13842 - Testing the Youth and Transition Object Status of FeLoBAL Quasars

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) SDSSJ030000.57+004828.0	WFC3/IR	1	21-Jul-2014 21:10:09.0	yes
02	(2) SDSSJ080957.38+181804.4	WFC3/IR	1	21-Jul-2014 21:10:11.0	yes
03	(3) SDSSJ102036.09+602339.0	WFC3/IR	1	21-Jul-2014 21:10:13.0	yes
04	(4) SDSSJ112526.12+002901.3	WFC3/IR	1	21-Jul-2014 21:10:14.0	yes
05	(5) SDSSJ112828.31+011337.9	WFC3/IR	1	21-Jul-2014 21:10:16.0	yes
06	(6) SDSSJ123103.71+392903.6	WFC3/IR	1	21-Jul-2014 21:10:17.0	yes
07	(7) SDSSJ134951.94+382334.1	WFC3/IR	1	21-Jul-2014 21:10:18.0	yes
08	(8) SDSSJ140025.53-012957.0	WFC3/IR	1	21-Jul-2014 21:10:20.0	yes
09	(9) SDSSJ144800.14+404311.7	WFC3/IR	1	21-Jul-2014 21:10:21.0	yes
10	(10) SDSSJ152350.42+391405.2	WFC3/IR	1	21-Jul-2014 21:10:23.0	yes

10 Total Orbits Used

ABSTRACT

A popular paradigm for massive galaxy evolution has emerged in which mergers of gas-rich galaxies trigger both intense bursts of star formation and the growth of a central super-massive black hole. The transition from dusty starburst (e.g., ULIRG) to visibly luminous quasar is marked by a blowout of gas and dust that shuts down the star formation and unveils the central quasar. FeLoBAL quasars (with extreme low-ionization Broad Absorption Line outflows) are candidate young objects in the transition phase based on their dust reddened colors, large infrared luminosities (indicating ULIRG-like star formation rates), and exceptionally powerful outflows that appear strong enough to a drive galaxy-wide blowout.

We propose to test the youth and transition object status of FeLoBAL quasars by comparing their host galaxy morphologies and merger signatures to matched samples of 1) normal blue non-BAL quasars (that "should" be older), and 2) non-AGN galaxies at the same redshift and stellar mass. We will specifically obtain WFC3/IR F160W images of 10 FeLoBALs at redshift z ~ 0.8, supplemented by equivalent imaging data for normal blue quasars in our own cycle 21 program (PI Villforth) and for non-AGN galaxies from archival HST programs such as CANDELS. This will be the first HST imaging survey of FeLoBAL quasars and the first HST study of any transition object candidates to use matched control samples. Our results will uniquely test i) the alleged youth of FeLoBALs compared to normal quasars and non-AGN galaxies based on their merger status, and ii) the significance of mergers/interactions for quasar triggering based on comparisons to an equivalent non-AGN galaxy sample.

OBSERVING DESCRIPTION

We will obtain new WFC3/IR F160W images for 10 FeLoBAL and use similar archival data for comparisons. The F160W images (at ~8800A in the rest frame) will measure the host galaxy morphologies and merger/interaction status with minimal contamination from the central quasar point source. We request one orbit per object, for a total of 10 orbits. All of our observations will employ a 9-point dither pattern to improve the spatial resolution and remove detector anomalies. The individual exposures will be ~250 sec in order to maximize use of the visibility time.

One important consideration is saturation of the quasar point source causing persistence of this point source in subsequent exposures. Published H magnitudes of some of our quasars (Farrah et al. 2012) in the WFC3/IR ETC indicate that these sources will start to saturate the detector after 50-200 seconds in the F160W exposures. We will circumvent this problem in our F160W data by taking multiple non-destructive reads during each ~250 sec exposure. The log/linear interval sequence defined by STEP50 (Table 7.8 in the WFC3 Instrument Handbook) will yield 6-8 detector reads prior to PSF saturation and a total of 10 reads during our ~250 sec exposures. To mitigate the persistence issue, we will use a large dither throw (several

arcsecs) to move the persistent quasar image away from the host galaxy in the subsequent exposure. The resulting dither pattern will still involve the standard 1/2-pixel subsampling, but we will add integer numbers of pixels to those shifts to extend the throw to several arcseconds.

Another consideration is subtraction of the quasar point spread function (PSF). We elect not to devote valuable HST time to our own observations of PSF stars. Such observations would have only marginal value anyway because of focus changes in the telescope, unless we made the very costly choice to observe a PSF star with every visit to our targets. Our experience with F160W images from CANDELS and our ongoing cycle 21 program shows that a sufficient economical approach is to use stars that might lie accidently in our quasars fields, as well as archival stellar images, to construct PSFs that are a hybrid between these empirical ones and synthetic PSF from.

Visit

Proposal 13842, Visit 01, implementation Tue Jul 22 01:10:25 GMT 2014

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR

Special Requirements: (none)

Diagnostics

(Visit 01) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Patterns

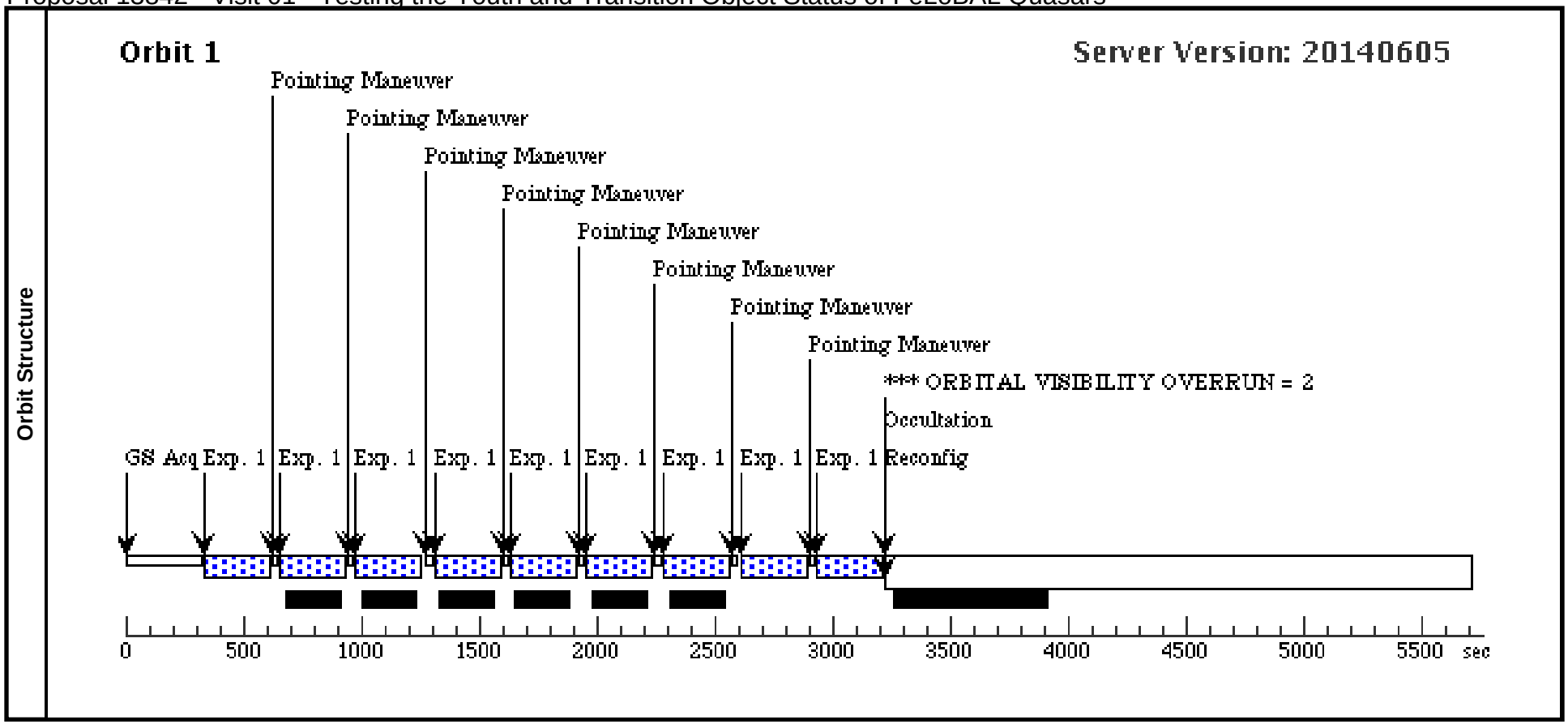
#	Primary Pattern		Secondary Pattern		Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BLOB Purpose=DITHER Number Of Points=3 Point Spacing=12.183 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.859 Angle Between Sides= Center Pattern=true	Pattern Type=WFC3-IR-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=12.605 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=131.788 Angle Between Sides= Center Pattern=false	(1)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	SDSSJ030000.57+004828.0	RA: 03 00 0.5700 (45.0023750d) Dec: +00 48 28.00 (.80778d) Equinox: J2000	Redshift: 0.89	V=18.29	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(1) SDSSJ030000.57+004828.0	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=10; SAMP-SEQ=STEP50		Pattern 1, Exps 1-1 in Visit 01 (1)	249.23203 Secs (2243.088 Secs) *[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 1,3)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 2,3)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 3,3)]*	***[1]***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Server Version: 20140605
Pointing Maneuver
Pointing Maneuver
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Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
*** ORBITAL VISIBILITY OVERRUN = 2
Occultation
GS Acq
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Reconfig
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 13842, Visit 02, implementation Tue Jul 22 01:10:25 GMT 2014

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR

Special Requirements: (none)

Patterns

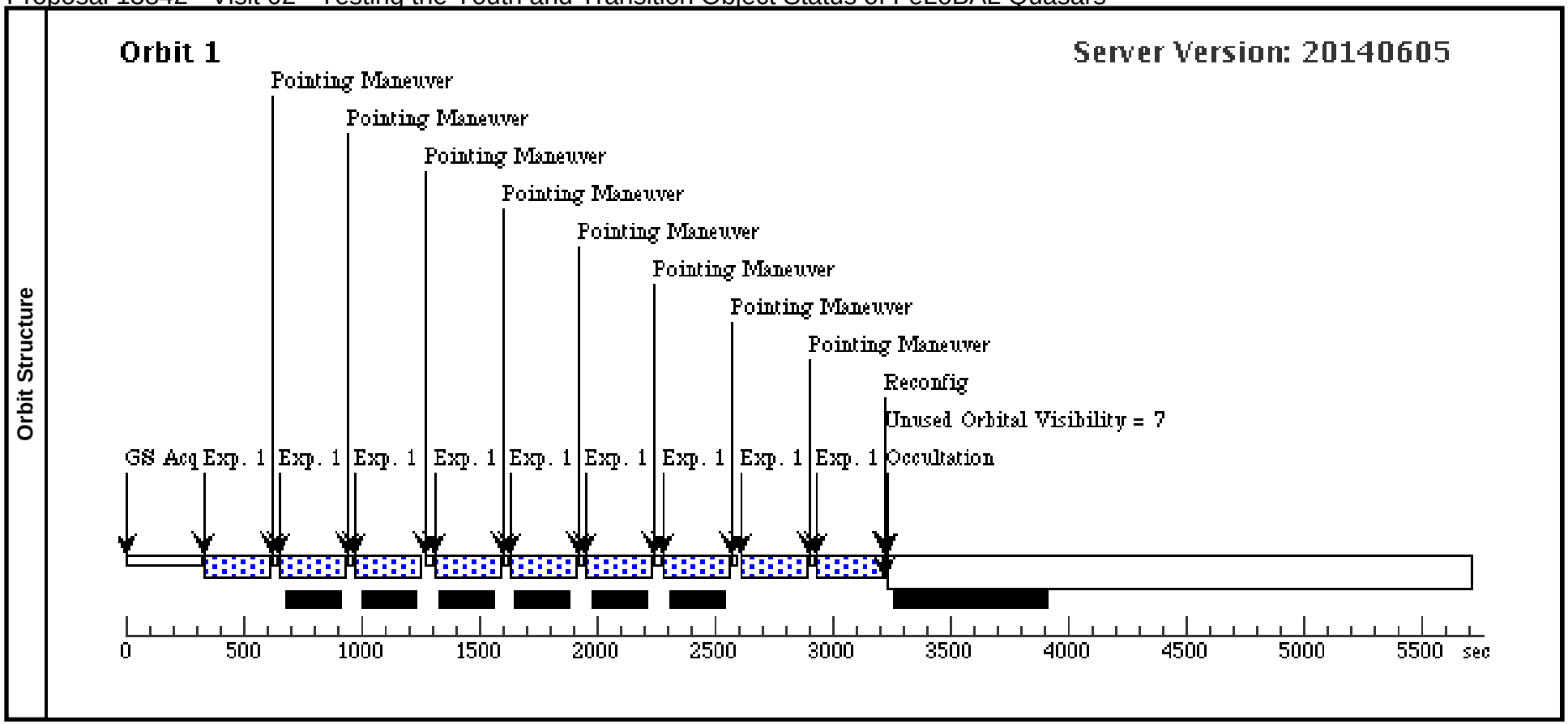
#	Primary Pattern		Secondary Pattern		Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BLOB Purpose=DITHER Number Of Points=3 Point Spacing=12.183 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.859 Angle Between Sides= Center Pattern=true	Pattern Type=WFC3-IR-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=12.605 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=131.788 Angle Between Sides= Center Pattern=false	(1)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	SDSSJ080957.38+181804.4	RA: 08 09 57.3800 (122.4890833d) Dec: +18 18 4.40 (18.30122d) Equinox: J2000	Redshift: 0.97	V=18.06	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(2) SDSSJ080957.38+181804.4	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=10; SAMP-SEQ=STEP50		Pattern 1, Exps 1-1 in Visit 02 (1)	249.23203 Secs (2243.088 Secs) *[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 1,3)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 2,3)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 3,3)]*	***[1]***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Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Reconfig
Unused Orbital Visibility = 7
GS Acq
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 13842, Visit 03, implementation Tue Jul 22 01:10:25 GMT 2014

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR

Special Requirements: (none)

Patterns

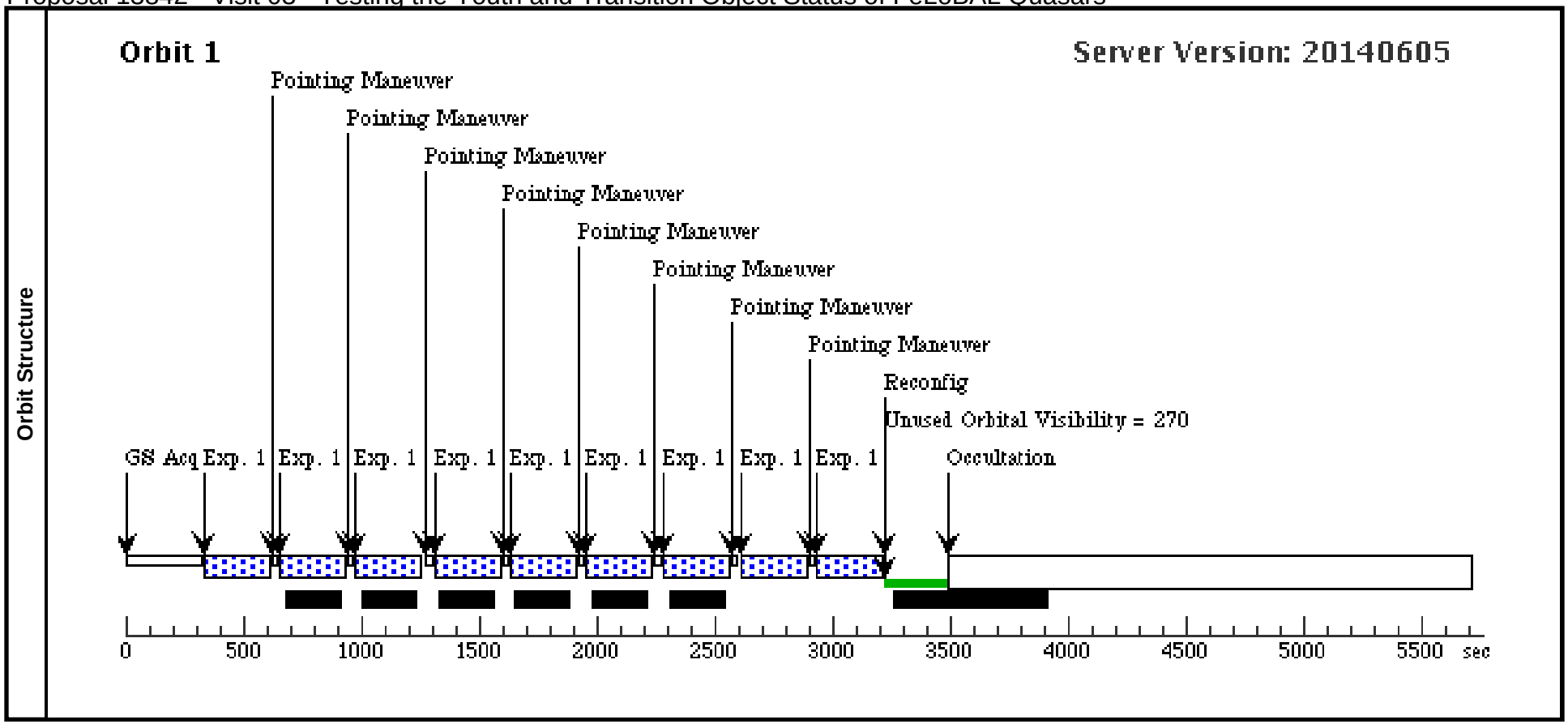
#	Primary Pattern		Secondary Pattern		Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BLOB Purpose=DITHER Number Of Points=3 Point Spacing=12.183 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.859 Angle Between Sides= Center Pattern=true	Pattern Type=WFC3-IR-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=12.605 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=131.788 Angle Between Sides= Center Pattern=false	(1)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	SDSSJ102036.09+602339.0	RA: 10 20 36.0900 (155.1503750d) Dec: +60 23 39.00 (60.39417d) Equinox: J2000	Redshift: 0.99	V=19.52	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(3) SDSSJ102036.09+602339.0	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=10; SAMP-SEQ=STEP50		Pattern 1, Exps 1-1 in Visit 03 (1)	249.23203 Secs (2243.088 Secs) *[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 1,3)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 2,3)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 3,3)]*	***[1]***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Pointing Maneuver
Reconfig
Unused Orbital Visibility = 270
GS Acq
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 13842, Visit 04, implementation Tue Jul 22 01:10:25 GMT 2014

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR

Special Requirements: (none)

Diagnostics

(Visit 04) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Patterns

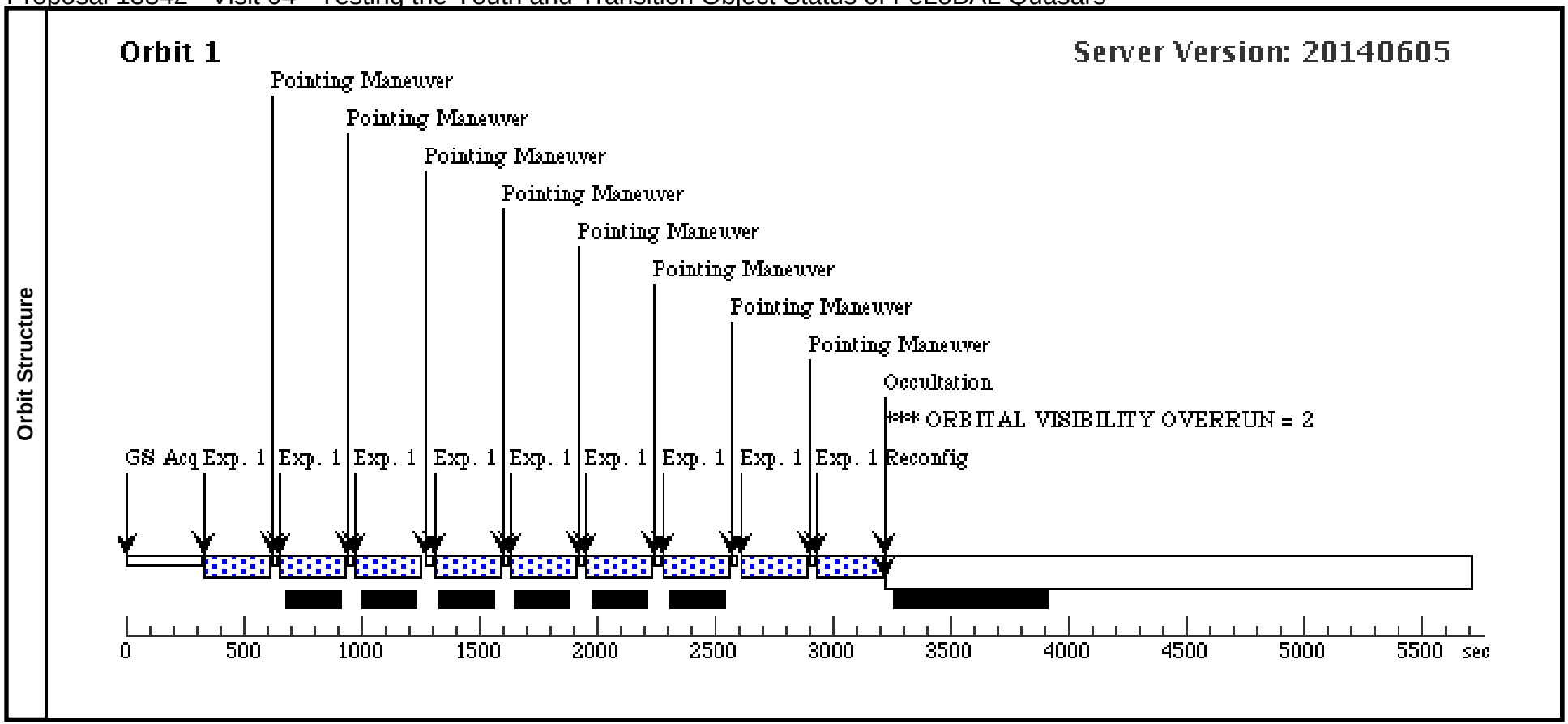
#	Primary Pattern		Secondary Pattern		Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BLOB Purpose=DITHER Number Of Points=3 Point Spacing=12.183 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.859 Angle Between Sides= Center Pattern=true	Pattern Type=WFC3-IR-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=12.605 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=131.788 Angle Between Sides= Center Pattern=false	(1)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	SDSSJ112526.12+002901.3	RA: 11 25 26.1200 (171.3588333d) Dec: +00 29 1.30 (.48369d) Equinox: J2000	Redshift: 0.87	V=19.15	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(4) SDSSJ112526.12+002901.3	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=10; SAMP-SEQ=STEP50		Pattern 1, Exps 1-1 in Visit 04 (1)	249.23203 Secs (2243.088 Secs) *[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 1,3)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 2,3)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 3,3)]*	***[1]***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Pointing Maneuver
Occultation
*** ORBITAL VISIBILITY OVERRUN = 2
GS Acq
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Reconfig
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Visit

Proposal 13842, Visit 05, implementation Tue Jul 22 01:10:25 GMT 2014

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR

Special Requirements: (none)

Diagnostics

(Visit 05) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Patterns

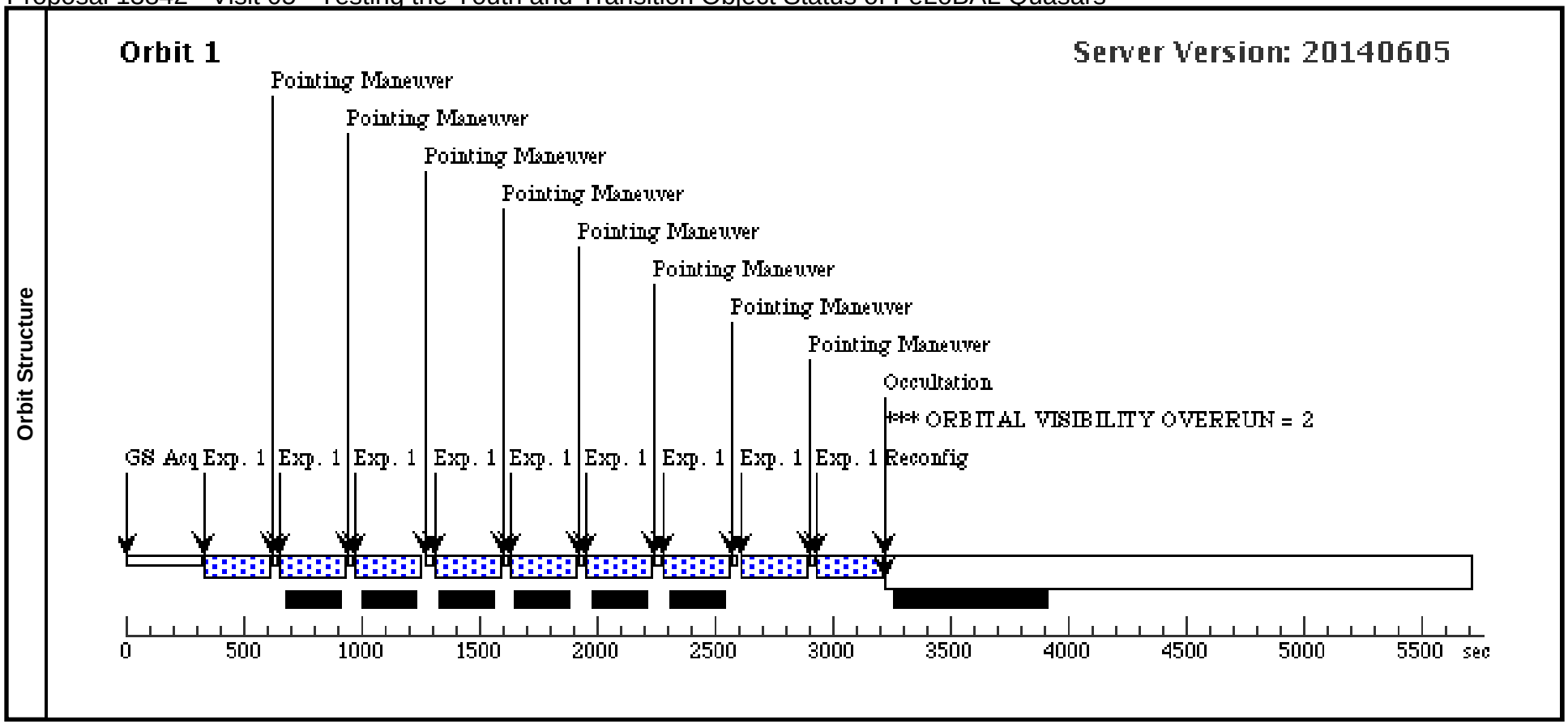
#	Primary Pattern		Secondary Pattern		Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BLOB Purpose=DITHER Number Of Points=3 Point Spacing=12.183 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.859 Angle Between Sides= Center Pattern=true	Pattern Type=WFC3-IR-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=12.605 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=131.788 Angle Between Sides= Center Pattern=false	(1)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	SDSSJ112828.31+011337.9	RA: 11 28 28.3100 (172.1179583d) Dec: +01 13 37.90 (1.22719d) Equinox: J2000	Redshift: 0.89	V=19.23	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(5) SDSSJ112828.31+011337.9	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=10; SAMP-SEQ=STEP50		Pattern 1, Exps 1-1 in Visit 05 (1)	249.23203 Secs (2243.088 Secs) *[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 1,3)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 2,3)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 3,3)]*	***[1]***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Pointing Maneuver
Pointing Maneuver
Occultation
*** ORBITAL VISIBILITY OVERRUN = 2
GS Acq
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Reconfig
0
500
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1500
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sec

Visit

Proposal 13842, Visit 06, implementation Tue Jul 22 01:10:25 GMT 2014

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR

Special Requirements: (none)

Patterns

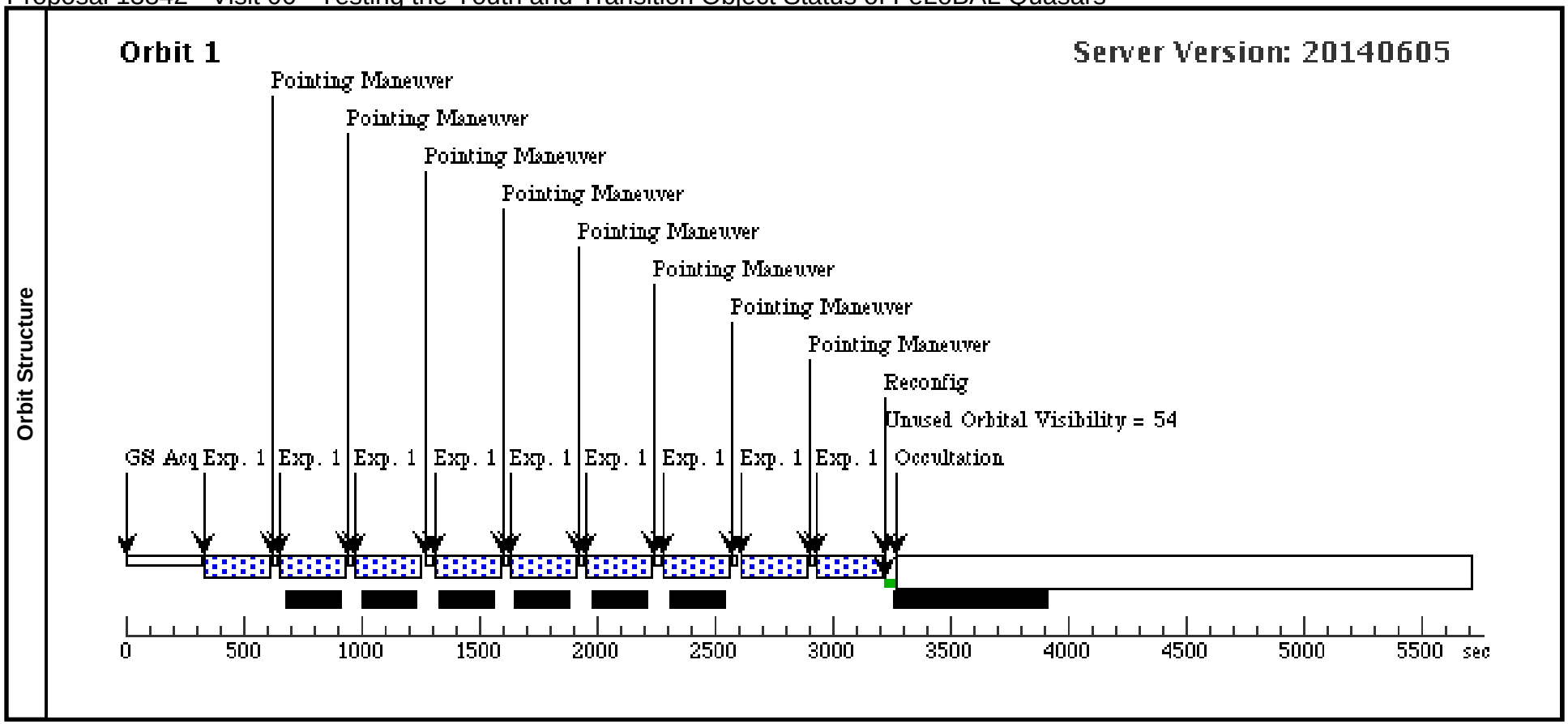
#	Primary Pattern		Secondary Pattern		Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BLOB Purpose=DITHER Number Of Points=3 Point Spacing=12.183 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.859 Angle Between Sides= Center Pattern=true	Pattern Type=WFC3-IR-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=12.605 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=131.788 Angle Between Sides= Center Pattern=false	(1)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(6)	SDSSJ123103.71+392903.6	RA: 12 31 3.7100 (187.7654583d) Dec: +39 29 3.60 (39.48433d) Equinox: J2000	Redshift: 1.00	V=19.54	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(6) SDSSJ123103.71+392903.6	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=10; SAMP-SEQ=STEP50		Pattern 1, Exps 1-1 in Visit 06 (1)	249.23203 Secs (2243.088 Secs) *[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 1,3)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 2,3)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 3,3)]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20140605
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Pointing Maneuver
Pointing Maneuver
Reconfig
Unused Orbital Visibility = 54
GS Acq
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Occultation
0
500
1000
1500
2000
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4500
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5500
sec

Visit

Proposal 13842, Visit 07, implementation Tue Jul 22 01:10:25 GMT 2014

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR

Special Requirements: (none)

Patterns

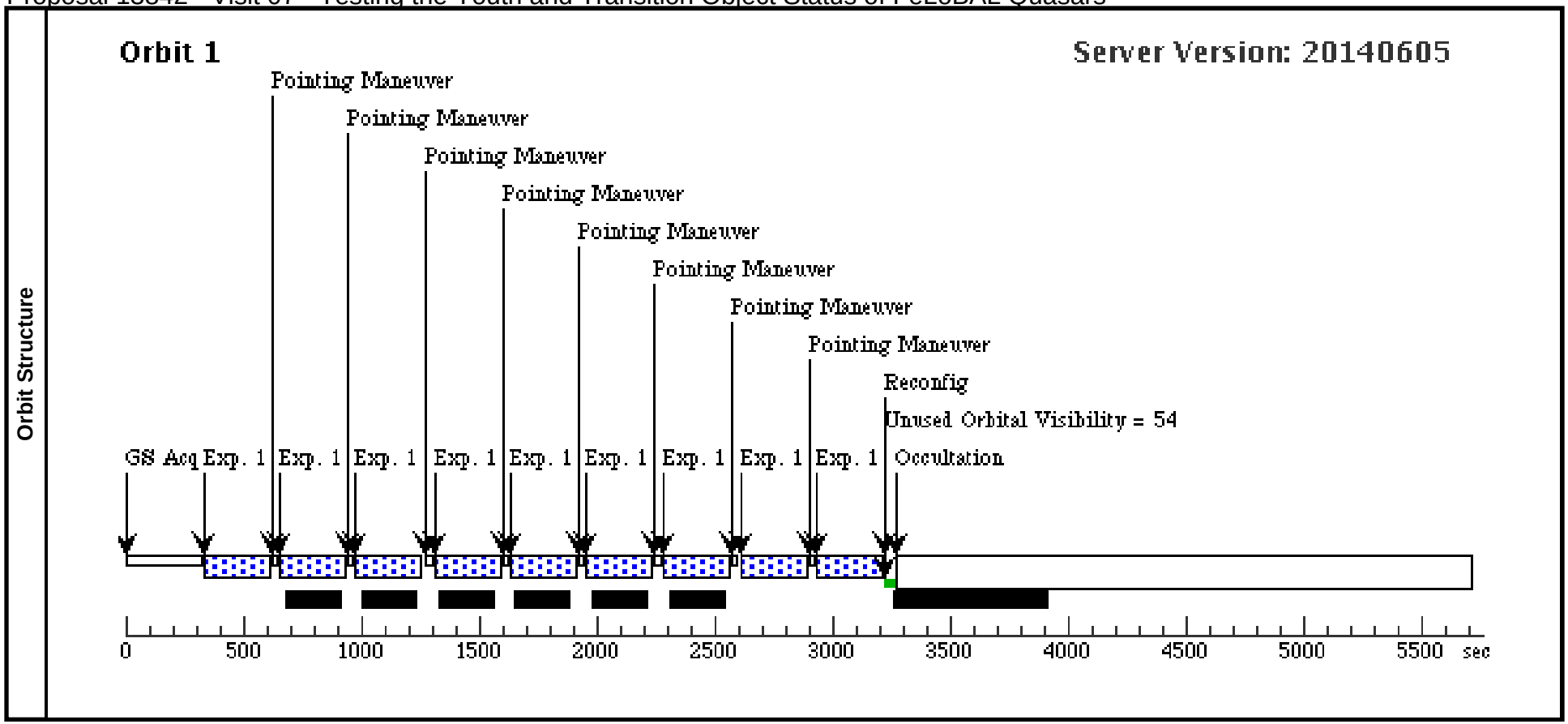
#	Primary Pattern		Secondary Pattern		Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BLOB Purpose=DITHER Number Of Points=3 Point Spacing=12.183 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.859 Angle Between Sides= Center Pattern=true	Pattern Type=WFC3-IR-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=12.605 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=131.788 Angle Between Sides= Center Pattern=false	(1)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(7)	SDSSJ134951.94+382334.1	RA: 13 49 51.9400 (207.4664167d) Dec: +38 23 34.10 (38.39281d) Equinox: J2000	Redshift: 1.09	V=20.18	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(7) SDSSJ134951.94+382334.1	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=10; SAMP-SEQ=STEP50	GS ACQ SCENARIO BASE1B3	Pattern 1, Exps 1-1 in Visit 07 (1)	249.23203 Secs (2243.088 Secs) *[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 1,3)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 2,3)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 3,3)]*	***[1]***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Server Version: 20140605
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Reconfig
Unused Orbital Visibility = 54
GS Acq
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 13842, Visit 08, implementation Tue Jul 22 01:10:26 GMT 2014

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR

Special Requirements: (none)

Diagnostics

(Visit 08) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Patterns

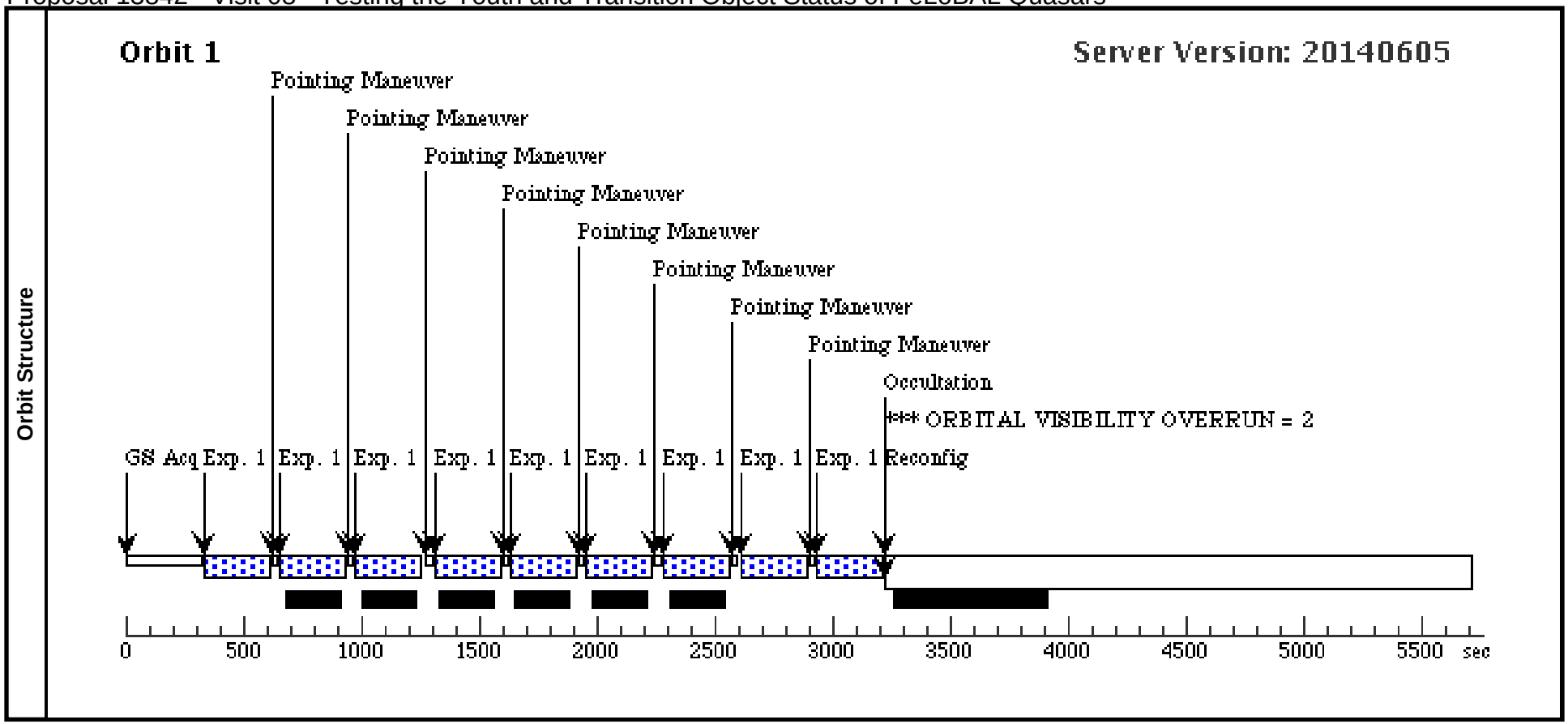
#	Primary Pattern		Secondary Pattern		Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BLOB Purpose=DITHER Number Of Points=3 Point Spacing=12.183 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.859 Angle Between Sides= Center Pattern=true	Pattern Type=WFC3-IR-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=12.605 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=131.788 Angle Between Sides= Center Pattern=false	(1)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(8)	SDSSJ140025.53-012957.0	RA: 14 00 25.5300 (210.1063750d) Dec: -01 29 57.00 (-1.49917d) Equinox: J2000	Redshift: 0.58	V=18.73	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(8) SDSSJ140025.53-012957.0	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=10; SAMP-SEQ=STEP50		Pattern 1, Exps 1-1 in Visit 08 (1)	249.23203 Secs (2243.088 Secs) *[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 1,3)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 2,3)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 3,3)]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20140605
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Occultation
*** ORBITAL VISIBILITY OVERRUN = 2
GS Acq
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Reconfig
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 13842, Visit 09, implementation Tue Jul 22 01:10:26 GMT 2014

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR

Special Requirements: (none)

Patterns

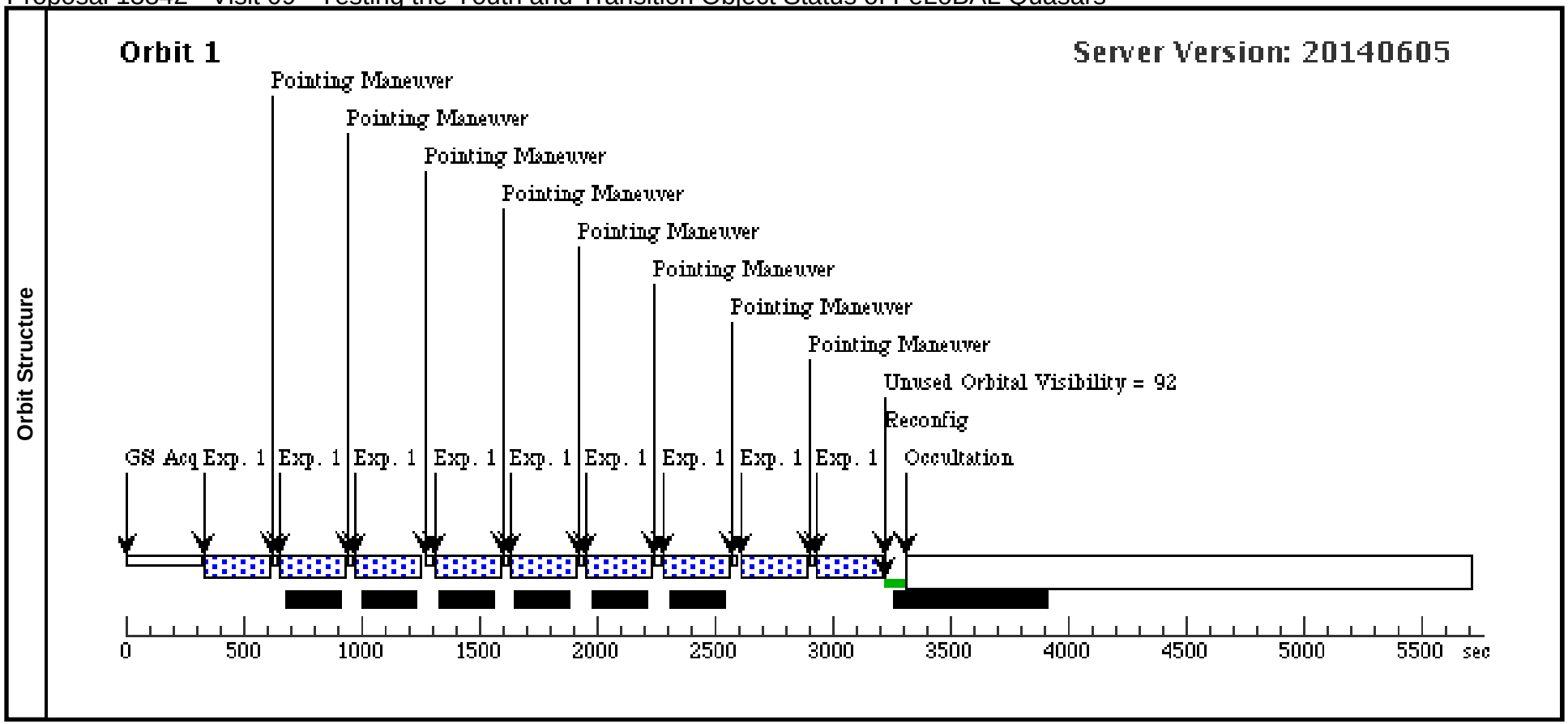
#	Primary Pattern		Secondary Pattern		Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BLOB Purpose=DITHER Number Of Points=3 Point Spacing=12.183 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.859 Angle Between Sides= Center Pattern=true	Pattern Type=WFC3-IR-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=12.605 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=131.788 Angle Between Sides= Center Pattern=false	(1)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(9)	SDSSJ144800.14+404311.7	RA: 14 48 0.1400 (222.0005833d) Dec: +40 43 11.70 (40.71992d) Equinox: J2000	Redshift: 0.80	V=18.09	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(9) SDSSJ144800.14+404311.7	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=10; SAMP-SEQ=STEP50		Pattern 1, Exps 1-1 in Visit 09 (1)	249.23203 Secs (2243.088 Secs) *[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 1,3)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 2,3)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 3,3)]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20140605
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Unused Orbital Visibility = 92
Reconfig
GS Acq
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 13842, Visit 10, implementation Tue Jul 22 01:10:26 GMT 2014

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR

Special Requirements: (none)

Patterns

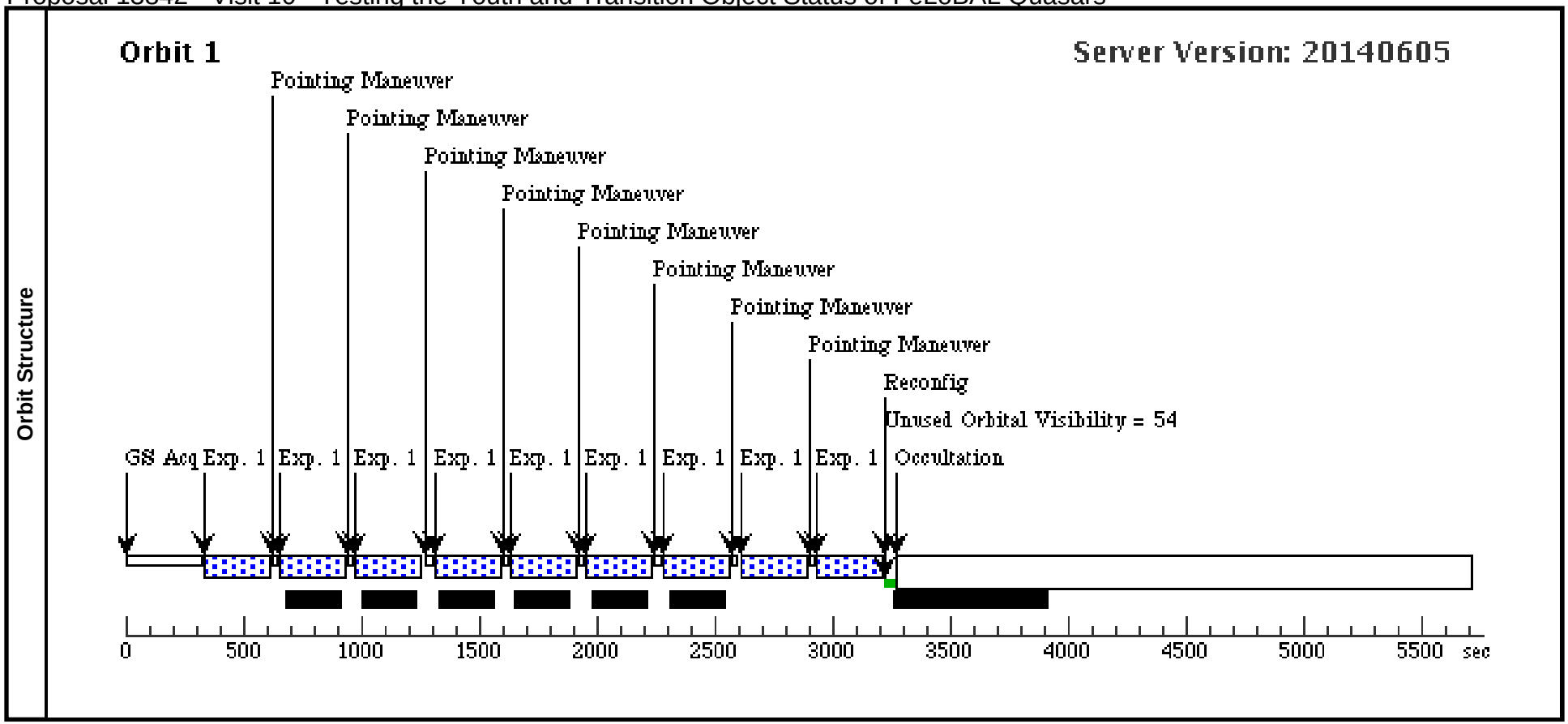
#	Primary Pattern		Secondary Pattern		Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BLOB Purpose=DITHER Number Of Points=3 Point Spacing=12.183 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.859 Angle Between Sides= Center Pattern=true	Pattern Type=WFC3-IR-DITHER-LINE-3PT Purpose=DITHER Number Of Points=3 Point Spacing=12.605 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=131.788 Angle Between Sides= Center Pattern=false	(1)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(10)	SDSSJ152350.42+391405.2	RA: 15 23 50.4200 (230.9600833d) Dec: +39 14 5.20 (39.23478d) Equinox: J2000	Redshift: 0.66	V=17.24	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(10) SDSSJ152350.42+391405.2	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=10; SAMP-SEQ=STEP50		Pattern 1, Exps 1-1 in Visit 10 (1)	249.23203 Secs (2243.088 Secs) *[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 1,3)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]* *[==>(Pattern 2,3)]* *[==>(Pattern 3,1)]* *[==>(Pattern 3,2)]* *[==>(Pattern 3,3)]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20140605
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Reconfig
Unused Orbital Visibility = 54
GS Acq
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec