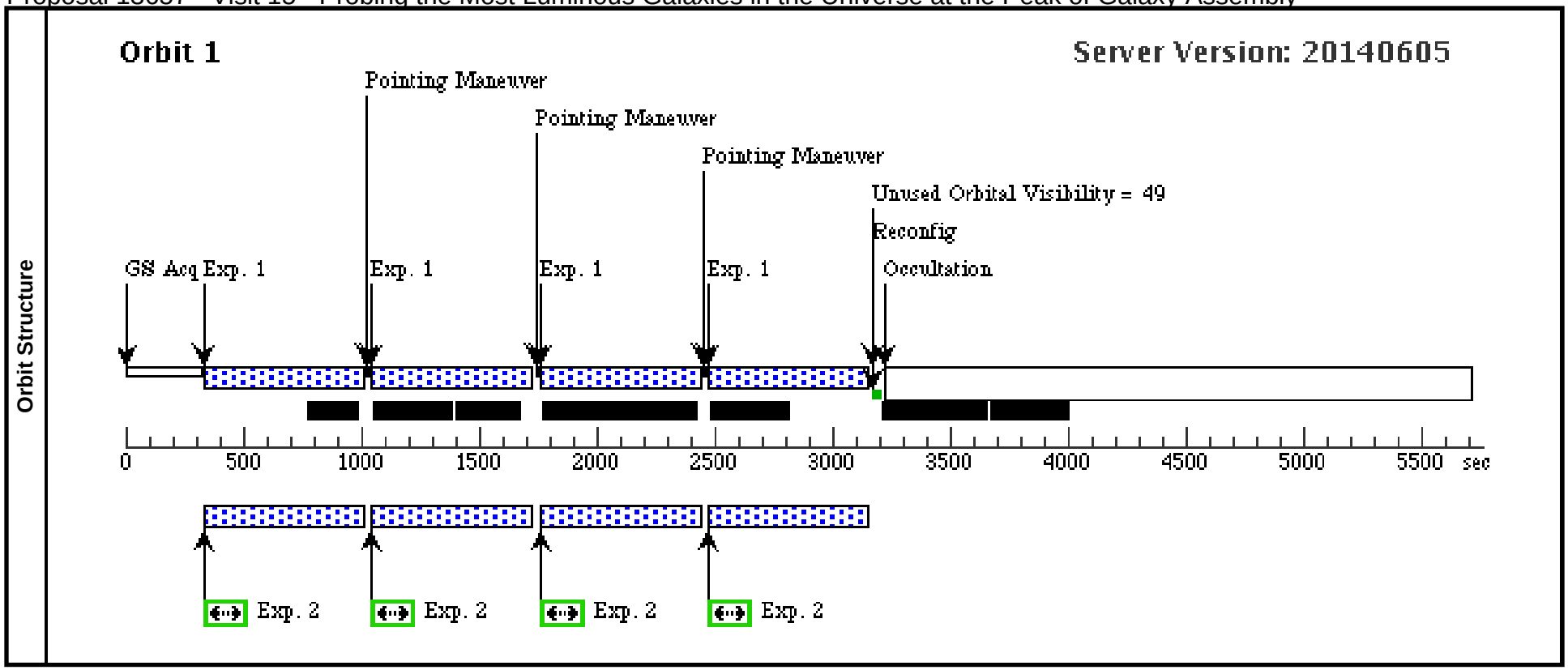
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(15)	HYLIRG-31+32	RA: 10 02 37.2890 (150.6553708d) Dec: +02 03 29.42 (2.05817d) Equinox: J2000		V=(?) K=19.9	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(15) HYLIRG-31+32	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=14; SAMP-SEQ=SPARS50		Pattern 1, Exps 1-2 in Visit 15 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 15	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2		ANY	ACS/WFC, ACCUM, WFC	F606W			Pattern 1, Exps 1-2 in Visit 15 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 15	600 Secs (2146 Secs) *[==>475.0 Secs (Pattern 1)]* *[==>557.0 Secs (Pattern 2)]* *[==>557.0 Secs (Pattern 3)]* *[==>557.0 Secs (Pattern 4)]*	***[1]***


Orbit Structure
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Server Version: 20140605
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Unused Orbital Visibility = 49
Reconfig
GS Acq
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Occultation
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3500
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4500
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5500
sec
Exp. 2
Exp. 2
Exp. 2
Exp. 2

Visit

Proposal 13657, Visit 16, implementation Wed Oct 15 01:03:06 GMT 2014

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR, ACS/WFC

Special Requirements: ORIENT 25D TO 50 D; ORIENT 265D TO 320 D

Patterns

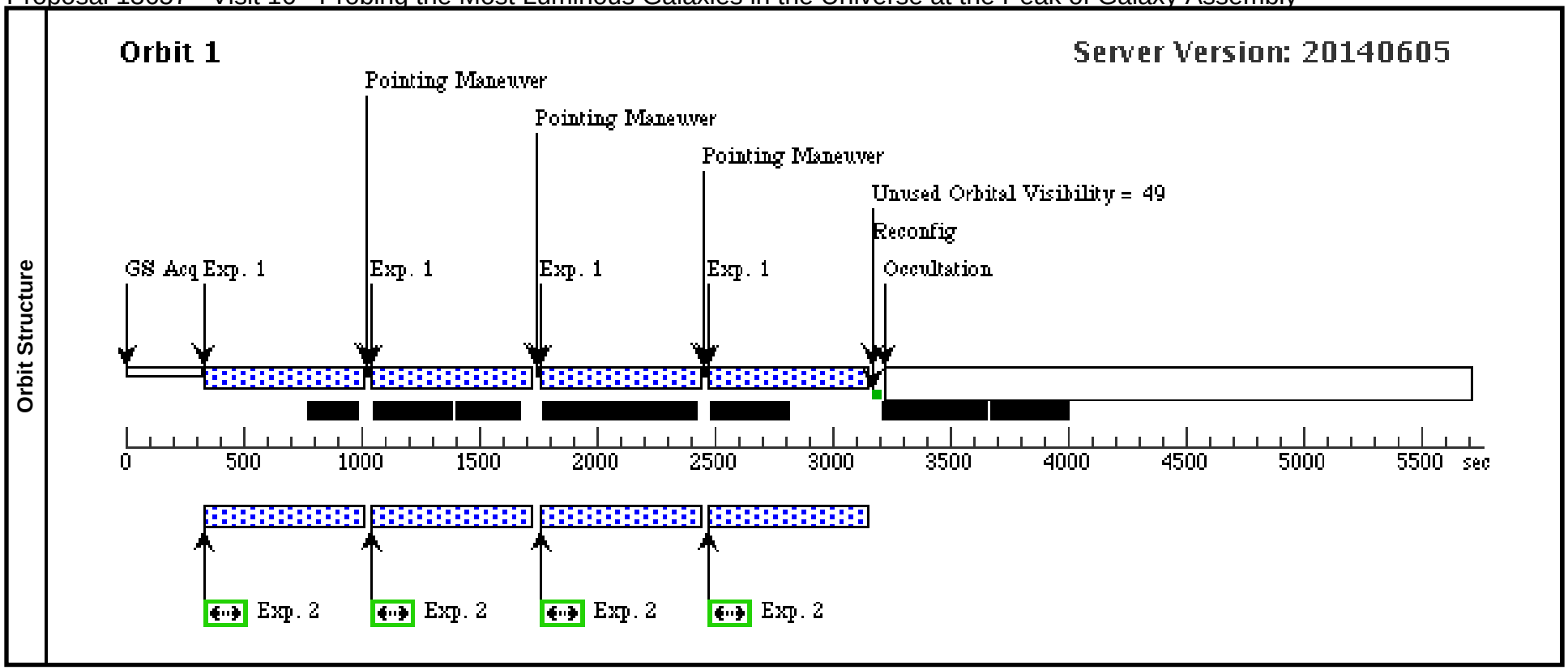
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(16)	HYLIRG-33+34	RA: 10 00 2.9900 (150.0124583d) Dec: +02 35 15.02 (2.58751d) Equinox: J2000		V=(?) K=19.4	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(16) HYLIRG-33+34	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=14; SAMP-SEQ=SPARS50		Pattern 1, Exps 1-2 in Visit 16 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 16	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2		ANY	ACS/WFC, ACCUM, WFC	F606W			Pattern 1, Exps 1-2 in Visit 16 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 16	600 Secs (2146 Secs) *[==>475.0 Secs (Pattern 1)]* *[==>557.0 Secs (Pattern 2)]* *[==>557.0 Secs (Pattern 3)]* *[==>557.0 Secs (Pattern 4)]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20140605
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Unused Orbital Visibility = 49
Reconfig
GS Acq
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec
Exp. 2
Exp. 2
Exp. 2
Exp. 2

Visit

Proposal 13657, Visit 17, implementation Wed Oct 15 01:03:06 GMT 2014

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR, ACS/WFC

Special Requirements: ORIENT 35D TO 65 D; ORIENT 215D TO 245 D

Patterns

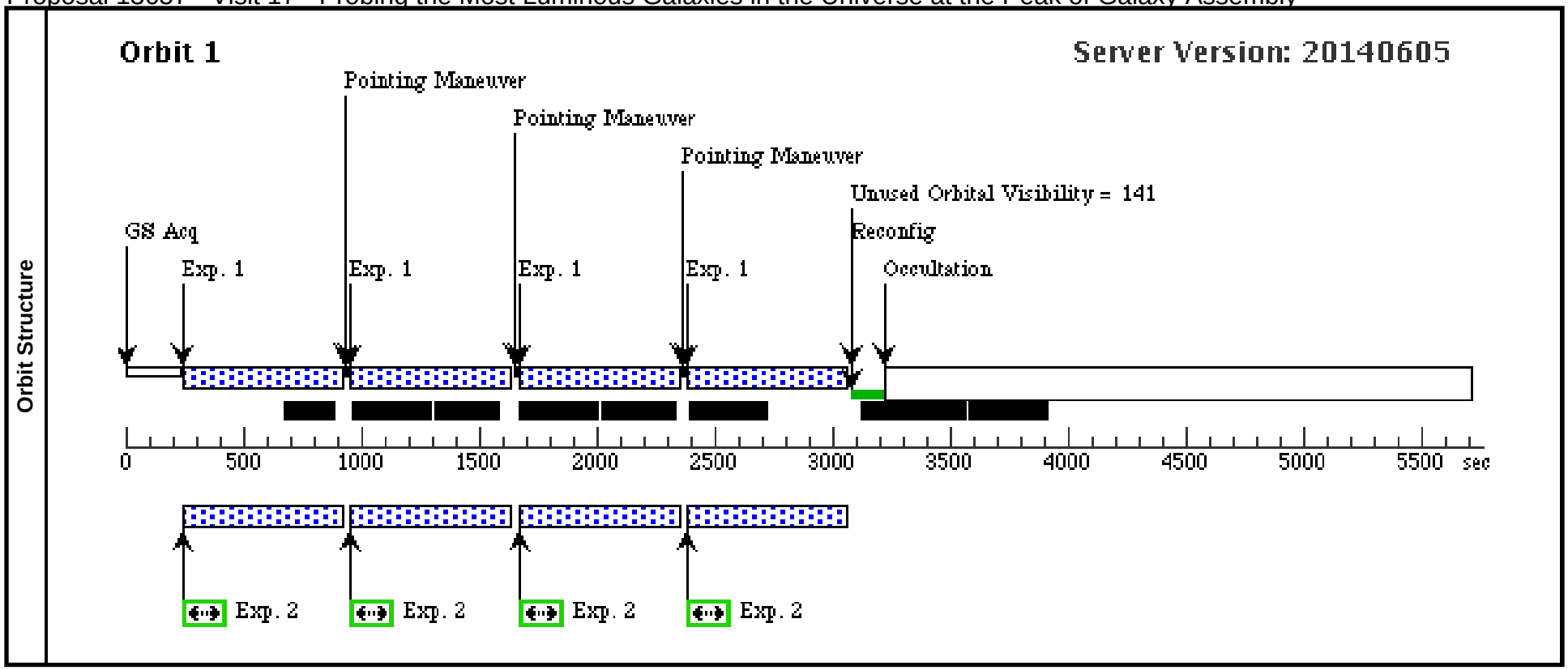
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(17)	HYLIRG-35	RA: 10 01 47.2290 (150.4467875d) Dec: +02 40 17.50 (2.67153d) Equinox: J2000		V=(?) K=19.4	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(17) HYLIRG-35	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=14; SAMP-SEQ=SPARS50	GS ACQ SCENARIO SINGLE	Pattern 1, Exps 1-2 in Visit 17 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 17	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2		ANY	ACS/WFC, ACCUM, WFC	F606W			Pattern 1, Exps 1-2 in Visit 17 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 17	600 Secs (2146 Secs) *[==>475.0 Secs (Pattern 1)]* *[==>557.0 Secs (Pattern 2)]* *[==>557.0 Secs (Pattern 3)]* *[==>557.0 Secs (Pattern 4)]*	***[1]***


Orbit Structure
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Server Version: 20140605
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Unused Orbital Visibility = 141
GS Acq
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Exp. 1
Exp. 1
Exp. 1
Reconfig
Occultation
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1500
2000
2500
3000
3500
4000
4500
5000
5500
sec
Exp. 2
Exp. 2
Exp. 2
Exp. 2

Visit

Proposal 13657, Visit 18, implementation Wed Oct 15 01:03:06 GMT 2014

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR, ACS/WFC

Special Requirements: ORIENT 0D TO 105 D; ORIENT 325D TO 359 D

Patterns

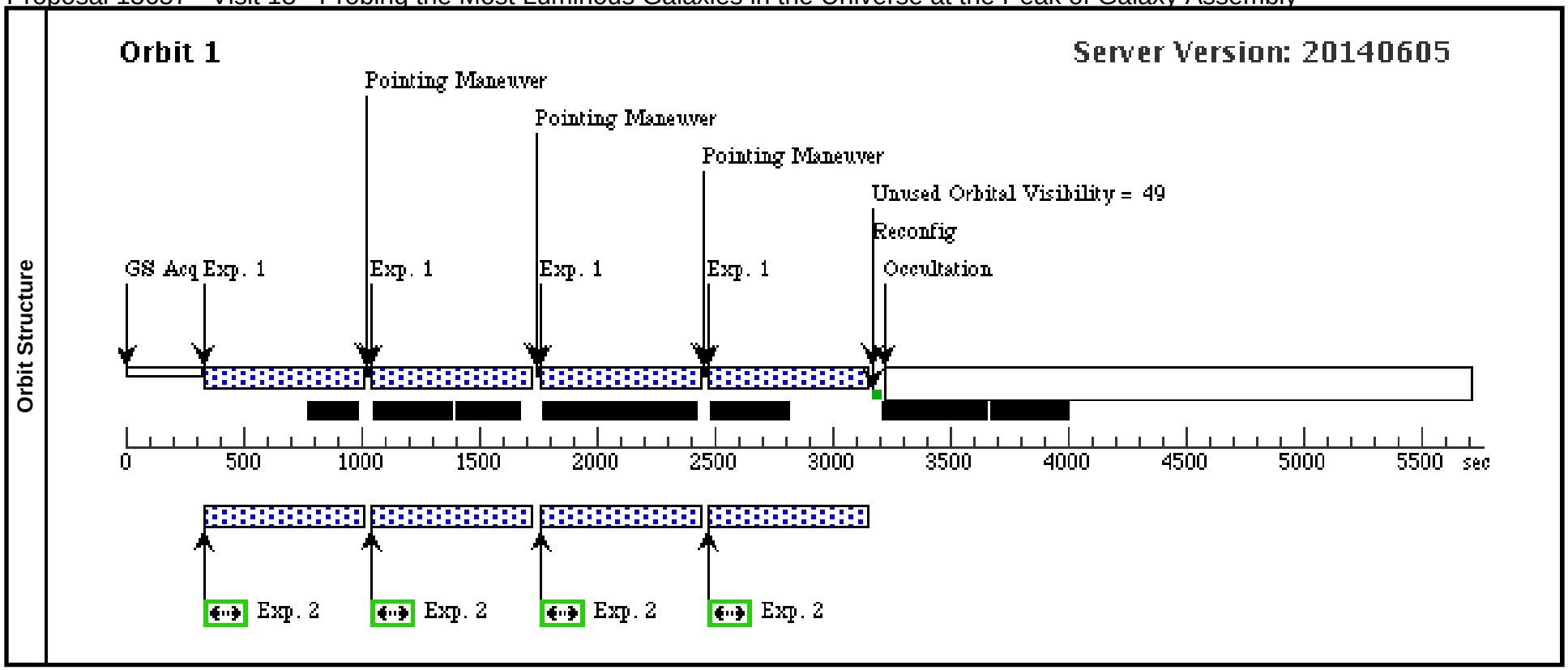
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(18)	HYLIRG-36	RA: 10 00 37.6850 (150.1570208d) Dec: +02 09 11.18 (2.15311d) Equinox: J2000		V=(?) K=19.7	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(18) HYLIRG-36	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=14; SAMP-SEQ=SPARS50		Pattern 1, Exps 1-2 in Visit 18 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 18	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2		ANY	ACS/WFC, ACCUM, WFC	F606W			Pattern 1, Exps 1-2 in Visit 18 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 18	600 Secs (2146 Secs) *[==>475.0 Secs (Pattern 1)]* *[==>557.0 Secs (Pattern 2)]* *[==>557.0 Secs (Pattern 3)]* *[==>557.0 Secs (Pattern 4)]*	***[1]***


Orbit Structure
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Server Version: 20140605
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Unused Orbital Visibility = 49
Reconfig
GS Acq
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Occultation
0
500
1000
1500
2000
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3000
3500
4000
4500
5000
5500
sec
Exp. 2
Exp. 2
Exp. 2
Exp. 2

Visit

Proposal 13657, Visit 19, implementation Wed Oct 15 01:03:06 GMT 2014

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR, ACS/WFC

Special Requirements: (none)

Patterns

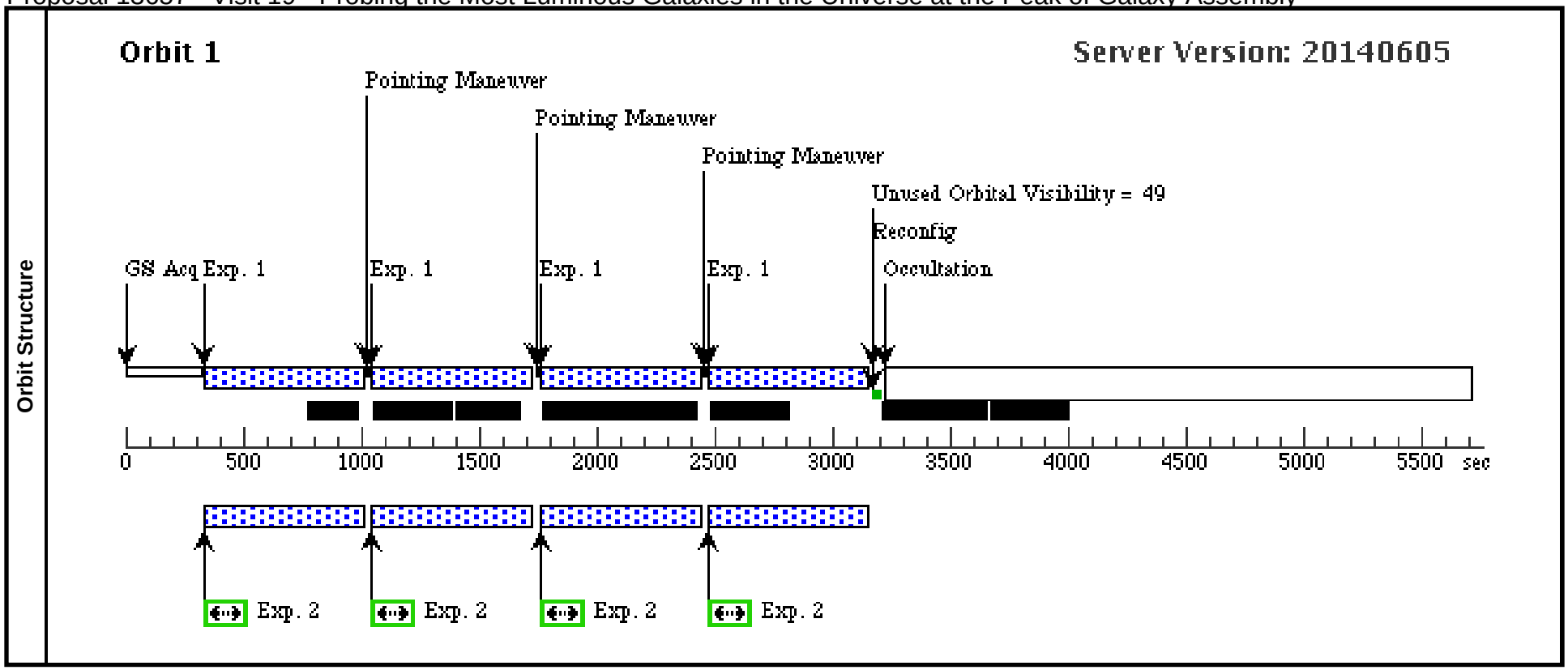
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(19)	HYLIRG-37	RA: 10 00 5.3390 (150.0222458d) Dec: +02 20 27.10 (2.34086d) Equinox: J2000		V=(?) K=21.6	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(19) HYLIRG-37	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=14; SAMP-SEQ=SPARS50		Pattern 1, Exps 1-2 in Visit 19 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 19	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2		ANY	ACS/WFC, ACCUM, WFC	F606W			Pattern 1, Exps 1-2 in Visit 19 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 19	600 Secs (2146 Secs) *[==>475.0 Secs (Pattern 1)]* *[==>557.0 Secs (Pattern 2)]* *[==>557.0 Secs (Pattern 3)]* *[==>557.0 Secs (Pattern 4)]*	***[1]***


Orbit Structure
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Server Version: 20140605
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Unused Orbital Visibility = 49
Reconfig
GS Acq
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Exp. 1
Exp. 1
Exp. 1
Occultation
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1500
2000
2500
3000
3500
4000
4500
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5500
sec
Exp. 2
Exp. 2
Exp. 2
Exp. 2

Visit

Proposal 13657, Visit 20, implementation Wed Oct 15 01:03:06 GMT 2014

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR, ACS/WFC

Special Requirements: ORIENT 0D TO 30 D; ORIENT 275D TO 359 D

Patterns

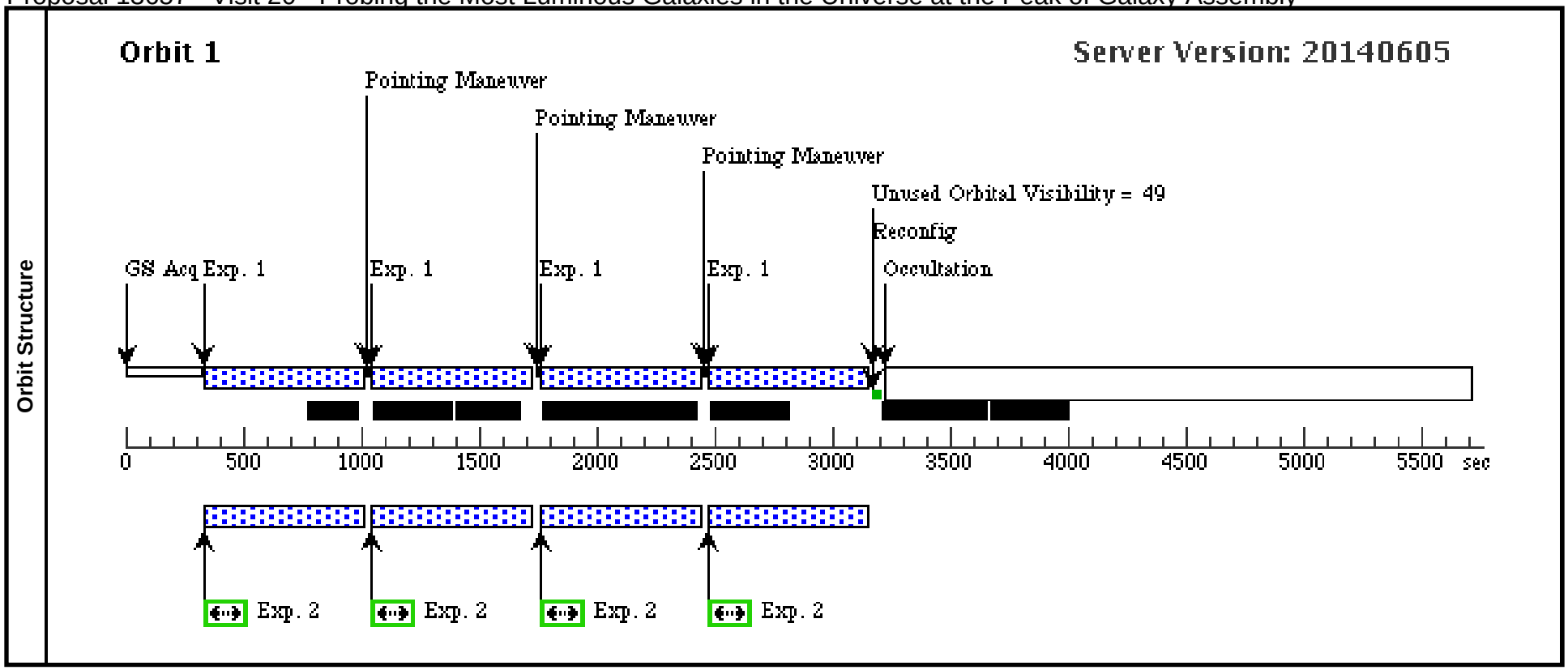
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(20)	HYLIRG-38	RA: 10 00 1.3670 (150.0056958d) Dec: +02 02 50.62 (2.04739d) Equinox: J2000		V=(?) K=21.4	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(20) HYLIRG-38	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=14; SAMP-SEQ=SPARS50		Pattern 1, Exps 1-2 in Visit 20 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 20	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2		ANY	ACS/WFC, ACCUM, WFC	F606W			Pattern 1, Exps 1-2 in Visit 20 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 20	600 Secs (2146 Secs) *[==>475.0 Secs (Pattern 1)]* *[==>557.0 Secs (Pattern 2)]* *[==>557.0 Secs (Pattern 3)]* *[==>557.0 Secs (Pattern 4)]*	***[1]***


Orbit Structure
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Server Version: 20140605
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Unused Orbital Visibility = 49
Reconfig
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Exp. 1
Exp. 1
Exp. 1
Occultation
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500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec
Exp. 2
Exp. 2
Exp. 2
Exp. 2

Visit

Proposal 13657, Visit 21, implementation Wed Oct 15 01:03:06 GMT 2014

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR, ACS/WFC

Special Requirements: (none)

Patterns

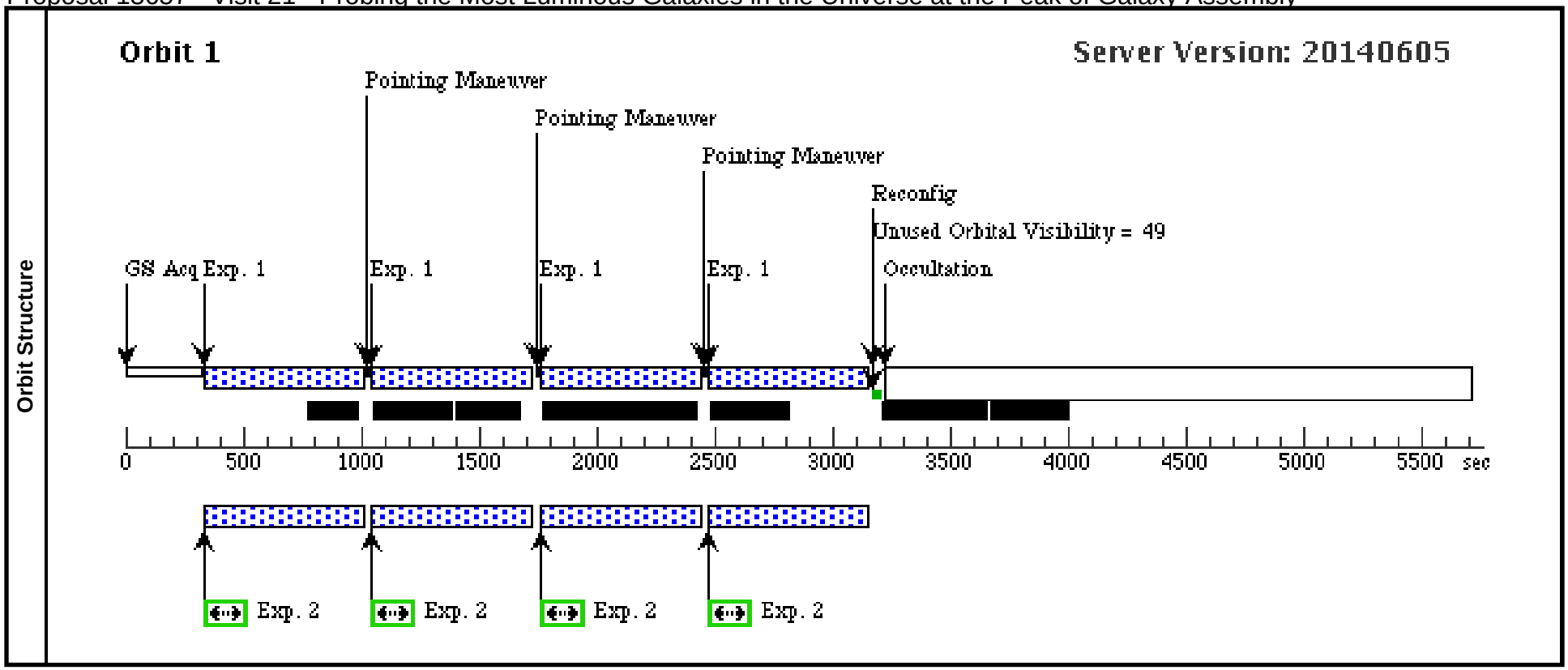
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(21)	HYLIRG-39	RA: 10 01 13.7470 (150.3072792d) Dec: +02 32 7.73 (2.53548d) Equinox: J2000		V=(?) K=21.8	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(21) HYLIRG-39	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=14; SAMP-SEQ=SPARS50		Pattern 1, Exps 1-2 in Visit 21 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 21	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2		ANY	ACS/WFC, ACCUM, WFC	F606W			Pattern 1, Exps 1-2 in Visit 21 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 21	600 Secs (2146 Secs) *[==>475.0 Secs (Pattern 1)]* *[==>557.0 Secs (Pattern 2)]* *[==>557.0 Secs (Pattern 3)]* *[==>557.0 Secs (Pattern 4)]*	***[1]***


Orbit Structure
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Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Reconfig
Unused Orbital Visibility = 49
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Exp. 1
Exp. 1
Exp. 1
Occultation
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1500
2000
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3000
3500
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4500
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5500
sec
Exp. 2
Exp. 2
Exp. 2
Exp. 2

Visit

Proposal 13657, Visit 22, implementation Wed Oct 15 01:03:06 GMT 2014

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR, ACS/WFC

Special Requirements: ORIENT 35D TO 55 D

Patterns

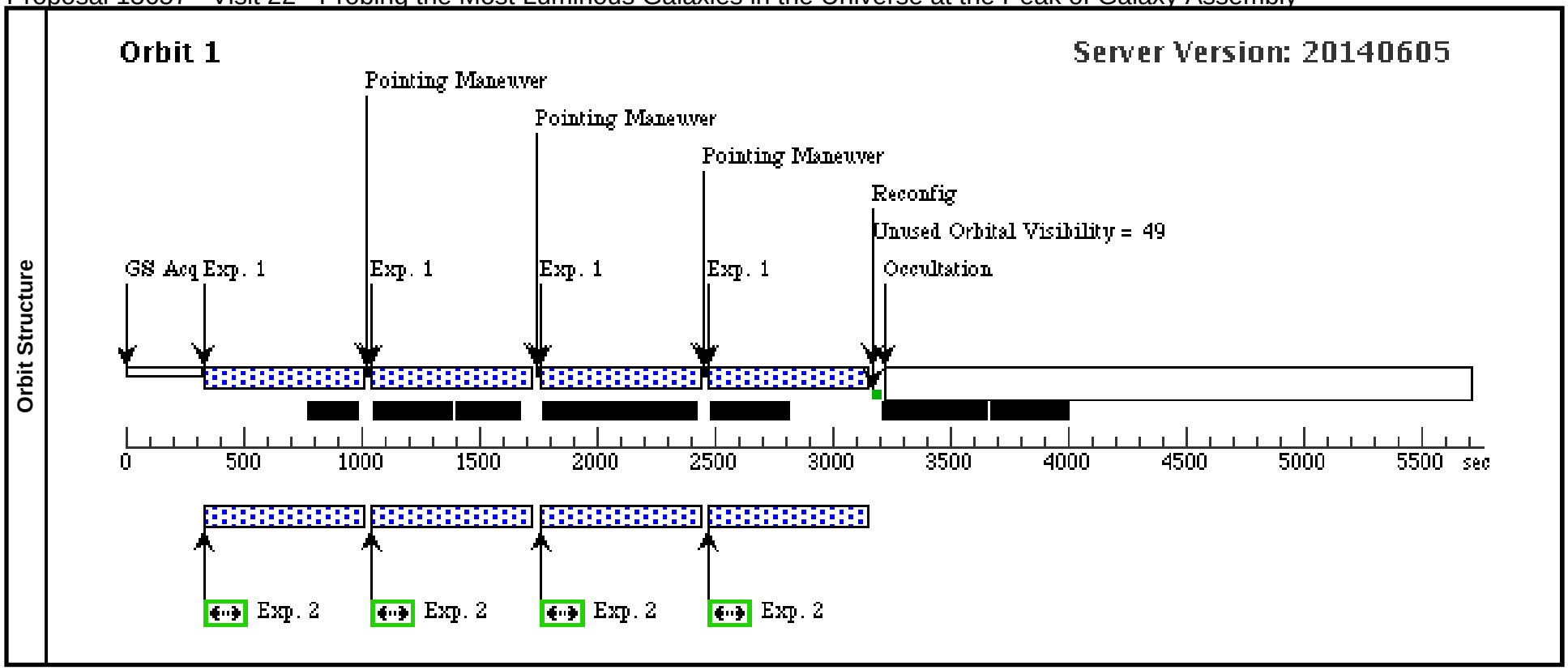
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(22)	HYLIRG-40	RA: 10 01 55.9210 (150.4830042d) Dec: +02 05 59.43 (2.09984d) Equinox: J2000		V=(?) K=23.3	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(22) HYLIRG-40	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=14; SAMP-SEQ=SPARS50	GS ACQ SCENARIO BASE1B3	Pattern 1, Exps 1-2 in Visit 22 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 22	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2		ANY	ACS/WFC, ACCUM, WFC	F606W			Pattern 1, Exps 1-2 in Visit 22 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 22	600 Secs (2146 Secs) *[==>475.0 Secs (Pattern 1)]* *[==>557.0 Secs (Pattern 2)]* *[==>557.0 Secs (Pattern 3)]* *[==>557.0 Secs (Pattern 4)]*	***[1]***


Orbit Structure
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Server Version: 20140605
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Reconfig
Unused Orbital Visibility = 49
GS Acq
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Occultation
0
500
1000
1500
2000
2500
3000
3500
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4500
5000
5500
sec
Exp. 2
Exp. 2
Exp. 2
Exp. 2

Visit

Proposal 13657, Visit 23, implementation Wed Oct 15 01:03:06 GMT 2014

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR, ACS/WFC

Special Requirements: (none)

Patterns

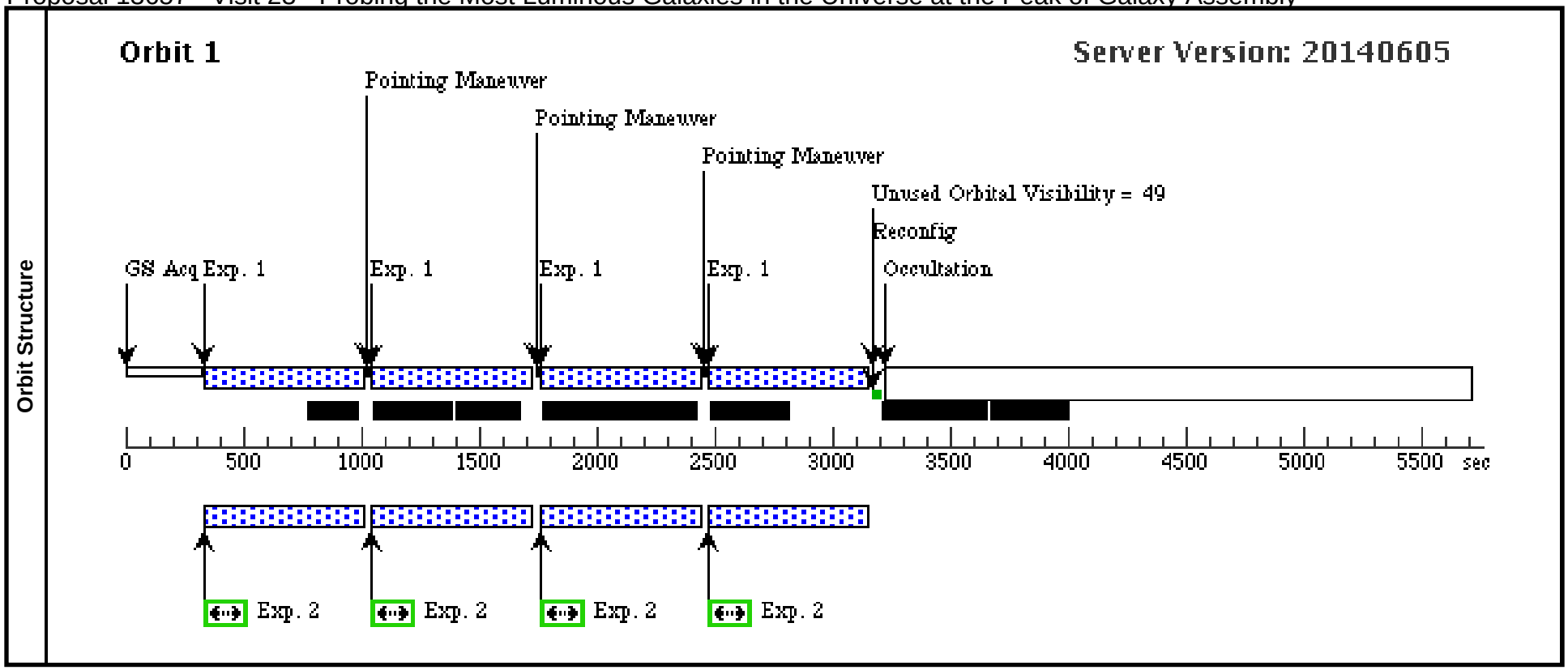
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(23)	HYLIRG-41	RA: 10 01 34.8360 (150.3951500d) Dec: +01 59 40.47 (1.99458d) Equinox: J2000		V=(?) K=20.3	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(23) HYLIRG-41	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=14; SAMP-SEQ=SPARS50		Pattern 1, Exps 1-2 in Visit 23 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 23	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2		ANY	ACS/WFC, ACCUM, WFC	F606W			Pattern 1, Exps 1-2 in Visit 23 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 23	600 Secs (2146 Secs) *[==>475.0 Secs (Pattern 1)]* *[==>557.0 Secs (Pattern 2)]* *[==>557.0 Secs (Pattern 3)]* *[==>557.0 Secs (Pattern 4)]*	***[1]***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Server Version: 20140605
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Pointing Maneuver
Pointing Maneuver
Unused Orbital Visibility = 49
Reconfig
GS Acq
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Occultation
0
500
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1500
2000
2500
3000
3500
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4500
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sec
Exp. 2
Exp. 2
Exp. 2
Exp. 2

Visit

Proposal 13657, Visit 24, implementation Wed Oct 15 01:03:06 GMT 2014

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR, ACS/WFC

Special Requirements: (none)

Patterns

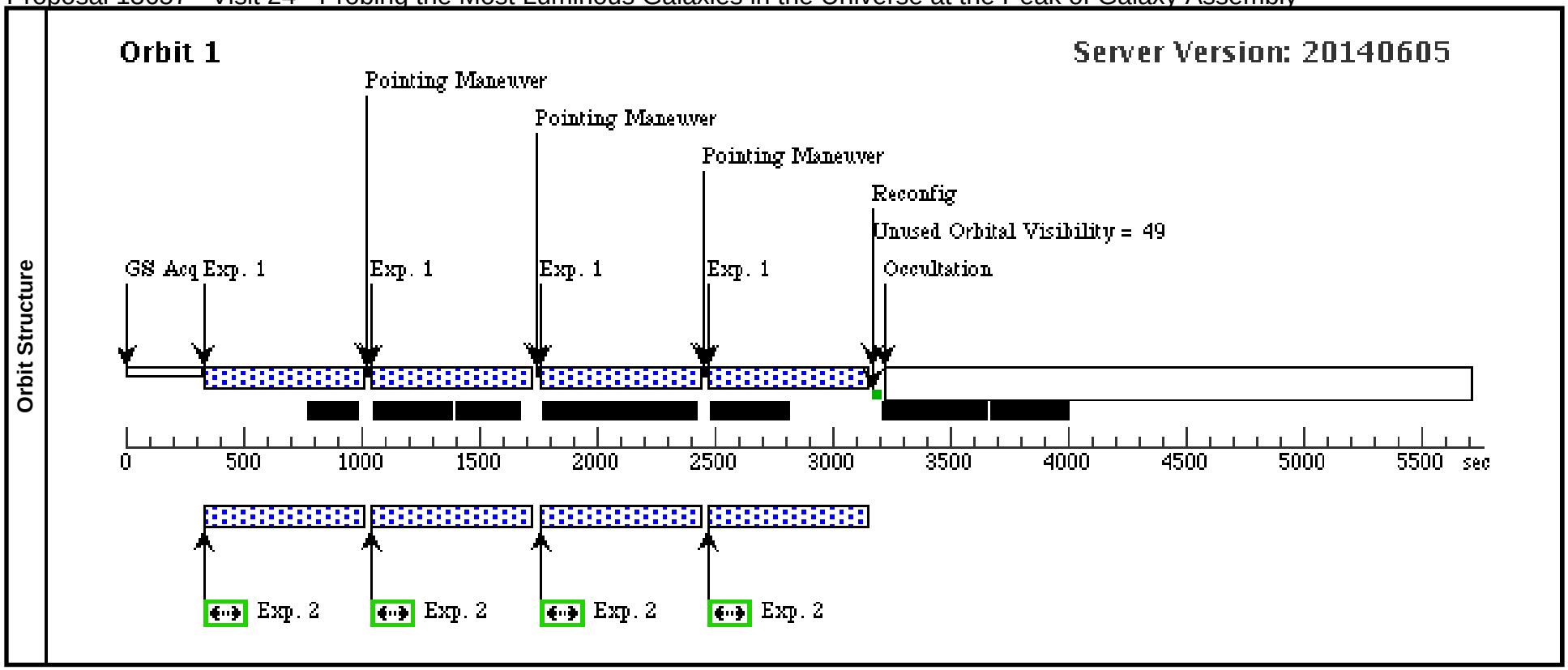
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(24)	HYLIRG-42	RA: 10 01 54.4670 (150.4769458d) Dec: +02 25 28.31 (2.42453d) Equinox: J2000		V=(?) K=21.4	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(24) HYLIRG-42	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=14; SAMP-SEQ=SPARS50		Pattern 1, Exps 1-2 in Visit 24 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 24	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2		ANY	ACS/WFC, ACCUM, WFC	F606W			Pattern 1, Exps 1-2 in Visit 24 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 24	600 Secs (2146 Secs) *[==>475.0 Secs (Pattern 1)]* *[==>557.0 Secs (Pattern 2)]* *[==>557.0 Secs (Pattern 3)]* *[==>557.0 Secs (Pattern 4)]*	***[1]***


Orbit Structure
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Server Version: 20140605
Pointing Maneuver
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Pointing Maneuver
Reconfig
Unused Orbital Visibility = 49
GS Acq
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Exp. 1
Exp. 1
Exp. 1
Occultation
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Exp. 2
Exp. 2
Exp. 2
Exp. 2

Visit

Proposal 13657, Visit 25, implementation Wed Oct 15 01:03:06 GMT 2014

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR, ACS/WFC

Special Requirements: (none)

Patterns

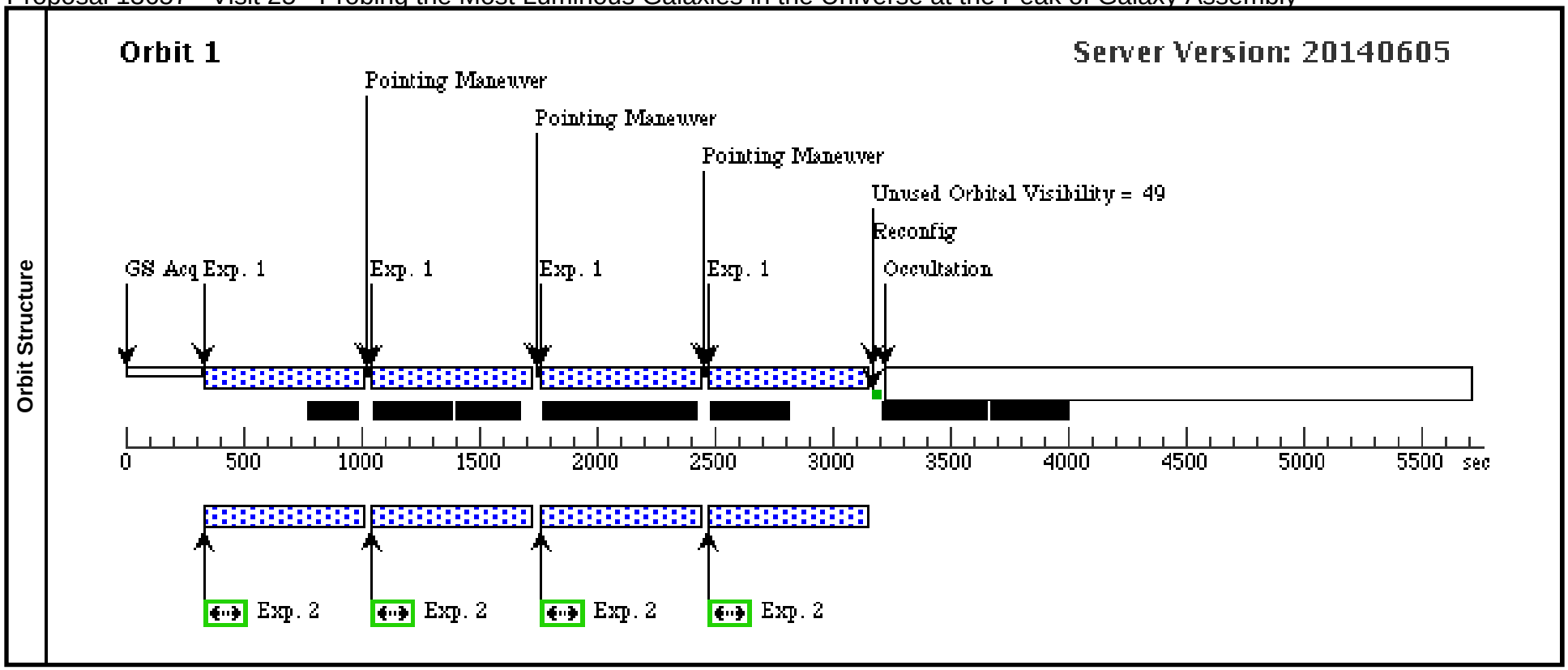
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(25)	HYLIRG-43	RA: 10 01 24.0820 (150.3503417d) Dec: +01 57 4.45 (1.95124d) Equinox: J2000		V=(?) K=20.7	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(25) HYLIRG-43	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=14; SAMP-SEQ=SPARS50		Pattern 1, Exps 1-2 in Visit 25 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 25	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2		ANY	ACS/WFC, ACCUM, WFC	F606W			Pattern 1, Exps 1-2 in Visit 25 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 25	600 Secs (2146 Secs) *[==>475.0 Secs (Pattern 1)]* *[==>557.0 Secs (Pattern 2)]* *[==>557.0 Secs (Pattern 3)]* *[==>557.0 Secs (Pattern 4)]*	***[1]***


Orbit Structure
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Server Version: 20140605
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Unused Orbital Visibility = 49
Reconfig
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Exp. 1
Exp. 1
Exp. 1
Occultation
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2000
2500
3000
3500
4000
4500
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5500
sec
Exp. 2
Exp. 2
Exp. 2
Exp. 2

Visit

Proposal 13657, Visit 26, implementation Wed Oct 15 01:03:07 GMT 2014

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR, ACS/WFC

Special Requirements: (none)

Patterns

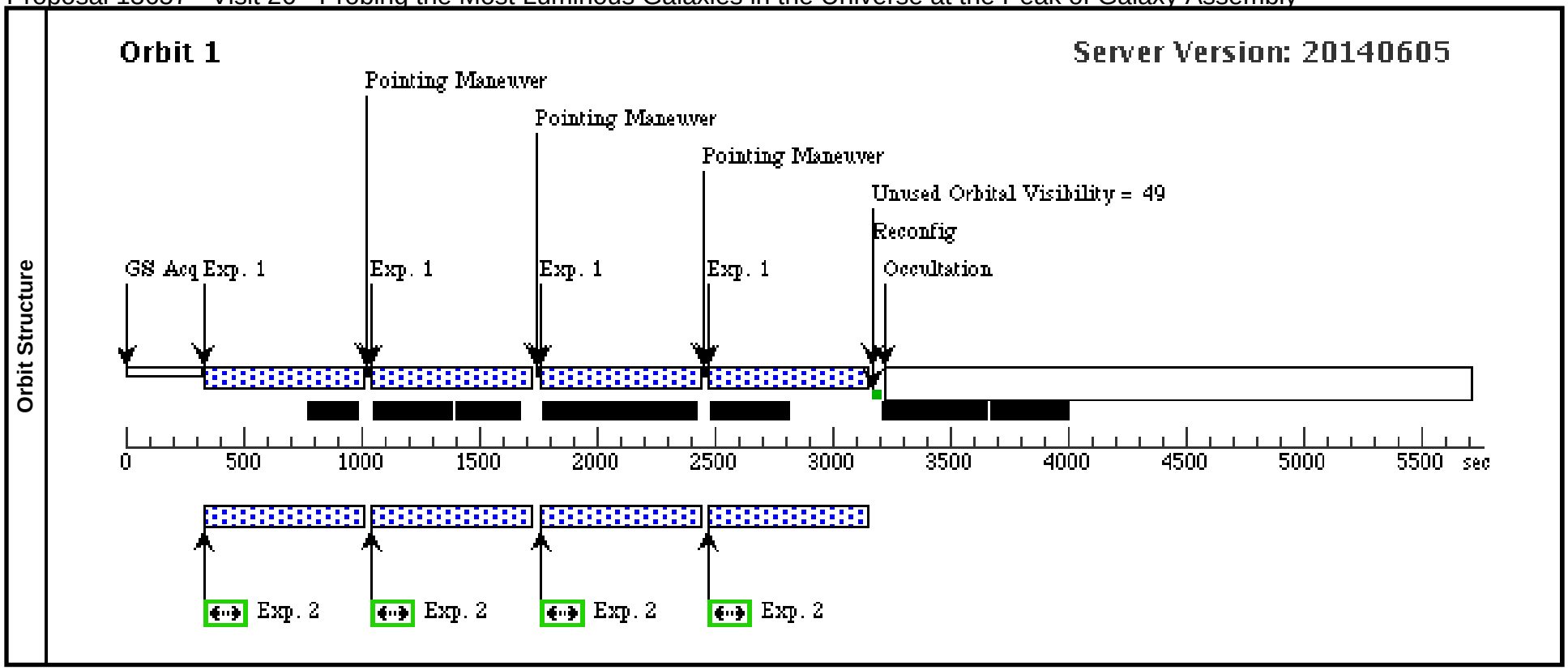
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(26)	HYLIRG-44	RA: 09 58 39.1770 (149.6632375d) Dec: +02 04 40.63 (2.07795d) Equinox: J2000		V=(?) K=21.6	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(26) HYLIRG-44	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=14; SAMP-SEQ=SPARS50		Pattern 1, Exps 1-2 in Visit 26 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 26	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2		ANY	ACS/WFC, ACCUM, WFC	F606W			Pattern 1, Exps 1-2 in Visit 26 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 26	600 Secs (2146 Secs) *[==>475.0 Secs (Pattern 1)]* *[==>557.0 Secs (Pattern 2)]* *[==>557.0 Secs (Pattern 3)]* *[==>557.0 Secs (Pattern 4)]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20140605
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Unused Orbital Visibility = 49
Reconfig
GS Acq
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec
Exp. 2
Exp. 2
Exp. 2
Exp. 2

Visit

Proposal 13657, Visit 27, implementation Wed Oct 15 01:03:07 GMT 2014

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR, ACS/WFC

Special Requirements: (none)

Patterns

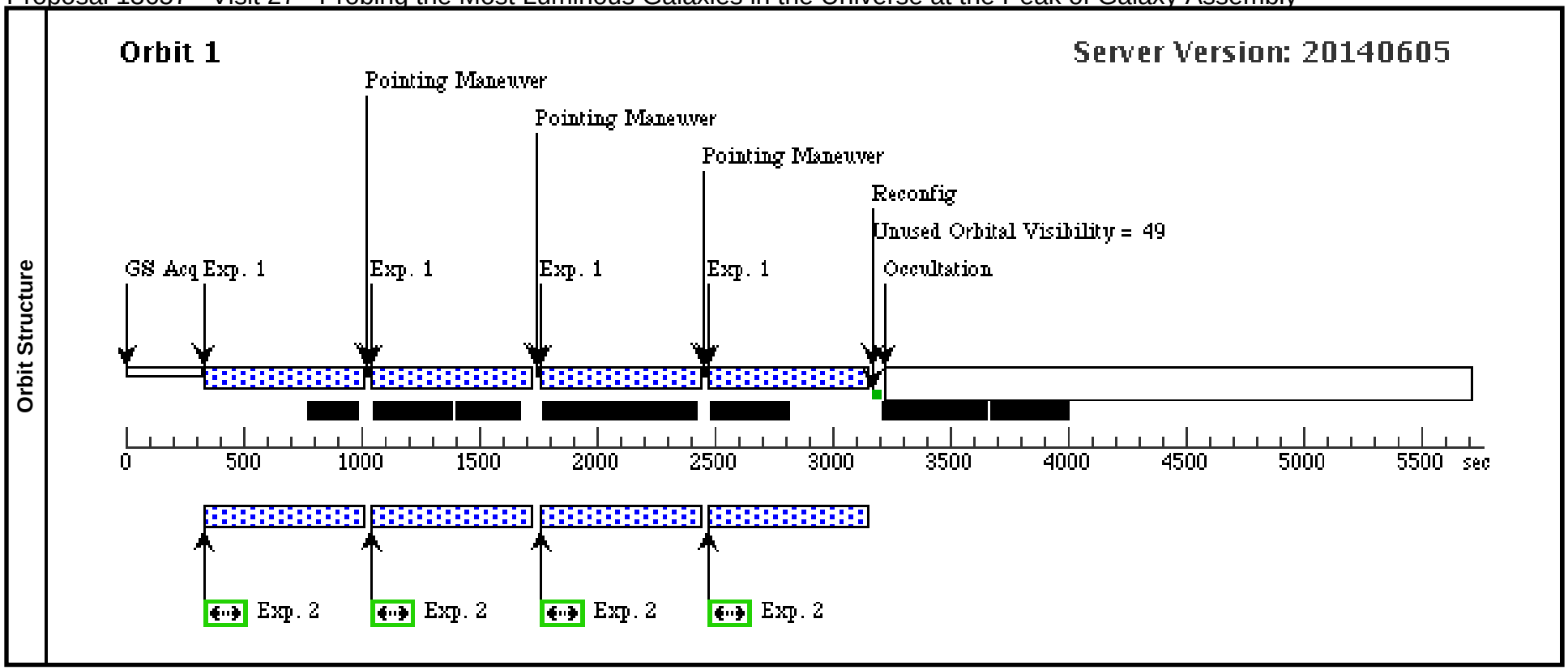
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(27)	HYLIRG-45	RA: 09 59 26.7810 (149.8615875d) Dec: +01 50 53.37 (1.84816d) Equinox: J2000		V=(?) K=19.8	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(27) HYLIRG-45	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=14; SAMP-SEQ=SPARS50	GS ACQ SCENARIO BASE1B3	Pattern 1, Exps 1-2 in Visit 27 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 27	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2		ANY	ACS/WFC, ACCUM, WFC	F606W			Pattern 1, Exps 1-2 in Visit 27 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 27	600 Secs (2146 Secs) *[==>475.0 Secs (Pattern 1)]* *[==>557.0 Secs (Pattern 2)]* *[==>557.0 Secs (Pattern 3)]* *[==>557.0 Secs (Pattern 4)]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20140605
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Reconfig
Unused Orbital Visibility = 49
GS Acq
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec
Exp. 2
Exp. 2
Exp. 2
Exp. 2

Visit

Proposal 13657, Visit 28, implementation Wed Oct 15 01:03:07 GMT 2014

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR, ACS/WFC

Special Requirements: (none)

Patterns

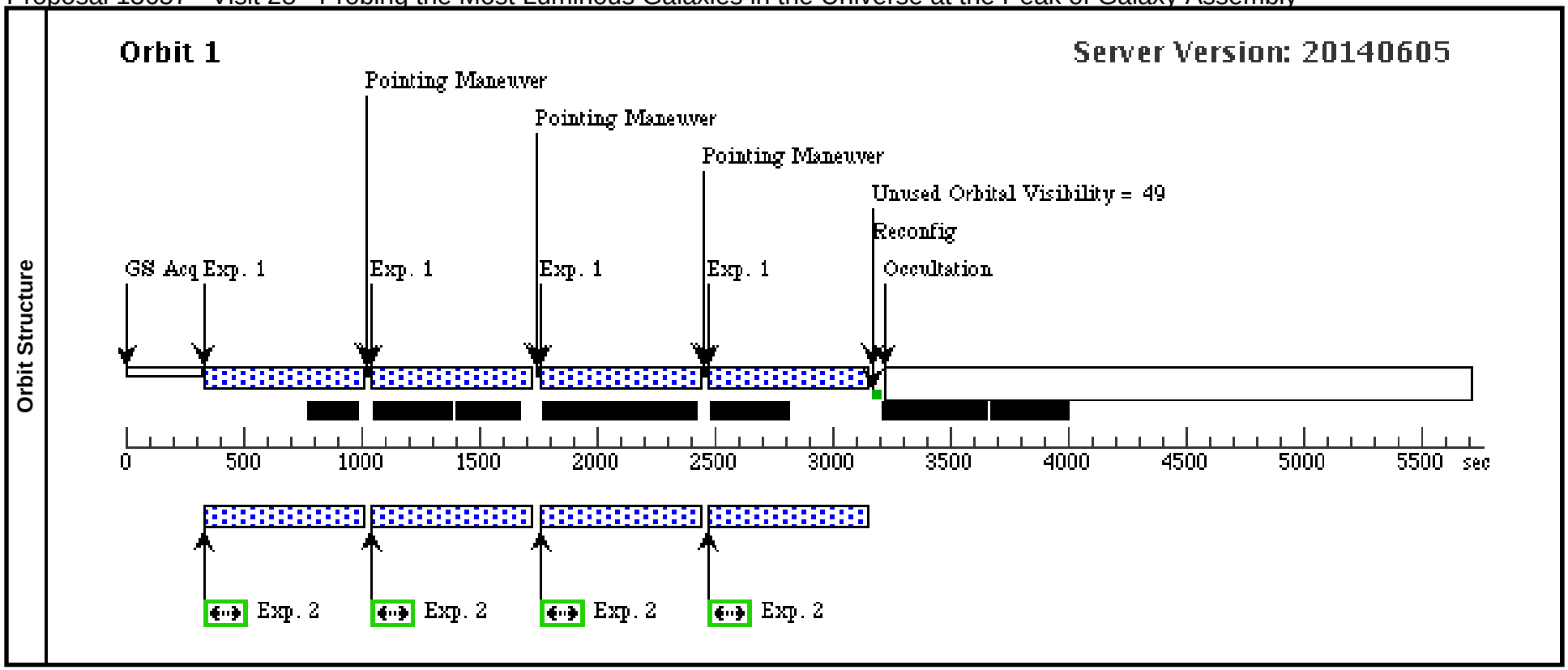
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(28)	HYLIRG-46	RA: 10 01 19.3950 (150.3308125d) Dec: +02 10 7.64 (2.16879d) Equinox: J2000		V=(?) K=20.1	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(28) HYLIRG-46	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=14; SAMP-SEQ=SPARS50		Pattern 1, Exps 1-2 in Visit 28 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 28	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2		ANY	ACS/WFC, ACCUM, WFC	F606W			Pattern 1, Exps 1-2 in Visit 28 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 28	600 Secs (2146 Secs) *[==>475.0 Secs (Pattern 1)]* *[==>557.0 Secs (Pattern 2)]* *[==>557.0 Secs (Pattern 3)]* *[==>557.0 Secs (Pattern 4)]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20140605
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Unused Orbital Visibility = 49
Reconfig
GS Acq
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec
Exp. 2
Exp. 2
Exp. 2
Exp. 2

Visit

Proposal 13657, Visit 29, implementation Wed Oct 15 01:03:07 GMT 2014

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR, ACS/WFC

Special Requirements: ORIENT 35D TO 55 D

Patterns

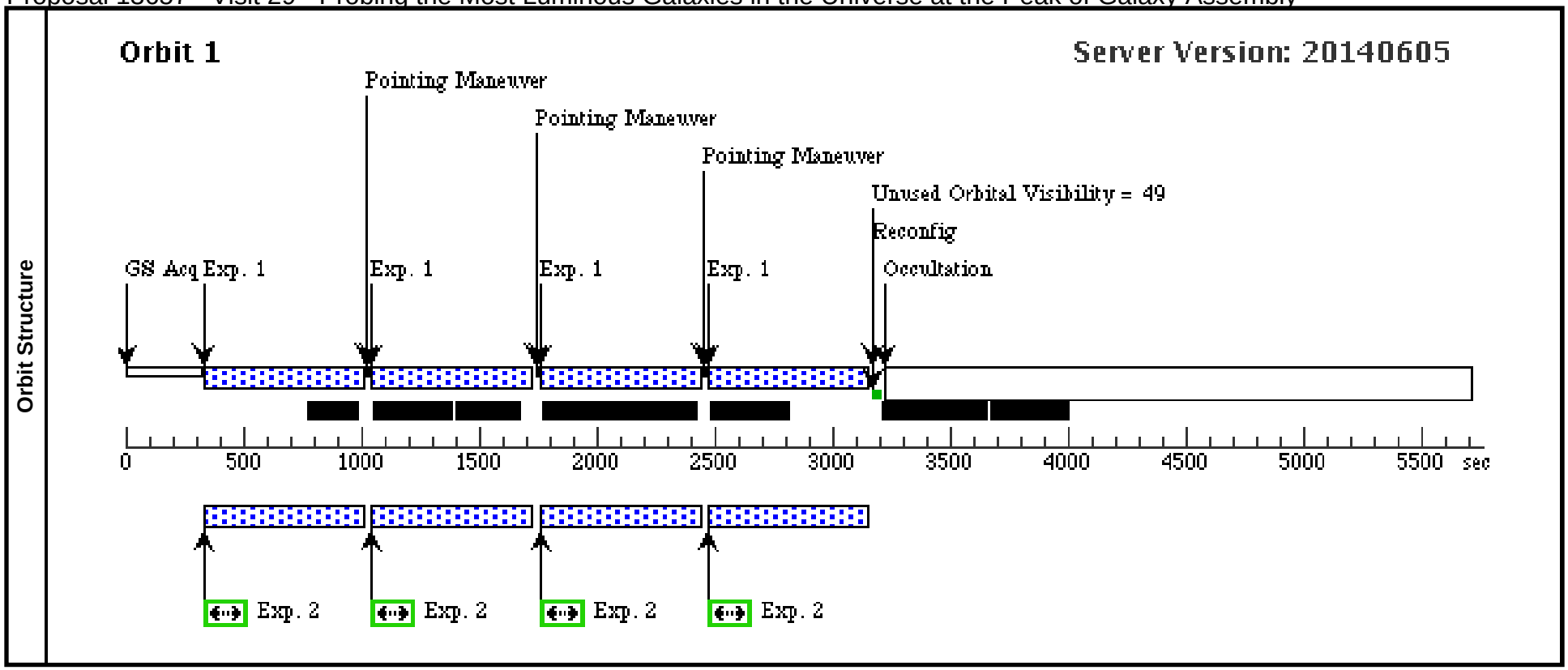
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(29)	HYLIRG-47	RA: 09 59 13.9290 (149.8080375d) Dec: +02 29 31.01 (2.49195d) Equinox: J2000		V=(?) K=21.5	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(29) HYLIRG-47	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=14; SAMP-SEQ=SPARS50		Pattern 1, Exps 1-2 in Visit 29 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 29	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2		ANY	ACS/WFC, ACCUM, WFC	F606W			Pattern 1, Exps 1-2 in Visit 29 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 29	600 Secs (2146 Secs) *[==>475.0 Secs (Pattern 1)]* *[==>557.0 Secs (Pattern 2)]* *[==>557.0 Secs (Pattern 3)]* *[==>557.0 Secs (Pattern 4)]*	***[1]***


Orbit Structure
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Server Version: 20140605
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Unused Orbital Visibility = 49
Reconfig
GS Acq
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Occultation
0
500
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1500
2000
2500
3000
3500
4000
4500
5000
5500
sec
Exp. 2
Exp. 2
Exp. 2
Exp. 2

Visit

Proposal 13657, Visit 30, implementation Wed Oct 15 01:03:07 GMT 2014

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR, ACS/WFC

Special Requirements: (none)

Patterns

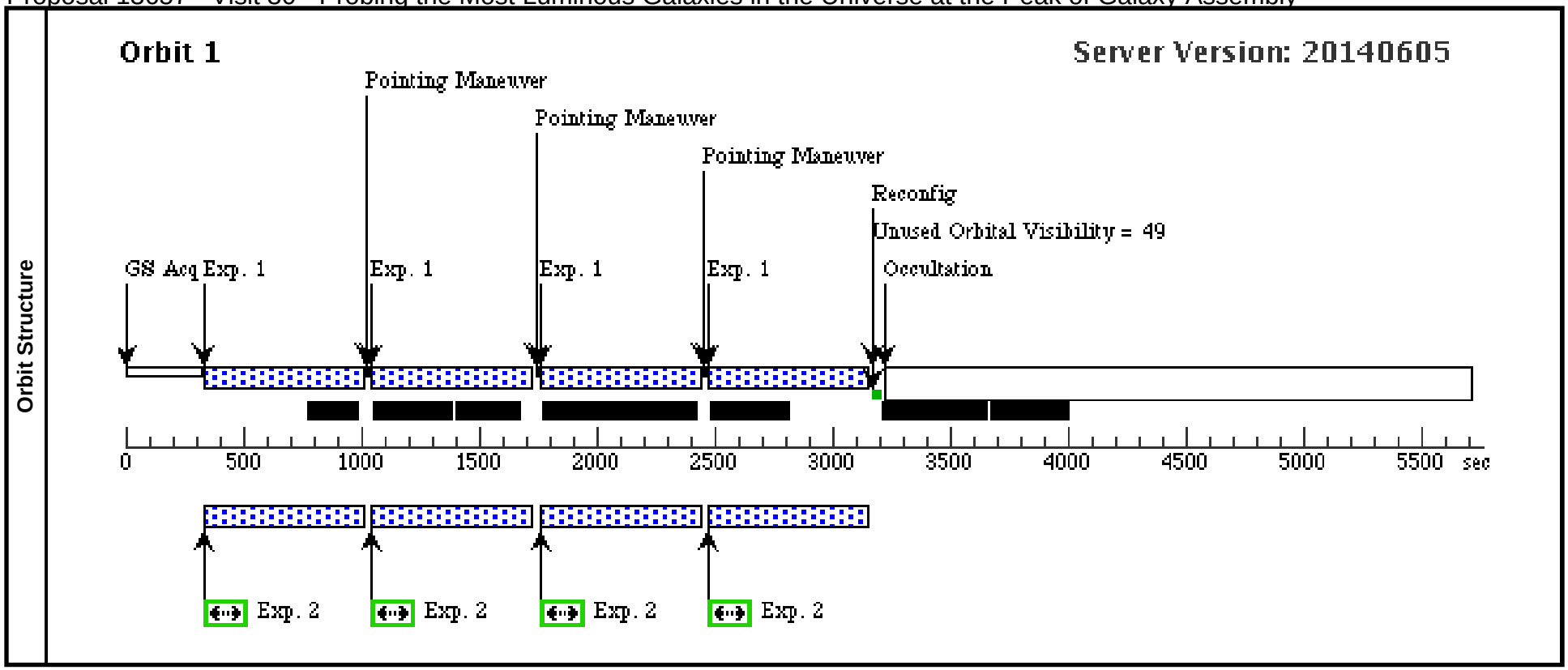
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(30)	HYLIRG-48	RA: 10 00 7.3670 (150.0306958d) Dec: +02 13 58.95 (2.23304d) Equinox: J2000		V=(?) K=23.1	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(30) HYLIRG-48	WFC3/IR, MULTIACCUM, IR-FIX	F160W	NSAMP=14; SAMP-SEQ=SPARS50		Pattern 1, Exps 1-2 in Visit 30 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 30	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2		ANY	ACS/WFC, ACCUM, WFC	F606W			Pattern 1, Exps 1-2 in Visit 30 (1) Prime + Parallel Group 1-2 in Pattern 1, Exps 1-2 in Visit 30	600 Secs (2146 Secs) *[==>475.0 Secs (Pattern 1)]* *[==>557.0 Secs (Pattern 2)]* *[==>557.0 Secs (Pattern 3)]* *[==>557.0 Secs (Pattern 4)]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20140605
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Reconfig
Unused Orbital Visibility = 49
GS Acq
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Occultation
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500
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2000
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3500
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4500
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sec
Exp. 2
Exp. 2
Exp. 2
Exp. 2