14706 - Testing the Triggering Mechanism for Luminous, Radio-Quiet Red Quasars in the Clearing Phase: A Comparison to Radio-Loud Red Quasars

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	(1) W2M1542+1259	WFC3/IR	1	29-Jul-2016 14:58:00.0	yes
02	(1) W2M1542+1259	WFC3/IR	1	29-Jul-2016 14:58:02.0	yes
03	(2) W2M1042+1641	WFC3/IR	1	29-Jul-2016 14:58:03.0	yes
04	(2) W2M1042+1641	WFC3/IR	1	29-Jul-2016 14:58:04.0	yes
05	(3) W2M0811+0115	WFC3/IR	1	29-Jul-2016 14:58:05.0	yes
06	(3) W2M0811+0115	WFC3/IR	1	29-Jul-2016 14:58:06.0	yes
07	(4) W2M1252+0715	WFC3/IR	1	29-Jul-2016 14:58:07.0	yes
08	(4) W2M1252+0715	WFC3/IR	1	29-Jul-2016 14:58:08.0	yes
09	(5) W2M1220+1126	WFC3/IR	1	29-Jul-2016 14:58:09.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
10	(6) W2M1439+0858	WFC3/IR	1	29-Jul-2016 14:58:10.0	yes
11	(7) W2M0043+0052	ACS/WFC	2	29-Jul-2016 14:58:11.0	yes
12	(8) W2M0035+0114	ACS/WFC	2	29-Jul-2016 14:58:13.0	yes
13	(9) W2M1242+0440	ACS/WFC	2	29-Jul-2016 14:58:14.0	yes
16	(10) W2M2152-0051	ACS/WFC	2	29-Jul-2016 14:58:15.0	yes
15	(11) W2M1106+0221	ACS/WFC	2	29-Jul-2016 14:58:17.0	yes

20 Total Orbits Used

ABSTRACT

We propose to conduct a controlled study of the relationship between radio emission and host galaxy morphology for a new sample of radio-quiet dust-reddened quasars selected by their infrared colors in WISE and 2MASS (W2M). These sources are the radio-quiet analogs to the FIRST-2MASS (F2M) red quasars, which we found to be predominantly driven by major mergers. F2M red quasars are accreting at very high rates and exhibit broad absorption lines associated with outflows and feedback. Their properties are consistent with buried quasars expelling their dusty shrouds in an an evolutionary phase predicted by merger-driven co-evolution models. The quasars in both samples are the most intrinsically luminous objects in the Universe -- the regime where we expect mergers to dominate. However, recent lines of evidence suggest that radio emission may be linked to AGN reddening and merging hosts.

We will use WFC3/IR and ACS to image the host galaxies of W2M quasars in the two redshift regimes that our previous studies probed, z~0.7 and z~2, testing the merger-driven quasar paradigm across the full radio range with a minimum of selection effects or other biases that plague many studies comparing different samples. The images proposed here will sample the host galaxies in rest-frame visible and UV light to look for merger signatures. Evidence for mergers in these quasar hosts would support a picture in which luminous quasars and galaxies co-evolve through major-mergers, independent of their radio properties. The absence of mergers in our data would link radio emission to mergers and require an alternate explanation for the extreme properties of these radio-quiet sources.

OBSERVING DESCRIPTION

We will image 11 F2M red quasars at two redshift regimes, z~0.7 and z ~ 2, using ACS and WFC3/IR for each sample, respectively. The large amounts of absorption in these quasars minimizes contamination from the quasar and allows for better sensitivity to low surface brightness features in the host galaxies.

For the five low redshift sources, we will take 4 dither positions per target per filter with ACS. The observations will span two orbits. Brighter sources wil lbe CR-SPLIT to avoid saturation, and will use the 2k subarray to reduce readout times. When possible, we use the full array, and in all cases aim to place the source near the CTE position.

For the five low redshift sources, we select WFC3-IR filters, chosen to straddle the 4000A break, in the quasars' rest frame. In order to facilitate the use of MultiDrizzle (or its successor, DrizzlePac) to improve the resolution of our final reduced images and to fully sample the PSF we will perform our observations using a 4 pointing box dither pattern. To reach a 3-sigma surface brightness depth of 25 magnitudes arcsec-2 extracted over a 2 x 2 pixel area in the H/F160W band, we require ~1600 seconds, which we will observe in 4 dithered frames.
We will obtain a shallower exposure of the quasar hosts in a bluer filter for color information and identification of dense star forming regions. In the bluer band (F105W or F125W depending on the redshift of the source) we will aim for a 3-sigma depth of ~24.7 AB magnitudes/arcsec2 extracted over a 2 x 2 pixel area. We will expose on F105W or F125W filters of ~900 seconds, respectively.
Since our sample of quasars spans a significant range in redshift and surface brightness
dims as (1+z)^5, we will increase the exposure time for the highest redshift (z > 2.2) quasars
to ensure a close uniform surface brightness limit for the sample as a whole.

Visit

Proposal 14706, IR-W2M1542+1259-1 (01), implementation Fri Jul 29 18:58:18 GMT 2016

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR

Special Requirements: (none)

Patterns

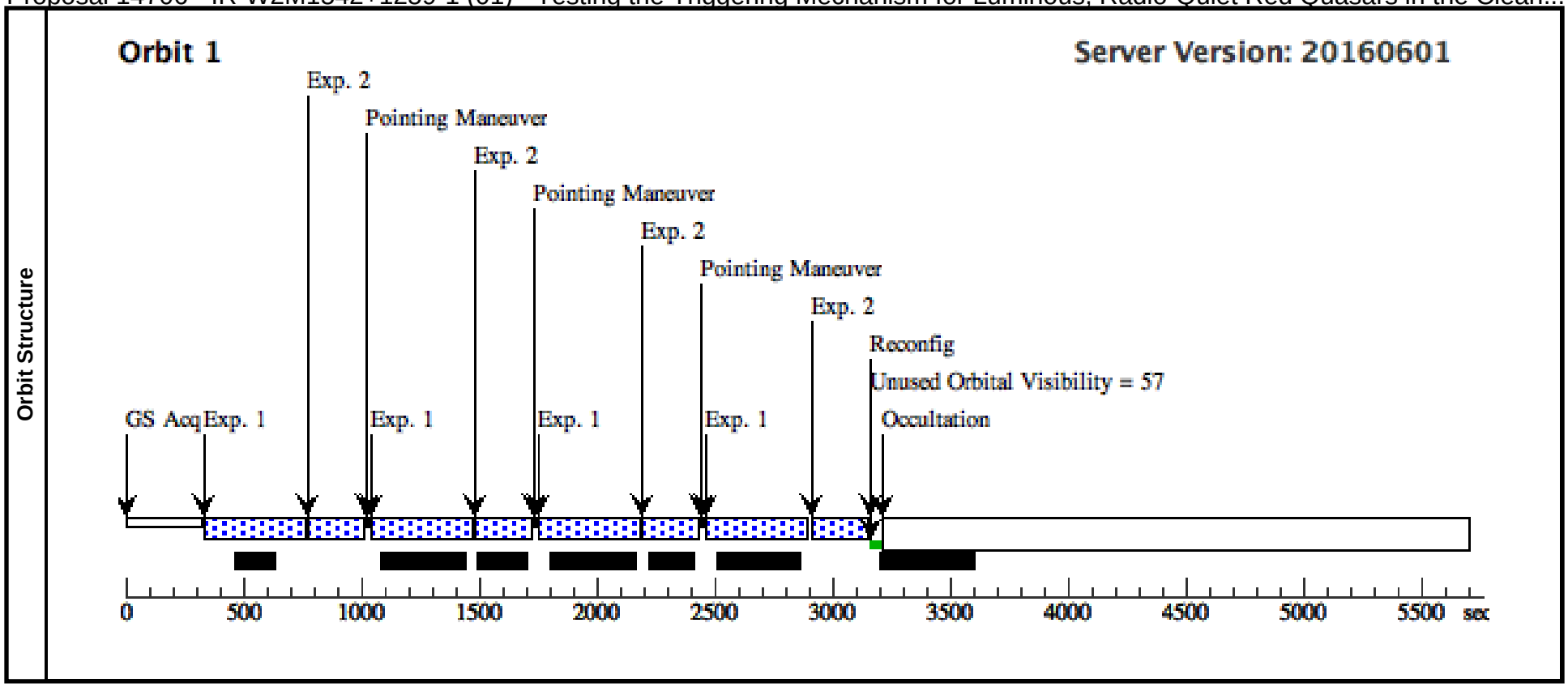
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	W2M1542+1259	RA: 15 42 23.0000 (235.5958333d) Dec: +12 59 13.40 (12.98706d) Equinox: J2000	Redshift: 2.52	V=23.96 K=14.53	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	W2M1542+1259 - H	(1) W2M1542+1259	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=10; SAMP-SEQ=STEP100		Pattern 1, Exps 1-2 in IR-W2M1542+1259-1 (01) (1)	399.231646 Secs (1596.927 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2	W2M1542+1259 - J	(1) W2M1542+1259	WFC3/IR, MULTIACCUM, IR	F125W	NSAMP=13; SAMP-SEQ=STEP25		Pattern 1, Exps 1-2 in IR-W2M1542+1259-1 (01) (1)	224.233831 Secs (896.935 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20160601
Exp. 2
Pointing Maneuver
Exp. 2
Pointing Maneuver
Exp. 2
Pointing Maneuver
Exp. 2
Reconfig
Unused Orbital Visibility = 57
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 14706, IR-W2M1542+1259-2 (02), implementation Fri Jul 29 18:58:18 GMT 2016

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR

Special Requirements: (none)

Patterns

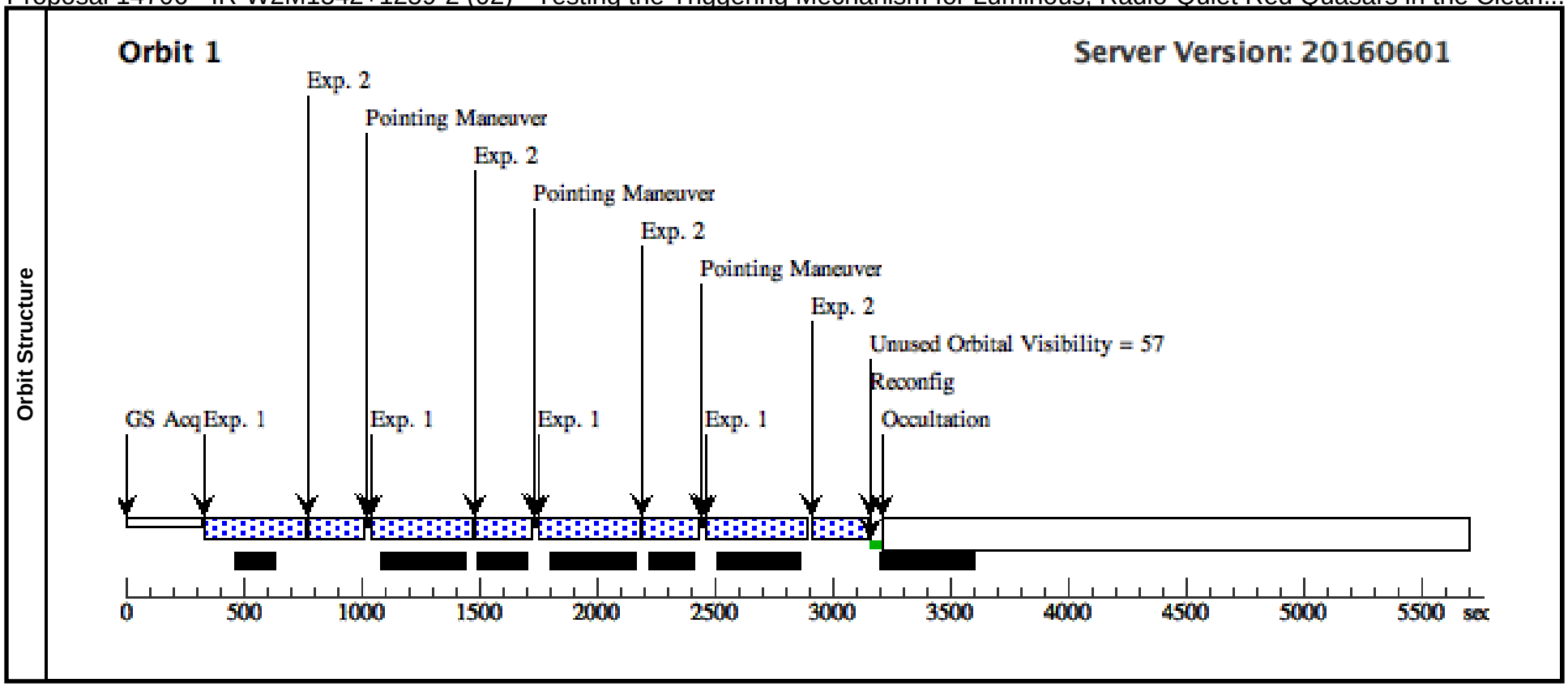
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	W2M1542+1259	RA: 15 42 23.0000 (235.5958333d) Dec: +12 59 13.40 (12.98706d) Equinox: J2000	Redshift: 2.52	V=23.96 K=14.53	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	W2M1542+1259 - H	(1) W2M1542+1259	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=10; SAMP-SEQ=STEP100		Pattern 1, Exps 1-2 in IR-W2M1542+1259-2 (02) (1)	399.231646 Secs (1596.927 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2	W2M1542+1259 - J	(1) W2M1542+1259	WFC3/IR, MULTIACCUM, IR	F125W	NSAMP=13; SAMP-SEQ=STEP25		Pattern 1, Exps 1-2 in IR-W2M1542+1259-2 (02) (1)	224.233831 Secs (896.935 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***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Server Version: 20160601
Exp. 2
Pointing Maneuver
Exp. 2
Pointing Maneuver
Exp. 2
Pointing Maneuver
Exp. 2
Unused Orbital Visibility = 57
Reconfig
Occultation
GS Acq
Exp. 1
Exp. 1
Exp. 1
Exp. 1
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 14706, IR-W2M1042+1641-1 (03), implementation Fri Jul 29 18:58:18 GMT 2016

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR

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)

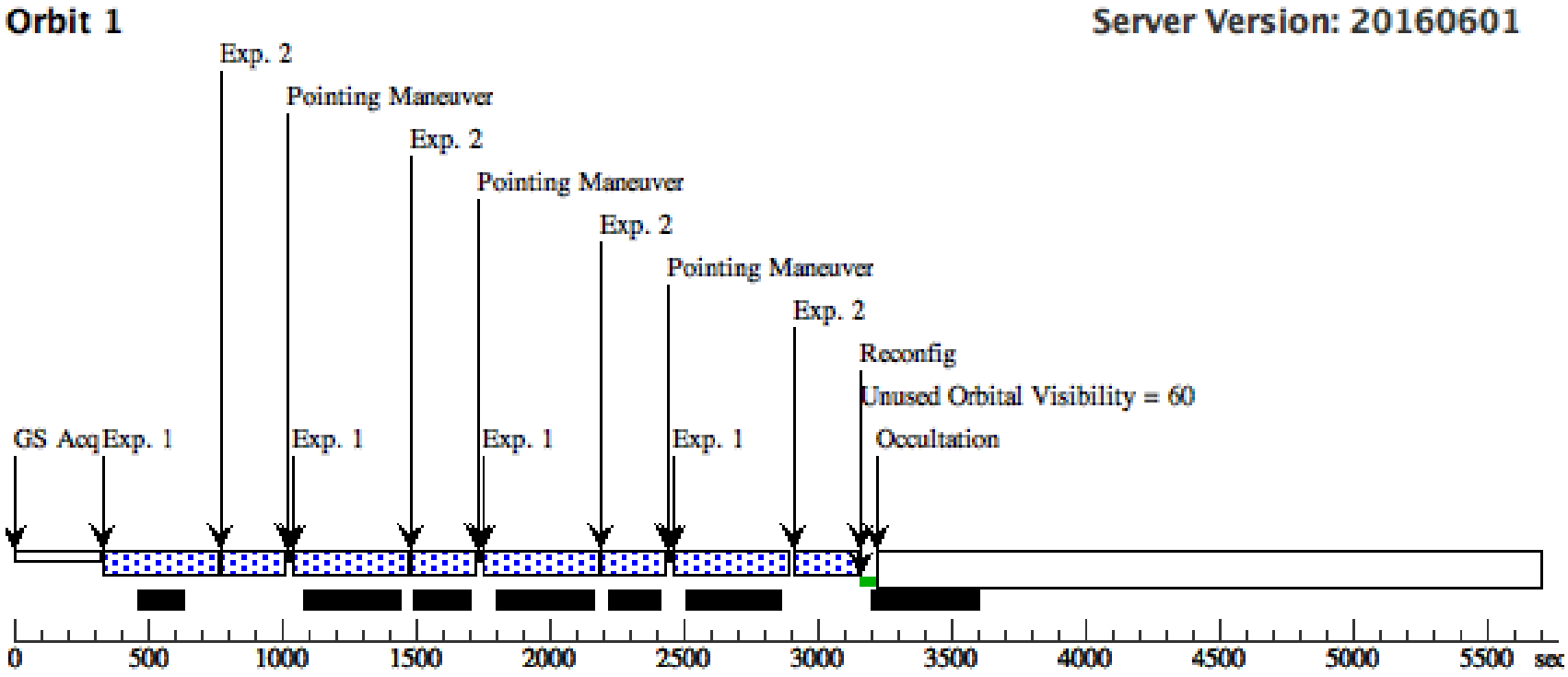
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	W2M1042+1641	RA: 10 42 22.1200 (160.5921667d) Dec: +16 41 15.30 (16.68758d) Equinox: J2000	Redshift: 2.52	V=20.39 K=14.023	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	F2M1042+1641 - H	(2) W2M1042+1641	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=10; SAMP-SEQ=STEP100		Pattern 1, Exps 1-2 in IR-W2M1042+1641-1 (03) (1)	399.231646 Secs (1596.927 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	 ***[1]***
2	F2M1042+1641 - J	(2) W2M1042+1641	WFC3/IR, MULTIACCUM, IR	F125W	NSAMP=13; SAMP-SEQ=STEP25		Pattern 1, Exps 1-2 in IR-W2M1042+1641-1 (03) (1)	224.233831 Secs (896.935 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	 ***[1]***

Orbit Structure



Visit

Proposal 14706, IR-W2M1042+1641-2 (04), implementation Fri Jul 29 18:58:19 GMT 2016

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR

Special Requirements: (none)

Patterns

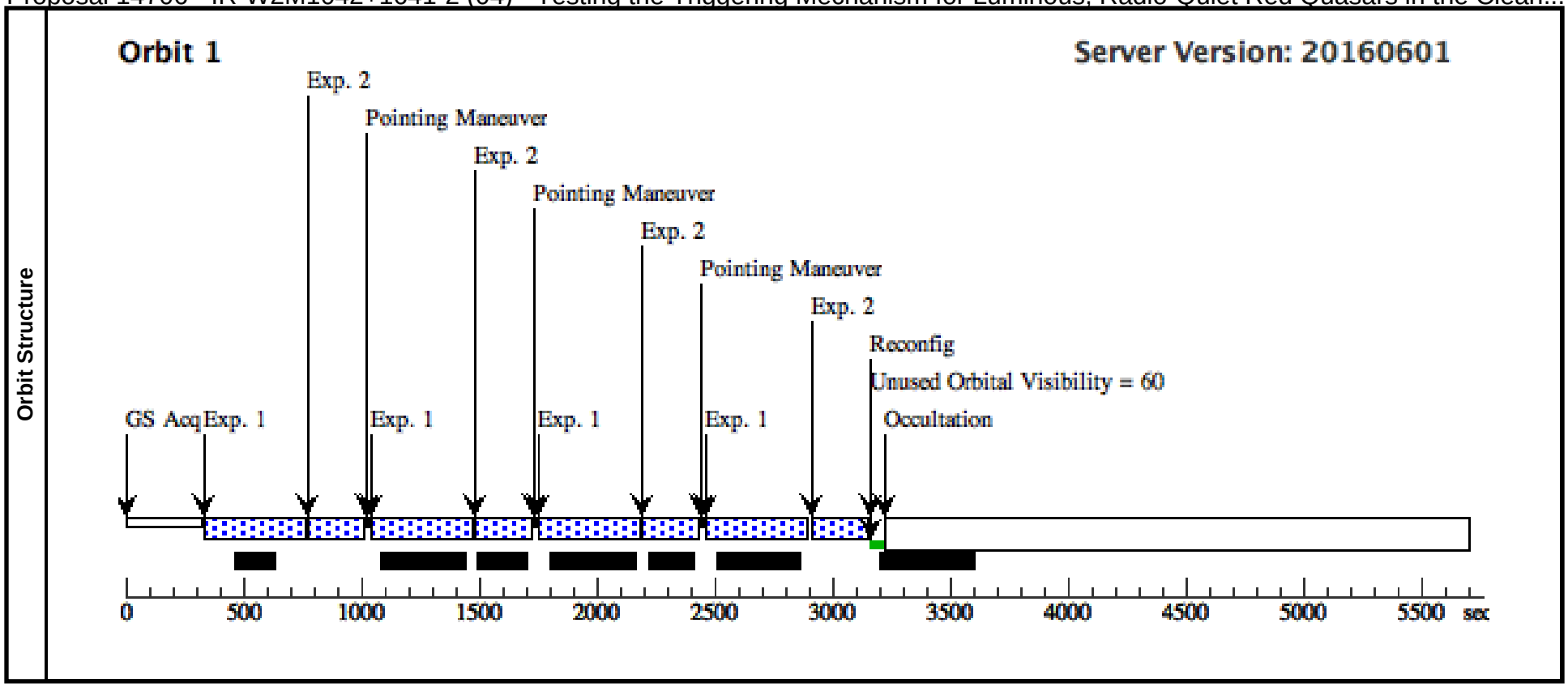
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	W2M1042+1641	RA: 10 42 22.1200 (160.5921667d) Dec: +16 41 15.30 (16.68758d) Equinox: J2000	Redshift: 2.52	V=20.39 K=14.023	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	F2M1042+1641 - H	(2) W2M1042+1641	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=10; SAMP-SEQ=STEP100		Pattern 1, Exps 1-2 in IR-W2M1042+1641-2 (04) (1)	399.231646 Secs (1596.927 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	 ***[1]***
2	F2M1042+1641 - J	(2) W2M1042+1641	WFC3/IR, MULTIACCUM, IR	F125W	NSAMP=13; SAMP-SEQ=STEP25		Pattern 1, Exps 1-2 in IR-W2M1042+1641-2 (04) (1)	224.233831 Secs (896.935 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	 ***[1]***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Pointing Maneuver
Exp. 2
Pointing Maneuver
Exp. 2
Pointing Maneuver
Exp. 2
Reconfig
Unused Orbital Visibility = 60
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 14706, IR-W2M0811+0115-1 (05), implementation Fri Jul 29 18:58:19 GMT 2016

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR

Special Requirements: (none)

Patterns

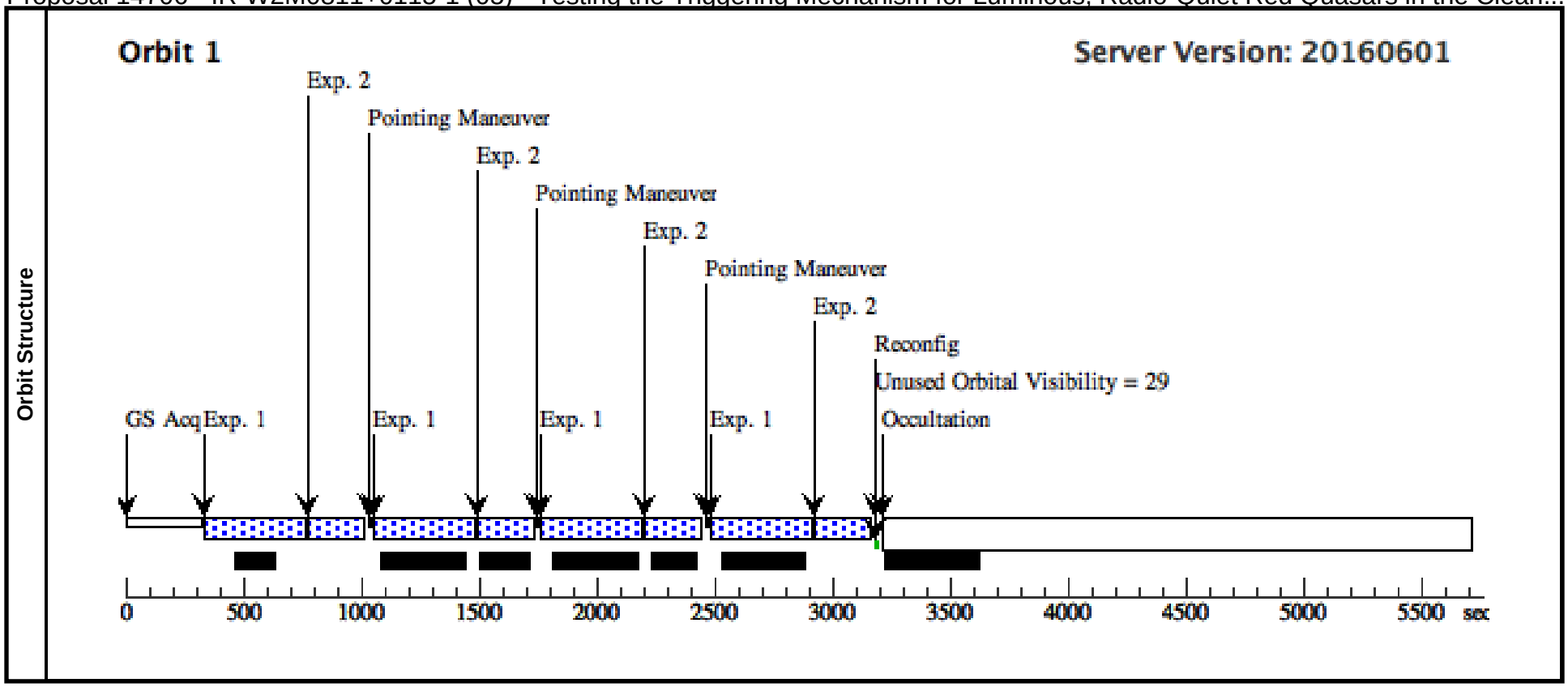
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	W2M0811+0115	RA: 08 11 51.9900 (122.9666250d) Dec: +01 15 46.60 (1.26294d) Equinox: J2000	Redshift: 2.20	V=19.63 K = 14.677	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	F2M0811+0115 - H	(3) W2M0811+0115	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=10; SAMP-SEQ=STEP100		Pattern 1, Exps 1-2 in IR-W2M0811+0115-1 (05) (1)	399.231646 Secs (1596.927 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2	F2M0811+0115 - Y	(3) W2M0811+0115	WFC3/IR, MULTIACCUM, IR	F105W	NSAMP=13; SAMP-SEQ=STEP25		Pattern 1, Exps 1-2 in IR-W2M0811+0115-1 (05) (1)	224.233831 Secs (896.935 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***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Server Version: 20160601
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Pointing Maneuver
Exp. 2
Pointing Maneuver
Exp. 2
Pointing Maneuver
Exp. 2
Reconfig
Unused Orbital Visibility = 29
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 14706, IR-W2M0811+0115-2 (06), implementation Fri Jul 29 18:58:19 GMT 2016

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR

Special Requirements: (none)

Patterns

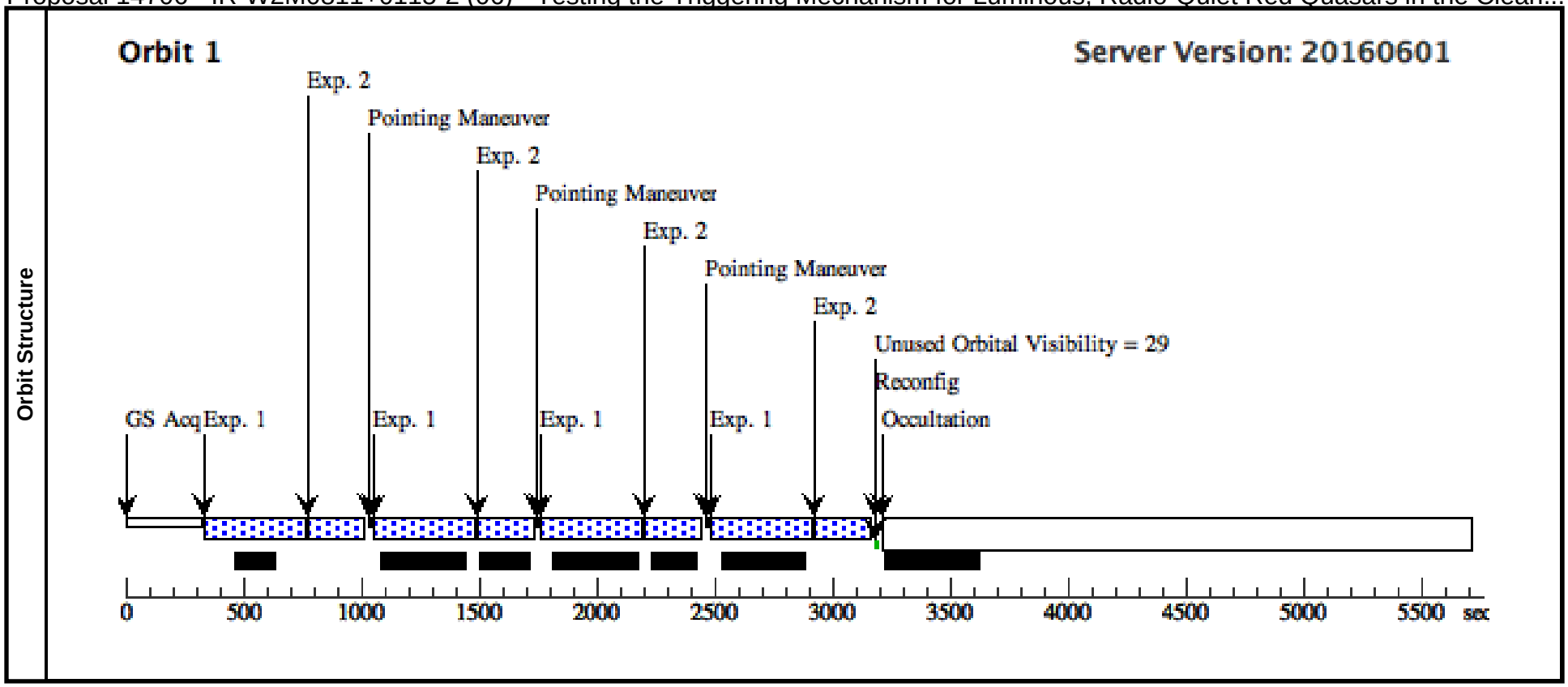
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	W2M0811+0115	RA: 08 11 51.9900 (122.9666250d) Dec: +01 15 46.60 (1.26294d) Equinox: J2000	Redshift: 2.20	V=19.63 K = 14.677	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	F2M0811+0115 - H	(3) W2M0811+0115	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=10; SAMP-SEQ=STEP100		Pattern 1, Exps 1-2 in IR-W2M0811+0115-2 (06) (1)	399.231646 Secs (1596.927 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2	F2M0811+0115 - Y	(3) W2M0811+0115	WFC3/IR, MULTIACCUM, IR	F105W	NSAMP=13; SAMP-SEQ=STEP25		Pattern 1, Exps 1-2 in IR-W2M0811+0115-2 (06) (1)	224.233831 Secs (896.935 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***


Orbit Structure
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Server Version: 20160601
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Pointing Maneuver
Exp. 2
Pointing Maneuver
Exp. 2
Pointing Maneuver
Exp. 2
Unused Orbital Visibility = 29
Reconfig
Occultation
GS Acq
Exp. 1
Exp. 1
Exp. 1
Exp. 1
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 14706, IR-W2M1252+0715-1 (07), implementation Fri Jul 29 18:58:19 GMT 2016

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR

Special Requirements: (none)

Patterns

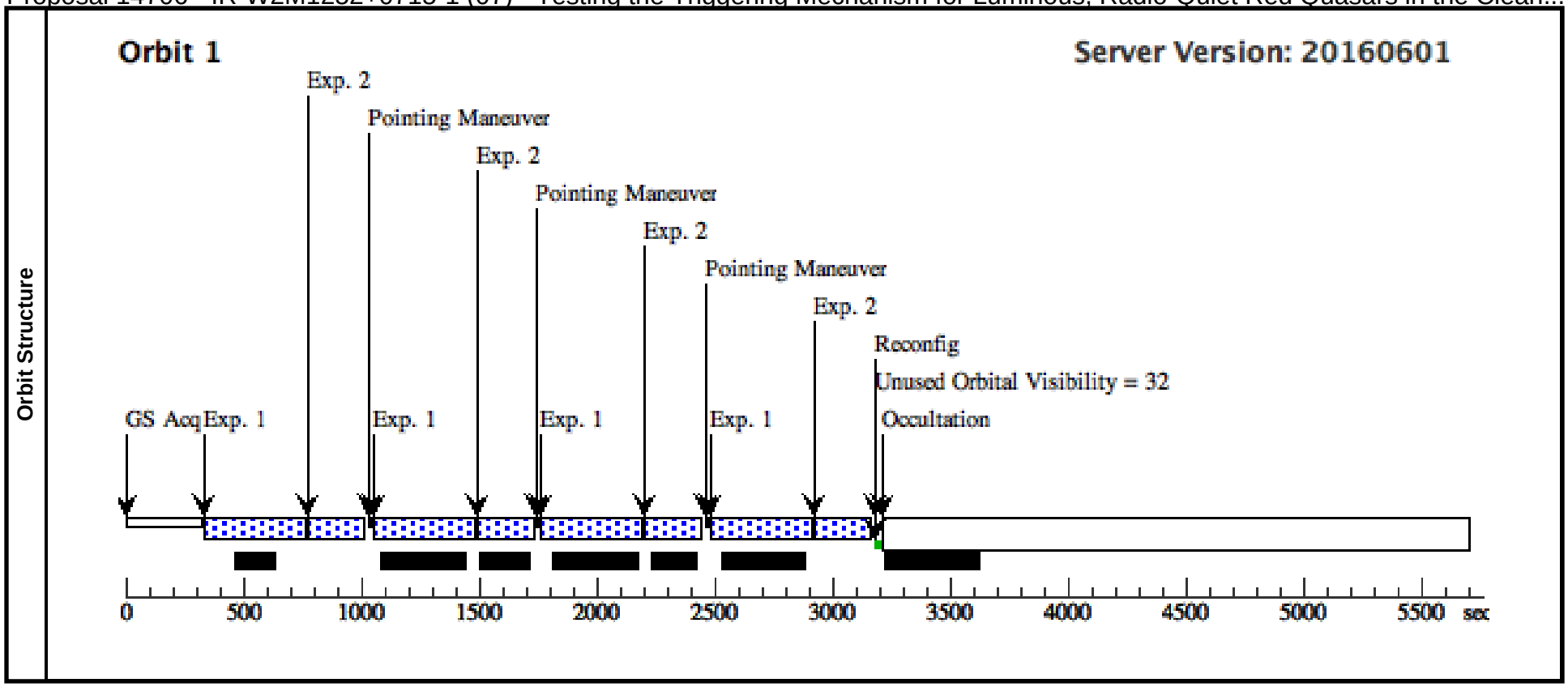
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	W2M1252+0715	RA: 12 52 12.9100 (193.0537917d) Dec: +07 15 4.60 (7.25128d) Equinox: J2000	Redshift: 2.17	V=21.64 K=14.496	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	F2M1252+0715 - H	(4) W2M1252+0715	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=10; SAMP-SEQ=STEP100		Pattern 1, Exps 1-2 in IR-W2M1252+0715-1 (07) (1)	399.231646 Secs (1596.927 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	 ***[1]***
2	F2M1252+0715 - Y	(4) W2M1252+0715	WFC3/IR, MULTIACCUM, IR	F105W	NSAMP=13; SAMP-SEQ=STEP25		Pattern 1, Exps 1-2 in IR-W2M1252+0715-1 (07) (1)	224.233831 Secs (896.935 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	 ***[1]***


Orbit Structure
Orbit 1
Server Version: 20160601
Exp. 2
Pointing Maneuver
Exp. 2
Pointing Maneuver
Exp. 2
Pointing Maneuver
Exp. 2
Reconfig
Unused Orbital Visibility = 32
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 14706, IR-W2M1252+0715-2 (08), implementation Fri Jul 29 18:58:19 GMT 2016

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR

Special Requirements: (none)

Patterns

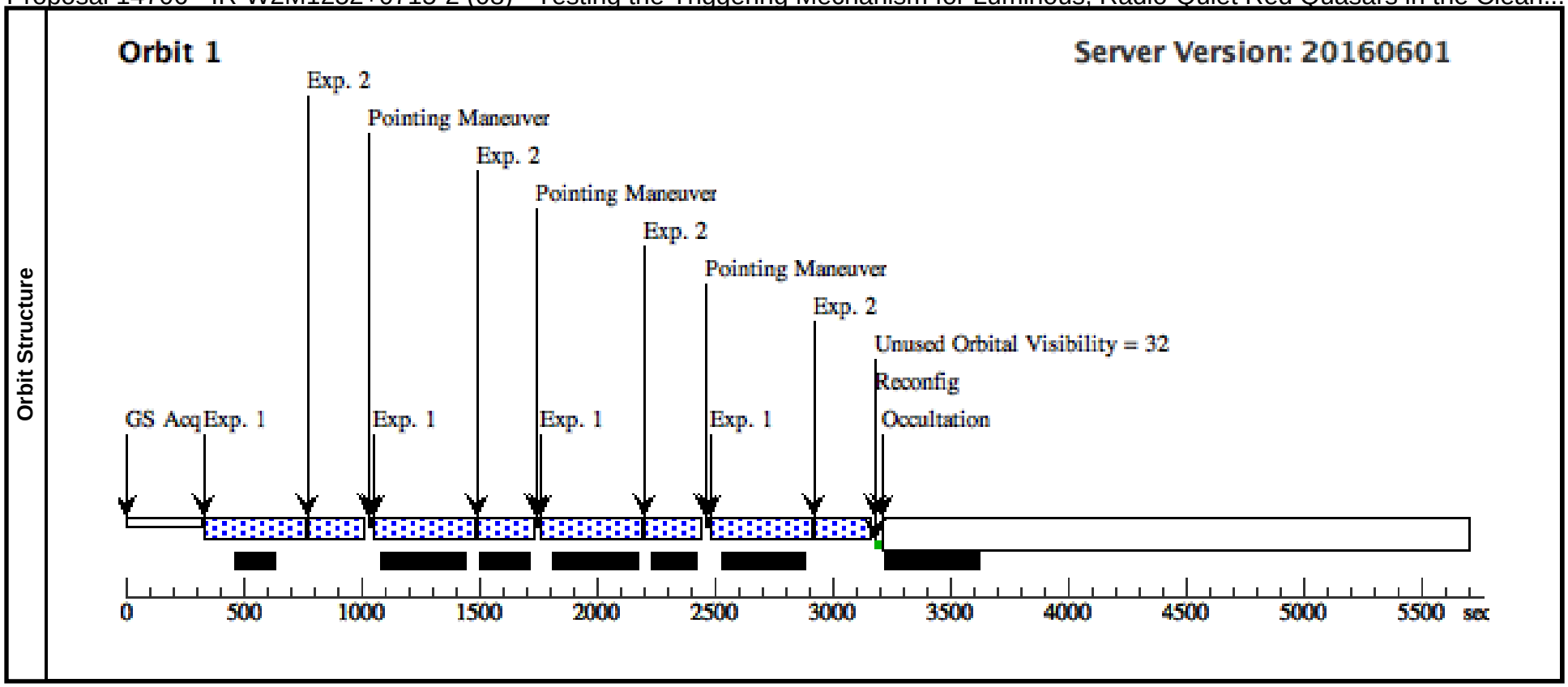
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	W2M1252+0715	RA: 12 52 12.9100 (193.0537917d) Dec: +07 15 4.60 (7.25128d) Equinox: J2000	Redshift: 2.17	V=21.64 K=14.496	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	F2M1252+0715 - H	(4) W2M1252+0715	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=10; SAMP-SEQ=STEP100		Pattern 1, Exps 1-2 in IR-W2M1252+0715-2 (08) (1)	399.231646 Secs (1596.927 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	 ***[1]***
2	F2M1252+0715 - Y	(4) W2M1252+0715	WFC3/IR, MULTIACCUM, IR	F105W	NSAMP=13; SAMP-SEQ=STEP25		Pattern 1, Exps 1-2 in IR-W2M1252+0715-2 (08) (1)	224.233831 Secs (896.935 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	 ***[1]***


Orbit Structure
Orbit 1
Server Version: 20160601
Exp. 2
Pointing Maneuver
Exp. 2
Pointing Maneuver
Exp. 2
Pointing Maneuver
Exp. 2
Unused Orbital Visibility = 32
Reconfig
Occultation
GS Acq
Exp. 1
Exp. 1
Exp. 1
Exp. 1
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 14706, IR-W2M1220+1126 (09), implementation Fri Jul 29 18:58:19 GMT 2016

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR

Special Requirements: (none)

Patterns

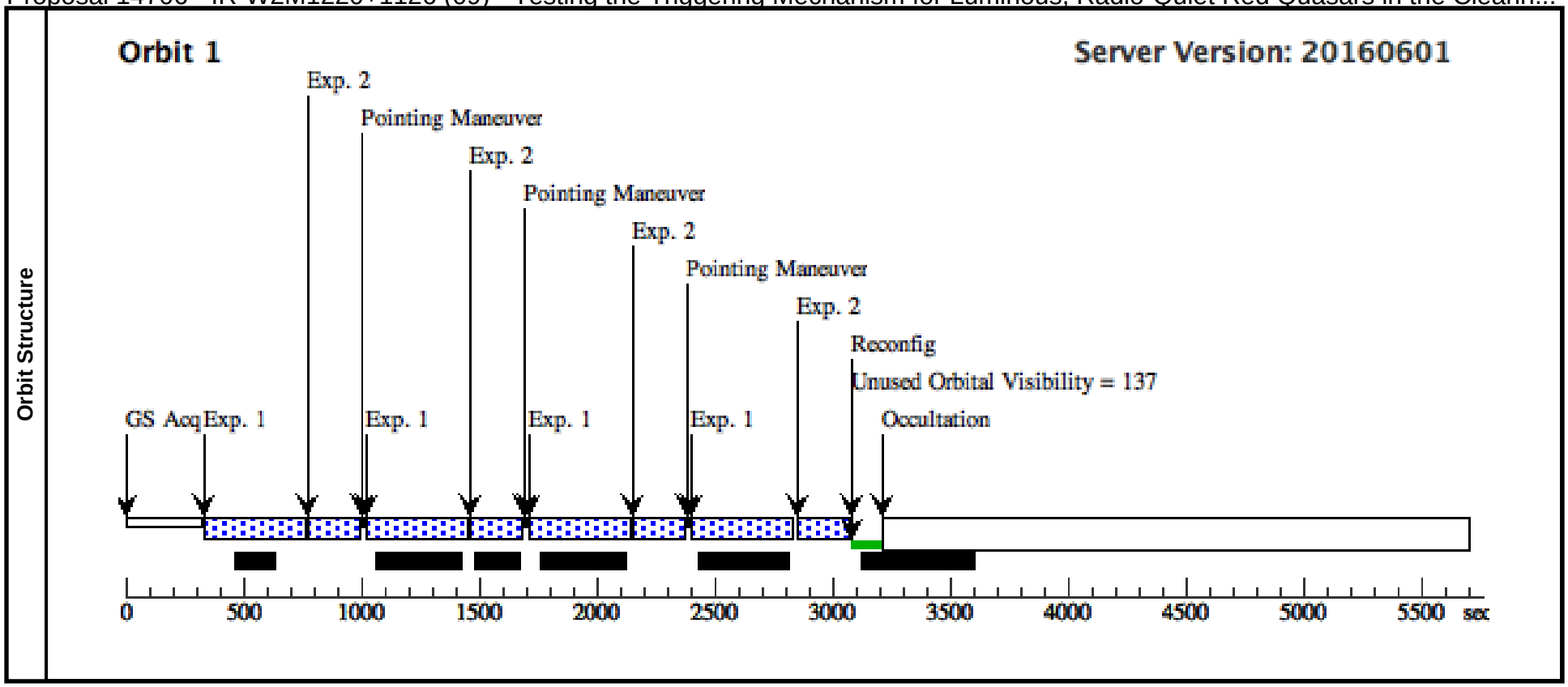
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	W2M1220+1126	RA: 12 20 16.8700 (185.0702917d) Dec: +11 26 28.10 (11.44114d) Equinox: J2000	Redshift: 1.87	V=19.06 K = 13.826	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	W2M1220+1126-H	(5) W2M1220+1126	WFC3/IR, MULTIACCUM, IR	F160W	SAMP-SEQ=STEP100; NSAMP=10		Pattern 1, Exps 1-2 in IR-W2M1220+1126 (09) (1)	399.231646 Secs (1596.927 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2	W2M1220+1126-Y	(5) W2M1220+1126	WFC3/IR, MULTIACCUM, IR	F105W	SAMP-SEQ=STEP25; NSAMP=12		Pattern 1, Exps 1-2 in IR-W2M1220+1126 (09) (1)	199.233316 Secs (796.933 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20160601
Exp. 2
Pointing Maneuver
Exp. 2
Pointing Maneuver
Exp. 2
Pointing Maneuver
Exp. 2
Reconfig
Unused Orbital Visibility = 137
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 14706, IR-W2M1439+0858 (10), implementation Fri Jul 29 18:58:19 GMT 2016

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR

Special Requirements: (none)

Patterns

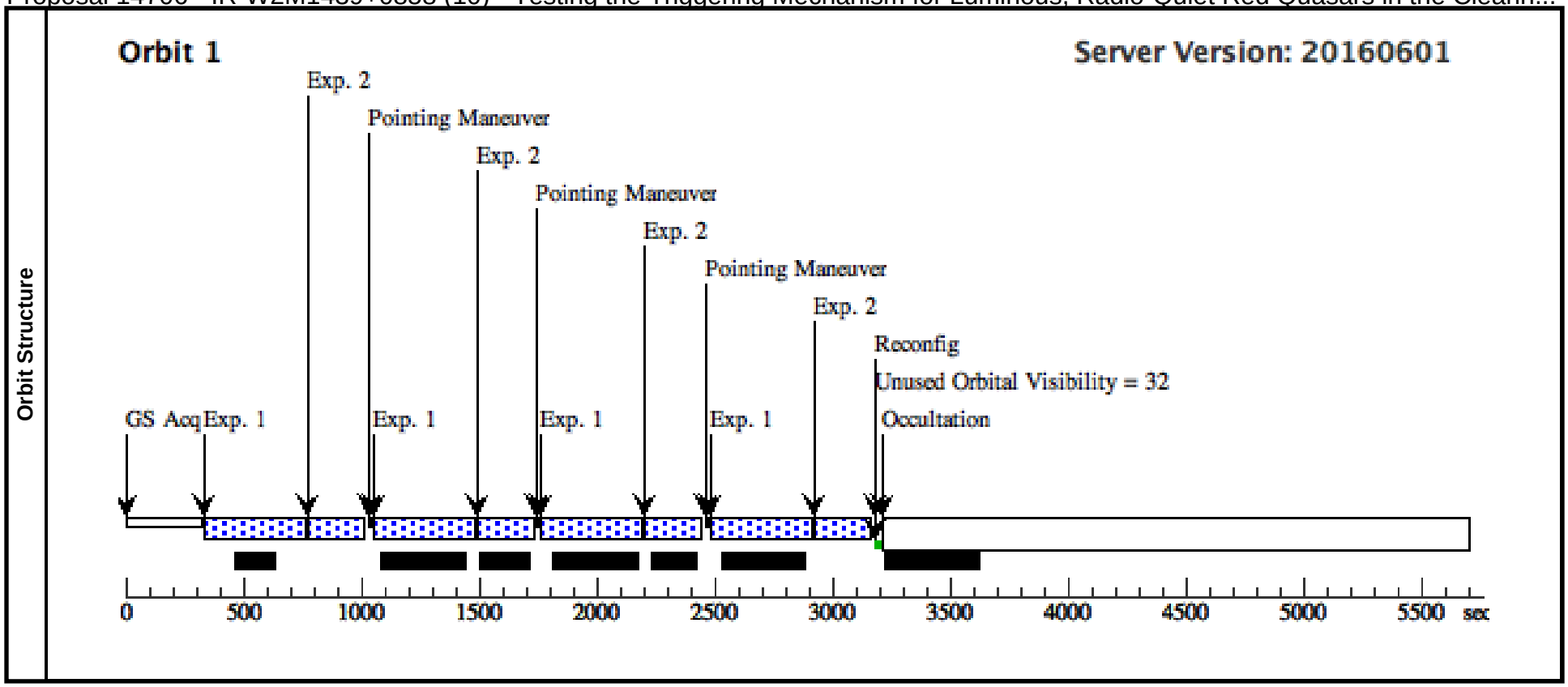
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-IR-DITHER-BOX-MIN Purpose=DITHER Number Of Points=4 Point Spacing=0.572 Line Spacing=0.365	Coordinate Frame=POS-TARG Pattern Orientation=18.528 Angle Between Sides=74.653 Center Pattern=false		(1-2)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(6)	W2M1439+0858	RA: 14 39 29.9100 (219.8746250d) Dec: +08 58 46.40 (8.97956d) Equinox: J2000	Redshift: 1.76	V=20.61 K = 14.55	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	W2M1439+0858-H	(6) W2M1439+0858	WFC3/IR, MULTIACCUM, IR	F160W	SAMP-SEQ=STEP100; NSAMP=10		Pattern 1, Exps 1-2 in IR-W2M1439+0858 (10) (1)	399.231646 Secs (1596.927 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***
2	W2M1439+0858-Y	(6) W2M1439+0858	WFC3/IR, MULTIACCUM, IR	F105W	SAMP-SEQ=STEP25; NSAMP=13		Pattern 1, Exps 1-2 in IR-W2M1439+0858 (10) (1)	224.233831 Secs (896.935 Secs) *[==>(Pattern 1)]* *[==>(Pattern 2)]* *[==>(Pattern 3)]* *[==>(Pattern 4)]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20160601
Exp. 2
Pointing Maneuver
Exp. 2
Pointing Maneuver
Exp. 2
Pointing Maneuver
Exp. 2
Reconfig
Unused Orbital Visibility = 32
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 14706, ACS-W2M0043+0052 (11), implementation Fri Jul 29 18:58:19 GMT 2016

Diagnostic Status: Warning

Scientific Instruments: ACS/WFC

Special Requirements: (none)

Diagnostics

(ACS-W2M0043+0052 (11)) Warning (Orbit Planner): SAME POS MAY NOT BE APPROPRIATE
(ACS-W2M0043+0052 (11)) Warning (Orbit Planner): SAME POS MAY NOT BE APPROPRIATE
(ACS-W2M0043+0052 (11)) Warning (Orbit Planner): SAME POS MAY NOT BE APPROPRIATE
(ACS-W2M0043+0052 (11)) Warning (Orbit Planner): SAME POS MAY NOT BE APPROPRIATE
(ACS-W2M0043+0052 (11)) Warning (Orbit Planner): SAME POS MAY NOT BE APPROPRIATE
(ACS-W2M0043+0052 (11)) Warning (Orbit Planner): SAME POS MAY NOT BE APPROPRIATE
(ACS-W2M0043+0052 (11)) Warning (Orbit Planner): SAME POS MAY NOT BE APPROPRIATE
(ACS-W2M0043+0052 (11)) Warning (Orbit Planner): SAME POS MAY NOT BE APPROPRIATE

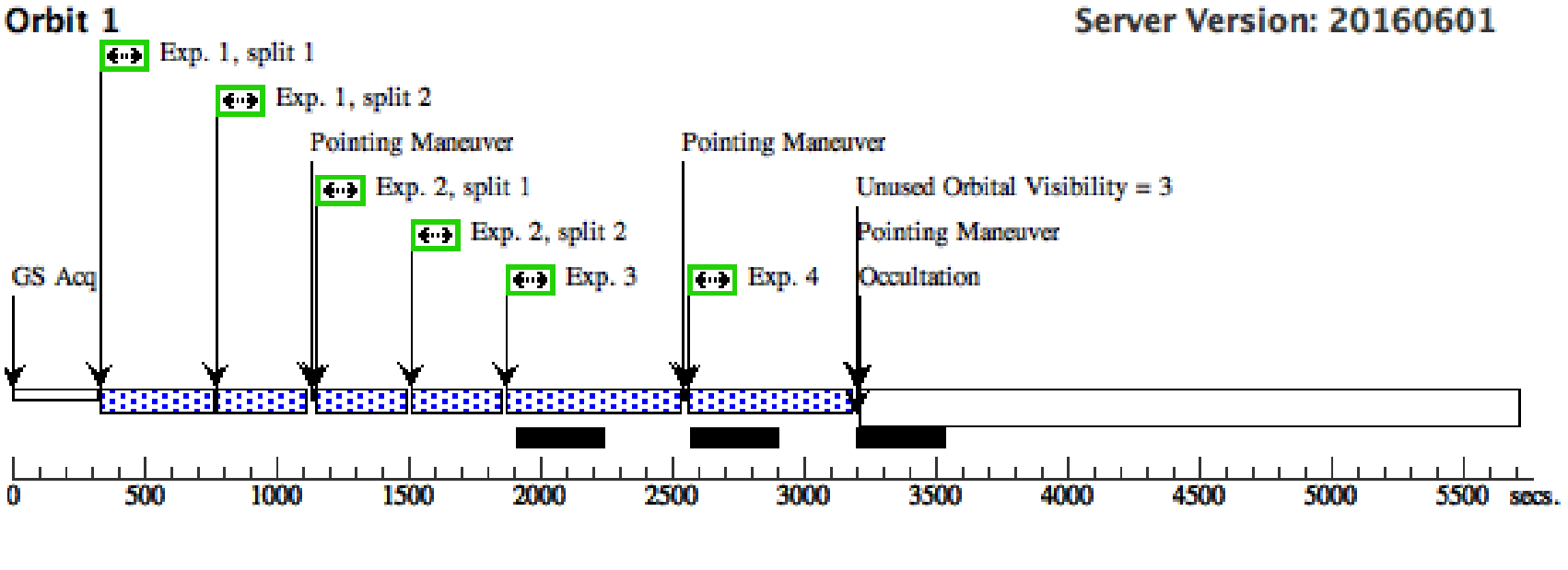
Fixed Targets

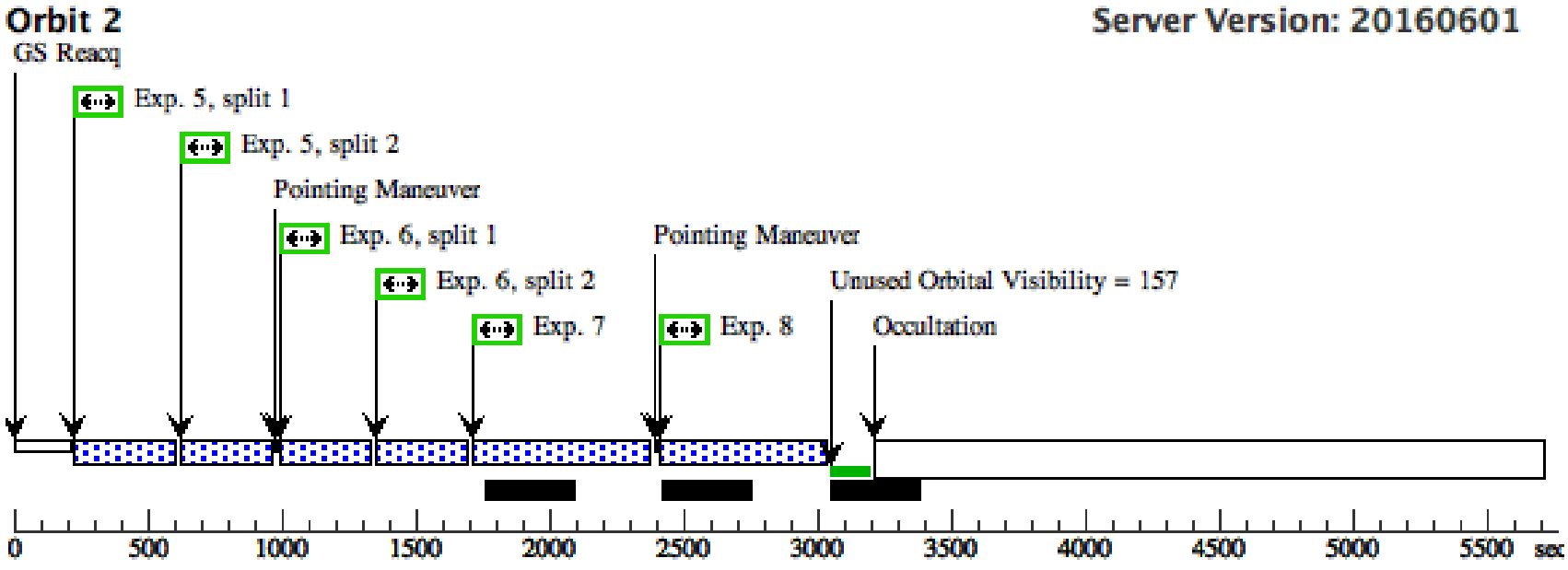
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(7)	W2M0043+0052	RA: 00 43 41.2500 (10.9218750d) Dec: +00 52 53.30 (.88147d) Equinox: J2000	Redshift: 0.83	V=20.51	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	i-band 1	(7) W2M0043+0052	ACS/WFC, ACCUM, WFC1B-2K	F814W	CR-SPLIT=2	SAME POS AS 4; GS ACQ SCENARI O BASE1B3	Sequence 1-4 Non-In t in ACS-W2M0043 +0052 (11)	440 Secs (440 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	***[1]***
2	i-band 2	(7) W2M0043+0052	ACS/WFC, ACCUM, WFC1B-2K	F814W	CR-SPLIT=2	SAME POS AS 3	Sequence 1-4 Non-In t in ACS-W2M0043 +0052 (11)	440 Secs (440 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	***[1]***
3	g-band 3	(7) W2M0043+0052	ACS/WFC, ACCUM, WFC1-CTE	F475W		POS TARG 0,0	Sequence 1-4 Non-In t in ACS-W2M0043 +0052 (11)	500 Secs (500 Secs) *[==>]*	***[1]***
4	g-band 4	(7) W2M0043+0052	ACS/WFC, ACCUM, WFC1-CTE	F475W		POS TARG 0.247,0. 094	Sequence 1-4 Non-In t in ACS-W2M0043 +0052 (11)	500 Secs (500 Secs) *[==>]*	***[1]***
5	i-band 5	(7) W2M0043+0052	ACS/WFC, ACCUM, WFC1B-2K	F814W	CR-SPLIT=2	SAME POS AS 8	Sequence 5-8 Non-In t in ACS-W2M0043 +0052 (11)	440 Secs (440 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	***[2]***
6	i-band 6	(7) W2M0043+0052	ACS/WFC, ACCUM, WFC1B-2K	F814W	CR-SPLIT=2	SAME POS AS 7	Sequence 5-8 Non-In t in ACS-W2M0043 +0052 (11)	440 Secs (440 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	***[2]***
7	g-band 7	(7) W2M0043+0052	ACS/WFC, ACCUM, WFC1-CTE	F475W		POS TARG 0.124,0. 232	Sequence 5-8 Non-In t in ACS-W2M0043 +0052 (11)	500 Secs (500 Secs) *[==>]*	***[2]***
8	g-band 8	(7) W2M0043+0052	ACS/WFC, ACCUM, WFC1-CTE	F475W		POS TARG -0.124,0 .138	Sequence 5-8 Non-In t in ACS-W2M0043 +0052 (11)	500 Secs (500 Secs) *[==>]*	***[2]***

Orbit Structure





Visit

Proposal 14706, ACS-W2M0035+0114 (12), implementation Fri Jul 29 18:58:19 GMT 2016

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: (none)

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(2)	Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192	Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false		(1-2)

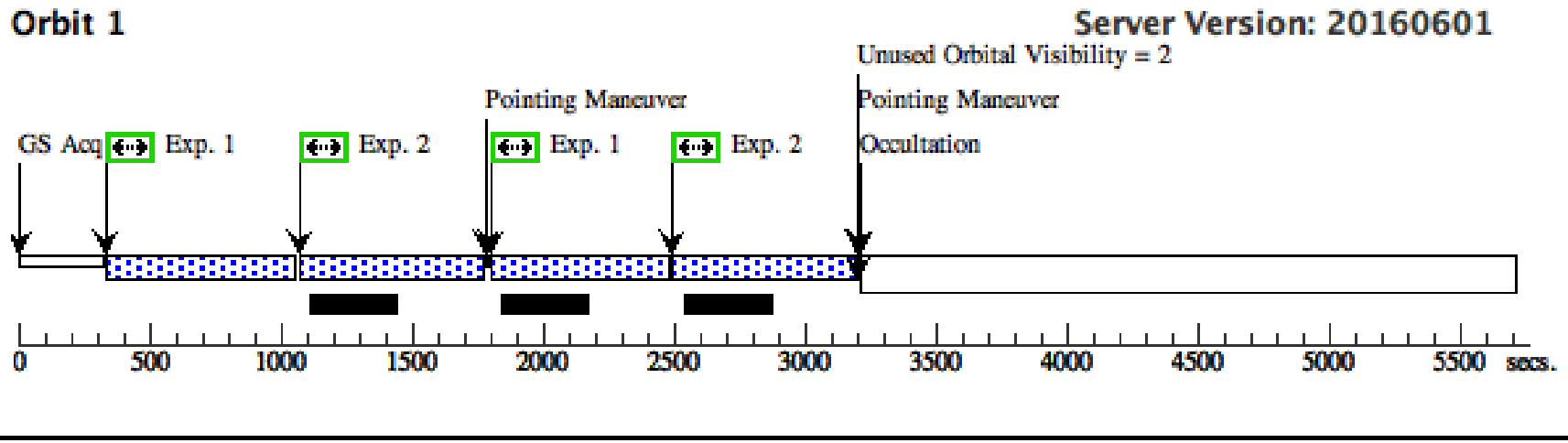
Fixed Targets

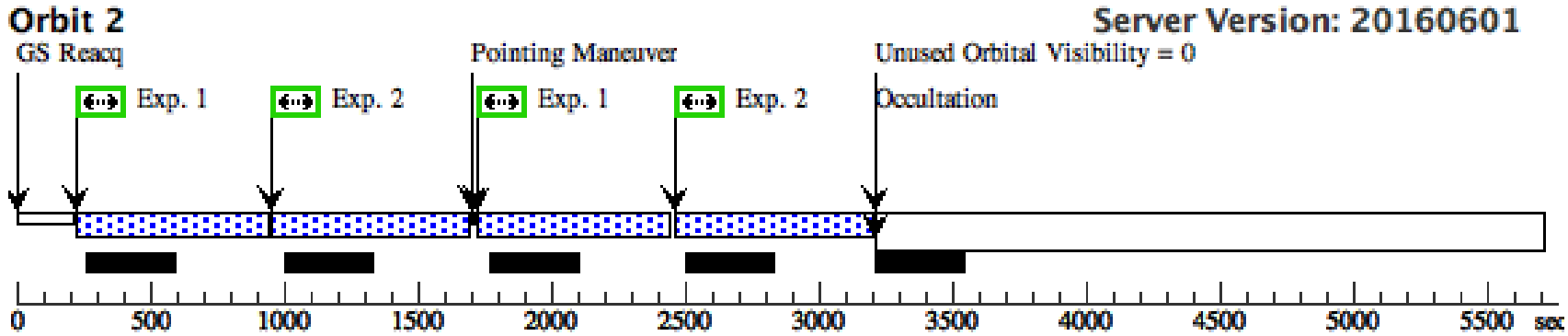
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(8)	W2M0035+0114	RA: 00 35 14.4900 (8.8103750d) Dec: +01 14 30.60 (1.24183d) Equinox: J2000	Redshift: 0.81	V=21.50	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	W2M0035+0114-i	(8) W2M0035+0114	ACS/WFC, ACCUM, WFC1-CTE	F814W	GAIN=2.0; CR-SPLIT=NO		Pattern 2, Exps 1-2 in ACS-W2M0035+0114 (12) (2)	510 Secs (2150 Secs)	
								[==>518.0 Secs (Pattern 1)] *[==>518.0 Secs (Pattern 2)]*	***[1]***
								[==>557.0 Secs (Pattern 3)] *[==>557.0 Secs (Pattern 4)]*	***[2]***
2	W2M0035+0114-b	(8) W2M0035+0114	ACS/WFC, ACCUM, WFC1-CTE	F475W	CR-SPLIT=NO; GAIN=2.0		Pattern 2, Exps 1-2 in ACS-W2M0035+0114 (12) (2)	525 Secs (2210 Secs)	
								[==>533.0 Secs (Pattern 1)] *[==>533.0 Secs (Pattern 2)]*	***[1]***
								[==>572.0 Secs (Pattern 3)] *[==>572.0 Secs (Pattern 4)]*	***[2]***

Orbit Structure





Visit

Proposal 14706, ACS-W2M1242+0440 (13), implementation Fri Jul 29 18:58:19 GMT 2016

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: (none)

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(2)	Pattern Type=ACS-WFC-DITHER-BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.262 Line Spacing=0.192	Coordinate Frame=POS-TARG Pattern Orientation=18.39 Angle Between Sides=68.14 Center Pattern=false		(1-2)

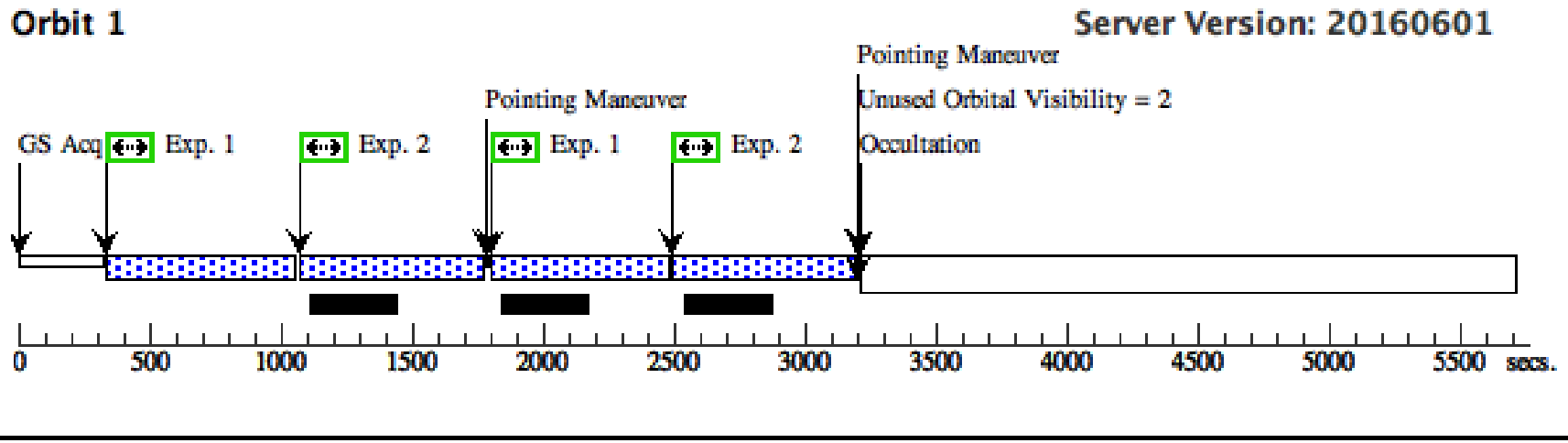
Fixed Targets

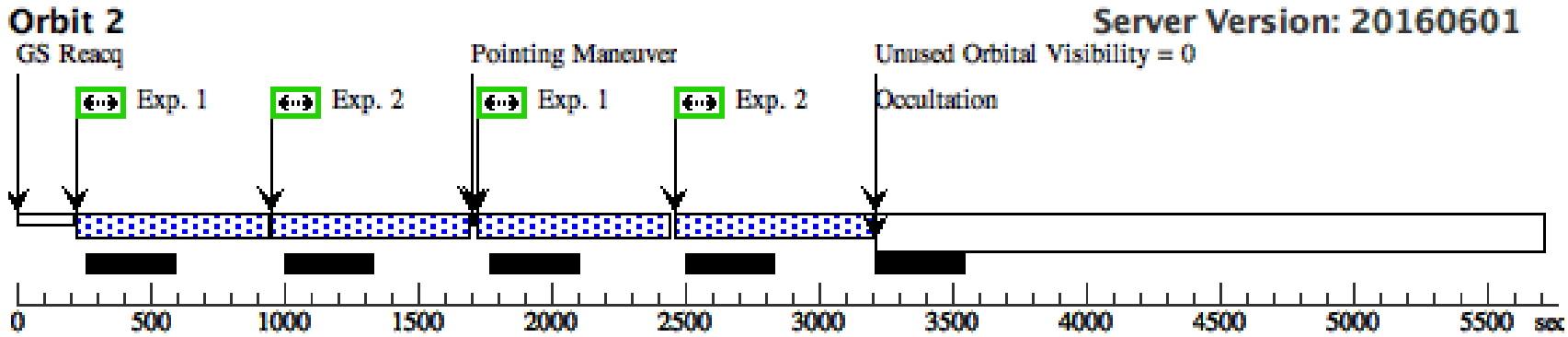
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(9)	W2M1242+0440	RA: 12 42 12.1200 (190.5505000d) Dec: +04 40 42.00 (4.67833d) Equinox: J2000	Redshift: 0.63	V=21.86	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	W2M1242+0440-i	(9) W2M1242+0440	ACS/WFC, ACCUM, WFC1-CTE	F814W	GAIN=2.0; CR-SPLIT=NO		Pattern 2, Exps 1-2 in ACS-W2M1242+0440 (13) (2)	510 Secs (2150 Secs)	
								[==>518.0 Secs (Pattern 1)] *[==>518.0 Secs (Pattern 2)]*	***[1]***
								[==>557.0 Secs (Pattern 3)] *[==>557.0 Secs (Pattern 4)]*	***[2]***
2	W2M1242+0440-b	(9) W2M1242+0440	ACS/WFC, ACCUM, WFC1-CTE	F475W	CR-SPLIT=NO; GAIN=2.0		Pattern 2, Exps 1-2 in ACS-W2M1242+0440 (13) (2)	525 Secs (2210 Secs)	
								[==>533.0 Secs (Pattern 1)] *[==>533.0 Secs (Pattern 2)]*	***[1]***
								[==>572.0 Secs (Pattern 3)] *[==>572.0 Secs (Pattern 4)]*	***[2]***

Orbit Structure





Visit

Proposal 14706, ACS-W2M2152-0051 (16), implementation Fri Jul 29 18:58:19 GMT 2016

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: (none)

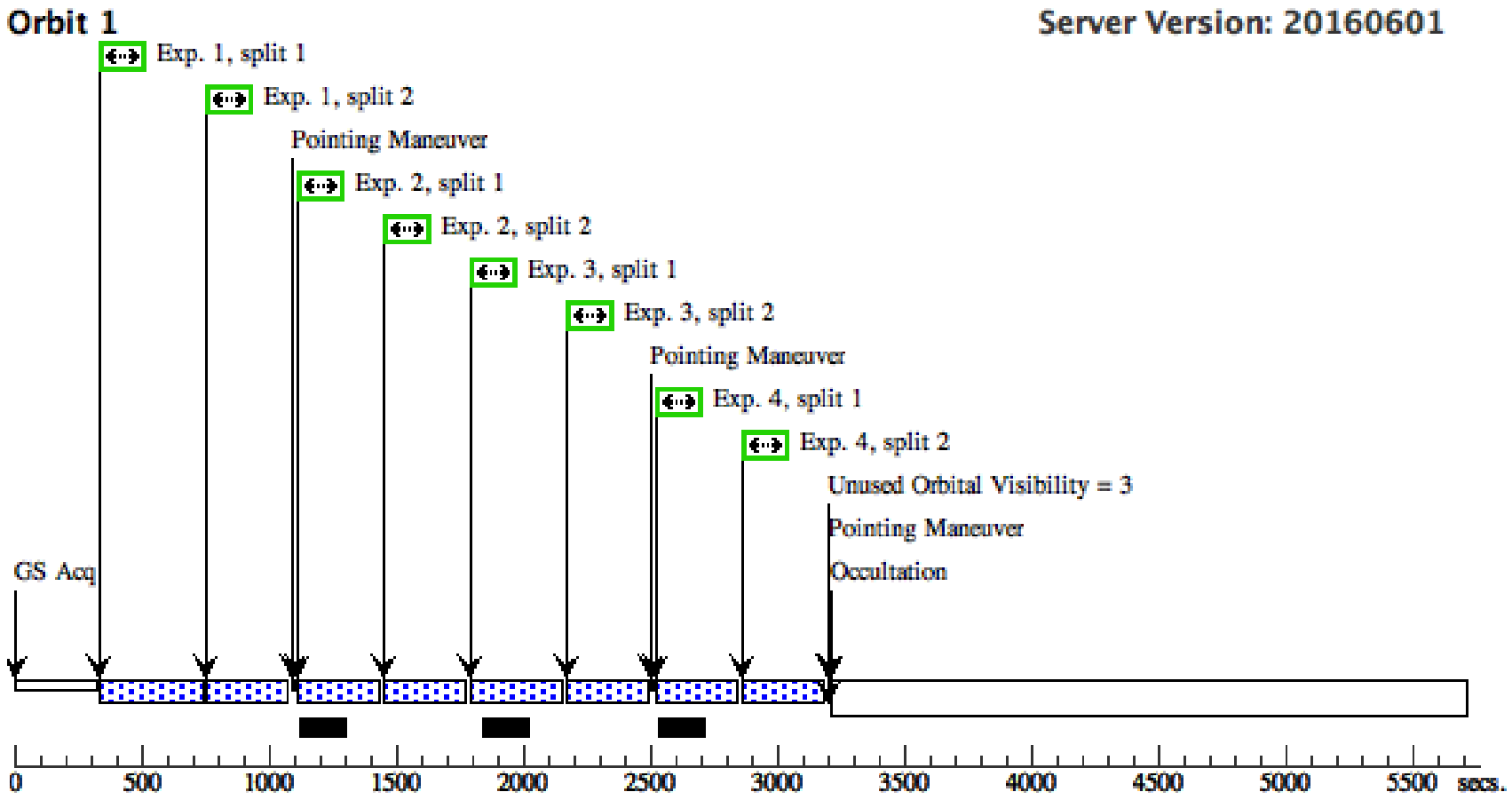
Fixed Targets

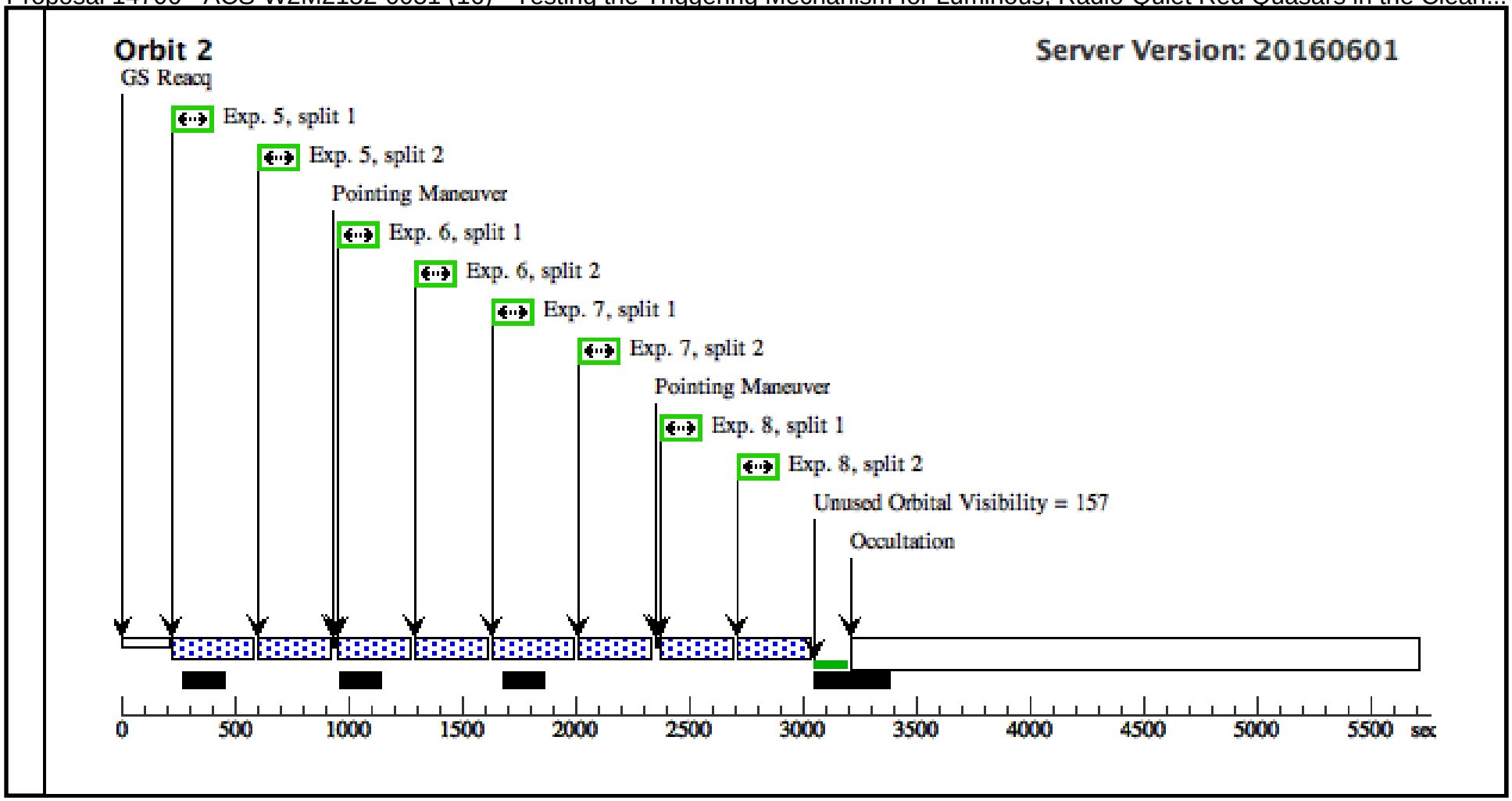
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(10)	W2M2152-0051	RA: 21 52 14.9800 (328.0624167d) Dec: -00 51 51.70 (-.86436d) Equinox: J2000	Redshift: 0.58	V=18.78	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	i-band 1	(10) W2M2152-0051	ACS/WFC, ACCUM, WFC1B-2K	F814W	CR-SPLIT=2	SAME POS AS 4	Sequence 1-4 Non-Int in ACS-W2M2152-0051 (16)	400 Secs (400 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	***[1]***
2	i-band 2	(10) W2M2152-0051	ACS/WFC, ACCUM, WFC1B-2K	F814W	CR-SPLIT=2	SAME POS AS 3	Sequence 1-4 Non-Int in ACS-W2M2152-0051 (16)	400 Secs (400 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	***[1]***
3	g-band 3	(10) W2M2152-0051	ACS/WFC, ACCUM, WFC1B-2K	F475W	CR-SPLIT=2	POS TARG 40,40	Sequence 1-4 Non-Int in ACS-W2M2152-0051 (16)	400 Secs (400 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	***[1]***
4	g-band 4	(10) W2M2152-0051	ACS/WFC, ACCUM, WFC1B-2K	F475W	CR-SPLIT=2	POS TARG 40.247,40.094	Sequence 1-4 Non-Int in ACS-W2M2152-0051 (16)	400 Secs (400 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	***[1]***
5	i-band 5	(10) W2M2152-0051	ACS/WFC, ACCUM, WFC1B-2K	F814W	CR-SPLIT=2	SAME POS AS 8	Sequence 5-8 Non-Int in ACS-W2M2152-0051 (16)	400 Secs (400 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	***[2]***
6	i-band 6	(10) W2M2152-0051	ACS/WFC, ACCUM, WFC1B-2K	F814W	CR-SPLIT=2	SAME POS AS 7	Sequence 5-8 Non-Int in ACS-W2M2152-0051 (16)	400 Secs (400 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	***[2]***
7	g-band 7	(10) W2M2152-0051	ACS/WFC, ACCUM, WFC1B-2K	F475W	CR-SPLIT=2	POS TARG 40.124,40.232	Sequence 5-8 Non-Int in ACS-W2M2152-0051 (16)	400 Secs (400 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	***[2]***
8	g-band 8	(10) W2M2152-0051	ACS/WFC, ACCUM, WFC1B-2K	F475W	CR-SPLIT=2	POS TARG 39.876,40.138	Sequence 5-8 Non-Int in ACS-W2M2152-0051 (16)	400 Secs (400 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	***[2]***

Orbit Structure




Orbit 2
Server Version: 20160601
GS Reacq
Exp. 5, split 1
Exp. 5, split 2
Pointing Maneuver
Exp. 6, split 1
Exp. 6, split 2
Exp. 7, split 1
Exp. 7, split 2
Pointing Maneuver
Exp. 8, split 1
Exp. 8, split 2
Unused Orbital Visibility = 157
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 14706, ACS-W2M1106+0221 (15), implementation Fri Jul 29 18:58:19 GMT 2016

Diagnostic Status: Warning

Scientific Instruments: ACS/WFC

Special Requirements: (none)

Diagnostics

(ACS-W2M1106+0221 (15)) Warning (Orbit Planner): SAME POS MAY NOT BE APPROPRIATE
(ACS-W2M1106+0221 (15)) Warning (Orbit Planner): SAME POS MAY NOT BE APPROPRIATE
(ACS-W2M1106+0221 (15)) Warning (Orbit Planner): SAME POS MAY NOT BE APPROPRIATE
(ACS-W2M1106+0221 (15)) Warning (Orbit Planner): SAME POS MAY NOT BE APPROPRIATE
(ACS-W2M1106+0221 (15)) Warning (Orbit Planner): SAME POS MAY NOT BE APPROPRIATE
(ACS-W2M1106+0221 (15)) Warning (Orbit Planner): SAME POS MAY NOT BE APPROPRIATE
(ACS-W2M1106+0221 (15)) Warning (Orbit Planner): SAME POS MAY NOT BE APPROPRIATE
(ACS-W2M1106+0221 (15)) Warning (Orbit Planner): SAME POS MAY NOT BE APPROPRIATE

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(11)	W2M1106+0221	RA: 11 06 21.6500 (166.5902083d) Dec: +02 21 24.60 (2.35683d) Equinox: J2000	Redshift: 0.57	V=19.61	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	i-band 1	(11) W2M1106+0221	ACS/WFC, ACCUM, WFC1B-2K	F814W	CR-SPLIT=2	SAME POS AS 4; GS ACQ SCENARIO BASE1B3	Sequence 1-4 Non-Int in ACS-W2M1106+0221 (15)	440 Secs (440 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	***[1]***
2	i-band 2	(11) W2M1106+0221	ACS/WFC, ACCUM, WFC1B-2K	F814W	CR-SPLIT=2	SAME POS AS 3	Sequence 1-4 Non-Int in ACS-W2M1106+0221 (15)	440 Secs (440 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	***[1]***
3	g-band 3	(11) W2M1106+0221	ACS/WFC, ACCUM, WFC1-CTE	F475W		POS TARG 0,0	Sequence 1-4 Non-Int in ACS-W2M1106+0221 (15)	500 Secs (500 Secs) *[==>]*	***[1]***
4	g-band 4	(11) W2M1106+0221	ACS/WFC, ACCUM, WFC1-CTE	F475W		POS TARG 0.247,0.094	Sequence 1-4 Non-Int in ACS-W2M1106+0221 (15)	500 Secs (500 Secs) *[==>]*	***[1]***
5	i-band 5	(11) W2M1106+0221	ACS/WFC, ACCUM, WFC1B-2K	F814W	CR-SPLIT=2	SAME POS AS 8	Sequence 5-8 Non-Int in ACS-W2M1106+0221 (15)	440 Secs (440 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	***[2]***
6	i-band 6	(11) W2M1106+0221	ACS/WFC, ACCUM, WFC1B-2K	F814W	CR-SPLIT=2	SAME POS AS 7	Sequence 5-8 Non-Int in ACS-W2M1106+0221 (15)	440 Secs (440 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	***[2]***
7	g-band 7	(11) W2M1106+0221	ACS/WFC, ACCUM, WFC1-CTE	F475W		POS TARG 0.124,0.232	Sequence 5-8 Non-Int in ACS-W2M1106+0221 (15)	500 Secs (500 Secs) *[==>]*	***[2]***
8	g-band 8	(11) W2M1106+0221	ACS/WFC, ACCUM, WFC1-CTE	F475W		POS TARG -0.124,0.318	Sequence 5-8 Non-Int in ACS-W2M1106+0221 (15)	500 Secs (500 Secs) *[==>]*	***[2]***

Orbit Structure