14620 - QSO and Galaxy Growth Probed by Faint Lya-Emitters

Cycle: 24, 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	(2) Q2343-CENTER	WFC3/IR	1	09-Nov-2016 11:26:36.0	yes
02	(2) Q2343-CENTER	WFC3/IR	1	09-Nov-2016 11:26:37.0	yes
03	(2) Q2343-CENTER	WFC3/IR	1	09-Nov-2016 11:26:38.0	yes
04	(2) Q2343-CENTER	WFC3/IR	1	09-Nov-2016 11:26:39.0	yes
05	(2) Q2343-CENTER	WFC3/IR	1	09-Nov-2016 11:26:39.0	yes
06	(2) Q2343-CENTER	WFC3/IR	1	09-Nov-2016 11:26:40.0	yes
07	(2) Q2343-CENTER	WFC3/IR	1	09-Nov-2016 11:26:41.0	yes
08	(2) Q2343-CENTER	WFC3/IR	1	09-Nov-2016 11:26:41.0	yes
09	(2) Q2343-CENTER	WFC3/IR	1	09-Nov-2016 11:26:42.0	yes
10	(2) Q2343-CENTER	WFC3/IR	1	09-Nov-2016 11:26:43.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
11	(2) Q2343-CENTER	WFC3/IR	1	09-Nov-2016 11:26:43.0	yes
12	(2) Q2343-CENTER	WFC3/IR	1	09-Nov-2016 11:26:44.0	yes
13	(2) Q2343-CENTER	WFC3/IR	1	09-Nov-2016 11:26:44.0	yes
14	(2) Q2343-CENTER	WFC3/IR	1	09-Nov-2016 11:26:45.0	yes
15	(2) Q2343-CENTER	WFC3/IR	1	09-Nov-2016 11:26:46.0	yes
16	(2) Q2343-CENTER	WFC3/IR	1	09-Nov-2016 11:26:46.0	yes
17	(2) Q2343-CENTER	WFC3/IR	1	09-Nov-2016 11:26:47.0	yes
18	(2) Q2343-CENTER	WFC3/IR	1	09-Nov-2016 11:26:48.0	yes
19	(2) Q2343-CENTER	WFC3/IR	1	09-Nov-2016 11:26:48.0	yes
20	(2) Q2343-CENTER	WFC3/IR	1	09-Nov-2016 11:26:49.0	yes

20 Total Orbits Used

ABSTRACT

We propose deep imaging of the stellar continuum of 84 faint Lyman-alpha-emitting galaxies (LAEs) surrounding a hyperluminous QSO at z=2.57. We have shown that these QSOs boost the Lyman-alpha emission of their nearby galaxies (a process known as fluorescence), allowing the direct characterization of the QSO ionizing field and the potential detection of galaxies independently of their stellar luminosities. However, the relative contributions of stellar and fluorescent Lyman-alpha emission are currently masked by the poorly-constrained stellar populations of these faint galaxies (R ~ 27; log(M*) ~ 8-9.5; L ~ 0.1 L*). Unlike typical broadband filters, the WFC3 F140W passband samples the stellar continuum at this redshift with minimal contamination by bright emission lines, and these wide-field images will allow us to map the stellar contribution to total luminosity out to large QSO-centric radii. Faint LAEs also exhibit characteristics that vastly expand the parameter space of galaxies selected by continuum colors alone: LAEs have weaker outflowing winds, less optically-thick gas, and a higher escape fraction of UV photons than continuum-selected galaxies. Robust measurements of the stellar masses and sizes of these galaxies are essential for understanding the efficiency and scaling of stellar feedback, star formation, and ionizing photon emission at low galaxy masses, and their morphologies will reveal how this feedback affects galaxy-scale structures and the observed anisotropic distributions of escaping gas and photons. Comparison to 182 continuum-selected galaxies (z~2-3) in the same field will reveal these properties as a function of stellar mass and galaxy structure.

OBSERVING DESCRIPTION

We have proposed mosaiced imaging with the F140W filter, corresponding to rest-frame optical wavelengths ~4000 A at the typical redshift of our narrowband-selected LAEs (z = 2.57). Our objective is to obtain high-resolution images of the stellar continuum emission, so we request 4 dithered exposures at each pointing in order to maximize the sampling of the PSF and the resulting resolution. We have estimated that the typical LAE in our sample has an AB magnitude H ~ 26.5 by stacking ground-based images of individual objects based on the location of their detected Ly-alpha emission. Previous deep imaging with WFC3/F160W in portions of the KBSS fields demonstrates that the typical sizes of the LAEs are 0.1-0.8" in diameter. In order to measure morphologies, we desire to reach S/N > 5 per 0.2" square region (~5x5 pixels), which requires ~5500 seconds divided into 4 four dithered exposures according to the HST/WFC3 ETC. Our field has a visibility of 54 minutes per orbit, so we request two orbits per pointing to fulfill these requirements. This exposure time is sufficient to set a 3-sigma limit of 28.15 mag (AB) for undetected point sources.

We request a total of 10 pointings to obtain a mosaic covering the entire field, including 84 LAEs and 182 LBGs. This request stems from a desire to 1) sample the full range of QSO-centric projected radii and ionizing field strengths, and 2) capture a census of the diverse LAE sizes, stellar masses, and morphologies in order to correlate these quantities with parameters derived from spectra and ground-based imaging. These requirements set our total request of 20 orbits.

Visit

Proposal 14620, Tile Visit 01, scheduling Wed Nov 09 16:26:50 GMT 2016

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR

Special Requirements: ORIENT 120.0D TO 120.0 D

Diagnostics

(Tile Visit 01) Warning (Orbit Planner): PATTERN POSITION OUTSIDE APERTURE

(Exposure 1 (Pattern 2, Exps 1-1 in Tile Visit 01) special requirements) Warning (Form): Be very careful mixing POS TARG and Center_Pattern = Yes

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(2)	Pattern Type=WFC3-IR-DITHER-BLOB Purpose=DITHER Number Of Points=2 Point Spacing=5.183 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.859 Angle Between Sides= Center Pattern=true	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false	(1)

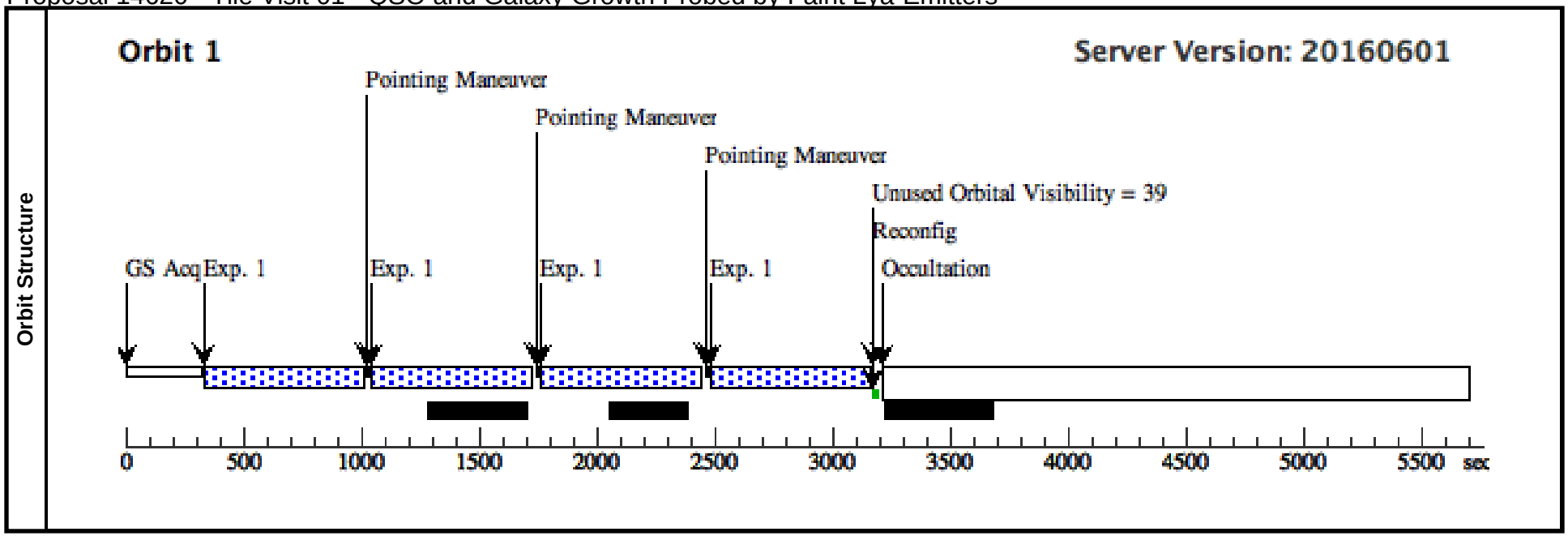
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	Q2343-CENTER	RA: 23 46 25.7975 (356.6074896d) Dec: +12 48 18.66 (12.80518d) Equinox: J2000		V=27+/-2 Objects have Lya line fluxes ~1e-17 erg/s/cm^2 (not in band); continuum magnitudes are mAB ~ 26-27. Two foreground stars have H=12.0 and 12.9 (Vega).	Reference Frame: ICRS

Comments: Foreground star H-band brightnesses are estimated from the 2MASS point source catalog.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(2) Q2343-CENTER	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=14; SAMP-SEQ=SPARS50	POS TARG -51.26185999192509,-150.56171772883735	Pattern 2, Exps 1-1 in Tile Visit 01 (2)	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20160601
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Unused Orbital Visibility = 39
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

Visit

Proposal 14620, Tile Visit 02, scheduling Wed Nov 09 16:26:50 GMT 2016

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR

Special Requirements: SAME ORIENT AS 01

Diagnostics

(Tile Visit 02) Warning (Orbit Planner): PATTERN POSITION OUTSIDE APERTURE

(Exposure 1 (Pattern 2, Exps 1-1 in Tile Visit 02) special requirements) Warning (Form): Be very careful mixing POS TARG and Center_Pattern = Yes

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(2)	Pattern Type=WFC3-IR-DITHER-BLOB Purpose=DITHER Number Of Points=2 Point Spacing=5.183 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.859 Angle Between Sides= Center Pattern=true	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false	(1)

Fixed Targets

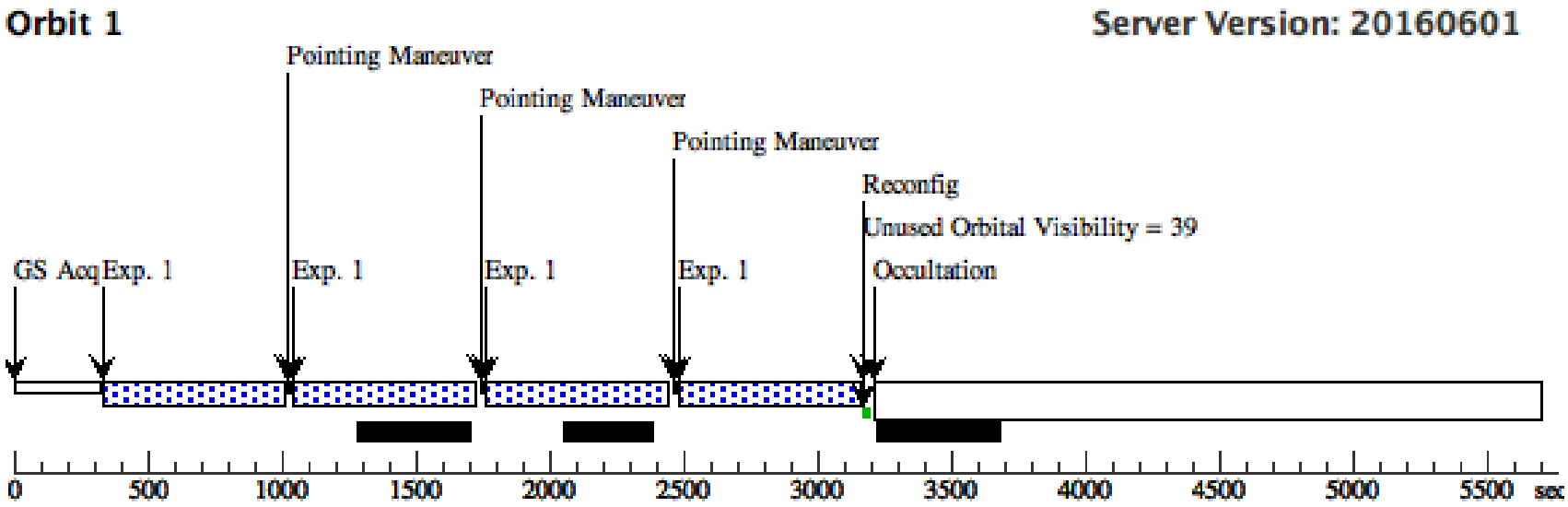
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	Q2343-CENTER	RA: 23 46 25.7975 (356.6074896d) Dec: +12 48 18.66 (12.80518d) Equinox: J2000		V=27+/-2 Objects have Lya line fluxes ~1e-17 erg/s/cm^2 (not in band); continuum magnitudes are mAB ~ 26-27. Two foreground stars have H=12.0 and 12.9 (Vega).	Reference Frame: ICRS

Comments: Foreground star H-band brightnesses are estimated from the 2MASS point source catalog.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(2) Q2343-CENTER	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=14; SAMP-SEQ=SPARS50	POS TARG 55.6145999999999996,-84.96889571912658; GS ACQ SCENARIO BASE1B3	Pattern 2, Exps 1-1 in Tile Visit 02 (2)	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]*	***[1]***

Orbit Structure



Visit

Proposal 14620, Tile Visit 03, scheduling Wed Nov 09 16:26:50 GMT 2016

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR

Special Requirements: SAME ORIENT AS 01

Diagnostics

(Tile Visit 03) Warning (Orbit Planner): PATTERN POSITION OUTSIDE APERTURE

(Exposure 1 (Pattern 2, Exps 1-1 in Tile Visit 03) special requirements) Warning (Form): Be very careful mixing POS TARG and Center_Pattern = Yes

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(2)	Pattern Type=WFC3-IR-DITHER-BLOB Purpose=DITHER Number Of Points=2 Point Spacing=5.183 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.859 Angle Between Sides= Center Pattern=true	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false	(1)

Fixed Targets

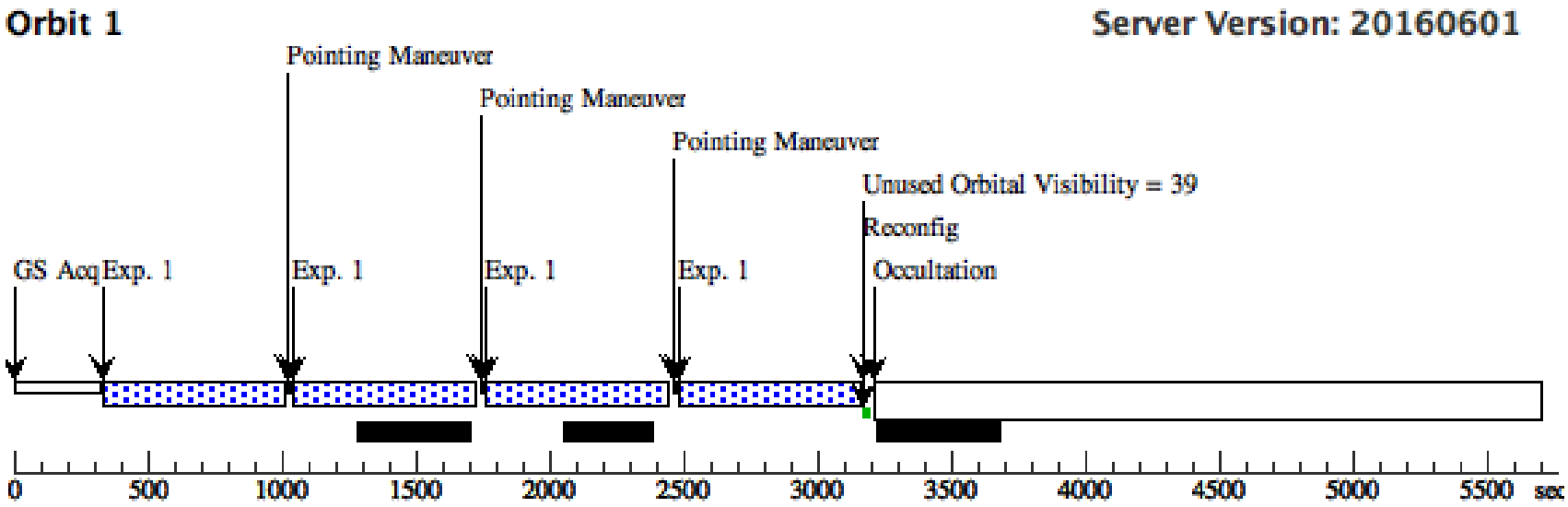
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	Q2343-CENTER	RA: 23 46 25.7975 (356.6074896d) Dec: +12 48 18.66 (12.80518d) Equinox: J2000		V=27+/-2 Objects have Lya line fluxes ~1e-17 erg/s/cm^2 (not in band); continuum magnitudes are mAB ~ 26-27. Two foreground stars have H=12.0 and 12.9 (Vega).	Reference Frame: ICRS

Comments: Foreground star H-band brightnesses are estimated from the 2MASS point source catalog.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(2) Q2343-CENTER	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=14; SAMP-SEQ=SPARS50	POS TARG 149.81990304454268,-42.00872882048837	Pattern 2, Exps 1-1 in Tile Visit 03 (2)	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]*	***[1]***

Orbit Structure



Visit

Proposal 14620, Tile Visit 04, scheduling Wed Nov 09 16:26:50 GMT 2016

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR

Special Requirements: SAME ORIENT AS 01

Diagnostics

(Tile Visit 04) Warning (Orbit Planner): PATTERN POSITION OUTSIDE APERTURE

(Exposure 1 (Pattern 2, Exps 1-1 in Tile Visit 04) special requirements) Warning (Form): Be very careful mixing POS TARG and Center_Pattern = Yes

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(2)	Pattern Type=WFC3-IR-DITHER-BLOB Purpose=DITHER Number Of Points=2 Point Spacing=5.183 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.859 Angle Between Sides= Center Pattern=true	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false	(1)

Fixed Targets

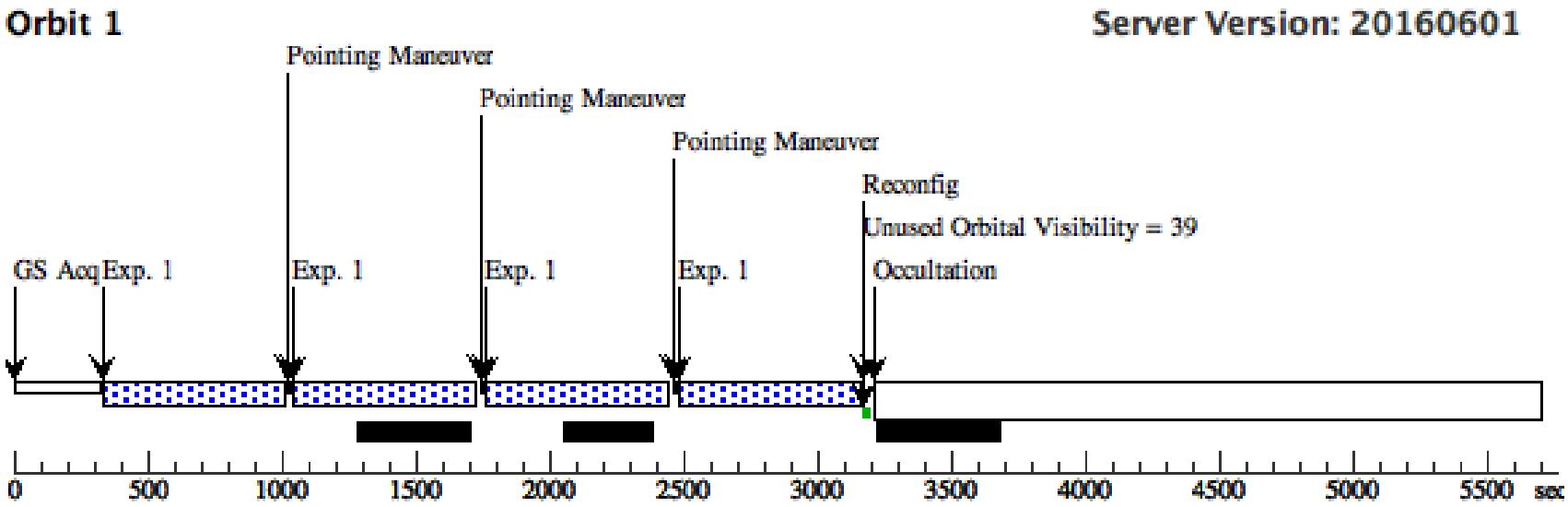
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	Q2343-CENTER	RA: 23 46 25.7975 (356.6074896d) Dec: +12 48 18.66 (12.80518d) Equinox: J2000		V=27+/-2 Objects have Lya line fluxes ~1e-17 erg/s/cm^2 (not in band); continuum magnitudes are mAB ~ 26-27. Two foreground stars have H=12.0 and 12.9 (Vega).	Reference Frame: ICRS

Comments: Foreground star H-band brightnesses are estimated from the 2MASS point source catalog.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(2) Q2343-CENTER	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=14; SAMP-SEQ=SPARS50	POS TARG -166.8438,-96.32731284262005	Pattern 2, Exps 1-1 in Tile Visit 04 (2)	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]*	***[1]***

Orbit Structure



Visit

Proposal 14620, Tile Visit 05, scheduled Wed Nov 09 16:26:50 GMT 2016

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR

Special Requirements: SAME ORIENT AS 01

Diagnostics

(Exposure 1 (Pattern 2, Exps 1-1 in Tile Visit 05) special requirements) Warning (Form): Be very careful mixing POS TARG and Center_Pattern = Yes

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(2)	Pattern Type=WFC3-IR-DITHER-BLOB Purpose=DITHER Number Of Points=2 Point Spacing=5.183 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.859 Angle Between Sides= Center Pattern=true	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false	(1)

Fixed Targets

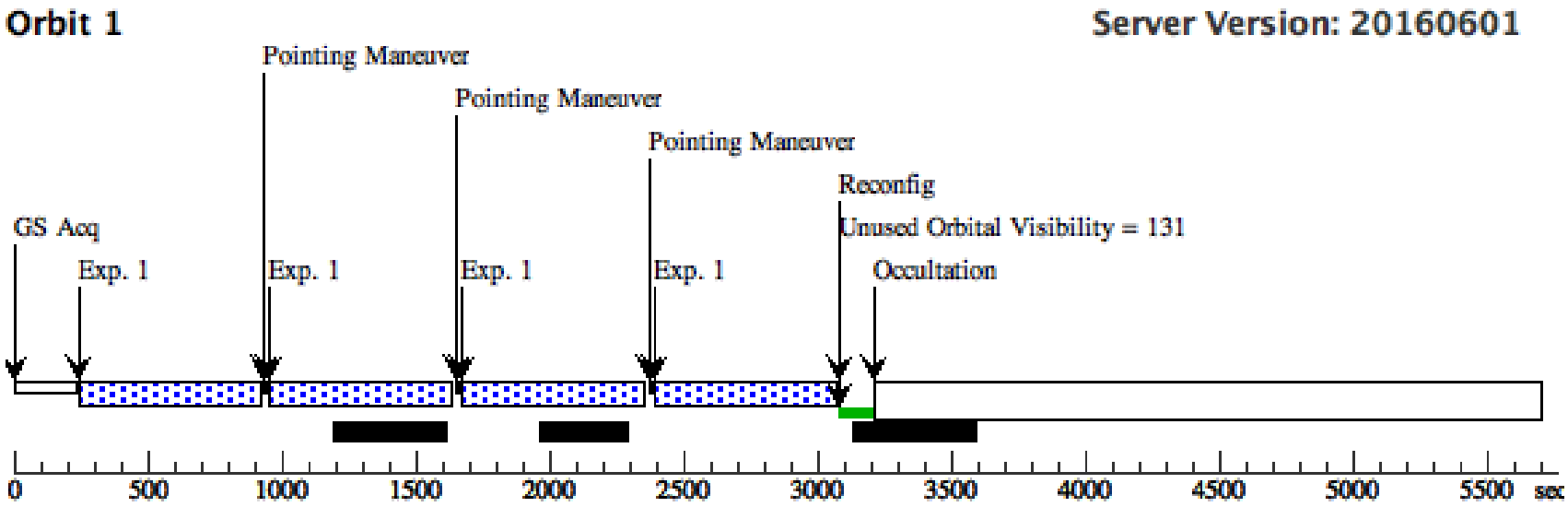
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	Q2343-CENTER	RA: 23 46 25.7975 (356.6074896d) Dec: +12 48 18.66 (12.80518d) Equinox: J2000		V=27+/-2 Objects have Lya line fluxes ~1e-17 erg/s/cm^2 (not in band); continuum magnitudes are mAB ~ 26-27. Two foreground stars have H=12.0 and 12.9 (Vega).	Reference Frame: ICRS

Comments: Foreground star H-band brightnesses are estimated from the 2MASS point source catalog.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(2) Q2343-CENTER	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=14; SAMP-SEQ=SPARS50	POS TARG -55.614599999999996,-32.10910428087334; GS ACQ SCENARIO SINGLE	Pattern 2, Exps 1-1 in Tile Visit 05 (2)	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]*	***[1]***

Orbit Structure



Visit

Proposal 14620, Tile Visit 06, scheduling Wed Nov 09 16:26:50 GMT 2016

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR

Special Requirements: SAME ORIENT AS 01

Diagnostics

(Exposure 1 (Pattern 2, Exps 1-1 in Tile Visit 06) special requirements) Warning (Form): Be very careful mixing POS TARG and Center_Pattern = Yes

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(2)	Pattern Type=WFC3-IR-DITHER-BLOB Purpose=DITHER Number Of Points=2 Point Spacing=5.183 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.859 Angle Between Sides= Center Pattern=true	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false	(1)

Fixed Targets

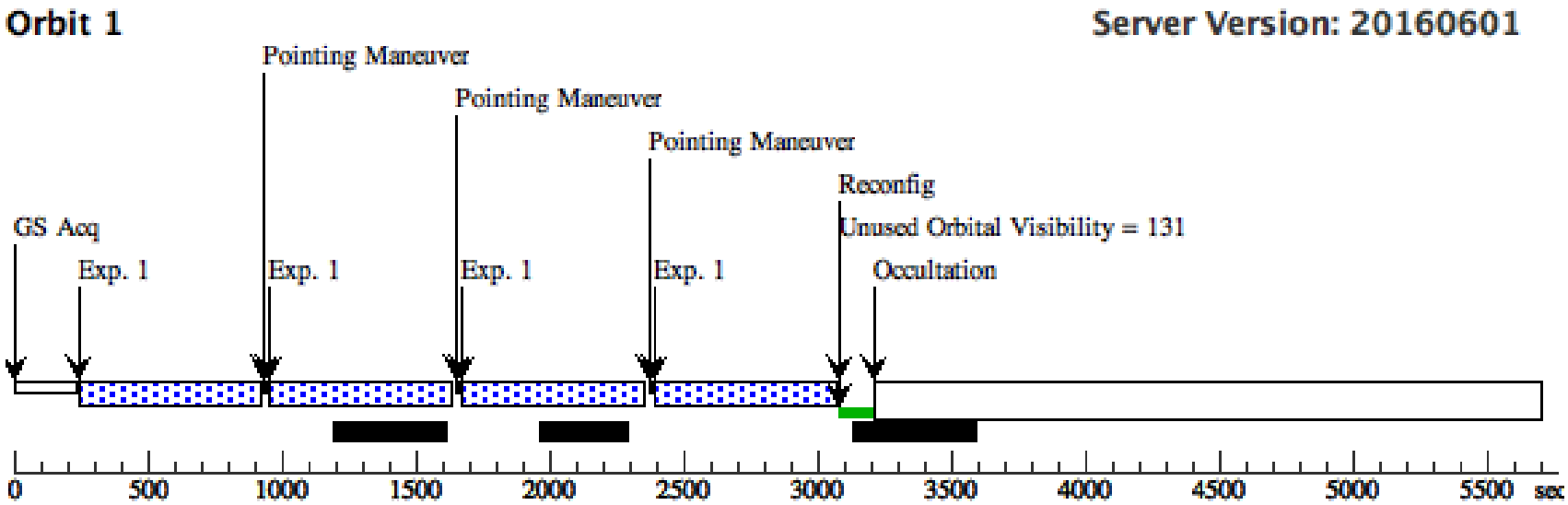
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	Q2343-CENTER	RA: 23 46 25.7975 (356.6074896d) Dec: +12 48 18.66 (12.80518d) Equinox: J2000		V=27+/-2 Objects have Lya line fluxes ~1e-17 erg/s/cm^2 (not in band); continuum magnitudes are mAB ~ 26-27. Two foreground stars have H=12.0 and 12.9 (Vega).	Reference Frame: ICRS

Comments: Foreground star H-band brightnesses are estimated from the 2MASS point source catalog.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(2) Q2343-CENTER	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=14; SAMP-SEQ=SPARS50	POS TARG 55.6145999999999996,32.10910428087337; GS ACQ SCENARIO SINGLE	Pattern 2, Exps 1-1 in Tile Visit 06 (2)	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]*	***[1]***

Orbit Structure



Visit

Proposal 14620, Tile Visit 07, scheduling Wed Nov 09 16:26:50 GMT 2016

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR

Special Requirements: SAME ORIENT AS 01

Diagnostics

(Tile Visit 07) Warning (Orbit Planner): PATTERN POSITION OUTSIDE APERTURE

(Exposure 1 (Pattern 2, Exps 1-1 in Tile Visit 07) special requirements) Warning (Form): Be very careful mixing POS TARG and Center_Pattern = Yes

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(2)	Pattern Type=WFC3-IR-DITHER-BLOB Purpose=DITHER Number Of Points=2 Point Spacing=5.183 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.859 Angle Between Sides= Center Pattern=true	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false	(1)

Fixed Targets

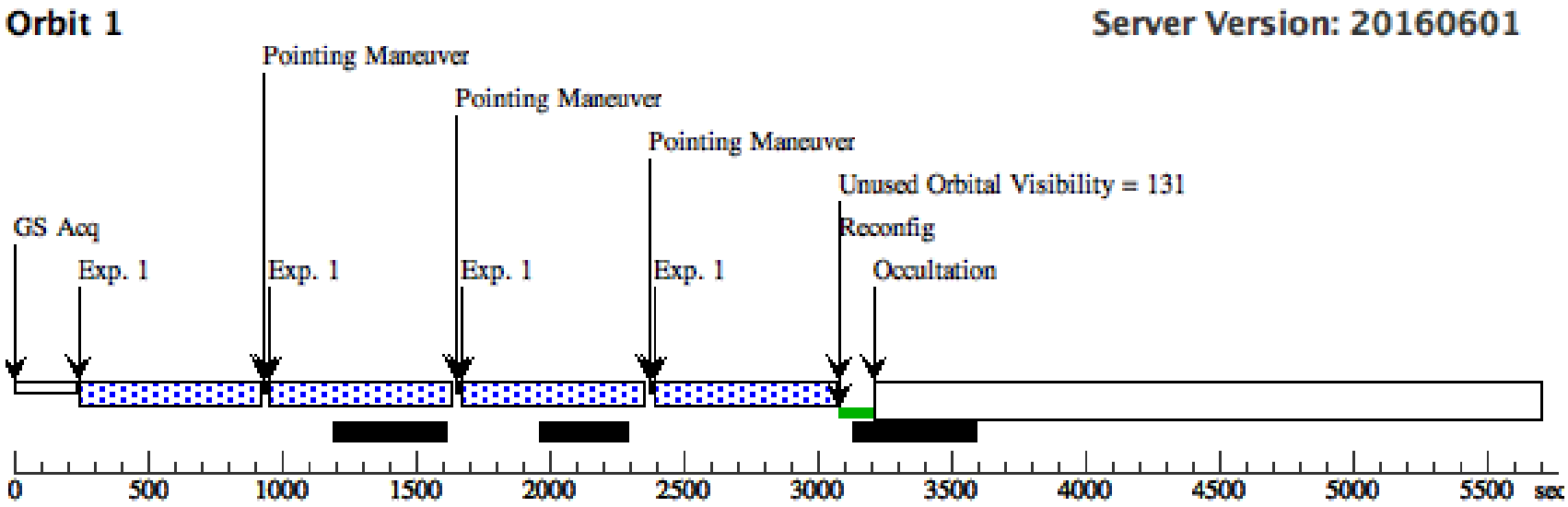
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	Q2343-CENTER	RA: 23 46 25.7975 (356.6074896d) Dec: +12 48 18.66 (12.80518d) Equinox: J2000		V=27+/-2 Objects have Lya line fluxes ~1e-17 erg/s/cm^2 (not in band); continuum magnitudes are mAB ~ 26-27. Two foreground stars have H=12.0 and 12.9 (Vega).	Reference Frame: ICRS

Comments: Foreground star H-band brightnesses are estimated from the 2MASS point source catalog.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(2) Q2343-CENTER	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=14; SAMP-SEQ=SPARS50	POS TARG 156.07597307318312,77.38934695841428; GS ACQ SCENARIO SINGLE	Pattern 2, Exps 1-1 in Tile Visit 07 (2)	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]*	***[1]***

Orbit Structure



Visit

Proposal 14620, Tile Visit 08, scheduling Wed Nov 09 16:26:50 GMT 2016

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR

Special Requirements: SAME ORIENT AS 01

Diagnostics

(Tile Visit 08) Warning (Orbit Planner): PATTERN POSITION OUTSIDE APERTURE

(Exposure 1 (Pattern 2, Exps 1-1 in Tile Visit 08) special requirements) Warning (Form): Be very careful mixing POS TARG and Center_Pattern = Yes

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(2)	Pattern Type=WFC3-IR-DITHER-BLOB Purpose=DITHER Number Of Points=2 Point Spacing=5.183 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.859 Angle Between Sides= Center Pattern=true	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false	(1)

Fixed Targets

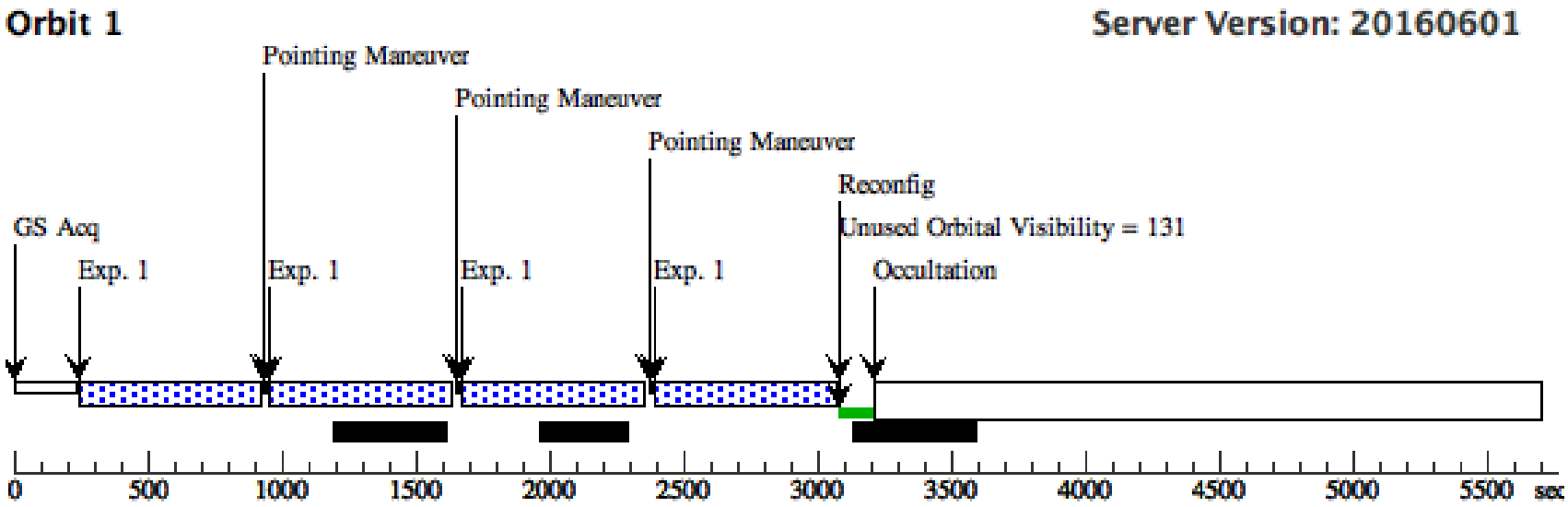
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	Q2343-CENTER	RA: 23 46 25.7975 (356.6074896d) Dec: +12 48 18.66 (12.80518d) Equinox: J2000		V=27+/-2 Objects have Lya line fluxes ~1e-17 erg/s/cm^2 (not in band); continuum magnitudes are mAB ~ 26-27. Two foreground stars have H=12.0 and 12.9 (Vega).	Reference Frame: ICRS

Comments: Foreground star H-band brightnesses are estimated from the 2MASS point source catalog.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(2) Q2343-CENTER	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=14; SAMP-SEQ=SPARS50	POS TARG -166.8438,20.750687157379 9; GS ACQ SCENARIO SINGLE	Pattern 2, Exps 1-1 in Tile Visit 08 (2)	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]*	***[1]***

Orbit Structure



Visit

Proposal 14620, Tile Visit 09, scheduling Wed Nov 09 16:26:50 GMT 2016

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR

Special Requirements: SAME ORIENT AS 01

Diagnostics

(Tile Visit 09) Warning (Orbit Planner): PATTERN POSITION OUTSIDE APERTURE

(Exposure 1 (Pattern 2, Exps 1-1 in Tile Visit 09) special requirements) Warning (Form): Be very careful mixing POS TARG and Center_Pattern = Yes

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(2)	Pattern Type=WFC3-IR-DITHER-BLOB Purpose=DITHER Number Of Points=2 Point Spacing=5.183 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.859 Angle Between Sides= Center Pattern=true	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false	(1)

Fixed Targets

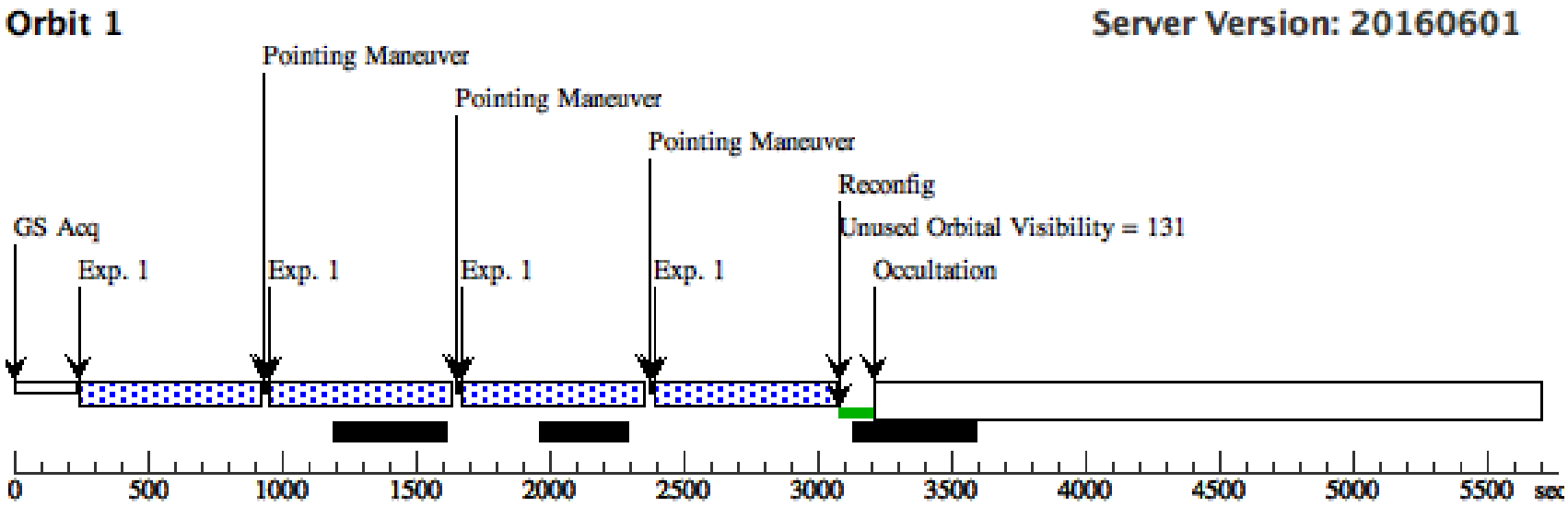
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	Q2343-CENTER	RA: 23 46 25.7975 (356.6074896d) Dec: +12 48 18.66 (12.80518d) Equinox: J2000		V=27+/-2 Objects have Lya line fluxes ~1e-17 erg/s/cm^2 (not in band); continuum magnitudes are mAB ~ 26-27. Two foreground stars have H=12.0 and 12.9 (Vega).	Reference Frame: ICRS

Comments: Foreground star H-band brightnesses are estimated from the 2MASS point source catalog.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(2) Q2343-CENTER	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=14; SAMP-SEQ=SPARS50	POS TARG -55.614599999999996,84.9688957191266; GS ACQ SCENARIO SINGLE	Pattern 2, Exps 1-1 in Tile Visit 09 (2)	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]*	***[1]***

Orbit Structure



Visit

Proposal 14620, Tile Visit 10, scheduling Wed Nov 09 16:26:50 GMT 2016

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR

Special Requirements: SAME ORIENT AS 01

Diagnostics

(Tile Visit 10) Warning (Orbit Planner): PATTERN POSITION OUTSIDE APERTURE

(Exposure 1 (Pattern 2, Exps 1-1 in Tile Visit 10) special requirements) Warning (Form): Be very careful mixing POS TARG and Center_Pattern = Yes

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(2)	Pattern Type=WFC3-IR-DITHER-BLOB Purpose=DITHER Number Of Points=2 Point Spacing=5.183 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.859 Angle Between Sides= Center Pattern=true	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false	(1)

Fixed Targets

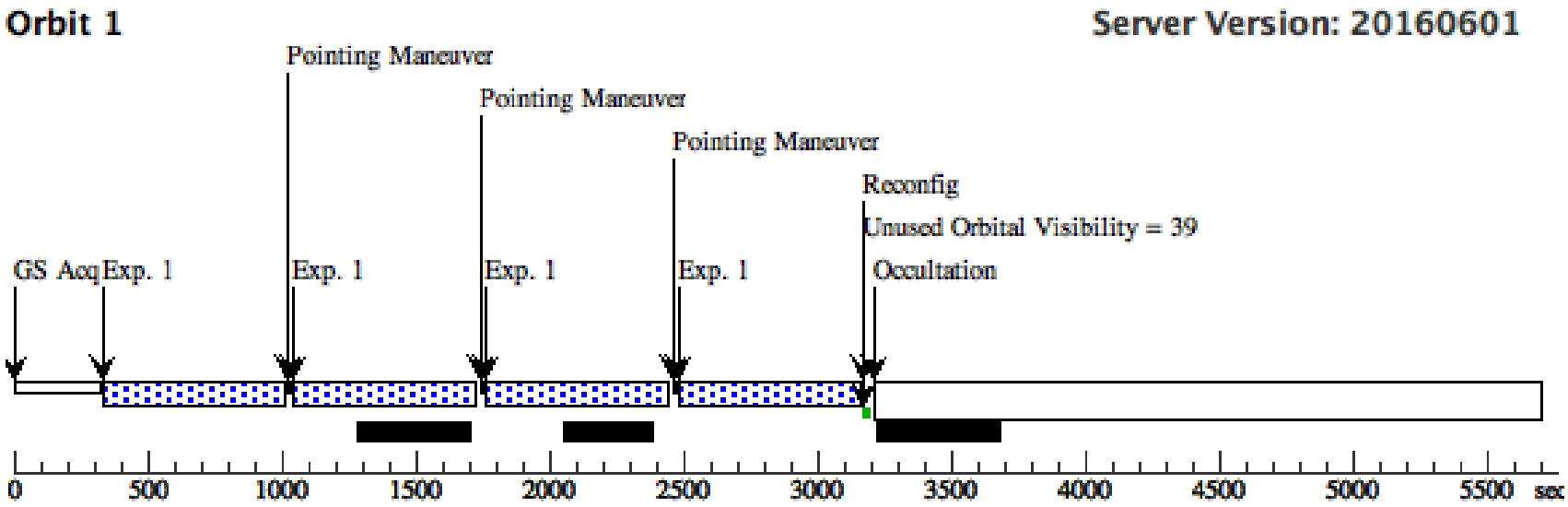
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	Q2343-CENTER	RA: 23 46 25.7975 (356.6074896d) Dec: +12 48 18.66 (12.80518d) Equinox: J2000		V=27+/-2 Objects have Lya line fluxes ~1e-17 erg/s/cm^2 (not in band); continuum magnitudes are mAB ~ 26-27. Two foreground stars have H=12.0 and 12.9 (Vega).	Reference Frame: ICRS

Comments: Foreground star H-band brightnesses are estimated from the 2MASS point source catalog.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(2) Q2343-CENTER	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=14; SAMP-SEQ=SPARS50	POS TARG 55.6145999999999996,149.1871042808733; GS ACQ SCENARIO BASE1B3	Pattern 2, Exps 1-1 in Tile Visit 10 (2)	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]*	***[1]***

Orbit Structure



Visit

Proposal 14620, Tile Visit 11, scheduling Wed Nov 09 16:26:50 GMT 2016

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR

Special Requirements: ORIENT 79D TO 79 D

Diagnostics

(Tile Visit 11) Warning (Orbit Planner): PATTERN POSITION OUTSIDE APERTURE

(Exposure 1 (Pattern 2, Exps 1-1 in Tile Visit 11) special requirements) Warning (Form): Be very careful mixing POS TARG and Center_Pattern = Yes

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(2)	Pattern Type=WFC3-IR-DITHER-BLOB Purpose=DITHER Number Of Points=2 Point Spacing=5.183 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.859 Angle Between Sides= Center Pattern=true	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false	(1)

Fixed Targets

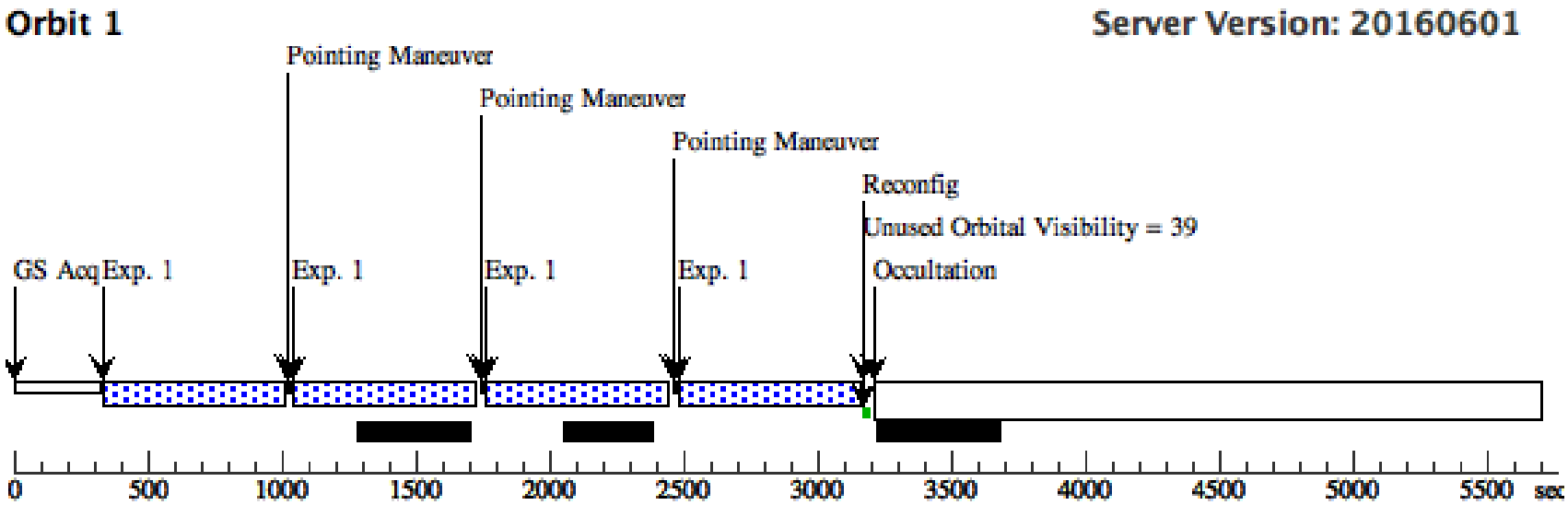
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	Q2343-CENTER	RA: 23 46 25.7975 (356.6074896d) Dec: +12 48 18.66 (12.80518d) Equinox: J2000		V=27+/-2 Objects have Lya line fluxes ~1e-17 erg/s/cm^2 (not in band); continuum magnitudes are mAB ~ 26-27. Two foreground stars have H=12.0 and 12.9 (Vega).	Reference Frame: ICRS

Comments: Foreground star H-band brightnesses are estimated from the 2MASS point source catalog.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(2) Q2343-CENTER	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=14; SAMP-SEQ=SPARS50	POS TARG -125.51083537107846,-116.5388396002159	Pattern 2, Exps 1-1 in Tile Visit 11 (2)	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]*	***[1]***

Orbit Structure



Visit

Proposal 14620, Tile Visit 12, scheduling Wed Nov 09 16:26:50 GMT 2016

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR

Special Requirements: ORIENT 250D TO 250 D

Diagnostics

(Tile Visit 12) Warning (Orbit Planner): PATTERN POSITION OUTSIDE APERTURE

(Exposure 1 (Pattern 2, Exps 1-1 in Tile Visit 12) special requirements) Warning (Form): Be very careful mixing POS TARG and Center_Pattern = Yes

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(2)	Pattern Type=WFC3-IR-DITHER-BLOB Purpose=DITHER Number Of Points=2 Point Spacing=5.183 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.859 Angle Between Sides= Center Pattern=true	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false	(1)

Fixed Targets

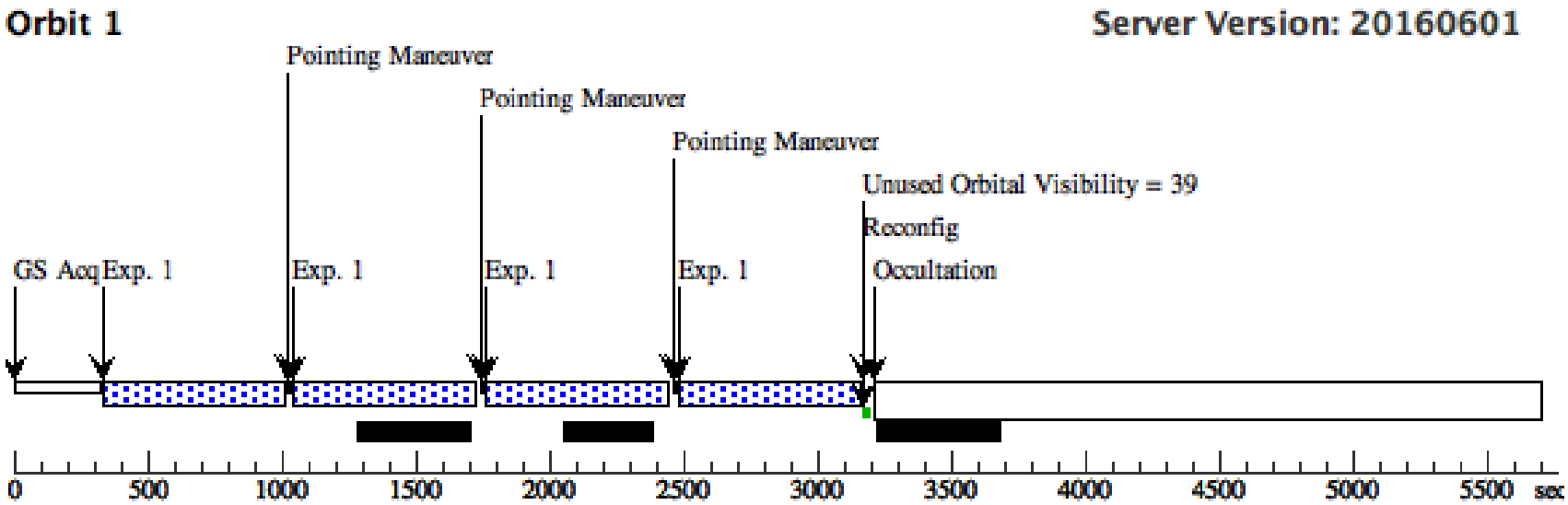
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	Q2343-CENTER	RA: 23 46 25.7975 (356.6074896d) Dec: +12 48 18.66 (12.80518d) Equinox: J2000		V=27+/-2 Objects have Lya line fluxes ~1e-17 erg/s/cm^2 (not in band); continuum magnitudes are mAB ~ 26-27. Two foreground stars have H=12.0 and 12.9 (Vega).	Reference Frame: ICRS

Comments: Foreground star H-band brightnesses are estimated from the 2MASS point source catalog.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(2) Q2343-CENTER	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=14; SAMP-SEQ=SPARS50	POS TARG -15.736467249695174,162.42985207709538	Pattern 2, Exps 1-1 in Tile Visit 12 (2)	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]*	***[1]***

Orbit Structure



Visit

Proposal 14620, Tile Visit 13, scheduling Wed Nov 09 16:26:50 GMT 2016

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR

Special Requirements: SAME ORIENT AS 11

Diagnostics

(Tile Visit 13) Warning (Orbit Planner): PATTERN POSITION OUTSIDE APERTURE

(Exposure 1 (Pattern 2, Exps 1-1 in Tile Visit 13) special requirements) Warning (Form): Be very careful mixing POS TARG and Center_Pattern = Yes

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(2)	Pattern Type=WFC3-IR-DITHER-BLOB Purpose=DITHER Number Of Points=2 Point Spacing=5.183 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.859 Angle Between Sides= Center Pattern=true	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false	(1)

Fixed Targets

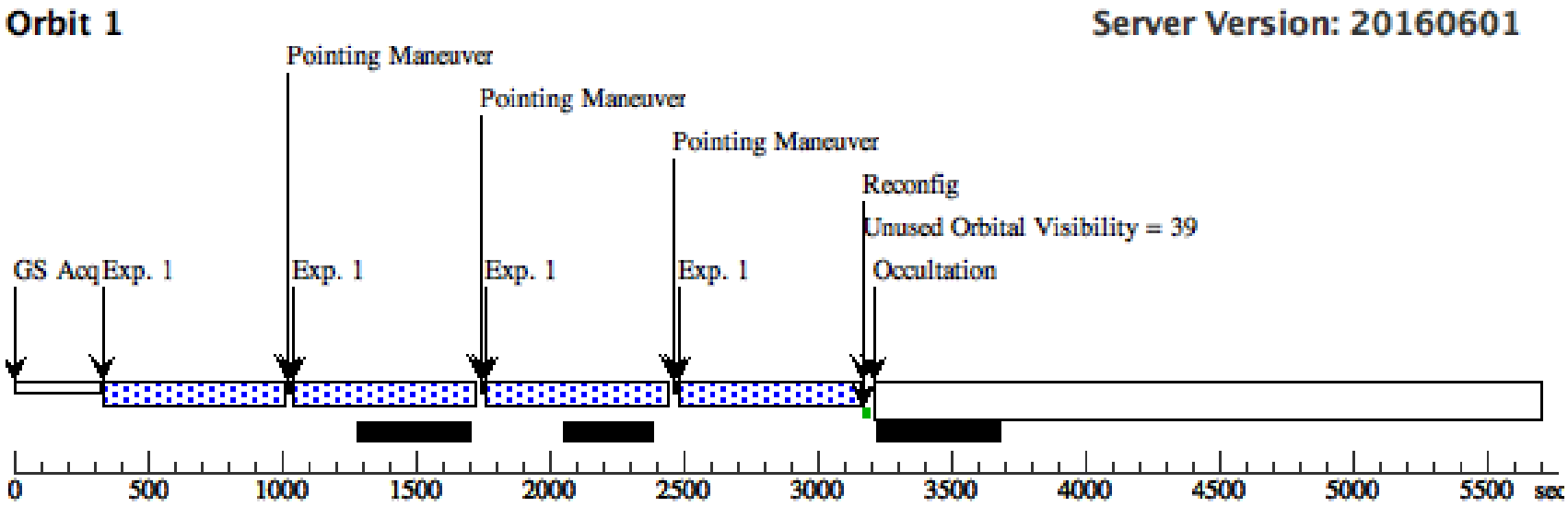
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	Q2343-CENTER	RA: 23 46 25.7975 (356.6074896d) Dec: +12 48 18.66 (12.80518d) Equinox: J2000		V=27+/-2 Objects have Lya line fluxes ~1e-17 erg/s/cm^2 (not in band); continuum magnitudes are mAB ~ 26-27. Two foreground stars have H=12.0 and 12.9 (Vega).	Reference Frame: ICRS

Comments: Foreground star H-band brightnesses are estimated from the 2MASS point source catalog.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(2) Q2343-CENTER	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=14; SAMP-SEQ=SPARS50	POS TARG -104.8668251236928,0.5391603997840 52; GS ACQ SCENARIO BASE1B3	Pattern 2, Exps 1-1 in Tile Visit 13 (2)	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]*	***[1]***

Orbit Structure



Visit

Proposal 14620, Tile Visit 14, scheduling Wed Nov 09 16:26:50 GMT 2016

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR

Special Requirements: SAME ORIENT AS 11

Diagnostics

(Exposure 1 (Pattern 2, Exps 1-1 in Tile Visit 14) special requirements) Warning (Form): Be very careful mixing POS TARG and Center_Pattern = Yes

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(2)	Pattern Type=WFC3-IR-DITHER-BLOB Purpose=DITHER Number Of Points=2 Point Spacing=5.183 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.859 Angle Between Sides= Center Pattern=true	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false	(1)

Fixed Targets

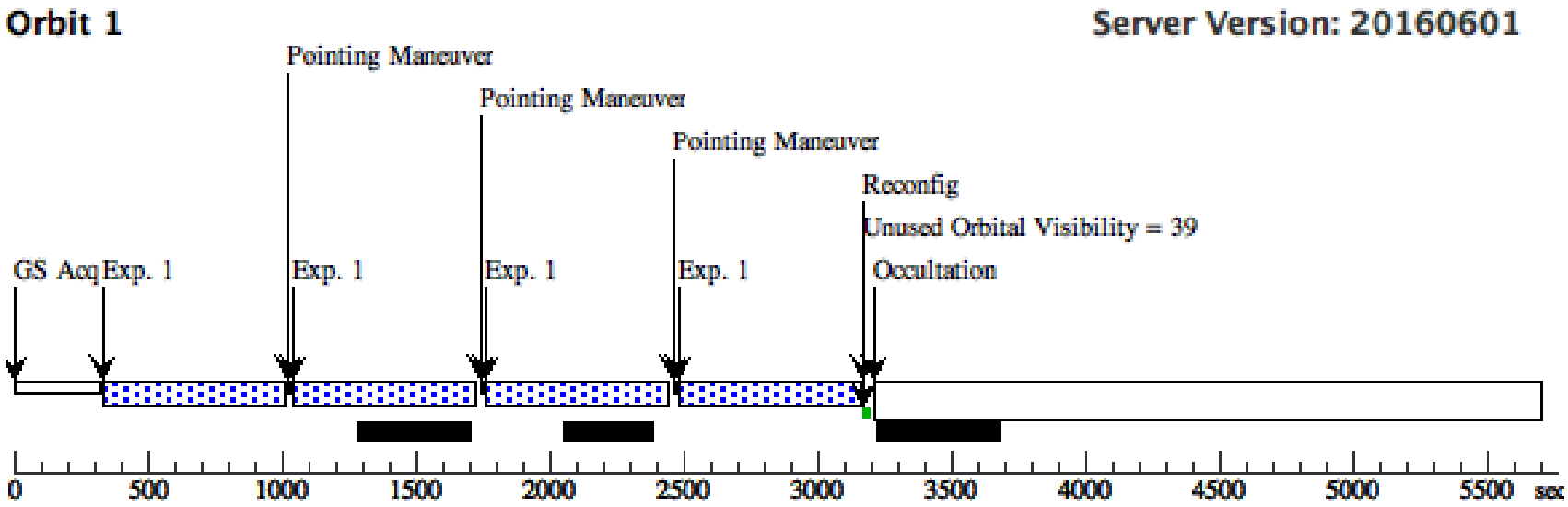
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	Q2343-CENTER	RA: 23 46 25.7975 (356.6074896d) Dec: +12 48 18.66 (12.80518d) Equinox: J2000		V=27+/-2 Objects have Lya line fluxes ~1e-17 erg/s/cm^2 (not in band); continuum magnitudes are mAB ~ 26-27. Two foreground stars have H=12.0 and 12.9 (Vega).	Reference Frame: ICRS

Comments: Foreground star H-band brightnesses are estimated from the 2MASS point source catalog.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(2) Q2343-CENTER	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=14; SAMP-SEQ=SPARS50	POS TARG -10.322005123692819,-58.53899999999996	Pattern 2, Exps 1-1 in Tile Visit 14 (2)	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]*	***[1]***

Orbit Structure



Visit

Proposal 14620, Tile Visit 15, scheduling Wed Nov 09 16:26:50 GMT 2016

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR

Special Requirements: ORIENT 65D TO 65 D

Diagnostics

(Tile Visit 15) Warning (Orbit Planner): PATTERN POSITION OUTSIDE APERTURE

(Exposure 1 (Pattern 2, Exps 1-1 in Tile Visit 15) special requirements) Warning (Form): Be very careful mixing POS TARG and Center_Pattern = Yes

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(2)	Pattern Type=WFC3-IR-DITHER-BLOB Purpose=DITHER Number Of Points=2 Point Spacing=5.183 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.859 Angle Between Sides= Center Pattern=true	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false	(1)

Fixed Targets

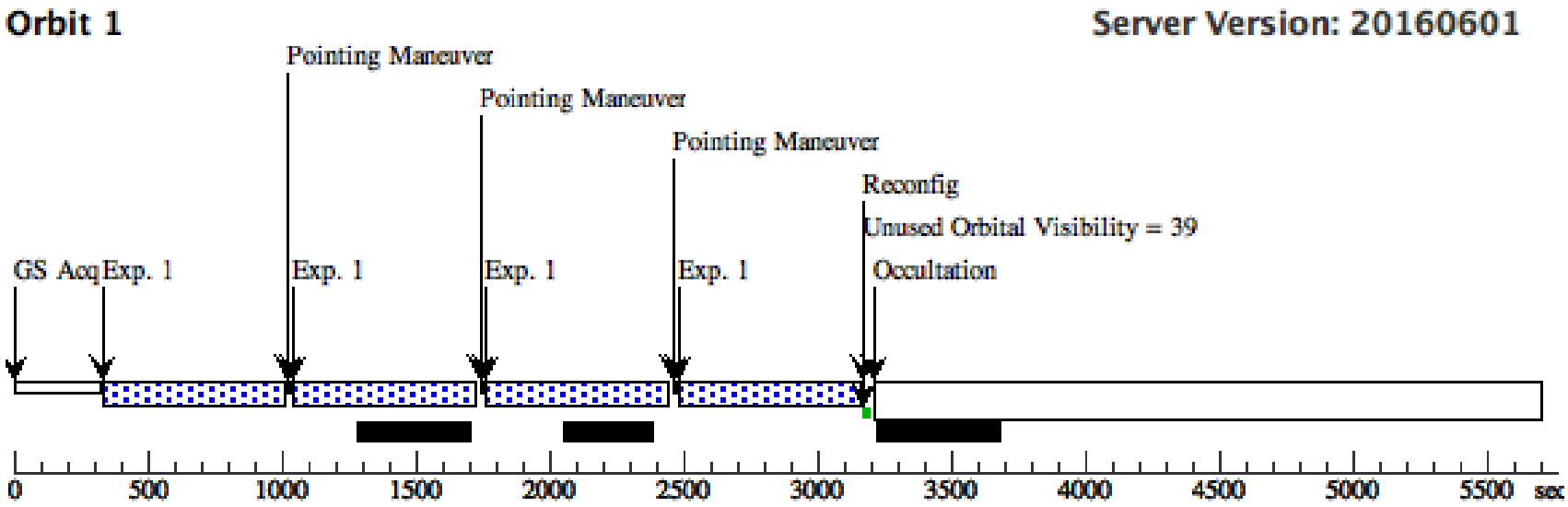
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	Q2343-CENTER	RA: 23 46 25.7975 (356.6074896d) Dec: +12 48 18.66 (12.80518d) Equinox: J2000		V=27+/-2 Objects have Lya line fluxes ~1e-17 erg/s/cm^2 (not in band); continuum magnitudes are mAB ~ 26-27. Two foreground stars have H=12.0 and 12.9 (Vega).	Reference Frame: ICRS

Comments: Foreground star H-band brightnesses are estimated from the 2MASS point source catalog.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(2) Q2343-CENTER	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=14; SAMP-SEQ=SPARS50	POS TARG 112.95084087007689,-81.44630073740669	Pattern 2, Exps 1-1 in Tile Visit 15 (2)	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]*	***[1]***

Orbit Structure



Visit

Proposal 14620, Tile Visit 16, scheduling Wed Nov 09 16:26:50 GMT 2016

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR

Special Requirements: SAME ORIENT AS 11

Diagnostics

(Tile Visit 16) Warning (Orbit Planner): PATTERN POSITION OUTSIDE APERTURE

(Exposure 1 (Pattern 2, Exps 1-1 in Tile Visit 16) special requirements) Warning (Form): Be very careful mixing POS TARG and Center_Pattern = Yes

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(2)	Pattern Type=WFC3-IR-DITHER-BLOB Purpose=DITHER Number Of Points=2 Point Spacing=5.183 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.859 Angle Between Sides= Center Pattern=true	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false	(1)

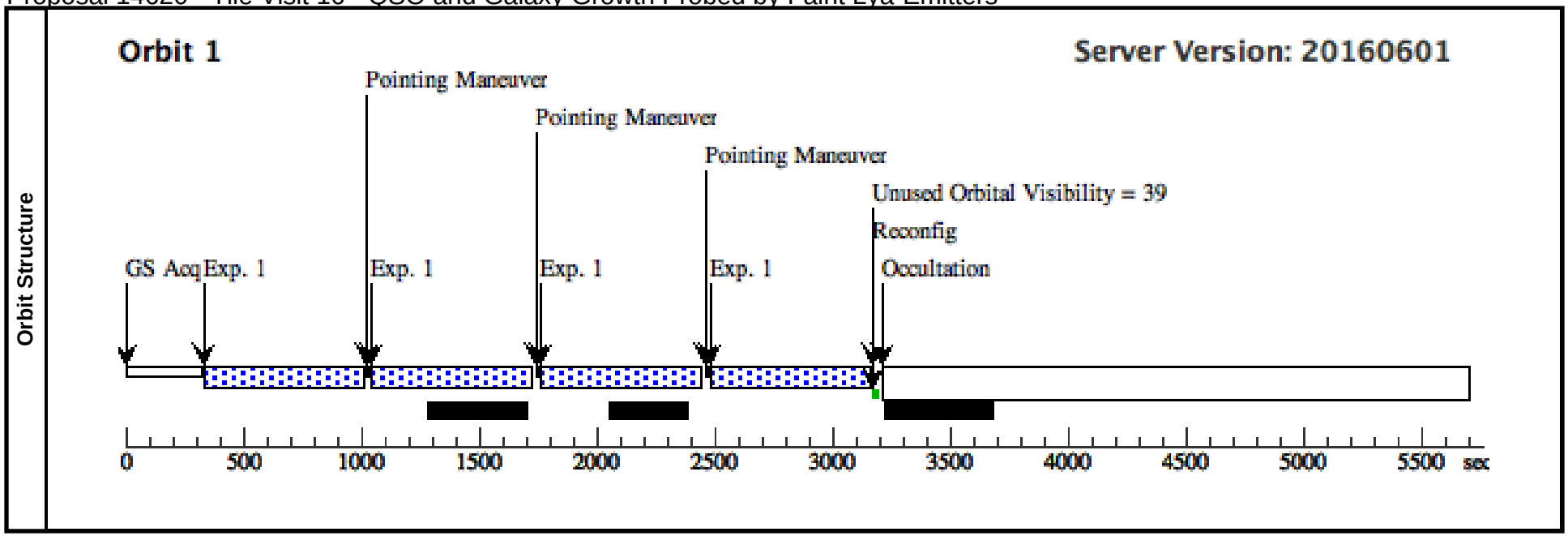
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	Q2343-CENTER	RA: 23 46 25.7975 (356.6074896d) Dec: +12 48 18.66 (12.80518d) Equinox: J2000		V=27+/-2 Objects have Lya line fluxes ~1e-17 erg/s/cm^2 (not in band); continuum magnitudes are mAB ~ 26-27. Two foreground stars have H=12.0 and 12.9 (Vega).	Reference Frame: ICRS

Comments: Foreground star H-band brightnesses are estimated from the 2MASS point source catalog.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(2) Q2343-CENTER	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=14; SAMP-SEQ=SPARS50	POS TARG -84.22281487630715,117.617160399784	Pattern 2, Exps 1-1 in Tile Visit 16 (2)	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20160601
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Unused Orbital Visibility = 39
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

Visit

Proposal 14620, Tile Visit 17, scheduling Wed Nov 09 16:26:50 GMT 2016

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR

Special Requirements: SAME ORIENT AS 11

Diagnostics

(Tile Visit 17) Warning (Orbit Planner): PATTERN POSITION OUTSIDE APERTURE

(Exposure 1 (Pattern 2, Exps 1-1 in Tile Visit 17) special requirements) Warning (Form): Be very careful mixing POS TARG and Center_Pattern = Yes

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(2)	Pattern Type=WFC3-IR-DITHER-BLOB Purpose=DITHER Number Of Points=2 Point Spacing=5.183 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.859 Angle Between Sides= Center Pattern=true	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false	(1)

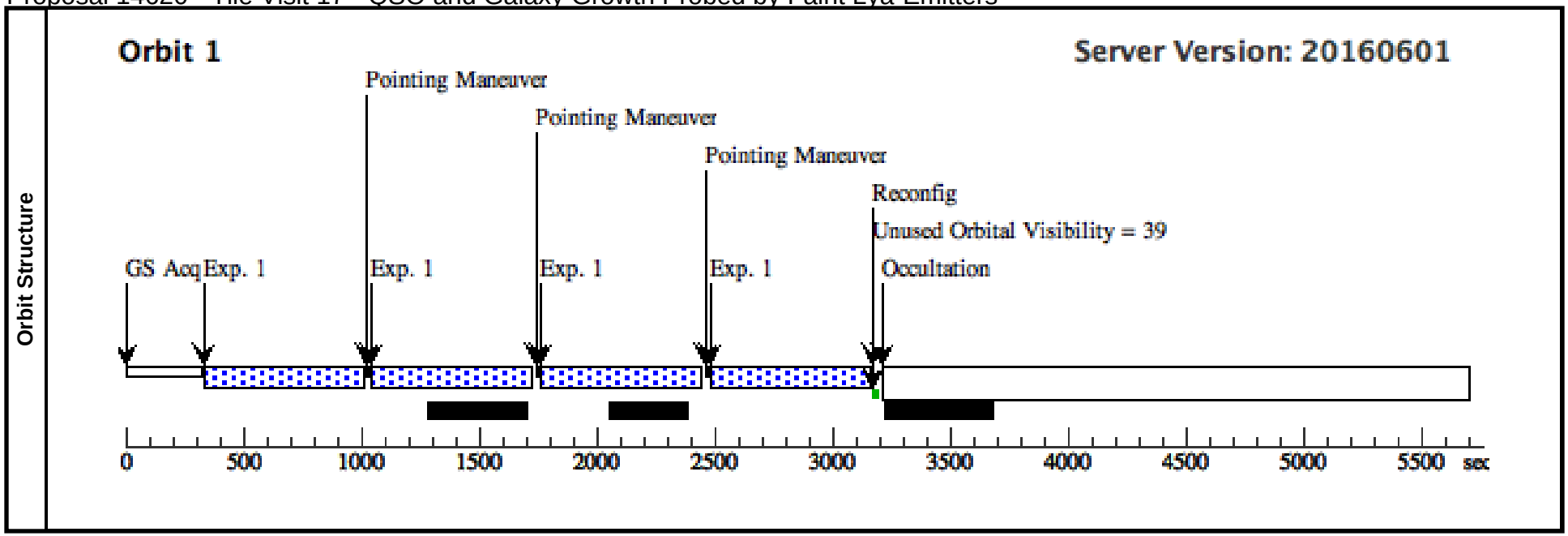
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	Q2343-CENTER	RA: 23 46 25.7975 (356.6074896d) Dec: +12 48 18.66 (12.80518d) Equinox: J2000		V=27+/-2 Objects have Lya line fluxes ~1e-17 erg/s/cm^2 (not in band); continuum magnitudes are mAB ~ 26-27. Two foreground stars have H=12.0 and 12.9 (Vega).	Reference Frame: ICRS

Comments: Foreground star H-band brightnesses are estimated from the 2MASS point source catalog.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(2) Q2343-CENTER	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=14; SAMP-SEQ=SPARS50	POS TARG 10.3220 05123692833,58.538 99999999999	Pattern 2, Exps 1-1 in Tile Visit 17 (2)	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20160601
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Reconfig
Unused Orbital Visibility = 39
GS Acq
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 14620, Tile Visit 18, scheduling Wed Nov 09 16:26:50 GMT 2016

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR

Special Requirements: SAME ORIENT AS 11

Diagnostics

(Tile Visit 18) Warning (Orbit Planner): PATTERN POSITION OUTSIDE APERTURE

(Exposure 1 (Pattern 2, Exps 1-1 in Tile Visit 18) special requirements) Warning (Form): Be very careful mixing POS TARG and Center_Pattern = Yes

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(2)	Pattern Type=WFC3-IR-DITHER-BLOB Purpose=DITHER Number Of Points=2 Point Spacing=5.183 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.859 Angle Between Sides= Center Pattern=true	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false	(1)

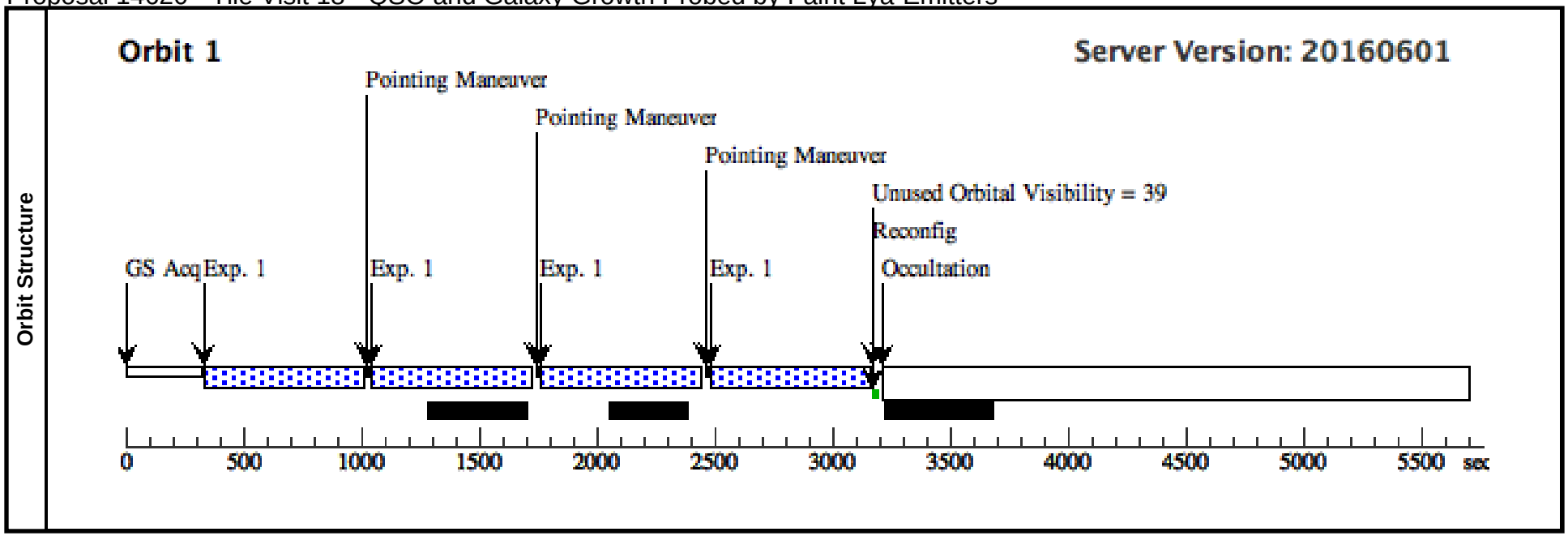
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	Q2343-CENTER	RA: 23 46 25.7975 (356.6074896d) Dec: +12 48 18.66 (12.80518d) Equinox: J2000		V=27+/-2 Objects have Lya line fluxes ~1e-17 erg/s/cm^2 (not in band); continuum magnitudes are mAB ~ 26-27. Two foreground stars have H=12.0 and 12.9 (Vega).	Reference Frame: ICRS

Comments: Foreground star H-band brightnesses are estimated from the 2MASS point source catalog.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(2) Q2343-CENTER	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=14; SAMP-SEQ=SPARS50	POS TARG 104.86682512369282,-0.5391603997840235; GS ACQ SCENARIO BASE1B3	Pattern 2, Exps 1-1 in Tile Visit 18 (2)	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20160601
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Unused Orbital Visibility = 39
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

Visit

Proposal 14620, Tile Visit 19, scheduling Wed Nov 09 16:26:50 GMT 2016

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR

Special Requirements: SAME ORIENT AS 11

Diagnostics

(Tile Visit 19) Warning (Orbit Planner): PATTERN POSITION OUTSIDE APERTURE

(Exposure 1 (Pattern 2, Exps 1-1 in Tile Visit 19) special requirements) Warning (Form): Be very careful mixing POS TARG and Center_Pattern = Yes

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(2)	Pattern Type=WFC3-IR-DITHER-BLOB Purpose=DITHER Number Of Points=2 Point Spacing=5.183 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.859 Angle Between Sides= Center Pattern=true	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false	(1)

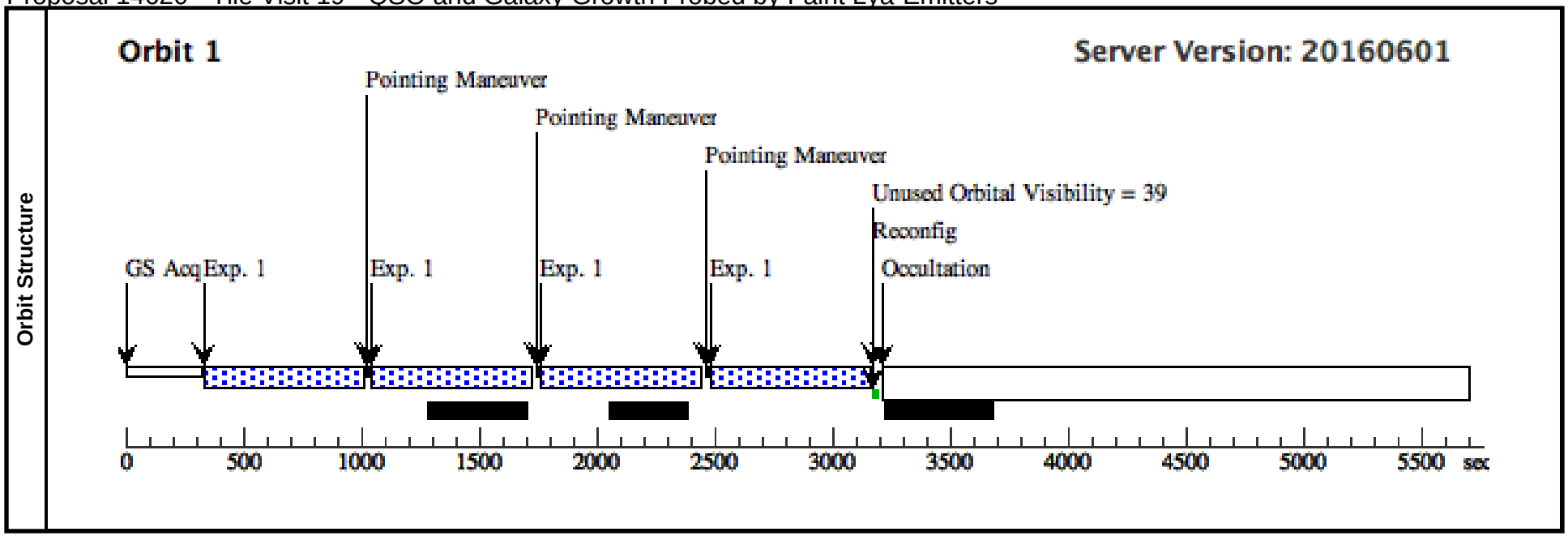
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	Q2343-CENTER	RA: 23 46 25.7975 (356.6074896d) Dec: +12 48 18.66 (12.80518d) Equinox: J2000		V=27+/-2 Objects have Lya line fluxes ~1e-17 erg/s/cm^2 (not in band); continuum magnitudes are mAB ~ 26-27. Two foreground stars have H=12.0 and 12.9 (Vega).	Reference Frame: ICRS

Comments: Foreground star H-band brightnesses are estimated from the 2MASS point source catalog.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(2) Q2343-CENTER	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=14; SAMP-SEQ=SPARS50	POS TARG 30.9660153710784 84,175.6169999999999	Pattern 2, Exps 1-1 in Tile Visit 19 (2)	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20160601
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Unused Orbital Visibility = 39
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

Proposal 14620 - Tile Visit 20 - QSO and Galaxy Growth Probed by Faint Lya-Emitters

Visit

Proposal 14620, Tile Visit 20, scheduling Wed Nov 09 16:26:50 GMT 2016

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR

Special Requirements: SAME ORIENT AS 11

Diagnostics

(Tile Visit 20) Warning (Orbit Planner): PATTERN POSITION OUTSIDE APERTURE

(Exposure 1 (Pattern 2, Exps 1-1 in Tile Visit 20) special requirements) Warning (Form): Be very careful mixing POS TARG and Center_Pattern = Yes

Patterns

#	Primary Pattern		Secondary Pattern		Exposures
(2)	Pattern Type=WFC3-IR-DITHER-BLOB Purpose=DITHER Number Of Points=2 Point Spacing=5.183 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.859 Angle Between Sides= Center Pattern=true	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false	(1)

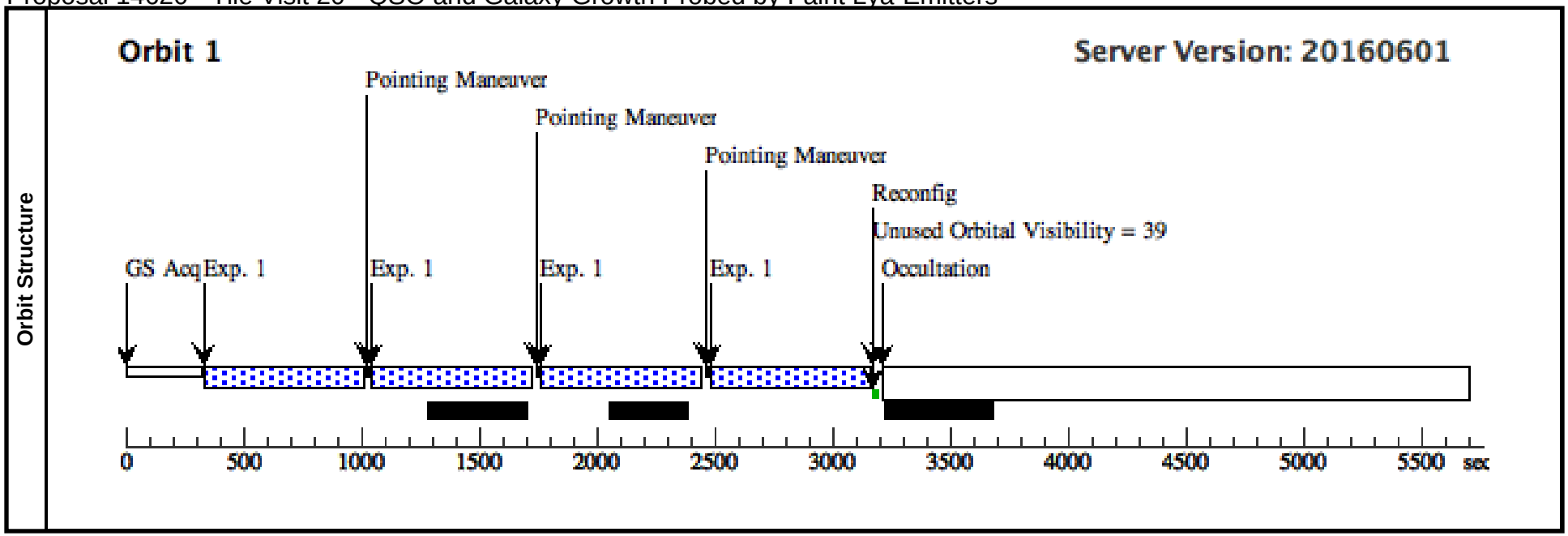
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	Q2343-CENTER	RA: 23 46 25.7975 (356.6074896d) Dec: +12 48 18.66 (12.80518d) Equinox: J2000		V=27+/-2 Objects have Lya line fluxes ~1e-17 erg/s/cm^2 (not in band); continuum magnitudes are mAB ~ 26-27. Two foreground stars have H=12.0 and 12.9 (Vega).	Reference Frame: ICRS

Comments: Foreground star H-band brightnesses are estimated from the 2MASS point source catalog.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(2) Q2343-CENTER	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=14; SAMP-SEQ=SPARS50	POS TARG 125.51083537107847,116.5388396002159	Pattern 2, Exps 1-1 in Tile Visit 20 (2)	652.938154 Secs (2611.753 Secs) *[==>(Pattern 1,1)]* *[==>(Pattern 1,2)]* *[==>(Pattern 2,1)]* *[==>(Pattern 2,2)]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20160601
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Reconfig
Unused Orbital Visibility = 39
GS Acq
Exp. 1
Exp. 1
Exp. 1
Exp. 1
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec