



# 16171 - Understanding the offset in the broad-line region size-luminosity relation with UV spectroscopy

Cycle: 28, Proposal Category: GO

(UV Initiative)

(Availability Mode: SUPPORTED)

## INVESTIGATORS

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## VISITS

<i>Visit</i>	<i>Targets used in Visit</i>	<i>Configurations used in Visit</i>	<i>Orbits Used</i>	<i>Last Orbit Planner Run</i>	<i>OP Current with Visit?</i>
01	(1) RM101	STIS/CCD STIS/NUV-MAMA	1	10-Jan-2022 16:00:18.0	yes

Proposal 16171 (STScI Edit Number: 3, Created: Monday, January 10, 2022 at 4:00:37 PM Eastern Standard Time) - Overview

<i>Visit</i>	<i>Targets used in Visit</i>	<i>Configurations used in Visit</i>	<i>Orbits Used</i>	<i>Last Orbit Planner Run</i>	<i>OP Current with Visit?</i>
02	(2) RM160	STIS/CCD STIS/NUV-MAMA	2	10-Jan-2022 16:00:19.0	yes
03	(3) RM177	STIS/CCD STIS/NUV-MAMA	2	10-Jan-2022 16:00:20.0	yes
04	(4) RM229	STIS/CCD STIS/NUV-MAMA	2	10-Jan-2022 16:00:21.0	yes
05	(5) RM267	STIS/CCD STIS/NUV-MAMA	1	10-Jan-2022 16:00:22.0	yes
06	(6) RM272	STIS/CCD STIS/NUV-MAMA	1	10-Jan-2022 16:00:23.0	yes
07	(7) RM301	STIS/CCD STIS/NUV-MAMA	3	10-Jan-2022 16:00:24.0	yes
08	(8) RM305	STIS/CCD STIS/NUV-MAMA	1	10-Jan-2022 16:00:25.0	yes
09	(9) RM320	STIS/CCD STIS/NUV-MAMA	2	10-Jan-2022 16:00:26.0	yes
Z3	(3) RM177	STIS/CCD STIS/NUV-MAMA	2	10-Jan-2022 16:00:27.0	yes
Z4	(4) RM229	STIS/CCD STIS/NUV-MAMA	2	10-Jan-2022 16:00:28.0	yes
Z9	(9) RM320	STIS/CCD STIS/NUV-MAMA	2	10-Jan-2022 16:00:29.0	yes
10	(10) RM371	STIS/CCD STIS/NUV-MAMA	1	10-Jan-2022 16:00:30.0	yes
11	(11) RM622	STIS/CCD STIS/NUV-MAMA	1	10-Jan-2022 16:00:31.0	yes
12	(12) RM694	STIS/CCD STIS/NUV-MAMA	2	10-Jan-2022 16:00:32.0	yes

<i>Visit</i>	<i>Targets used in Visit</i>	<i>Configurations used in Visit</i>	<i>Orbits Used</i>	<i>Last Orbit Planner Run</i>	<i>OP Current with Visit?</i>
ZA	(12) RM694	STIS/CCD STIS/NUV-MAMA	2	10-Jan-2022 16:00:33.0	yes
13	(13) RM720	STIS/CCD STIS/NUV-MAMA	1	10-Jan-2022 16:00:33.0	yes
14	(14) RM772	STIS/CCD STIS/NUV-MAMA	1	10-Jan-2022 16:00:34.0	yes
15	(15) RM781	STIS/CCD STIS/NUV-MAMA	1	10-Jan-2022 16:00:35.0	yes
16	(16) RM782	STIS/CCD STIS/NUV-MAMA	1	10-Jan-2022 16:00:35.0	yes
17	(17) RM790	STIS/CCD STIS/NUV-MAMA	1	10-Jan-2022 16:00:36.0	yes
18	(18) RM840	STIS/CCD STIS/NUV-MAMA	1	10-Jan-2022 16:00:36.0	yes

33 Total Orbits Used

## **ABSTRACT**

Nearly two decades of reverberation mapping (RM) studies on nearby AGN have revealed a tight correlation between the size of the H $\beta$  broad-line region and the optical luminosity of the AGN, designated the R-L relation. This correlation is the foundation for the so-called "single-epoch virial black hole mass estimators" that have been widely applied to distant quasars to estimate their black hole masses without dedicated RM measurements. Recent RM measurements for quasars beyond the nearby Universe and for a subset of nearby AGN with estimated high accretion rates have independently revealed a systematic offset from the canonical R-L relation based on the nearby RM AGN sample. The most likely explanation of this offset is that these new RM samples explore AGN that have different accretion rates and therefore different shapes of the continuum spectral energy distribution (SED), responsible for ionizing the line-emitting gas, than the nearby RM AGN sample. We propose STIS UV spectroscopy for a sample of 18 quasars at  $z \sim 0.4$  from one of these recent RM samples to test this hypothesis and to develop empirical corrections to the R-L relation based on additional AGN parameters. We will model the UV spectra with detailed photoionization calculations to constrain the ionizing continuum directly incident on the broad-line region gas. The combination of UV and (existing) optical spectroscopy for a unique non-local AGN sample with direct RM-based black hole masses also will enable better SED-fitting to constrain accretion parameters and

better calibrations of single-epoch mass recipes based on UV broad emission lines.

### **OBSERVING DESCRIPTION**

This program will observe 18 low-redshift ( $0.2 < z < 0.6$ ) broad-line quasars with STIS NUV-MAMA G230L in spectroscopic mode. These targets have GALEX NUV mag  $\sim 19$ -21 and SDSS r-band mag  $\sim 19$ -20.

We will use the 52"x0.2" slit, and observe with 1 orbit for 12 targets, 2 orbits for 5 targets and 3 orbits for 1 target (RM301). Our targets are largely point-sources (bright quasars) so we will use the point-source mode for acquisition. Our targets are the brightest source within 5x5 arcsecond area, and there is no need for pickup acquisition.

Each visit consists of acquisition with the F28x50LP CCD aperture, with typical exposure time of 30 seconds, followed by a single (or multiple in case of more than one orbit for the visit) MAMA exposure. We do not require special slit orientations for these observations.

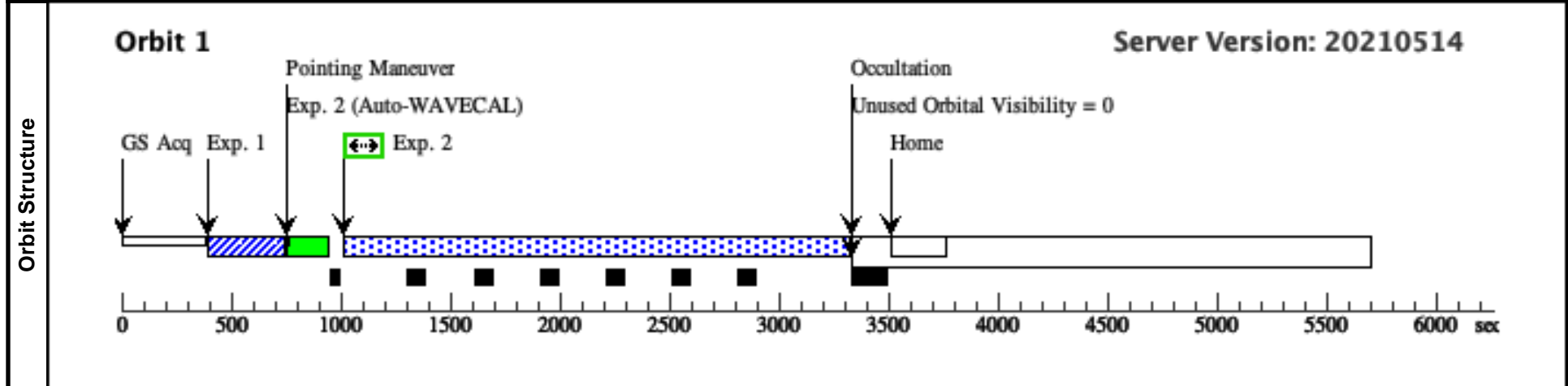
Proposal 16171 - RM101 (01) - Understanding the offset in the broad-line region size-luminosity relation with UV spectroscopy

Mon Jan 10 21:00:37 GMT 2022

<b>Visit</b>	Proposal 16171, RM101 (01), completed				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: STIS/NUV-MAMA, STIS/CCD				
	Special Requirements: (none)				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	RM101	RA: 14 12 14.2015 (213.0591729d) Dec: +53 25 46.71 (53.42964d) Equinox: J2000		V=19.0+/-0.1 NUV=19.35	Reference Frame: ICRS
	<i>Comments:</i> Category=GALAXY Description=[OSO, QUASAR]					

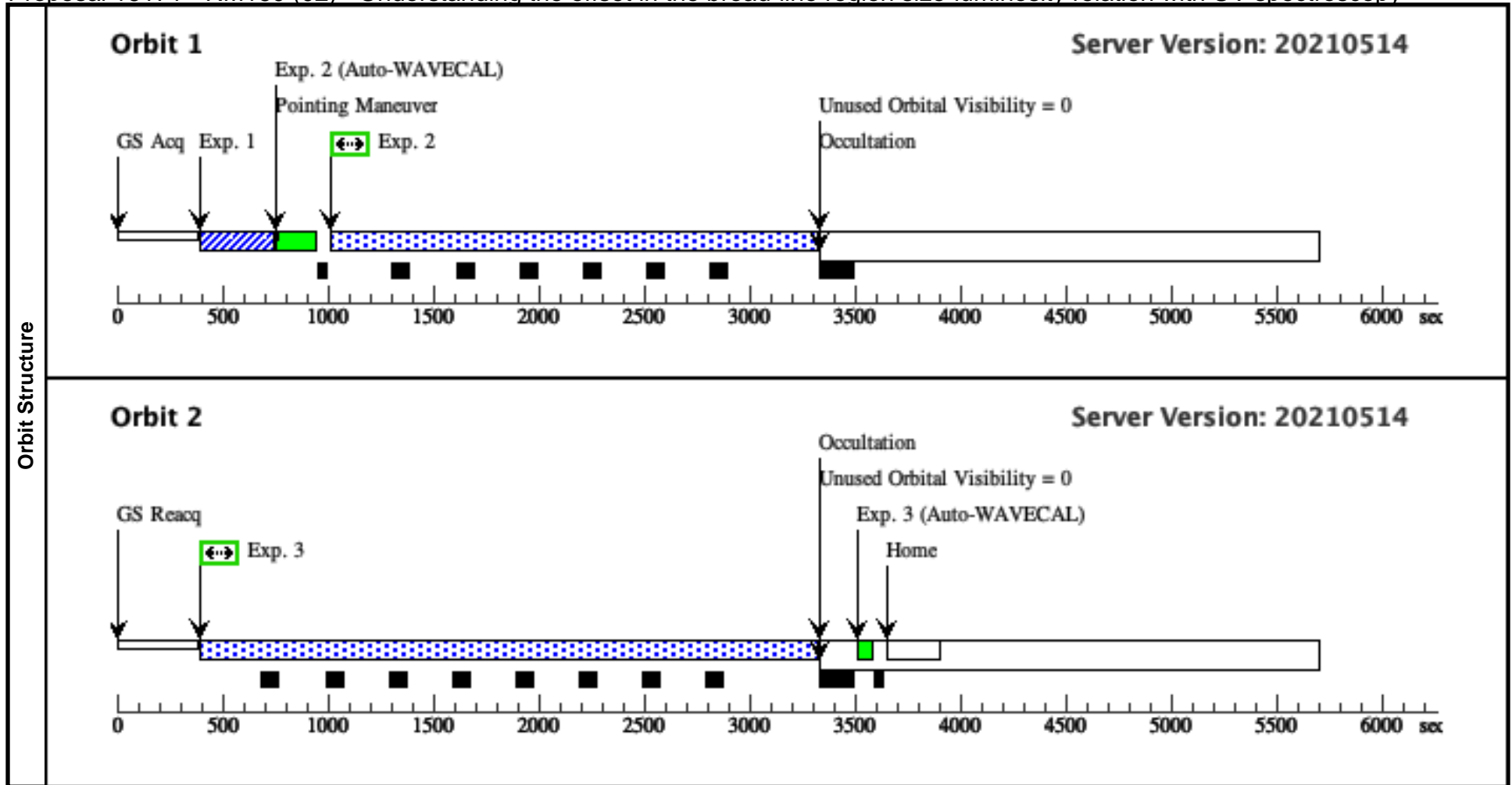
<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	acq (STIS.ta.144 7781)	(1) RM101	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT			30 Secs (30 Secs) [==>]	[1]
	2	RM101 (STIS.sp.14 47785)	(1) RM101	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=30 0			2300 Secs (2293 Secs) [==>2293.0 Secs ]	[1]



Proposal 16171 - RM160 (02) - Understanding the offset in the broad-line region size-luminosity relation with UV spectroscopy

Mon Jan 10 21:00:37 GMT 2022

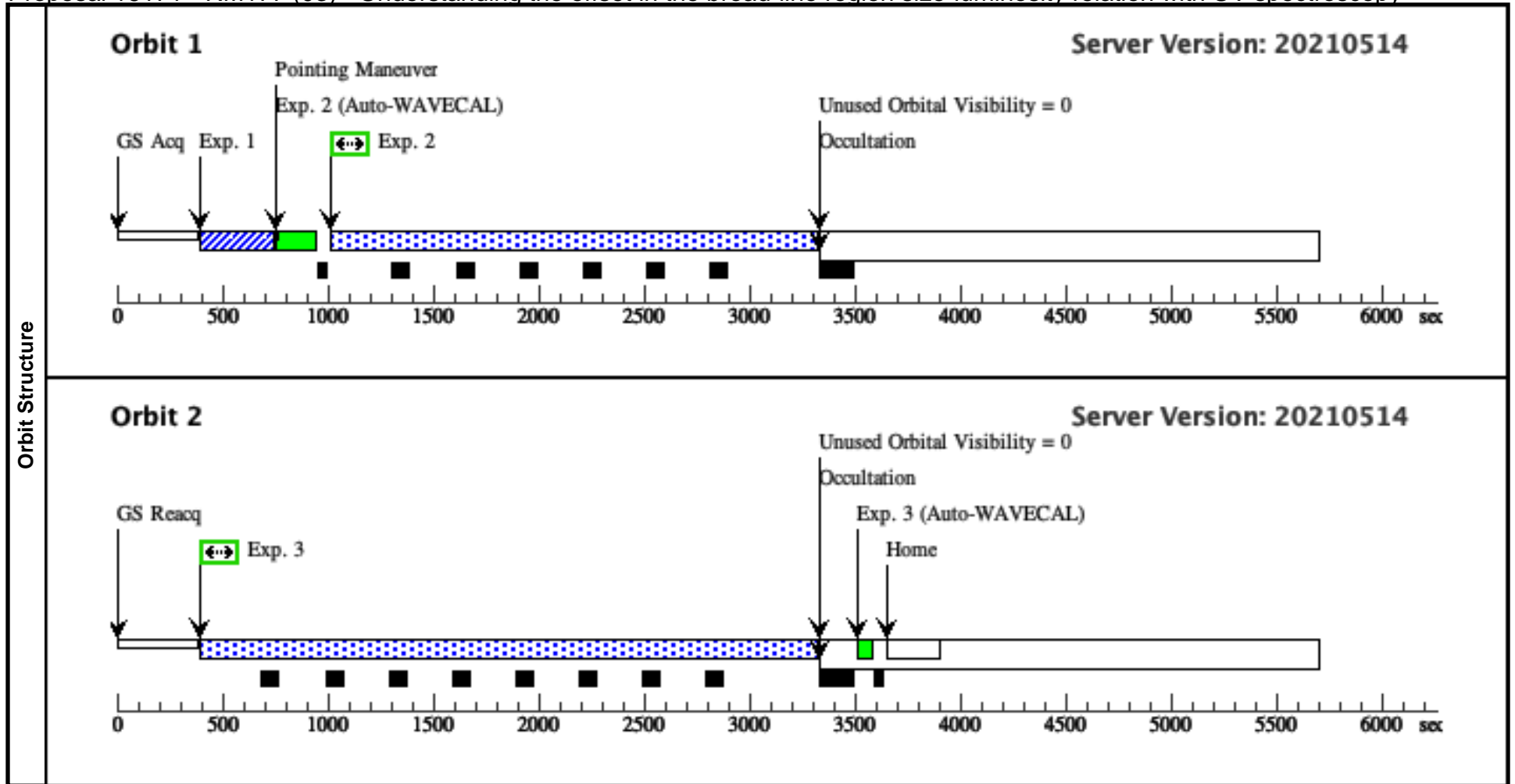
Visit	<b>Proposal 16171, RM160 (02), completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: STIS/NUV-MAMA, STIS/CCD Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(2)	RM160	RA: 14 10 41.2529 (212.6718871d) Dec: +53 18 48.99 (53.31361d) Equinox: J2000		V=19.7+/-0.1 NUV=20.77	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[QSO, QUASAR]									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	acq (STIS.ta.144 7921)	(2) RM160	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT			30 Secs (30 Secs)	
									[==>]	[1]
	2	RM160 (STIS.sp.14 47785)	(2) RM160	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=30 0			2300 Secs (2293 Secs)	
								[==>2293.0 Secs ]	[1]	
3	RM160 (STIS.sp.14 47785)	(2) RM160	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=30 0			2300 Secs (2913 Secs)		
								[==>2913.0 Secs ]	[2]	



Proposal 16171 - RM177 (03) - Understanding the offset in the broad-line region size-luminosity relation with UV spectroscopy

Mon Jan 10 21:00:37 GMT 2022

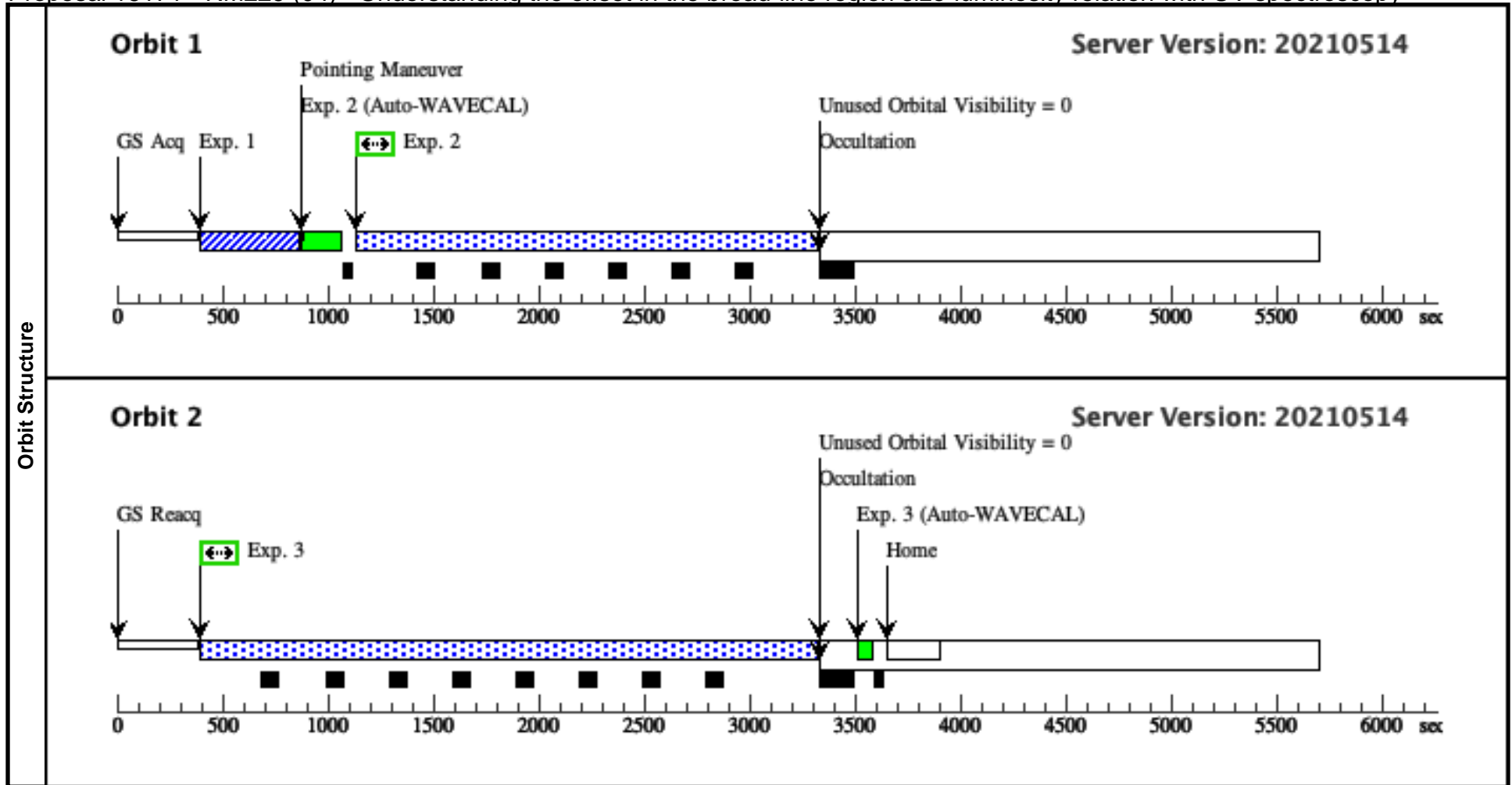
Visit	<b>Proposal 16171, RM177 (03), failed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: STIS/NUV-MAMA, STIS/CCD Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(3)	RM177	RA: 14 17 24.5904 (214.3524600d) Dec: +52 30 24.89 (52.50691d) Equinox: J2000		V=19.8+/-0.1 NUV=20.80	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[QSO, QUASAR]									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	acq (STIS.ta.144 7927)	(3) RM177	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT			30 Secs (30 Secs)	
									[==>]	[1]
	2	RM177 (STIS.sp.14 47785)	(3) RM177	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=30 0			2300 Secs (2293 Secs)	
								[==>2293.0 Secs ]	[1]	
3	RM177 (STIS.sp.14 47785)	(3) RM177	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=30 0			2300 Secs (2913 Secs)		
								[==>2913.0 Secs ]	[2]	



Proposal 16171 - RM229 (04) - Understanding the offset in the broad-line region size-luminosity relation with UV spectroscopy

Mon Jan 10 21:00:37 GMT 2022

Visit	<b>Proposal 16171, RM229 (04), failed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: STIS/NUV-MAMA, STIS/CCD Special Requirements: (none)									
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(4)	RM229	RA: 14 10 18.0444 (212.5751850d) Dec: +53 29 37.48 (53.49374d) Equinox: J2000		V=20.7+/-0.1 NUV=20.77	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[QSO, QUASAR]									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	acq (STIS.ta.144 7928)	(4) RM229	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT			60 Secs (60 Secs) [==>]	[1]
	2	RM229 (STIS.sp.14 47785)	(4) RM229	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=30 0			2300 Secs (2173 Secs) [==>2173.0 Secs ]	[1]
	3	RM229 (STIS.sp.14 47785)	(4) RM229	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=30 0			2300 Secs (2913 Secs) [==>2913.0 Secs ]	[2]



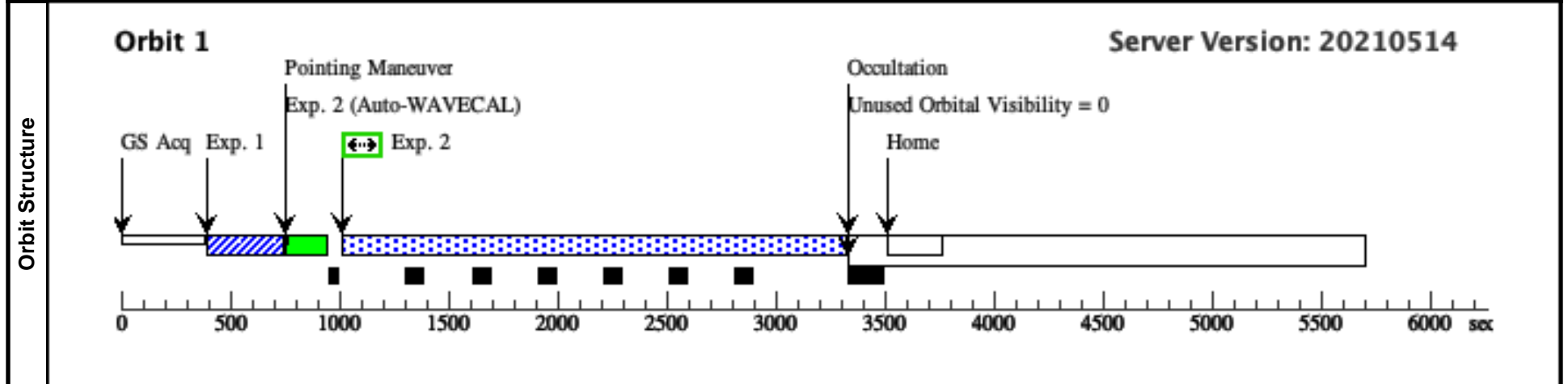
Proposal 16171 - RM267 (05) - Understanding the offset in the broad-line region size-luminosity relation with UV spectroscopy

Mon Jan 10 21:00:37 GMT 2022

<b>Visit</b>	Proposal 16171, RM267 (05), completed				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: STIS/NUV-MAMA, STIS/CCD				
	Special Requirements: (none)				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(5)	RM267	RA: 14 11 12.7171 (212.8029879d) Dec: +53 45 7.15 (53.75199d) Equinox: J2000		V=19.9+/-0.1 NUV=20.16	Reference Frame: ICRS
	<i>Comments:</i> Category=GALAXY Description=[OSO, QUASAR]					

<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	acq (STIS.ta.144 7930)	(5) RM267	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT			30 Secs (30 Secs) [==>]	[1]
	2	RM267 (STIS.sp.14 47785)	(5) RM267	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=30 0			2300 Secs (2293 Secs) [==>2293.0 Secs ]	[1]



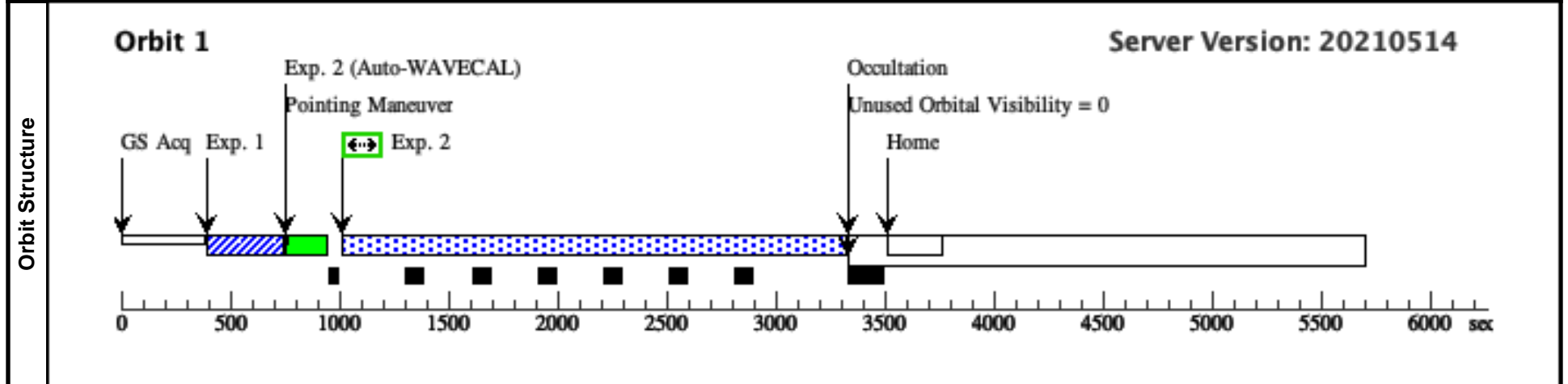
Proposal 16171 - RM272 (06) - Understanding the offset in the broad-line region size-luminosity relation with UV spectroscopy

Mon Jan 10 21:00:37 GMT 2022

<b>Visit</b>	Proposal 16171, RM272 (06), completed				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: STIS/NUV-MAMA, STIS/CCD				
	Special Requirements: (none)				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(6)	RM272	RA: 14 16 25.7086 (214.1071192d) Dec: +53 54 38.52 (53.91070d) Equinox: J2000		V=18.9+/-0.1 NUV=19.40	Reference Frame: ICRS
	<i>Comments:</i> Category=GALAXY Description=[OSO, QUASAR]					

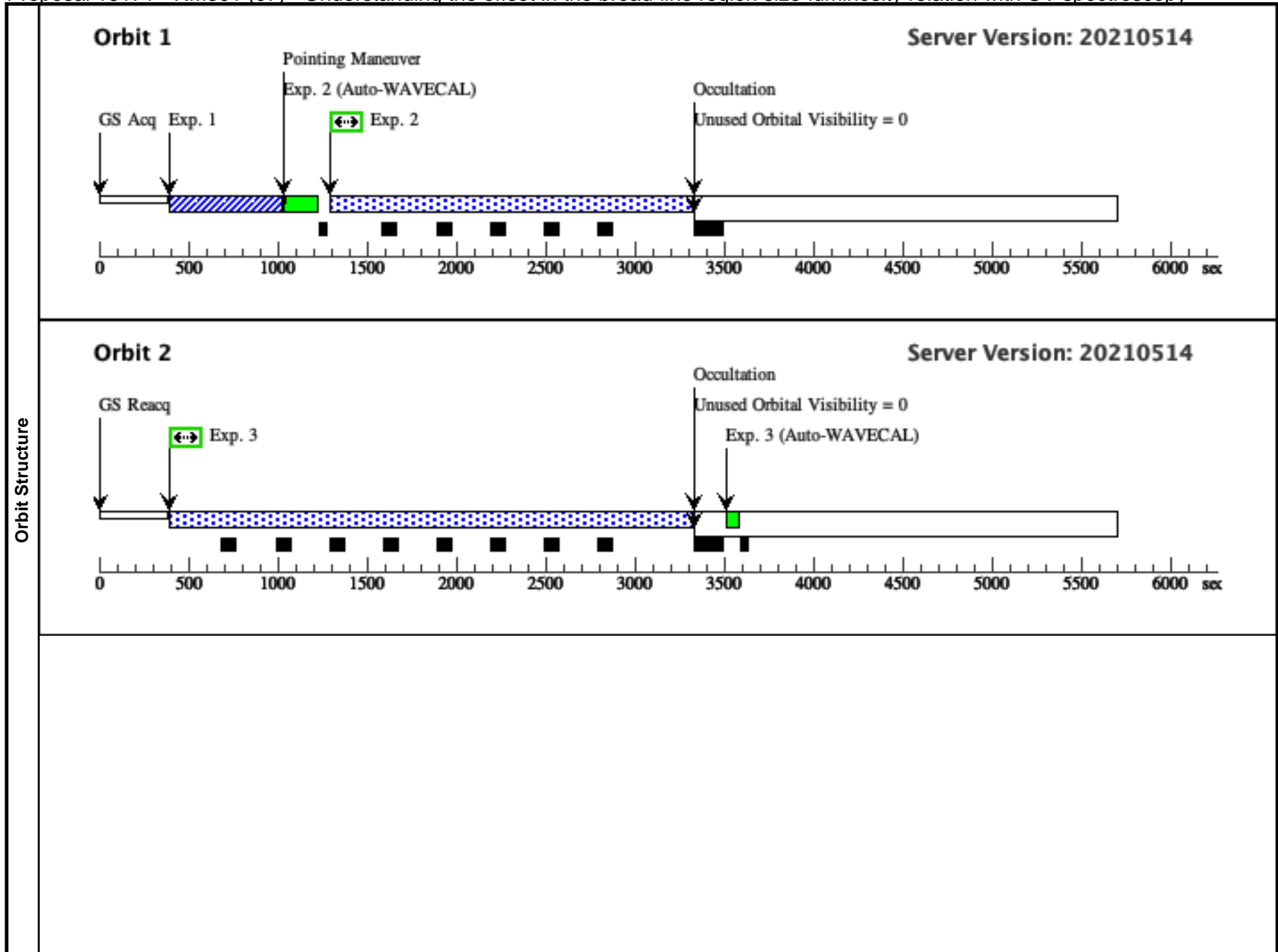
<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	acq (STIS.ta.144 8824)	(6) RM272	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT			30 Secs (30 Secs) [==>]	[1]
	2	RM272 (STIS.sp.14 47785)	(6) RM272	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=30 0			2300 Secs (2293 Secs) [==>2293.0 Secs ]	[1]

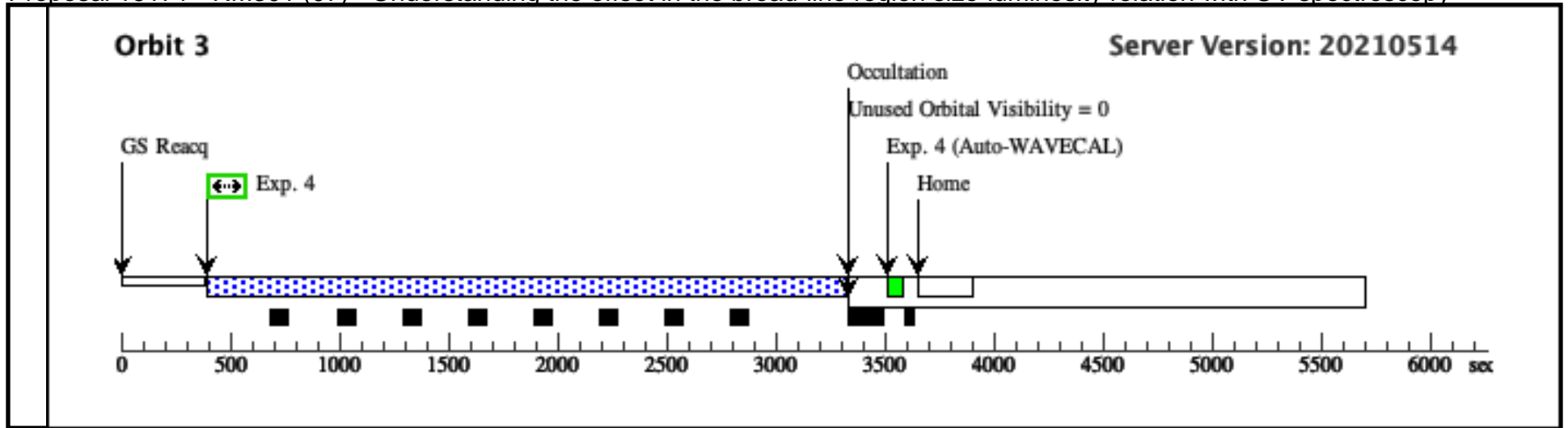


Proposal 16171 - RM301 (07) - Understanding the offset in the broad-line region size-luminosity relation with UV spectroscopy

Mon Jan 10 21:00:37 GMT 2022

Visit	Proposal 16171, RM301 (07), scheduling Diagnostic Status: No Diagnostics Scientific Instruments: STIS/NUV-MAMA, STIS/CCD Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(7)	RM301	RA: 14 20 10.2463 (215.0426929d) Dec: +52 40 29.63 (52.67490d) Equinox: J2000		V=20.0+/-0.1 NUV=21.10	Reference Frame: ICRS				
	Comments: Category=GALAXY Description=[QSO, QUASAR]									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	acq (STIS.ta.144 8827)	(7) RM301	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT			100 Secs (100 Secs) [==>]	[1]
	2	RM301 (STIS.sp.14 47785)	(7) RM301	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=30 0			2300 Secs (2013 Secs) [==>2013.0 Secs ]	[1]
	3	RM301 (STIS.sp.14 47785)	(7) RM301	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=30 0			2300 Secs (2913 Secs) [==>2913.0 Secs ]	[2]
	4	RM301 (STIS.sp.14 47785)	(7) RM301	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=30 0			2300 Secs (2913 Secs) [==>2913.0 Secs ]	[3]





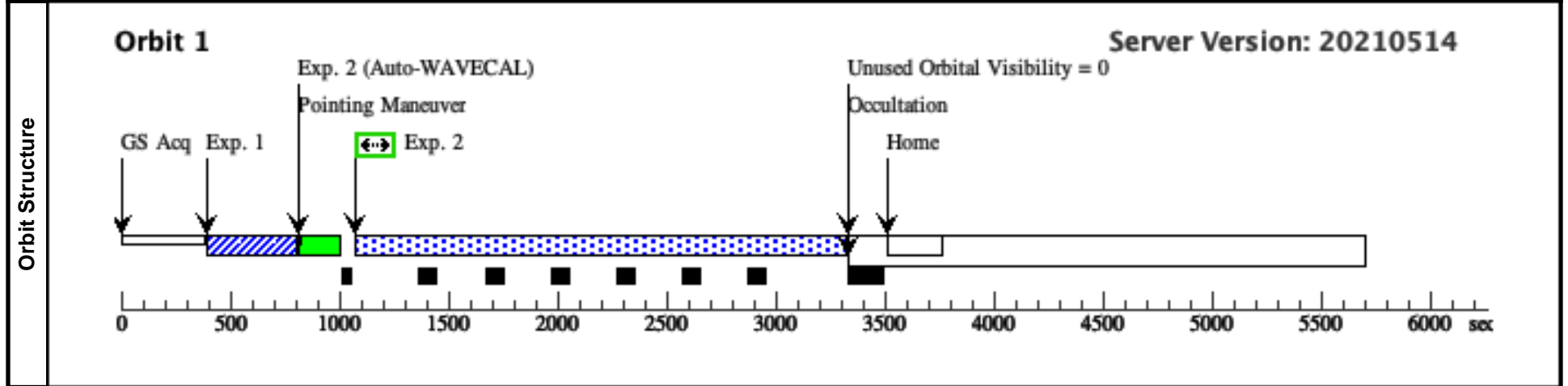
Proposal 16171 - RM305 (08) - Understanding the offset in the broad-line region size-luminosity relation with UV spectroscopy

Mon Jan 10 21:00:37 GMT 2022

<b>Visit</b>	Proposal 16171, RM305 (08), completed				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: STIS/NUV-MAMA, STIS/CCD				
	Special Requirements: (none)				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(8)	RM305	RA: 14 10 4.2732 (212.5178050d) Dec: +52 31 41.00 (52.52806d) Equinox: J2000		V=19.8+/-0.1 NUV=20.28	Reference Frame: ICRS
	<i>Comments:</i> Category=GALAXY Description=[QSO, QUASAR]					

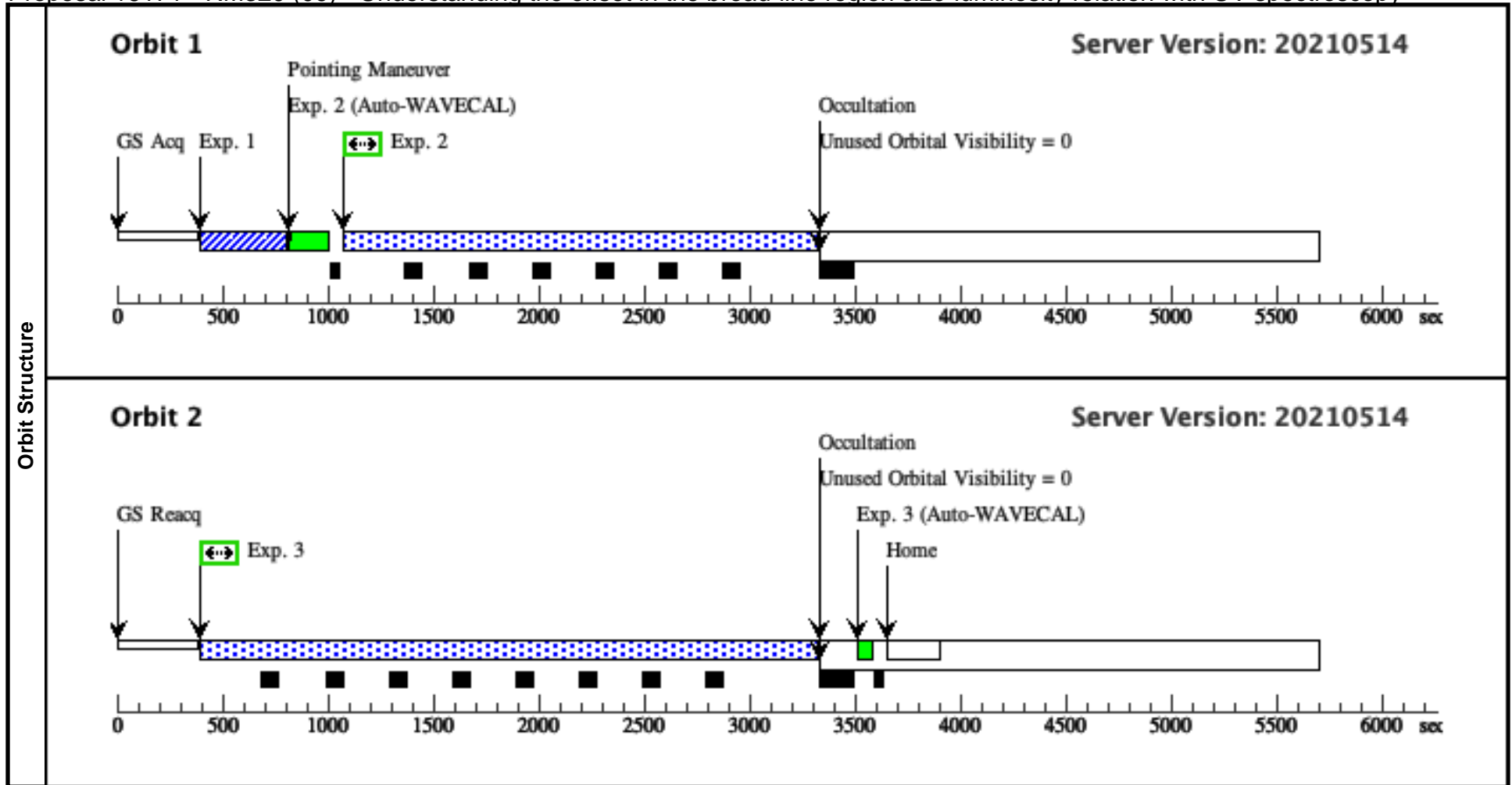
<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	acq (STIS.ta.144 8835)	(8) RM305	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT			45 Secs (45 Secs) [==>]	[1]
	2	RM305 (STIS.sp.14 47785)	(8) RM305	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=30 0			2300 Secs (2233 Secs) [==>2233.0 Secs ]	[1]



Proposal 16171 - RM320 (09) - Understanding the offset in the broad-line region size-luminosity relation with UV spectroscopy

Mon Jan 10 21:00:37 GMT 2022

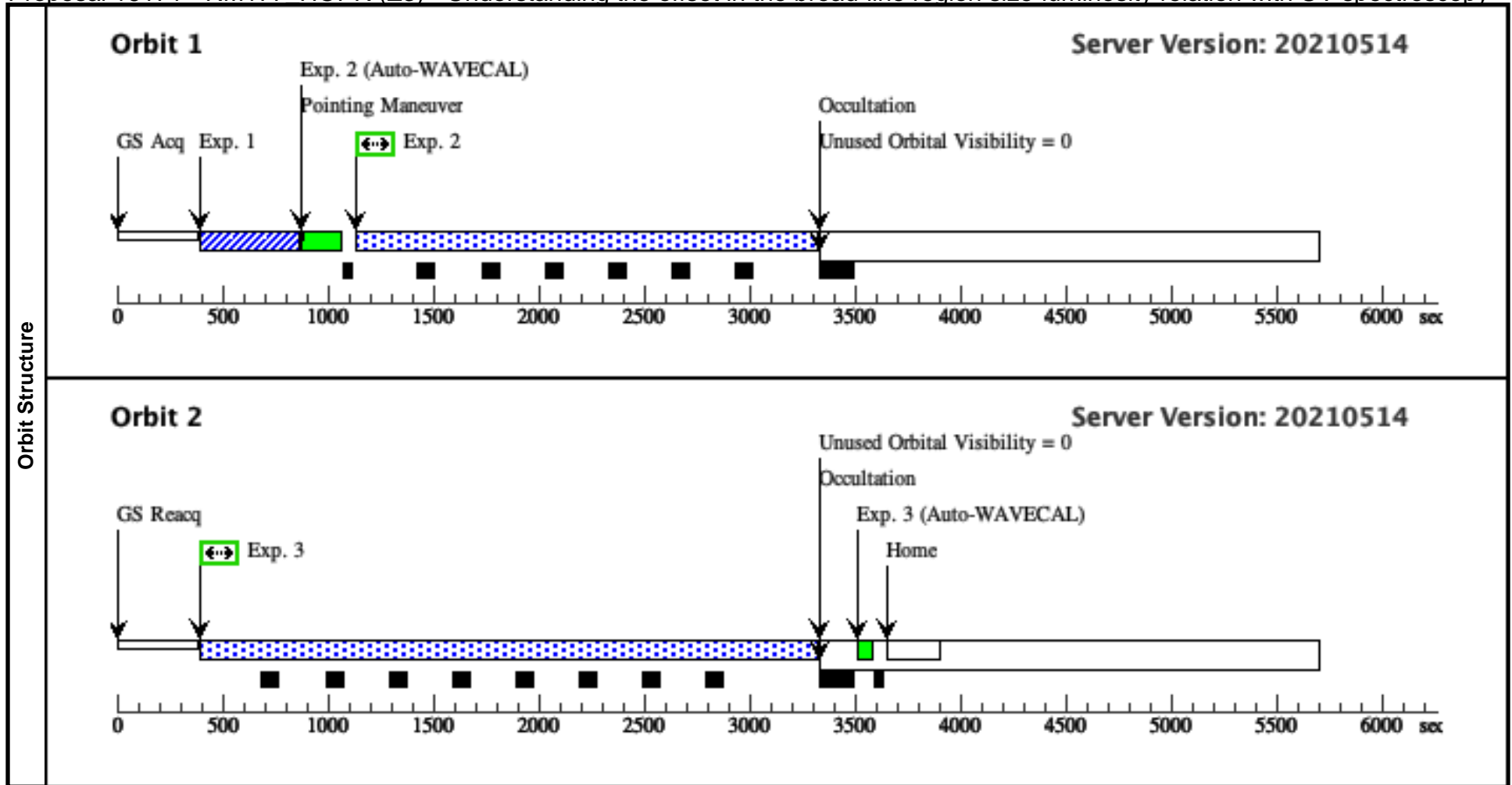
Visit	<b>Proposal 16171, RM320 (09), failed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: STIS/NUV-MAMA, STIS/CCD Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(9)	RM320	RA: 14 20 38.5212 (215.1605050d) Dec: +53 24 16.50 (53.40458d) Equinox: J2000		V=19.6+/-0.1 NUV=20.60	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[QSO, QUASAR]									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	acq (STIS.ta.144 8840)	(9) RM320	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT			45 Secs (45 Secs) [==>]	[1]
	2	RM320 (STIS.sp.14 47785)	(9) RM320	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=30 0			2300 Secs (2233 Secs) [==>2233.0 Secs ]	[1]
	3	RM320 (STIS.sp.14 47785)	(9) RM320	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=30 0			2300 Secs (2913 Secs) [==>2913.0 Secs ]	[2]



Proposal 16171 - RM177 HOPR (Z3) - Understanding the offset in the broad-line region size-luminosity relation with UV spectroscopy

Mon Jan 10 21:00:38 GMT 2022

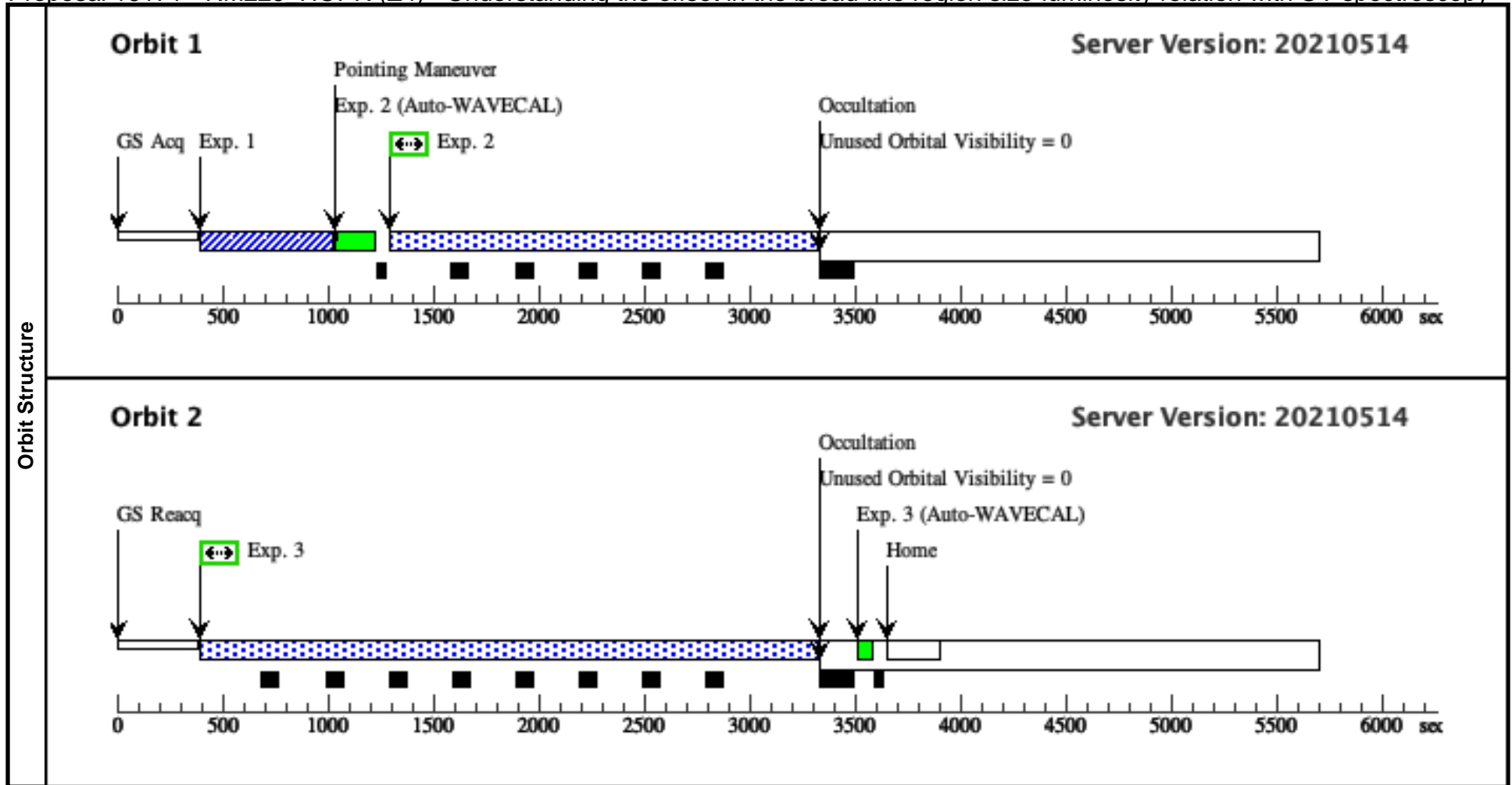
Visit	<b>Proposal 16171, RM177_HOPR (Z3), implementation</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: STIS/NUV-MAMA, STIS/CCD Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(3)	RM177	RA: 14 17 24.5904 (214.3524600d) Dec: +52 30 24.89 (52.50691d) Equinox: J2000		V=19.8+/-0.1 NUV=20.80	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[QSO, QUASAR]									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	acq (STIS.ta.144 7927)	(3) RM177	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT			60 Secs (60 Secs)	
									[==>]	[1]
	2	RM177 (STIS.sp.14 47785)	(3) RM177	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=30 0			2300 Secs (2173 Secs)	
								[==>2173.0 Secs ]	[1]	
3	RM177 (STIS.sp.14 47785)	(3) RM177	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=30 0			2300 Secs (2913 Secs)		
								[==>2913.0 Secs ]	[2]	



Proposal 16171 - RM229\_HOPR (Z4) - Understanding the offset in the broad-line region size-luminosity relation with UV spectroscopy

Mon Jan 10 21:00:38 GMT 2022

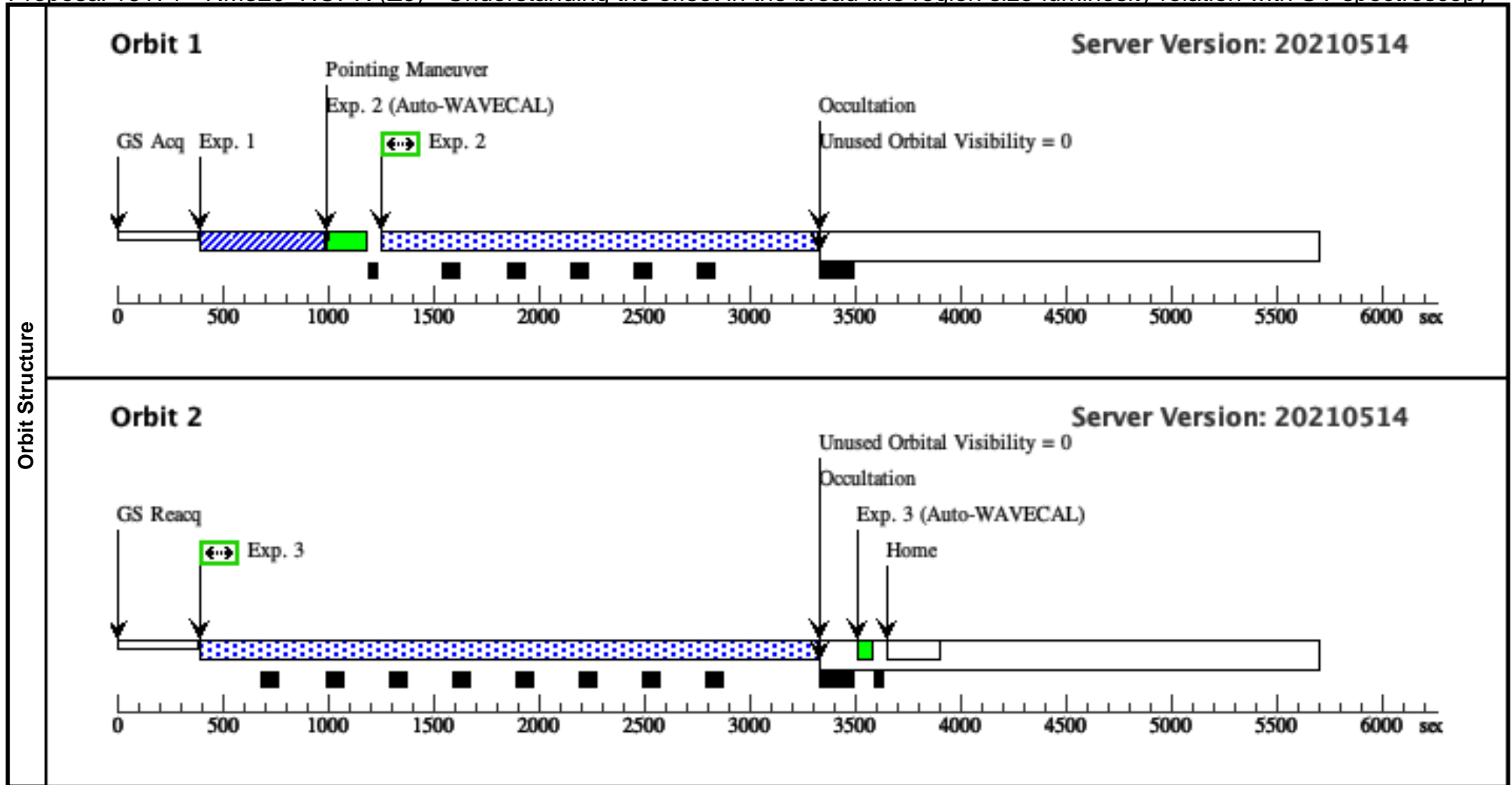
Visit	<b>Proposal 16171, RM229_HOPR (Z4), implementation</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: STIS/NUV-MAMA, STIS/CCD Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(4)	RM229	RA: 14 10 18.0444 (212.5751850d) Dec: +53 29 37.48 (53.49374d) Equinox: J2000		V=20.7+/-0.1 NUV=20.77	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[QSO, QUASAR]									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	acq (STIS.ta.144 7928)	(4) RM229	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT			100 Secs (100 Secs) [==>]	[1]
	2	RM229 (STIS.sp.14 47785)	(4) RM229	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=30 0			2300 Secs (2013 Secs) [==>2013.0 Secs ]	[1]
	3	RM229 (STIS.sp.14 47785)	(4) RM229	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=30 0			2300 Secs (2913 Secs) [==>2913.0 Secs ]	[2]



Proposal 16171 - RM320\_HOPR (Z9) - Understanding the offset in the broad-line region size-luminosity relation with UV spectroscopy

Mon Jan 10 21:00:38 GMT 2022

Visit	<b>Proposal 16171, RM320_HOPR (Z9), implementation</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: STIS/NUV-MAMA, STIS/CCD Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(9)	RM320	RA: 14 20 38.5212 (215.1605050d) Dec: +53 24 16.50 (53.40458d) Equinox: J2000		V=19.6+/-0.1 NUV=20.60	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[QSO, QUASAR]									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	acq (STIS.ta.144 8840)	(9) RM320	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT			90 Secs (90 Secs)	
									[==>]	[1]
	2	RM320 (STIS.sp.14 47785)	(9) RM320	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=30 0			2300 Secs (2053 Secs)	
								[==>2053.0 Secs ]	[1]	
3	RM320 (STIS.sp.14 47785)	(9) RM320	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=30 0			2300 Secs (2913 Secs)		
								[==>2913.0 Secs ]	[2]	



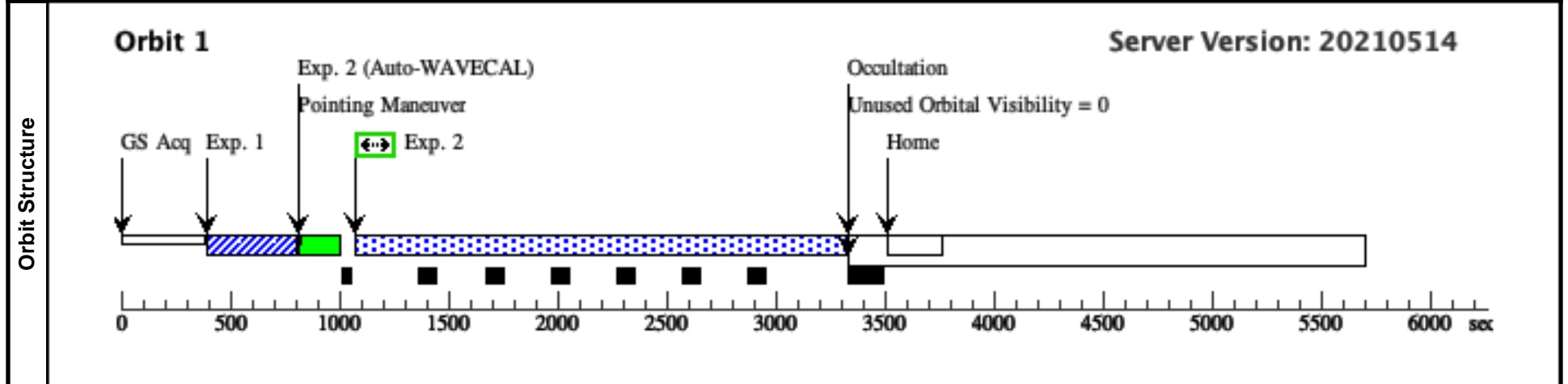
Proposal 16171 - RM371 (10) - Understanding the offset in the broad-line region size-luminosity relation with UV spectroscopy

Mon Jan 10 21:00:38 GMT 2022

<b>Visit</b>	Proposal 16171, RM371 (10), completed				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: STIS/NUV-MAMA, STIS/CCD				
	Special Requirements: (none)				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(10)	RM371	RA: 14 11 23.4197 (212.8475821d) Dec: +52 13 31.68 (52.22547d) Equinox: J2000		V=19.9+/-0.1 NUV=20.21	Reference Frame: ICRS
	<i>Comments:</i> Category=GALAXY Description=[OSO, QUASAR]					

<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	acq (STIS.ta.144 8843)	(10) RM371	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT			45 Secs (45 Secs) [==>]	[1]
	2	RM371 (STIS.sp.14 47785)	(10) RM371	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=30 0			2300 Secs (2233 Secs) [==>2233.0 Secs ]	[1]



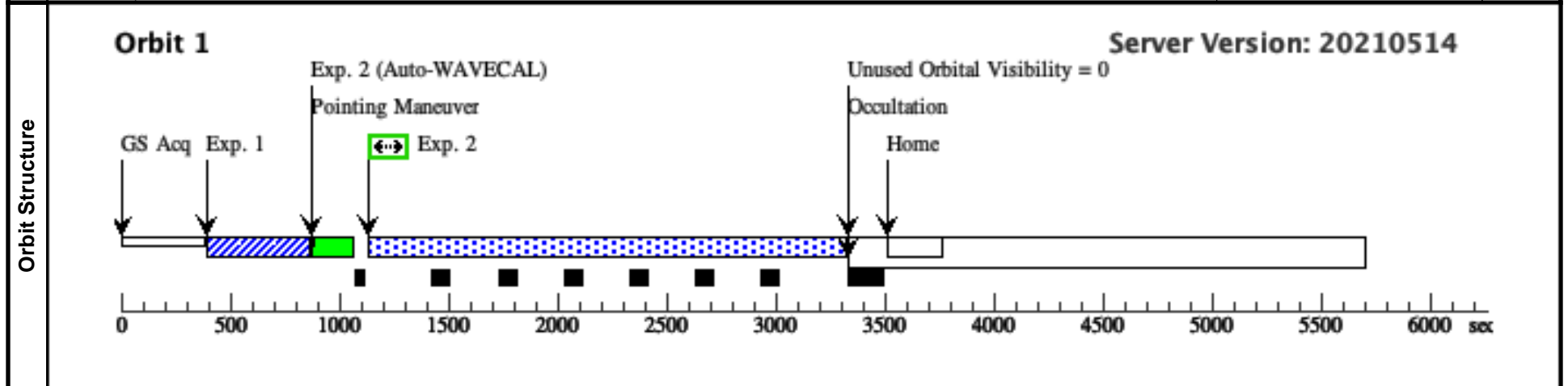
Proposal 16171 - RM622 (11) - Understanding the offset in the broad-line region size-luminosity relation with UV spectroscopy

Mon Jan 10 21:00:38 GMT 2022

<b>Visit</b>	Proposal 16171, RM622 (11), completed				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: STIS/NUV-MAMA, STIS/CCD				
	Special Requirements: (none)				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(11)	RM622	RA: 14 11 15.1874 (212.8132808d) Dec: +51 52 8.99 (51.86916d) Equinox: J2000		V=20.0+/-0.1 NUV=20.55	Reference Frame: ICRS
	<i>Comments:</i> Category=GALAXY Description=[OSO, QUASAR]					

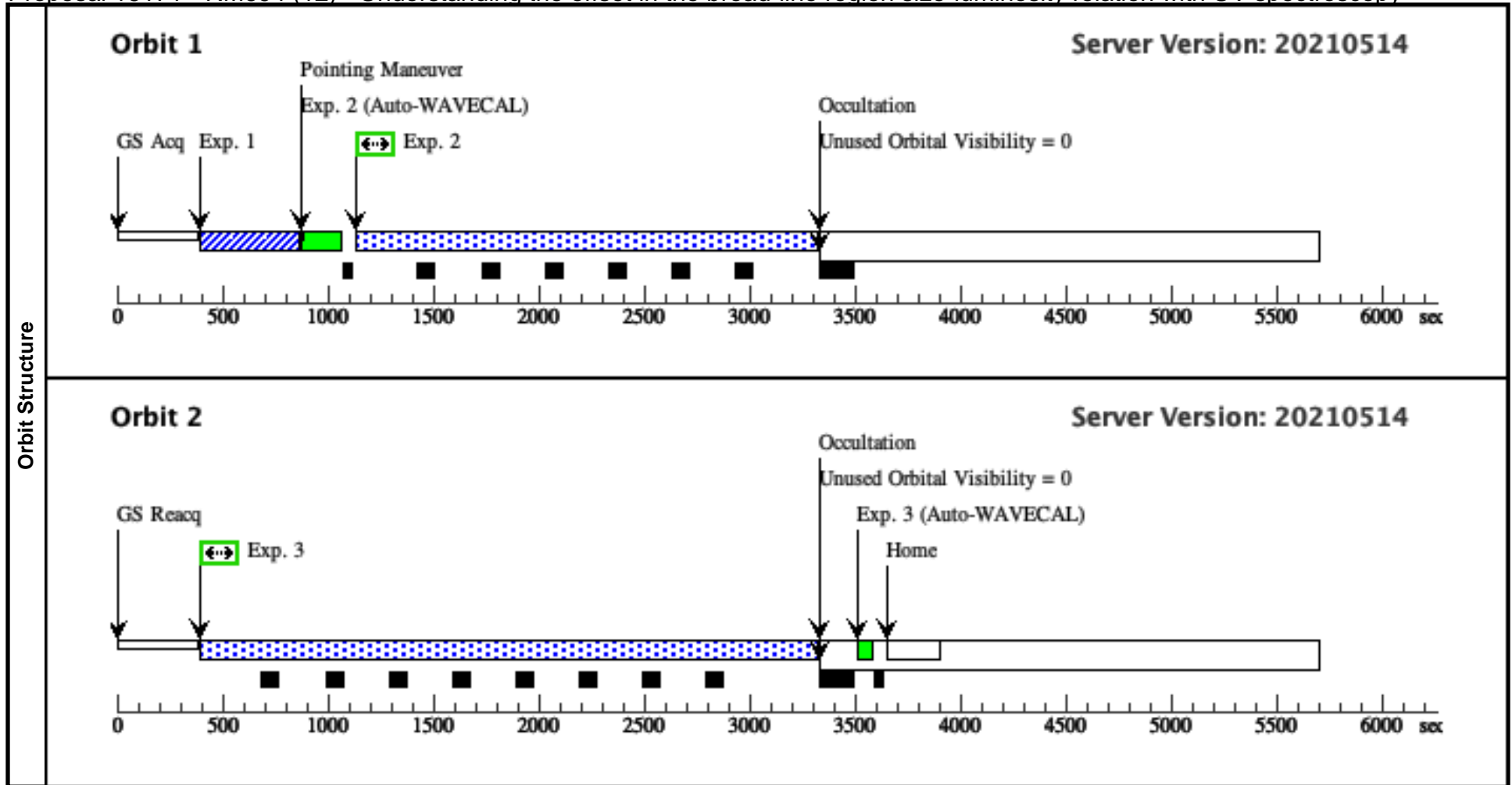
<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	acq (STIS.ta.144 8845)	(11) RM622	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT			60 Secs (60 Secs) [==>]	[1]
	2	RM622 (STIS.sp.14 47785)	(11) RM622	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=30 0			2300 Secs (2173 Secs) [==>2173.0 Secs ]	[1]



Proposal 16171 - RM694 (12) - Understanding the offset in the broad-line region size-luminosity relation with UV spectroscopy

Mon Jan 10 21:00:38 GMT 2022

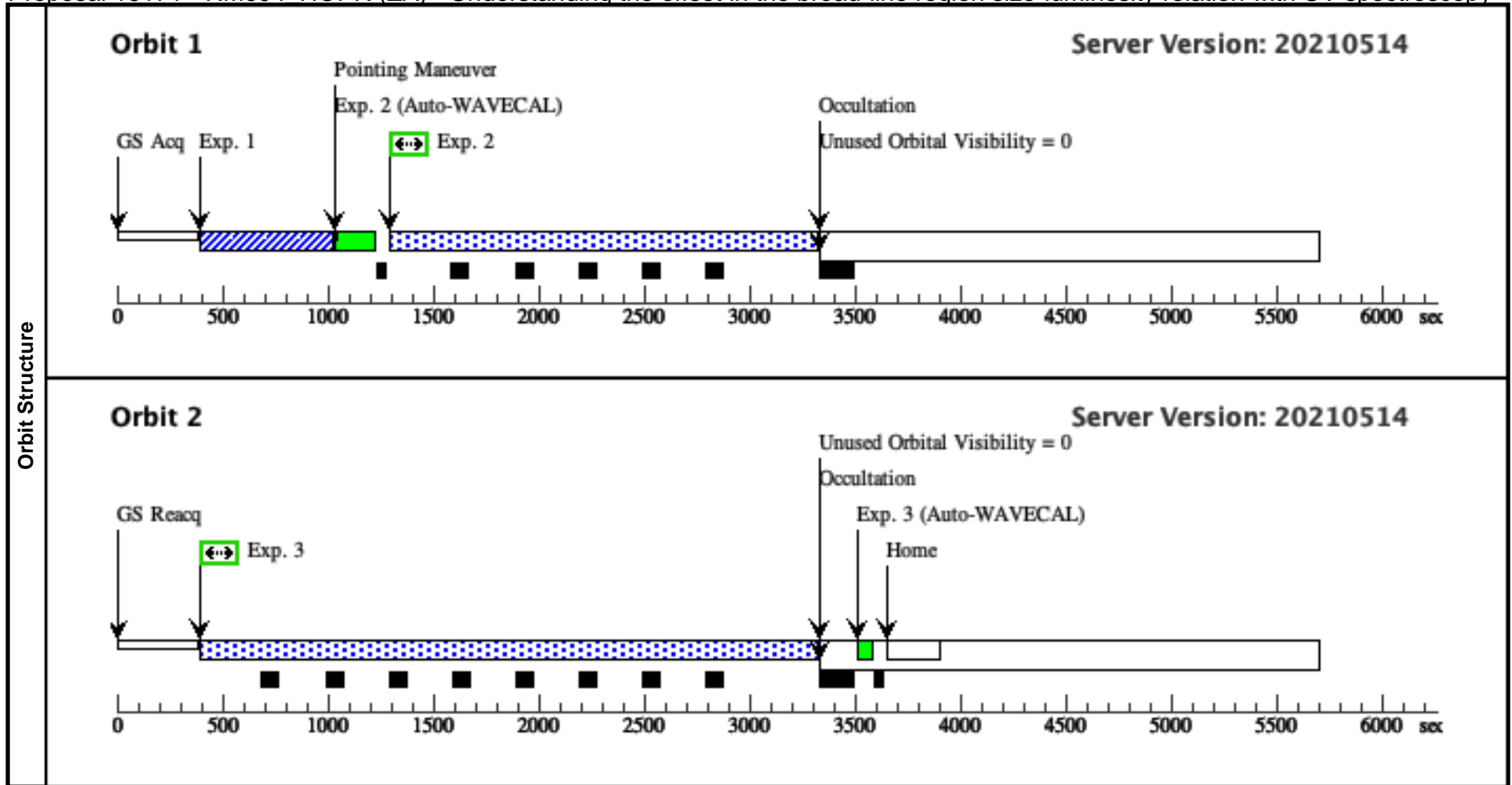
Visit	<b>Proposal 16171, RM694 (12), failed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: STIS/NUV-MAMA, STIS/CCD Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(12)	RM694	RA: 14 17 6.6758 (214.2778158d) Dec: +51 43 40.06 (51.72779d) Equinox: J2000		V=19.9+/-0.1 NUV=20.83	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[QSO, QUASAR]									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	acq (STIS.ta.144 8846)	(12) RM694	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT			60 Secs (60 Secs)	
									[==>]	[1]
	2	RM694 (STIS.sp.14 47785)	(12) RM694	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=30 0			2300 Secs (2173 Secs)	
								[==>2173.0 Secs ]	[1]	
3	RM694 (STIS.sp.14 47785)	(12) RM694	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=30 0			2300 Secs (2913 Secs)		
								[==>2913.0 Secs ]	[2]	



Proposal 16171 - RM694 HOPR (ZA) - Understanding the offset in the broad-line region size-luminosity relation with UV spectroscopy

Mon Jan 10 21:00:38 GMT 2022

Visit	<b>Proposal 16171, RM694_HOPR (ZA)</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: STIS/NUV-MAMA, STIS/CCD Special Requirements: (none)									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(12)	RM694	RA: 14 17 6.6758 (214.2778158d) Dec: +51 43 40.06 (51.72779d) Equinox: J2000		V=19.9+/-0.1 NUV=20.83	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[QSO, QUASAR]									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	acq (STIS.ta.144 8846)	(12) RM694	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT			100 Secs (100 Secs)	
									[==>]	[1]
	2	RM694 (STIS.sp.14 47785)	(12) RM694	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=30 0			2300 Secs (2013 Secs)	
								[==>2013.0 Secs ]	[1]	
3	RM694 (STIS.sp.14 47785)	(12) RM694	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=30 0			2300 Secs (2913 Secs)		
								[==>2913.0 Secs ]	[2]	



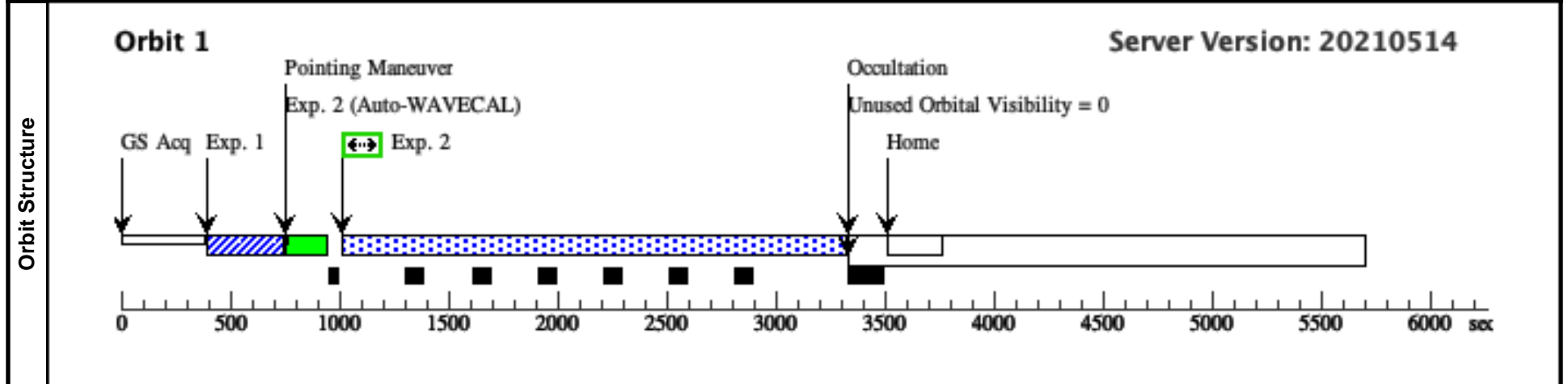
Proposal 16171 - RM720 (13) - Understanding the offset in the broad-line region size-luminosity relation with UV spectroscopy

Mon Jan 10 21:00:38 GMT 2022

<b>Visit</b>	Proposal 16171, RM720 (13), completed				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: STIS/NUV-MAMA, STIS/CCD				
	Special Requirements: (none)				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(13)	RM720	RA: 14 05 18.0211 (211.3250879d) Dec: +53 15 30.02 (53.25834d) Equinox: J2000		V=19.3+/-0.1 NUV=19.80	Reference Frame: ICRS
	<i>Comments:</i> Category=GALAXY Description=[OSO, QUASAR]					

<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	acq (STIS.ta.144 8847)	(13) RM720	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT			30 Secs (30 Secs) [==>]	[1]
	2	RM720 (STIS.sp.14 47785)	(13) RM720	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=30 0			2300 Secs (2293 Secs) [==>2293.0 Secs ]	[1]



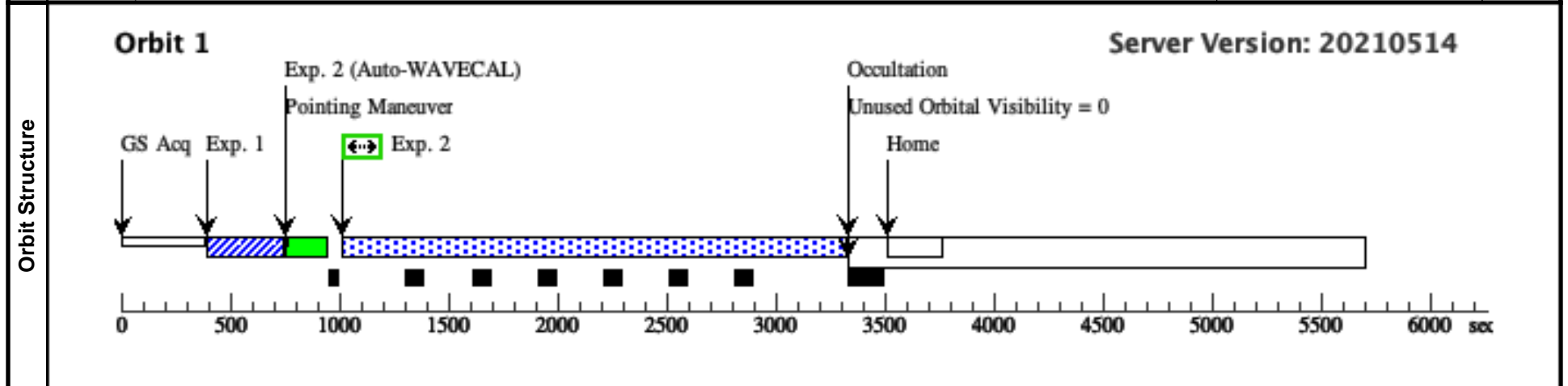
Proposal 16171 - RM772 (14) - Understanding the offset in the broad-line region size-luminosity relation with UV spectroscopy

Mon Jan 10 21:00:38 GMT 2022

<b>Visit</b>	Proposal 16171, RM772 (14), completed				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: STIS/NUV-MAMA, STIS/CCD				
	Special Requirements: (none)				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(14)	RM772	RA: 14 21 35.9018 (215.3995908d) Dec: +52 31 38.91 (52.52748d) Equinox: J2000		V=19.2+/-0.1 NUV=19.92	Reference Frame: ICRS
	<i>Comments:</i> Category=GALAXY Description=[OSO, QUASAR]					

<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	acq (STIS.ta.144 8848)	(14) RM772	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT			30 Secs (30 Secs) [==>]	[1]
	2	RM772 (STIS.sp.14 47785)	(14) RM772	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=30 0			2300 Secs (2293 Secs) [==>2293.0 Secs ]	[1]



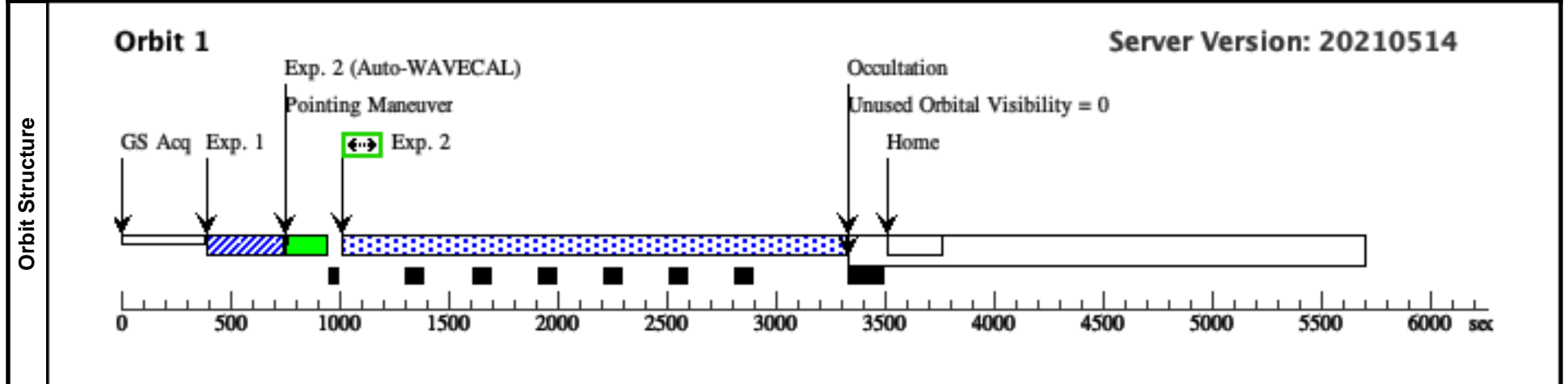
Proposal 16171 - RM781 (15) - Understanding the offset in the broad-line region size-luminosity relation with UV spectroscopy

Mon Jan 10 21:00:38 GMT 2022

<b>Visit</b>	Proposal 16171, RM781 (15), completed				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: STIS/NUV-MAMA, STIS/CCD				
	Special Requirements: (none)				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(15)	RM781	RA: 14 21 3.5290 (215.2647042d) Dec: +51 58 19.47 (51.97208d) Equinox: J2000		V=19.5+/-0.1 NUV=20.47	Reference Frame: ICRS
	<i>Comments:</i> Category=GALAXY Description=[OSO, QUASAR]					

<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	acq (STIS.ta.144 8849)	(15) RM781	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT			30 Secs (30 Secs) [==>]	[1]
	2	RM781 (STIS.sp.14 47785)	(15) RM781	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=30 0			2300 Secs (2293 Secs) [==>2293.0 Secs ]	[1]



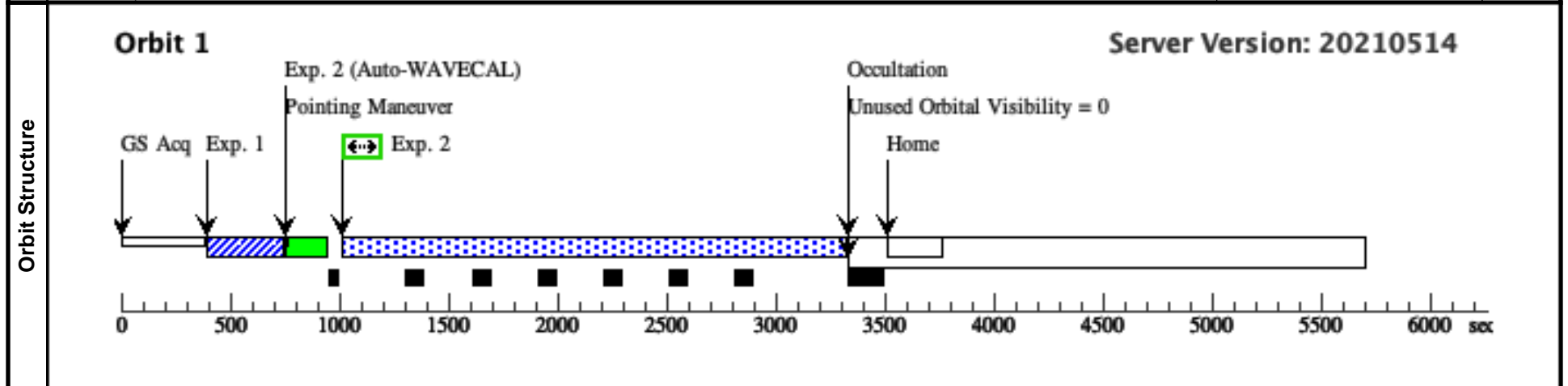
Proposal 16171 - RM782 (16) - Understanding the offset in the broad-line region size-luminosity relation with UV spectroscopy

Mon Jan 10 21:00:38 GMT 2022

<b>Visit</b>	Proposal 16171, RM782 (16), completed				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: STIS/NUV-MAMA, STIS/CCD				
	Special Requirements: (none)				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(16)	RM782	RA: 14 13 18.9610 (213.3290042d) Dec: +54 32 2.40 (54.53400d) Equinox: J2000		V=18.9+/-0.1 NUV=19.50	Reference Frame: ICRS
	<i>Comments:</i> Category=GALAXY Description=[OSO, QUASAR]					

<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	acq (STIS.ta.144 8850)	(16) RM782	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT			30 Secs (30 Secs) [==>]	[1]
	2	RM782 (STIS.sp.14 47785)	(16) RM782	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=30 0			2300 Secs (2293 Secs) [==>2293.0 Secs ]	[1]



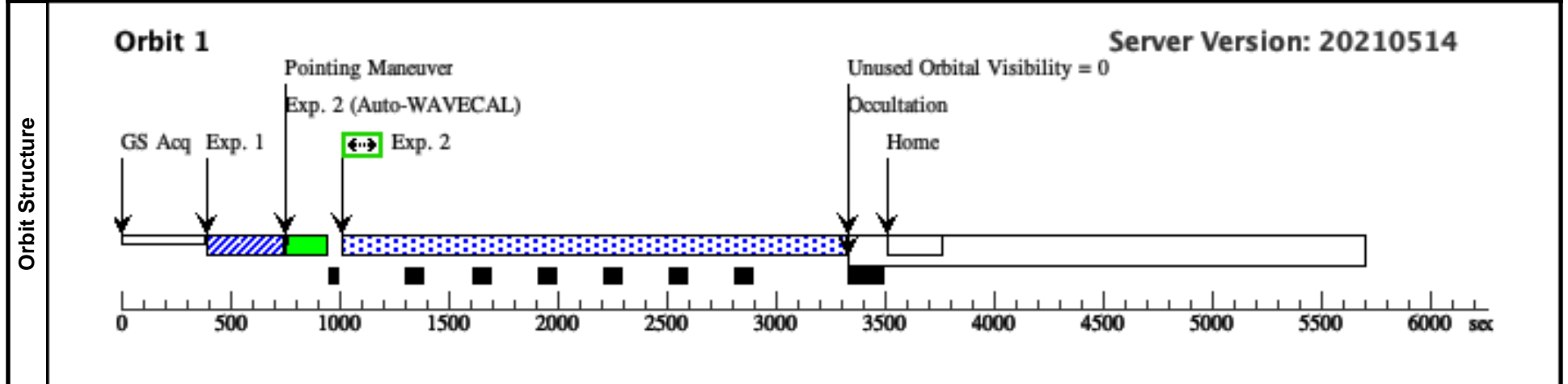
Proposal 16171 - RM790 (17) - Understanding the offset in the broad-line region size-luminosity relation with UV spectroscopy

Mon Jan 10 21:00:38 GMT 2022

<b>Visit</b>	Proposal 16171, RM790 (17), completed				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: STIS/NUV-MAMA, STIS/CCD				
	Special Requirements: (none)				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(17)	RM790	RA: 14 17 29.2714 (214.3719642d) Dec: +53 18 26.54 (53.30737d) Equinox: J2000		V=19.1+/-0.1 NUV=20.10	Reference Frame: ICRS
	<i>Comments:</i> Category=GALAXY Description=[QSO, QUASAR]					

<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	acq (STIS.ta.144 8851)	(17) RM790	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT			30 Secs (30 Secs) [==>]	[1]
	2	RM790 (STIS.sp.14 47785)	(17) RM790	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=30 0			2300 Secs (2293 Secs) [==>2293.0 Secs ]	[1]



Proposal 16171 - RM840 (18) - Understanding the offset in the broad-line region size-luminosity relation with UV spectroscopy

Mon Jan 10 21:00:38 GMT 2022

<b>Visit</b>	Proposal 16171, RM840 (18), completed				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: STIS/NUV-MAMA, STIS/CCD				
	Special Requirements: (none)				

<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(18)	RM840	RA: 14 16 45.1500 (214.1881250d) Dec: +54 25 40.75 (54.42799d) Equinox: J2000		V=19.0+/-0.1 NUV=19.94	Reference Frame: ICRS
	<i>Comments:</i> Category=GALAXY Description=[OSO, QUASAR]					

<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	acq (STIS.ta.144 8852)	(18) RM840	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT			30 Secs (30 Secs) [==>]	[1]
	2	RM840 (STIS.sp.14 47785)	(18) RM840	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=30 0			2300 Secs (2293 Secs) [==>2293.0 Secs ]	[1]

