



# 15656 - QuaStar: The first unobscured view of the Milky Way's Circumgalactic

## Medium

Cycle: 26, Proposal Category: GO

(UV Initiative)

(Availability Mode: SUPPORTED)

### INVESTIGATORS

<i>Name</i>	<i>Institution</i>	<i>E-Mail</i>
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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) GALEXASCJ022823.17-013241.7	COS/FUV COS/NUV	1	07-Apr-2020 11:00:26.0	yes
02	(2) GALEXASCJ005339.62-360648.7	COS/FUV COS/NUV	1	07-Apr-2020 11:00:27.0	yes
03	(3) GALEXASCJ105752.63-010855.0	COS/FUV COS/NUV	2	07-Apr-2020 11:00:28.0	yes
04	(4) GALEXASCJ215638.47-440302.3	COS/FUV COS/NUV	2	07-Apr-2020 11:00:29.0	yes

Proposal 15656 (STScI Edit Number: 1, Created: Tuesday, April 7, 2020 at 10:00:54 AM 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>
05	(5) GALEXASCJ111821.52+402908.5	COS/FUV COS/NUV	2	07-Apr-2020 11:00:29.0	yes
06	(6) GALEXASCJ121222.03+062124.9	COS/FUV COS/NUV	2	07-Apr-2020 11:00:30.0	yes
07	(7) GALEXASCJ111347.28+273648.6	COS/FUV COS/NUV	2	07-Apr-2020 11:00:31.0	yes
08	(8) GALEXASCJ123500.52- 010854.8	COS/FUV COS/NUV	2	07-Apr-2020 11:00:32.0	yes
09	(9) GALEXASCJ133905.80+313630.9	COS/FUV COS/NUV	2	07-Apr-2020 11:00:33.0	yes
10	(10) GALEXASCJ133903.99+051157.5	COS/FUV COS/NUV	2	07-Apr-2020 11:00:34.0	yes
11	(11) GALEXASCJ134404.46+184259.0	COS/FUV COS/NUV	2	07-Apr-2020 11:00:34.0	yes
12	(12) GALEXASCJ140035.63+053517.2	COS/FUV COS/NUV	2	07-Apr-2020 11:00:35.0	yes
13	(13) GALEXASCJ140638.56+244142.8	COS/FUV COS/NUV	2	07-Apr-2020 11:00:36.0	yes
14	(14) GALEXASCJ144920.40+345940.4	COS/FUV COS/NUV	2	07-Apr-2020 11:00:37.0	yes
15	(15) GALEXASCJ113139.16+311248.2	COS/FUV COS/NUV	2	07-Apr-2020 11:00:38.0	yes
16	(16) GALEXASCJ015815.67- 752724.6	COS/FUV COS/NUV	3	07-Apr-2020 11:00:38.0	yes
66	(16) GALEXASCJ015815.67- 752724.6	COS/FUV COS/NUV	3	07-Apr-2020 11:00:39.0	yes
17	(17) GALEXASCJ212917.53- 111202.0	COS/FUV COS/NUV	4	07-Apr-2020 11:00:40.0	yes

Proposal 15656 (STScI Edit Number: 1, Created: Tuesday, April 7, 2020 at 10:00:54 AM 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>
18	(18) GALEXASCJ232600.96-710839.6	COS/FUV COS/NUV	3	07-Apr-2020 11:00:42.0	yes
19	(19) GALEXASCJ151138.21+045255.1	COS/FUV COS/NUV	3	07-Apr-2020 11:00:43.0	yes
20	(20) GALEXASCJ101935.57-005112.1	COS/FUV COS/NUV	1	07-Apr-2020 11:00:43.0	yes
21	(21) GALEXASCJ000441.59-084506.8	COS/FUV COS/NUV	3	07-Apr-2020 11:00:44.0	yes
22	(22) GALEXASCJ225527.04-172710.0	COS/FUV COS/NUV	3	07-Apr-2020 11:00:45.0	yes
23	(23) GALEXASCJ234529.53-015728.2	COS/FUV COS/NUV	3	07-Apr-2020 11:00:46.0	yes
24	(24) GALEXASCJ023531.74-175734.4	COS/FUV COS/NUV	4	07-Apr-2020 11:00:47.0	yes
74	(24) GALEXASCJ023531.74-175734.4	COS/FUV COS/NUV	1	07-Apr-2020 11:00:47.0	yes
25	(25) GALEXASCJ042008.27-523347.9	COS/FUV COS/NUV	2	07-Apr-2020 11:00:48.0	yes
75	(25) GALEXASCJ042008.27-523347.9	COS/FUV COS/NUV	1	07-Apr-2020 11:00:48.0	yes
26	(26) GALEXASCJ045615.25-244736.8	COS/FUV COS/NUV	3	07-Apr-2020 11:00:49.0	yes
27	(27) GALEXASCJ024343.23-063658.4	COS/FUV COS/NUV	4	07-Apr-2020 11:00:50.0	yes
28	(28) GALEXASCJ011147.11-001150.0	COS/FUV COS/NUV	4	07-Apr-2020 11:00:51.0	yes
78	(28) GALEXASCJ011147.11-001150.0	COS/FUV COS/NUV	3	07-Apr-2020 11:00:52.0	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>
29	(29) GALEXASCJ084140.72+234004.4	COS/FUV COS/NUV	4	07-Apr-2020 11:00:52.0	yes
30	(30) GALEXASCJ084121.51+452912.4	COS/FUV COS/NUV	3	07-Apr-2020 11:00:53.0	yes

83 Total Orbits Used

## ABSTRACT

The circumgalactic medium (CGM) of the Milky Way is thought to contain the majority of Galactic baryons and metals. It has also been proposed as the source of fuel for Galactic star formation. For all the CGM's importance to Galactic evolution, we have yet to get an unobscured view of its contents and structure. Models predict that the circumgalactic medium should, on average, be at rest with respect to the Galactic disk. Thus, the standard quasar absorption line method for probing the CGM of other galaxies produces results corrupted by absorption originating in the Galactic disk ISM. Recent work on pairs of quasar absorption lines has shown that C IV absorption at Galactic rest does not vary detectably over  $\sim 2$  degree scales. This result provides opportunity for exploring the Galactic CGM without obscuration for the first time. We propose to observe the 1550 Angstrom C IV doublet in 30 halo stars ( $D \sim 7$  kpc) that have archival quasars C IV observations within  $\sim 2$  degrees. The difference in the C IV absorption between the halo stars and the archival quasars originates in the CGM. With this data set we will be able to probe far more than the carbon column, metal mass, and baryonic mass of the Milky Way's CGM. We will also be able to measure Milky Way CGM rotation, radial structure, and perhaps even extended streams and clouds, aspects unavailable to extragalactic studies of the CGM. We believe this project will revolutionize the study of the Milky Way CGM, as well as the study of the CGM as a whole.

## OBSERVING DESCRIPTION

To achieve our primary goal of detecting C IV associated with the MWCGM on top of the strong Galactic ISM absorption features, we require a S/N of 10 over our wavelength range, and the highest spectral resolution of COS (G160M) with a central wavelength of 1577  $\text{\AA}$ . These requirements are to ensure an accurate measurement of the column density to a limit of  $\log N_{\text{CIV}}$  of 13.5, consistent with the CGM of low-redshift galaxies. We expect to detect 75 m $\text{\AA}$ -features of C IV 1548 at  $3\sigma$ , consistent with previous detections of this transition in the halos of external galaxies and in Milky Way HVCs (Lehner & Howk 2011, Bordoloi et al. 2014). Assessing the kinematic signatures of gas inflow and outflow will require an analysis of the absorption line profiles, using two-component models that include the ISM component of the Galaxy (Rubin+2012). This is another reason we require S/N of at least 10 across our spectral range.

The transitions we will probe will be Si II (1526), Fe II (1608, 1611), Al II (1670), Si IV (1393, 1402), and, critically, C IV (1548, 1550). Our BHB targets have  $\{Galex\}$  FUV magnitudes of 16.4 - 18.4 and heights beyond the disk between 5 and 10 kpc. The Cycle 26 COS ETC tells us that we will require between 1 and 4 orbits for each BHB star (modeled as an AOIII star) to reach a S/N of 10 over the full spectral range (see: COS.sp.1263473 and COS.sp.1263475). The most stringent requirement setting the exposure time is that we cover the CIV doublet (1548, 1550) at the minimum S/N of 10. This calculation includes 14 minutes of overhead for the first orbit, and 6 minutes of overhead for each additional orbit. %All exposure time calculations assume 2600 seconds of useful exposure averaged in each orbit (i.e., acquisition takes longer on the first orbit).

Standard COS guide star and target acquisition, minimal readouts, and other overheads are factored in. None of these stars will pose a bright limit threat to COS and we have no timing or orientation constraints.

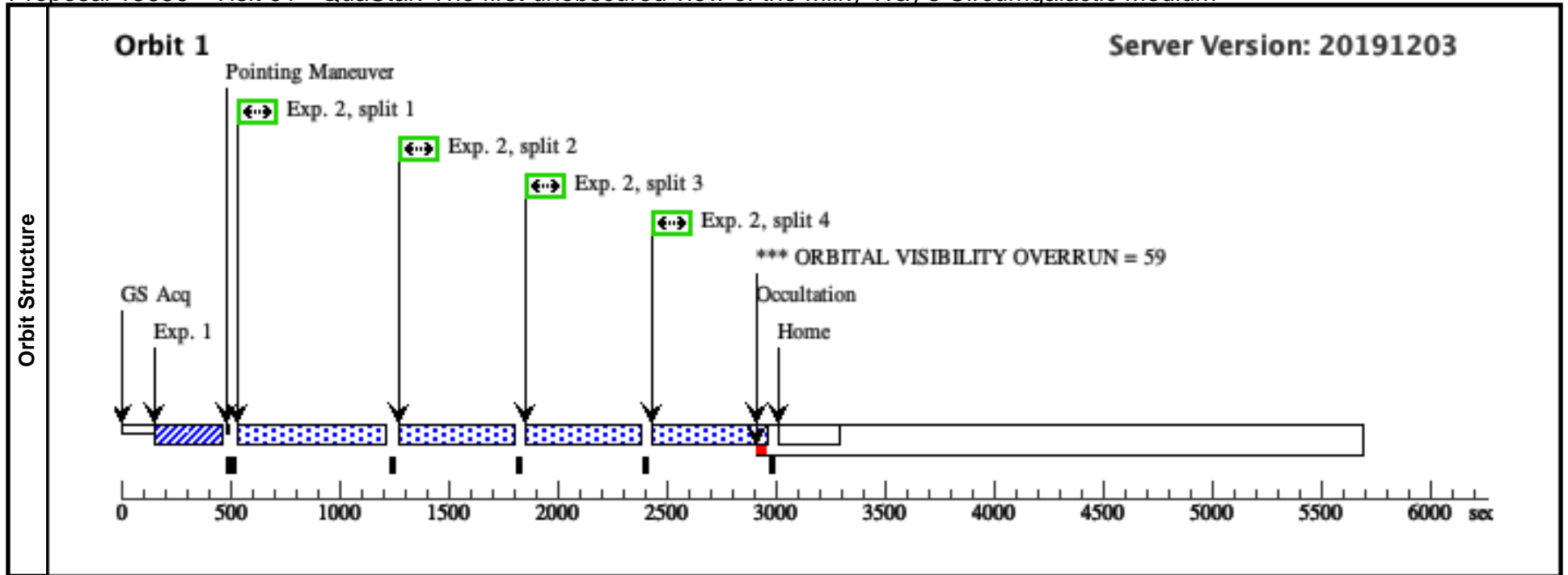
All calculations were done assuming that these BHB stars are Bruzual Synthetic Stellar Spectra A0 III stars. These stars are non-pulsating giants that do not vary in magnitude.

Targ Acq calculations for our brightest target (#2, GALEXASCJ005339.62-360648.7) have Count rates for Total in selected region = 75.683, Brightest Pixel (single exposure) = 10.494, Count rate entire detector = 1,032.792

Proposal 15656 - Visit 01 - QuaStar: The first unobscured view of the Milky Way's Circumgalactic Medium

Tue Apr 07 15:00:54 GMT 2020

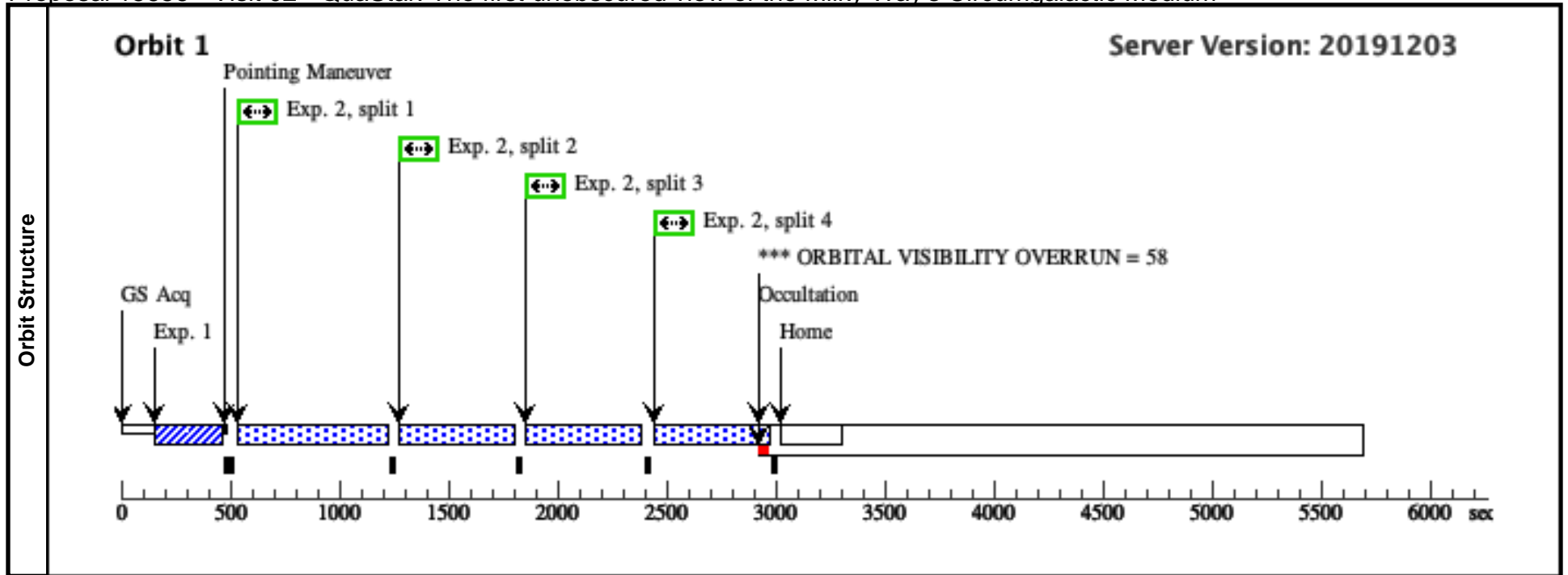
<b>Visit</b>	<b>Proposal 15656, Visit 01, completed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: SCHED 100%									
	(Visit 01) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE. (Visit 01) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN									
<b>Diagnosics</b>										
<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(1)	GALEXASCJ022823.17-013241.7	RA: 02 28 23.1605 (37.0965021d) Dec: -01 32 41.41 (-1.54484d) Equinox: J2000		V=15.33148 16.711673736572266	Reference Frame: ICRS				
Comments: "Other Fluxes" is the GALEX FUV mag of the source Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO										
<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(COS.ta.129 9868)	(1) GALEXASCJ02 2823.17-013241.7	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				8 Secs (8 Secs)	
									[==>]	[1]
2	(COS.sp.126 3475)	(1) GALEXASCJ02 2823.17-013241.7	COS/FUV, TIME-TAG, PSA	G160M 1577 A	12; FP-POS=ALL				430 Secs (1900 Secs)	
									[==>475.0 Secs (Split 1)] [==>475.0 Secs (Split 2)] [==>475.0 Secs (Split 3)] [==>475.0 Secs (Split 4)]	[1]



Proposal 15656 - Visit 02 - QuaStar: The first unobscured view of the Milky Way's Circumgalactic Medium

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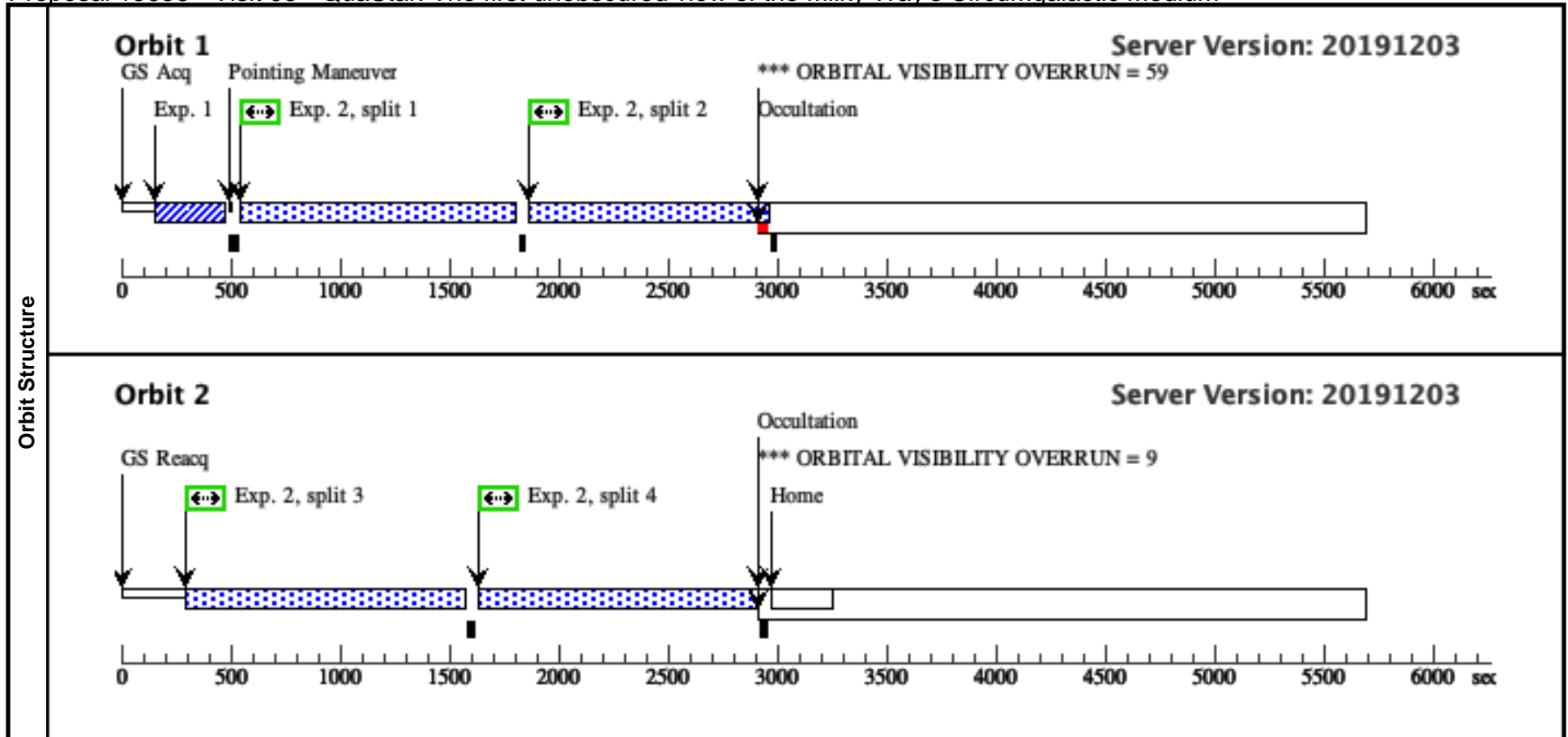
<b>Visit</b>	<b>Proposal 15656, Visit 02, completed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: SCHED 100%									
	(Visit 02) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE. (Visit 02) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN									
<b>Diagnosics</b>										
<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(2)	GALEXASCJ005339.62-360648.7	RA: 00 53 39.6336 (13.4151400d) Dec: -36 06 49.70 (-36.11381d) Equinox: J2000		V=14.797305 16.3869686126709	Reference Frame: ICRS				
Comments: "Other Fluxes" is the GALEX FUV mag of the source Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO										
<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(COS.ta.129 9864)	(2) GALEXASCJ00 5339.62-360648.7	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				6 Secs (6 Secs)	
									[==>]	[1]
2	(COS.sp.126 3475)	(2) GALEXASCJ00 5339.62-360648.7	COS/FUV, TIME-TAG, PSA	G160M 1577 A		BUFFER-TIME=50 45; FP-POS=ALL			430 Secs (1912 Secs)	
									[==>478.0 Secs (Split 1)] [==>478.0 Secs (Split 2)] [==>478.0 Secs (Split 3)] [==>478.0 Secs (Split 4)]	[1]



Proposal 15656 - Visit 03 - QuaStar: The first unobscured view of the Milky Way's Circumgalactic Medium

Tue Apr 07 15:00:54 GMT 2020

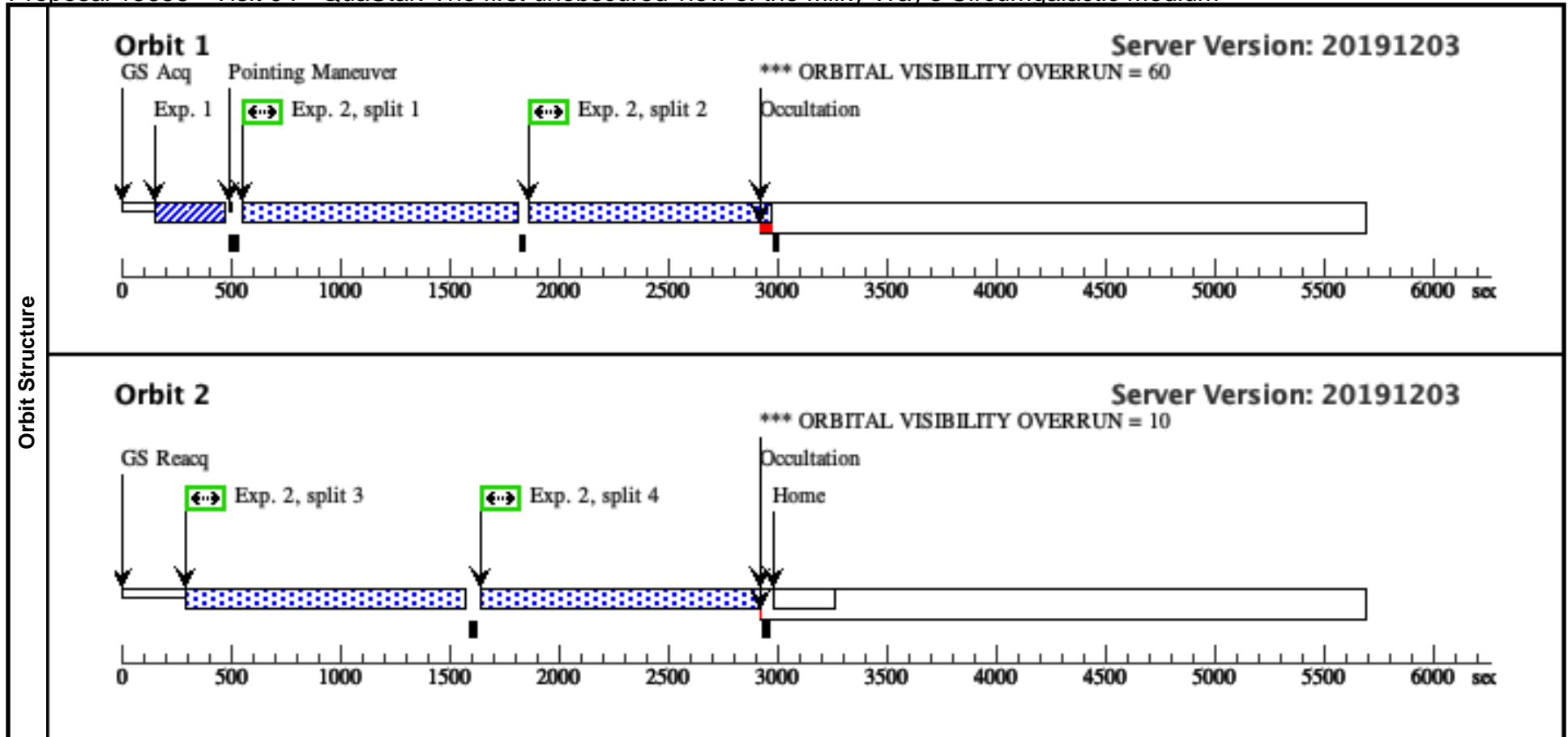
<b>Visit</b>	<b>Proposal 15656, Visit 03, completed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: SCHED 100%									
	(Visit 03) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE. (Visit 03) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN (Visit 03) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN									
<b>Diagnosics</b>										
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(3)	GALEXASCJ105752.63-010855.0	RA: 10 57 52.6388 (164.4693283d) Dec: -01 08 54.95 (-1.14860d) Equinox: J2000		V=15.611346 17.32870101928711	Reference Frame: ICRS				
Comments: "Other Fluxes" is the GALEX FUV mag of the source Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO										
<b>Exposures</b>	<b>#</b>	<b>Label (ETC Run)</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	(COS.ta.129 9874)	(3) GALEXASCJ10 5752.63-010855.0	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				13 Secs (13 Secs)	
									[==>]	[1]
	2	(COS.sp.126 3475)	(3) GALEXASCJ10 5752.63-010855.0	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=96 69; FP-POS=ALL			860 Secs (4546 Secs)	
									[==>1050.0 Secs (Split 1)] [==>1050.0 Secs (Split 2)] [==>1223.0 Secs (Split 3)] [==>1223.0 Secs (Split 4)]	[1]  [2]



Proposal 15656 - Visit 04 - QuaStar: The first unobscured view of the Milky Way's Circumgalactic Medium

Tue Apr 07 15:00:54 GMT 2020

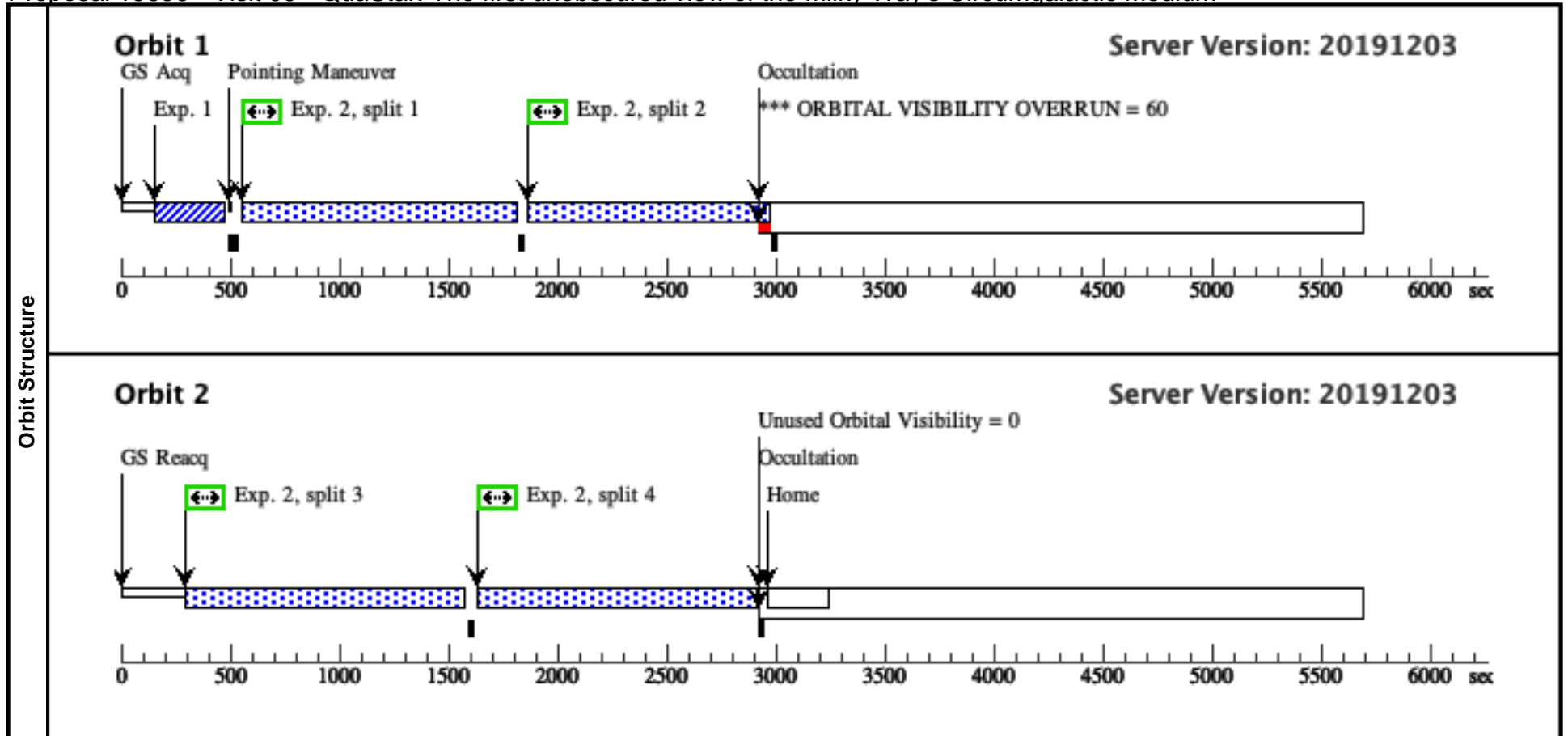
<b>Visit</b>	<b>Proposal 15656, Visit 04, completed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: SCHED 100%									
	(Visit 04) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE. (Visit 04) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN (Visit 04) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN									
<b>Diagnosics</b>										
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(4)	GALEXASCJ215638.47-440302.3	RA: 21 56 38.4842 (329.1603508d) Dec: -44 03 2.93 (-44.05081d) Equinox: J2000		V=15.336907 17.435482025146484	Reference Frame: ICRS				
Comments: "Other Fluxes" is the GALEX FUV mag of the source Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO										
<b>Exposures</b>	<b>#</b>	<b>Label (ETC Run)</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	(COS.ta.129 9875)	(4) GALEXASCJ21 5638.47-440302.3	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				14 Secs (14 Secs)	
									[==>]	[1]
	2	(COS.sp.126 3475)	(4) GALEXASCJ21 5638.47-440302.3	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=10 310; FP-POS=ALL			860 Secs (4568 Secs)	
									[==>1055.0 Secs (Split 1)] [==>1055.0 Secs (Split 2)] [==>1229.0 Secs (Split 3)] [==>1229.0 Secs (Split 4)]	[1]  [2]



Proposal 15656 - Visit 05 - QuaStar: The first unobscured view of the Milky Way's Circumgalactic Medium

Tue Apr 07 15:00:54 GMT 2020

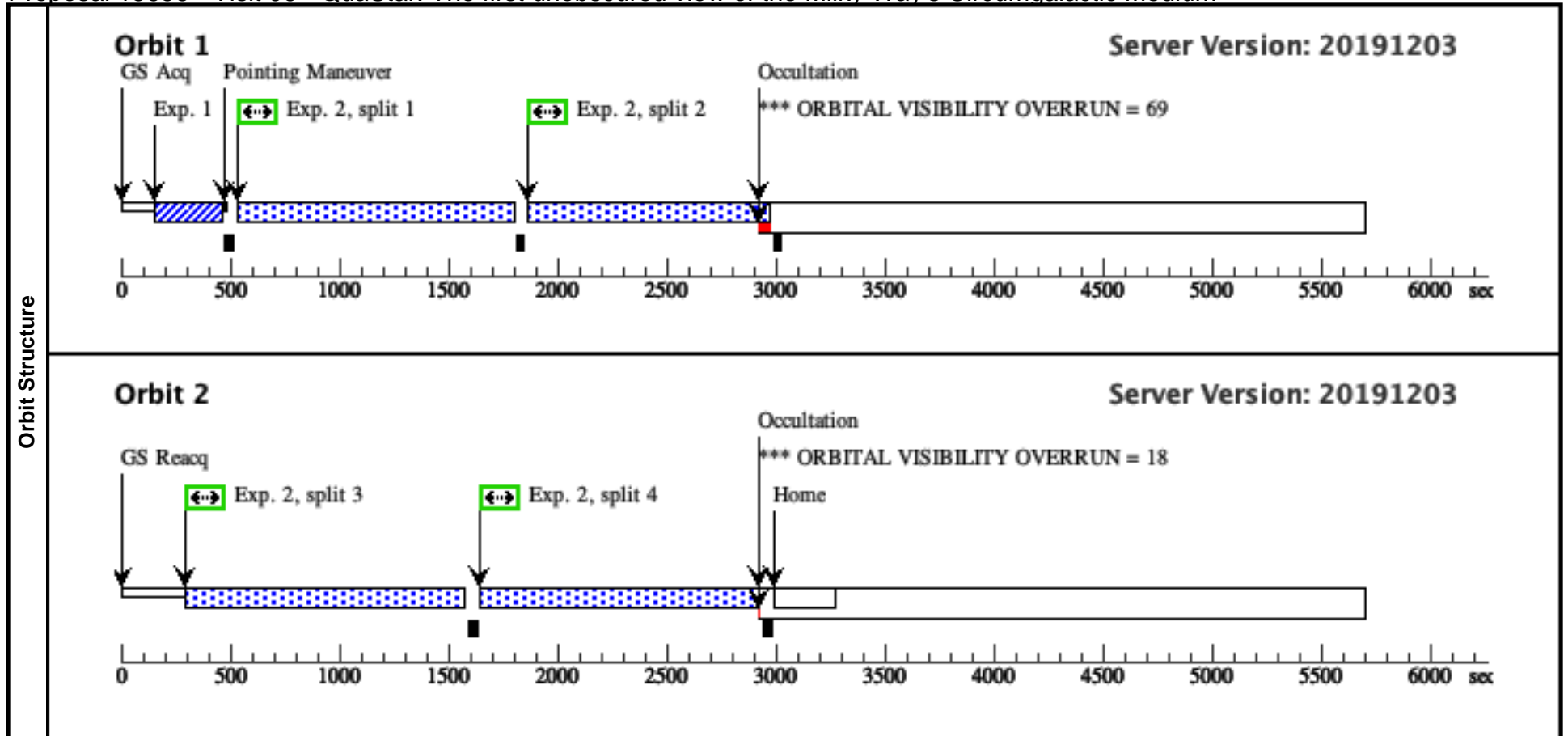
<b>Visit</b>	<b>Proposal 15656, Visit 05, completed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: SCHED 100%									
	(Visit 05) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE. (Visit 05) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN									
<b>Diagnosics</b>										
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(5)	GALEXASCJ11821.52 +402908.5	RA: 11 18 21.4441 (169.5893504d) Dec: +40 29 7.88 (40.48552d) Equinox: J2000		V=14.191587 17.39215087890625	Reference Frame: ICRS				
Comments: "Other Fluxes" is the GALEX FUV mag of the source Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO										
<b>Exposures</b>	<b>#</b>	<b>Label (ETC Run)</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	(COS.ta.129 9874)	(5) GALEXASCJ11 1821.52+402908.5	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				14 Secs (14 Secs)	
									[==>]	[1]
	2	(COS.sp.126 3475)	(5) GALEXASCJ11 1821.52+402908.5	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=18 000; FP-POS=ALL			860 Secs (4568 Secs)	
									[==>1055.0 Secs (Split 1)] [==>1055.0 Secs (Split 2)] [==>1229.0 Secs (Split 3)] [==>1229.0 Secs (Split 4)]	[1]  [2]



Proposal 15656 - Visit 06 - QuaStar: The first unobscured view of the Milky Way's Circumgalactic Medium

Tue Apr 07 15:00:54 GMT 2020

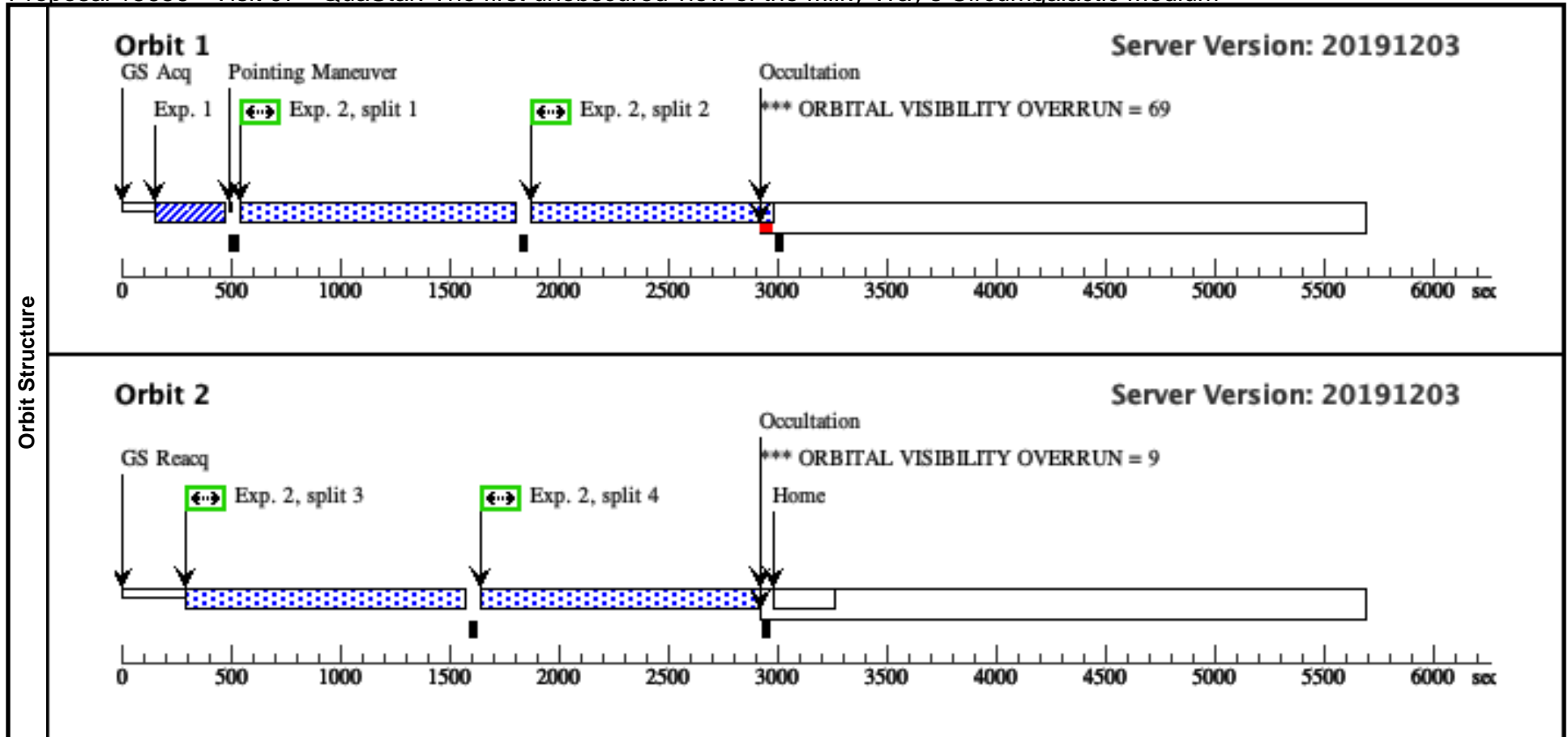
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<b>Diagnosics</b>										
<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(6)	GALEXASCJ121222.03 +062124.9	RA: 12 12 21.9547 (183.0914779d) Dec: +06 21 24.30 (6.35675d) Equinox: J2000		V=14.6200075 16.390640258789062	Reference Frame: ICRS				
Comments: "Other Fluxes" is the GALEX FUV mag of the source Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO										
<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(COS.ta.129 9864)	(6) GALEXASCJ12 1222.03+062124.9	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				6 Secs (6 Secs) [==>]	[1]
	2	(COS.sp.126 3475)	(6) GALEXASCJ12 1222.03+062124.9	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=50 59; FP-POS=ALL			860 Secs (4568 Secs) [==>1059.0 Secs (Split 1)] [==>1059.0 Secs (Split 2)] [==>1225.0 Secs (Split 3)] [==>1225.0 Secs (Split 4)]	[1] [2]



Proposal 15656 - Visit 07 - QuaStar: The first unobscured view of the Milky Way's Circumgalactic Medium

Tue Apr 07 15:00:54 GMT 2020

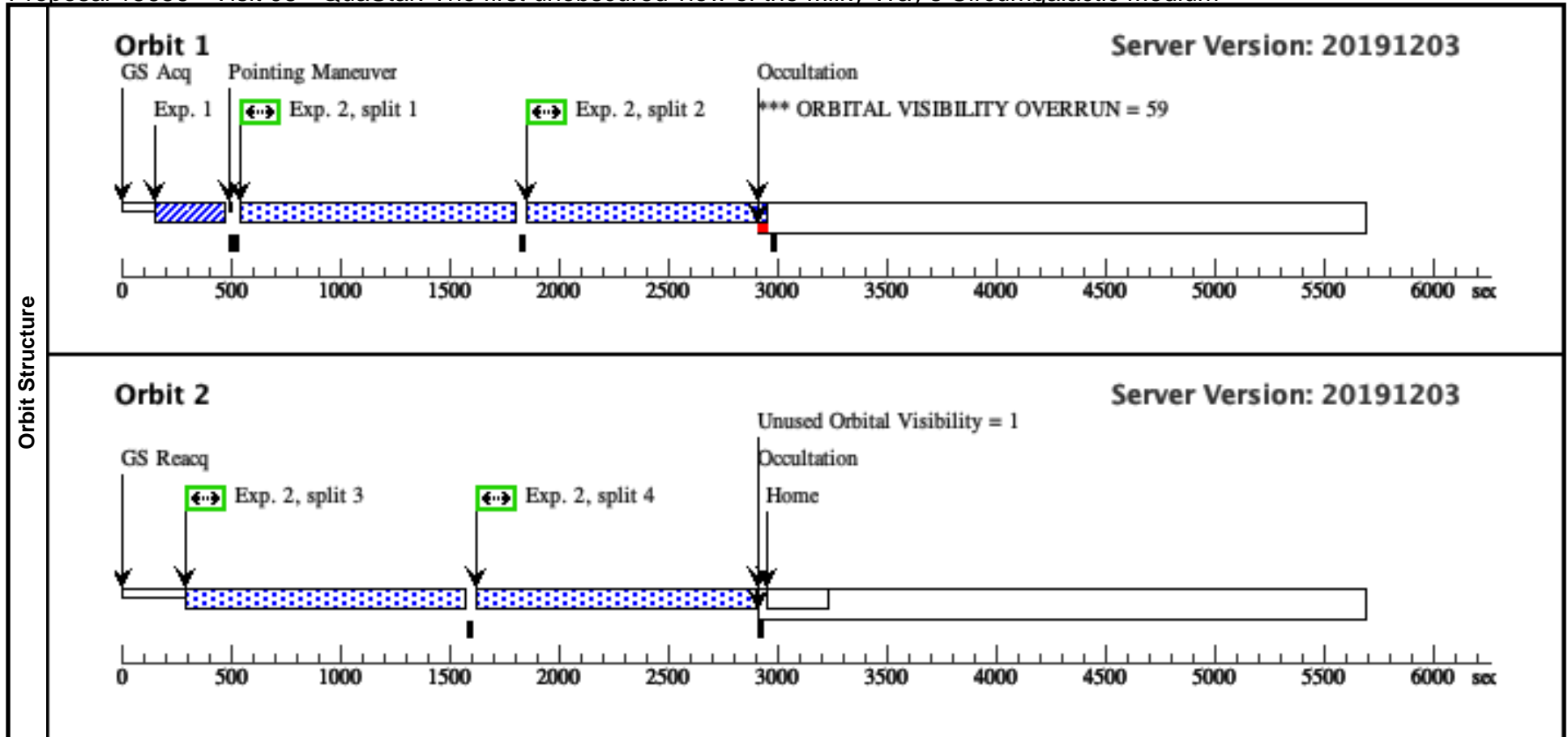
<b>Visit</b>	<b>Proposal 15656, Visit 07, completed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: SCHED 100%									
	(Visit 07) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE. (Visit 07) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN (Visit 07) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN									
<b>Diagnosics</b>										
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(7)	GALEXASCJ111347.28 +273648.6	RA: 11 13 47.2187 (168.4467446d) Dec: +27 36 48.51 (27.61348d) Equinox: J2000		V=15.03919 17.287418365478516	Reference Frame: ICRS				
Comments: "Other Fluxes" is the GALEX FUV mag of the source Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO										
<b>Exposures</b>	<b>#</b>	<b>Label (ETC Run)</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	(COS.ta.129 9873)	(7) GALEXASCJ11 1347.28+273648.6	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				13 Secs (13 Secs)	
									[==>]	[1]
	2	(COS.sp.126 3475)	(7) GALEXASCJ11 1347.28+273648.6	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=94 27; FP-POS=ALL			860 Secs (4566 Secs)	
									[==>1055.0 Secs (Split 1)] [==>1055.0 Secs (Split 2)] [==>1228.0 Secs (Split 3)] [==>1228.0 Secs (Split 4)]	[1]  [2]



Proposal 15656 - Visit 08 - QuaStar: The first unobscured view of the Milky Way's Circumgalactic Medium

Tue Apr 07 15:00:54 GMT 2020

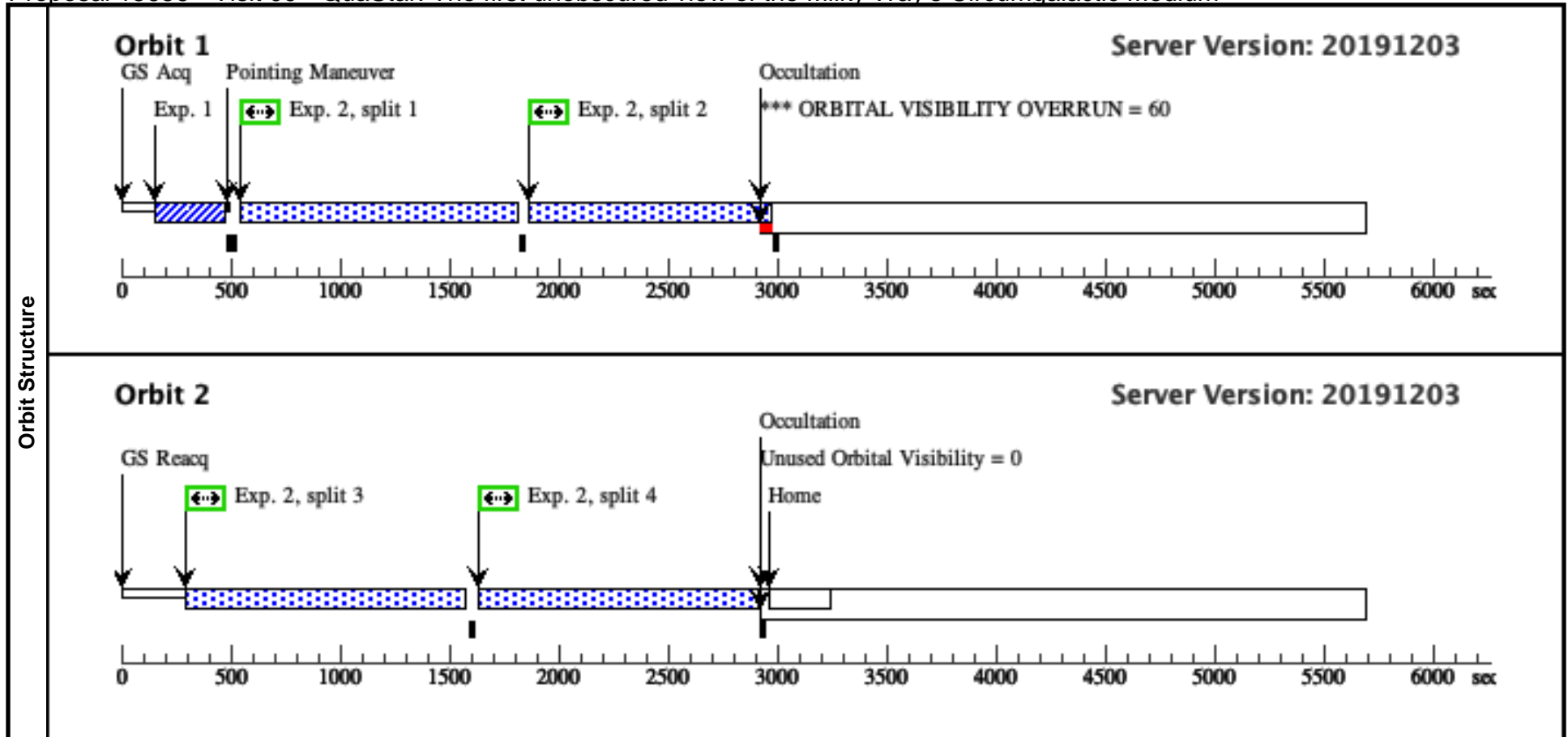
<b>Visit</b>	<b>Proposal 15656, Visit 08, completed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: SCHED 100%									
	(Visit 08) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE. (Visit 08) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN									
<b>Diagnosics</b>										
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(8)	GALEXASCJ123500.52-010854.8	RA: 12 35 0.4815 (188.7520062d) Dec: -01 08 54.80 (-1.14856d) Equinox: J2000		V=14.160854 17.225866317749023	Reference Frame: ICRS				
Comments: "Other Fluxes" is the GALEX FUV mag of the source Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO										
<b>Exposures</b>	<b>#</b>	<b>Label (ETC Run)</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	(COS.ta.129 9873)	(8) GALEXASCJ12 3500.52-010854.8	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				12 Secs (12 Secs)	
									[==>]	[1]
	2	(COS.sp.126 3475)	(8) GALEXASCJ12 3500.52-010854.8	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=18000; FP-POS=ALL			860 Secs (4548 Secs)	
									[==>1051.0 Secs (Split 1)] [==>1051.0 Secs (Split 2)] [==>1223.0 Secs (Split 3)] [==>1223.0 Secs (Split 4)]	[1]  [2]



Proposal 15656 - Visit 09 - QuaStar: The first unobscured view of the Milky Way's Circumgalactic Medium

Tue Apr 07 15:00:54 GMT 2020

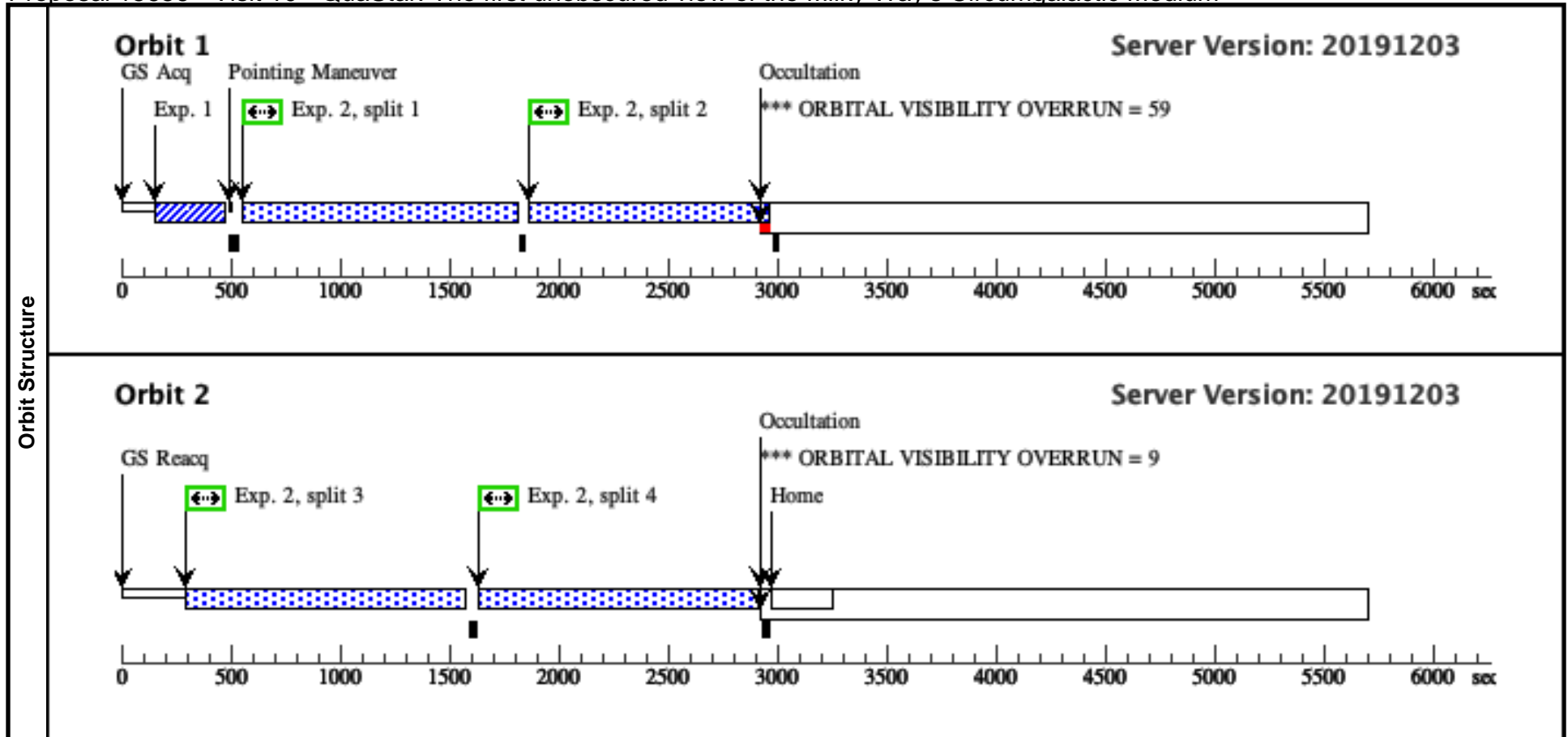
<b>Visit</b>	<b>Proposal 15656, Visit 09, completed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: SCHED 100%									
	(Visit 09) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE. (Visit 09) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN									
<b>Diagnosics</b>										
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(9)	GALEXASCJ133905.80 +313630.9	RA: 13 39 5.8163 (204.7742346d) Dec: +31 36 30.70 (31.60853d) Equinox: J2000		V=15.27841 17.115957260131836	Reference Frame: ICRS				
Comments: "Other Fluxes" is the GALEX FUV mag of the source Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO										
<b>Exposures</b>	<b>#</b>	<b>Label (ETC Run)</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	(COS.ta.129 9872)	(9) GALEXASCJ13 3905.80+313630.9	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				11 Secs (11 Secs)	
									[==>]	[1]
	2	(COS.sp.126 3475)	(9) GALEXASCJ13 3905.80+313630.9	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=18 000; FP-POS=ALL			860 Secs (4570 Secs)	
									[==>1057.0 Secs (Split 1)] [==>1057.0 Secs (Split 2)] [==>1228.0 Secs (Split 3)] [==>1228.0 Secs (Split 4)]	[1]  [2]



Proposal 15656 - Visit 10 - QuaStar: The first unobscured view of the Milky Way's Circumgalactic Medium

Tue Apr 07 15:00:54 GMT 2020

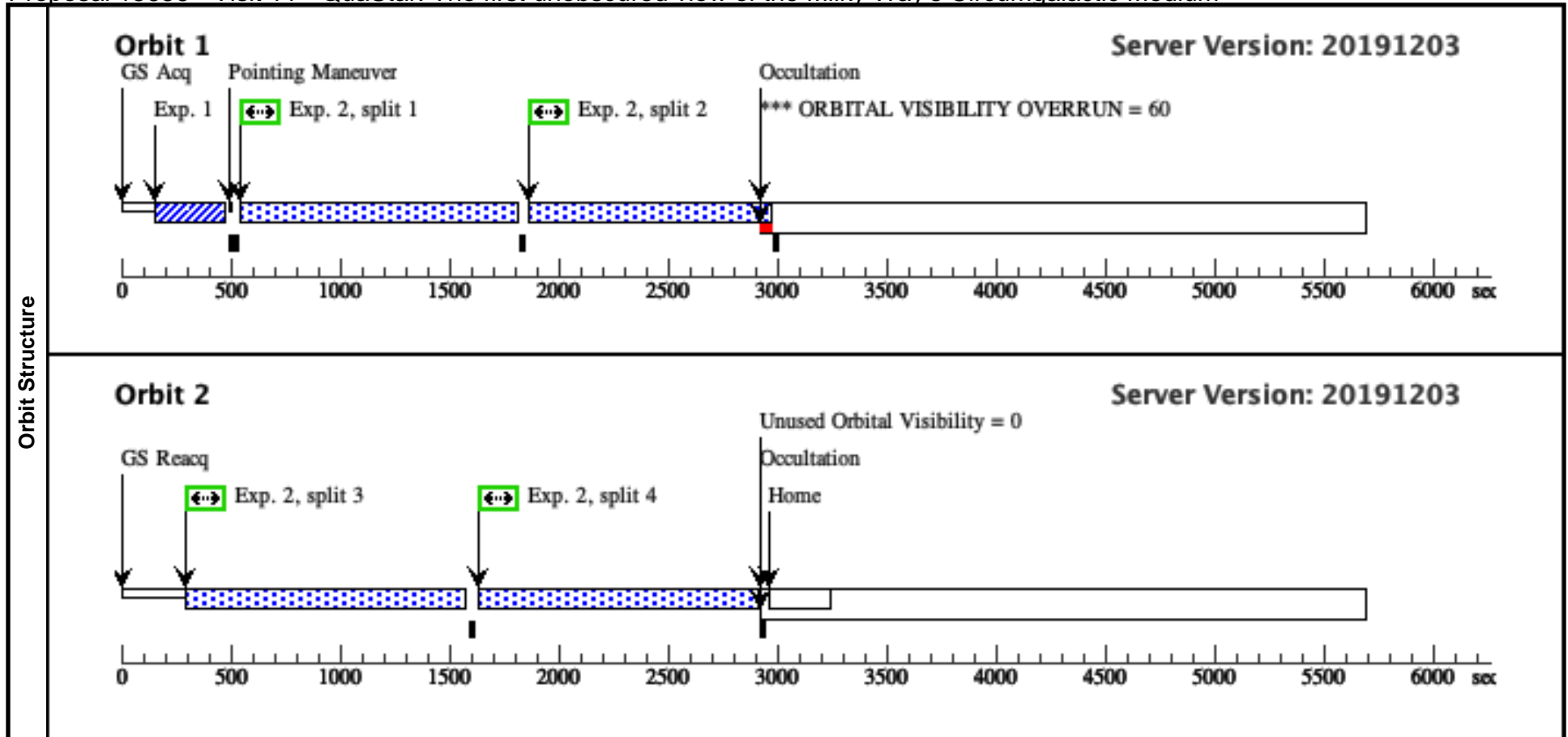
<b>Visit</b>	<b>Proposal 15656, Visit 10, completed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: SCHED 100%									
	(Visit 10) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE. (Visit 10) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN (Visit 10) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN									
<b>Diagnosics</b>										
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(10)	GALEXASCJ133903.99 +051157.5	RA: 13 39 3.9712 (204.7665467d) Dec: +05 11 57.35 (5.19926d) Equinox: J2000		V=14.850904 17.479528427124023	Reference Frame: ICRS				
Comments: "Other Fluxes" is the GALEX FUV mag of the source Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO										
<b>Exposures</b>	<b>#</b>	<b>Label (ETC Run)</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	(COS.ta.129 9875)	(10) GALEXASCJ1 33903.99+051157.5	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				15 Secs (15 Secs)	
									[==>]	[1]
	2	(COS.sp.126 3475)	(10) GALEXASCJ1 33903.99+051157.5	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=10 579; FP-POS=ALL				860 Secs (4550 Secs)
									[==>1050.0 Secs (Split 1)]	[1]
									[==>1050.0 Secs (Split 2)]	
									[==>1225.0 Secs (Split 3)]	
									[==>1225.0 Secs (Split 4)]	[2]



Proposal 15656 - Visit 11 - QuaStar: The first unobscured view of the Milky Way's Circumgalactic Medium

Tue Apr 07 15:00:54 GMT 2020

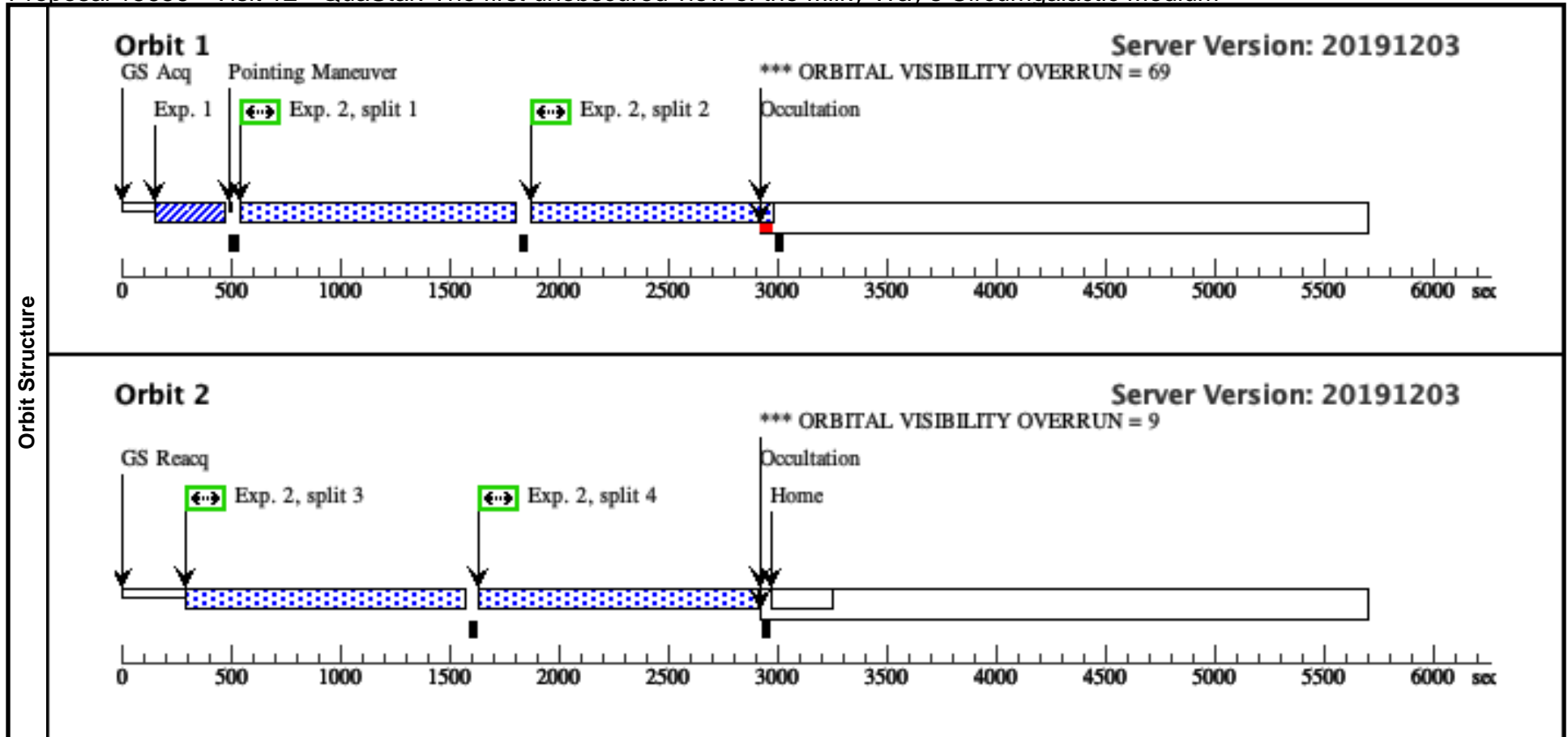
<b>Visit</b>	<b>Proposal 15656, Visit 11, withdrawn</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: SCHED 100%									
	(Visit 11) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE. (Visit 11) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN									
<b>Diagnosics</b>										
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(11)	GALEXASCJ134404.46 +184259.0	RA: 13 44 4.4011 (206.0183379d) Dec: +18 42 59.03 (18.71640d) Equinox: J2000		V=14.658422 17.25077247619629	Reference Frame: ICRS				
Comments: "Other Fluxes" is the GALEX FUV mag of the source Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO										
<b>Exposures</b>	<b>#</b>	<b>Label (ETC Run)</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	(COS.ta.129 9873)	(11) GALEXASCJ1 34404.46+184259.0	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				12 Secs (12 Secs)	
									[==>]	[1]
	2	(COS.sp.126 3475)	(11) GALEXASCJ1 34404.46+184259.0	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=18 000; FP-POS=ALL			860 Secs (4572 Secs)	
									[==>1057.0 Secs (Split 1)] [==>1057.0 Secs (Split 2)] [==>1229.0 Secs (Split 3)] [==>1229.0 Secs (Split 4)]	[1]  [2]



Proposal 15656 - Visit 12 - QuaStar: The first unobscured view of the Milky Way's Circumgalactic Medium

Tue Apr 07 15:00:54 GMT 2020

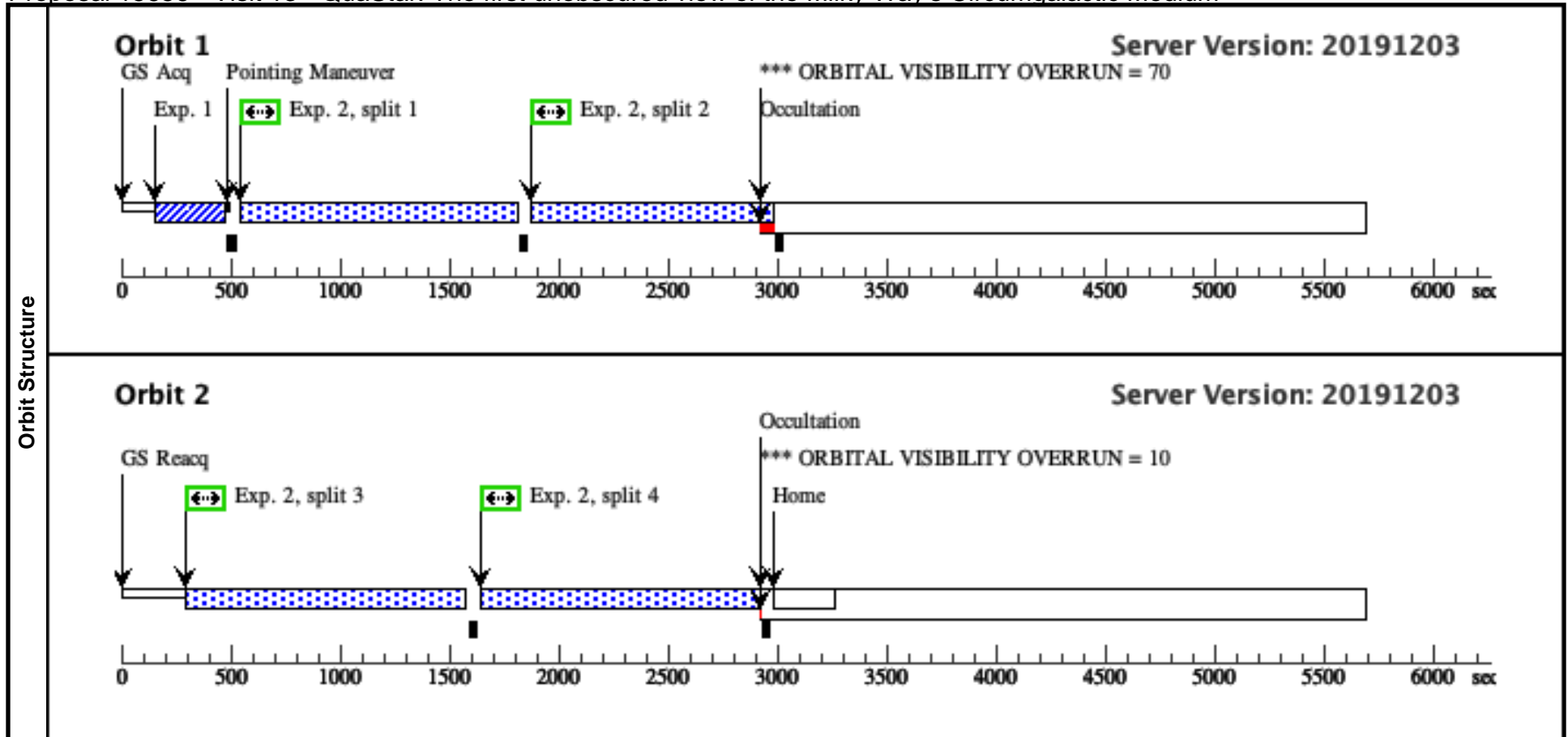
<b>Visit</b>	<b>Proposal 15656, Visit 12, completed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: SCHED 100%									
	(Visit 12) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE. (Visit 12) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN (Visit 12) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN									
<b>Diagnosics</b>										
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(12)	GALEXASCJ140035.63 +053517.2	RA: 14 00 35.6118 (210.1483825d) Dec: +05 35 17.21 (5.58811d) Equinox: J2000		V=14.152444 17.23202133178711	Reference Frame: ICRS				
Comments: "Other Fluxes" is the GALEX FUV mag of the source Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO										
<b>Exposures</b>	<b>#</b>	<b>Label (ETC Run)</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	(COS.ta.129 9873)	(12) GALEXASCJ1 40035.63+053517.2	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				12 Secs (12 Secs)	
									[==>]	[1]
	2	(COS.sp.126 3475)	(12) GALEXASCJ1 40035.63+053517.2	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=91 06; FP-POS=ALL			860 Secs (4556 Secs)	
									[==>1053.0 Secs (Split 1)] [==>1053.0 Secs (Split 2)] [==>1225.0 Secs (Split 3)] [==>1225.0 Secs (Split 4)]	[1]  [2]



Proposal 15656 - Visit 13 - QuaStar: The first unobscured view of the Milky Way's Circumgalactic Medium

Tue Apr 07 15:00:55 GMT 2020

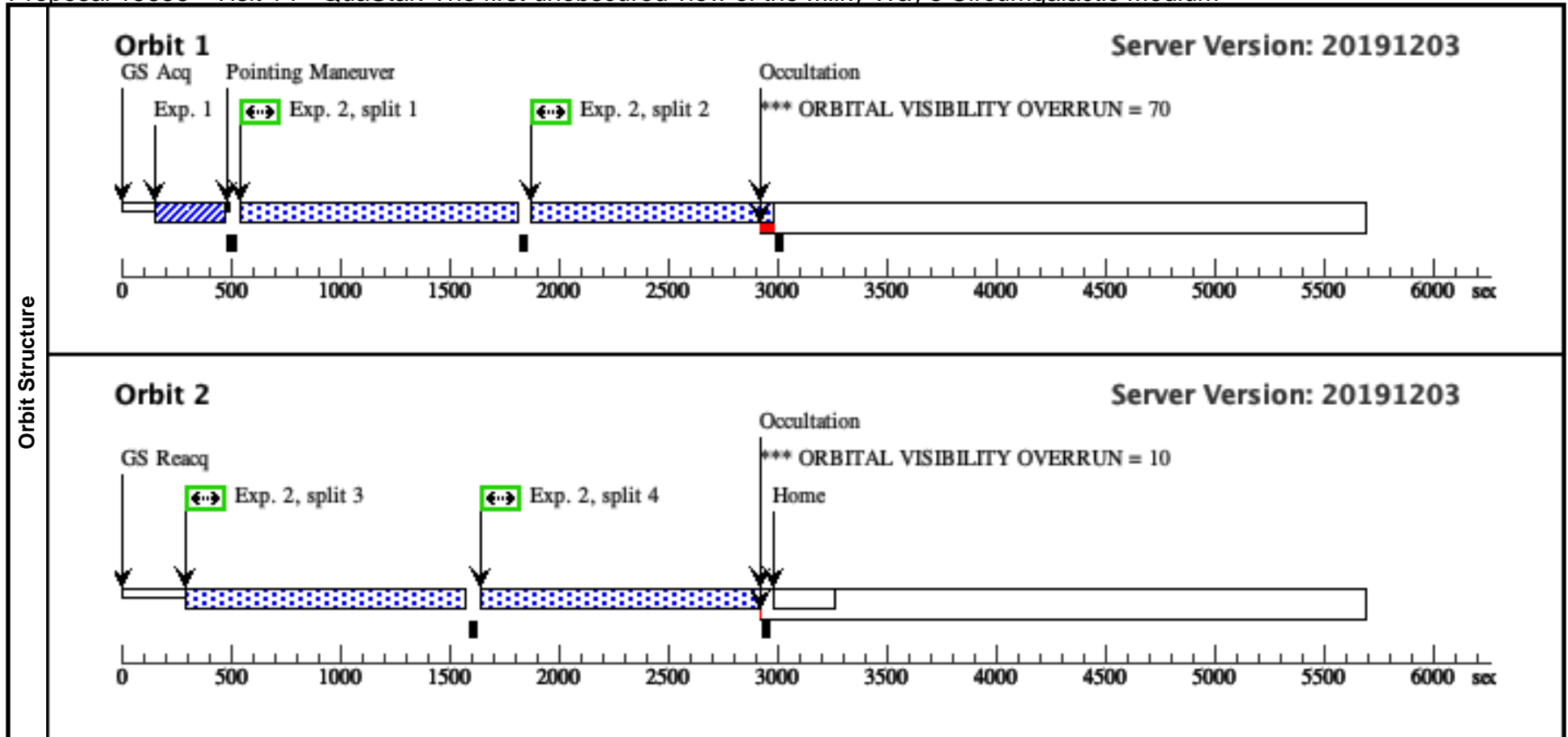
<b>Visit</b>	<b>Proposal 15656, Visit 13, completed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: SCHED 100%									
	(Visit 13) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE. (Visit 13) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN (Visit 13) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN									
<b>Diagnosics</b>										
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(13)	GALEXASCJ140638.56 +244142.8	RA: 14 06 38.5365 (211.6605688d) Dec: +24 41 41.89 (24.69497d) Equinox: J2000		V=14.232058 17.10942840576172	Reference Frame: ICRS				
Comments: "Other Fluxes" is the GALEX FUV mag of the source Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO										
<b>Exposures</b>	<b>#</b>	<b>Label (ETC Run)</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	(COS.ta.129 9872)	(13) GALEXASCJ1 40638.56+244142.8	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				11 Secs (11 Secs)	
									[==>]	[1]
	2	(COS.sp.126 3475)	(13) GALEXASCJ1 40638.56+244142.8	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=84 18; FP-POS=ALL			860 Secs (4574 Secs)	
									[==>1058.0 Secs (Split 1)] [==>1058.0 Secs (Split 2)] [==>1229.0 Secs (Split 3)] [==>1229.0 Secs (Split 4)]	[1]  [2]



Proposal 15656 - Visit 14 - QuaStar: The first unobscured view of the Milky Way's Circumgalactic Medium

Tue Apr 07 15:00:55 GMT 2020

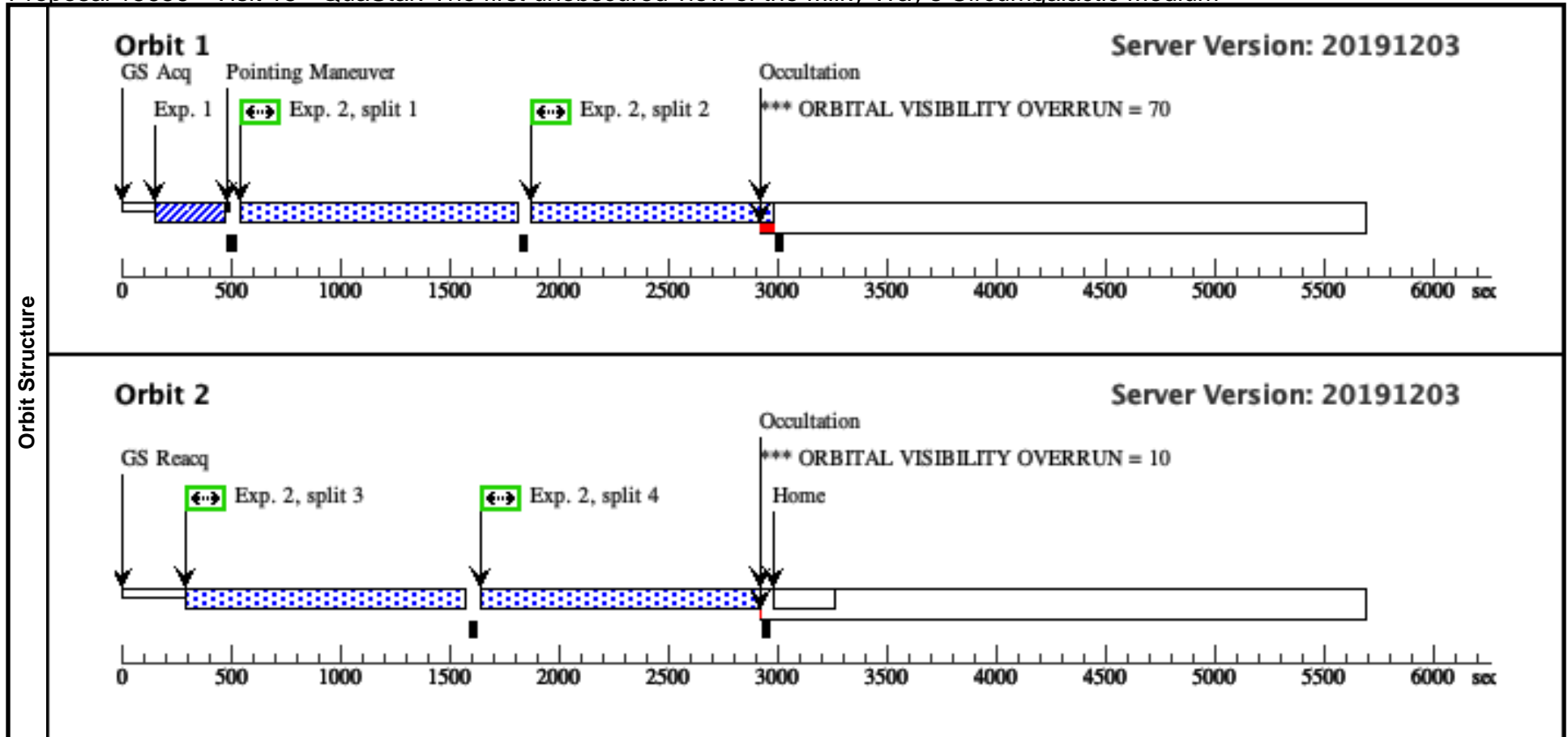
<b>Visit</b>	<b>Proposal 15656, Visit 14, completed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: SCHED 100%										
	(Visit 14) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE. (Visit 14) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN (Visit 14) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN										
<b>Diagnosics</b>											
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>					
	(14)	GALEXASCJ144920.40 +345940.4	RA: 14 49 20.3676 (222.3348650d) Dec: +34 59 40.18 (34.99449d) Equinox: J2000		V=14.764863 17.107358932495117	Reference Frame: ICRS					
Comments: "Other Fluxes" is the GALEX FUV mag of the source Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO											
<b>Exposures</b>	<b>#</b>	<b>Label (ETC Run)</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>	
	1	(COS.ta.129 9872)	(14) GALEXASCJ1 44920.40+345940.4	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				11 Secs (11 Secs)		
									[==>]	[1]	
	2	(COS.sp.126 3475)	(14) GALEXASCJ1 44920.40+345940.4	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=84 07; FP-POS=ALL				860 Secs (4570 Secs)	
									[==>1057.0 Secs (Split 1)] [==>1057.0 Secs (Split 2)] [==>1228.0 Secs (Split 3)] [==>1228.0 Secs (Split 4)]	[1]  [2]	



Proposal 15656 - Visit 15 - QuaStar: The first unobscured view of the Milky Way's Circumgalactic Medium

Tue Apr 07 15:00:55 GMT 2020

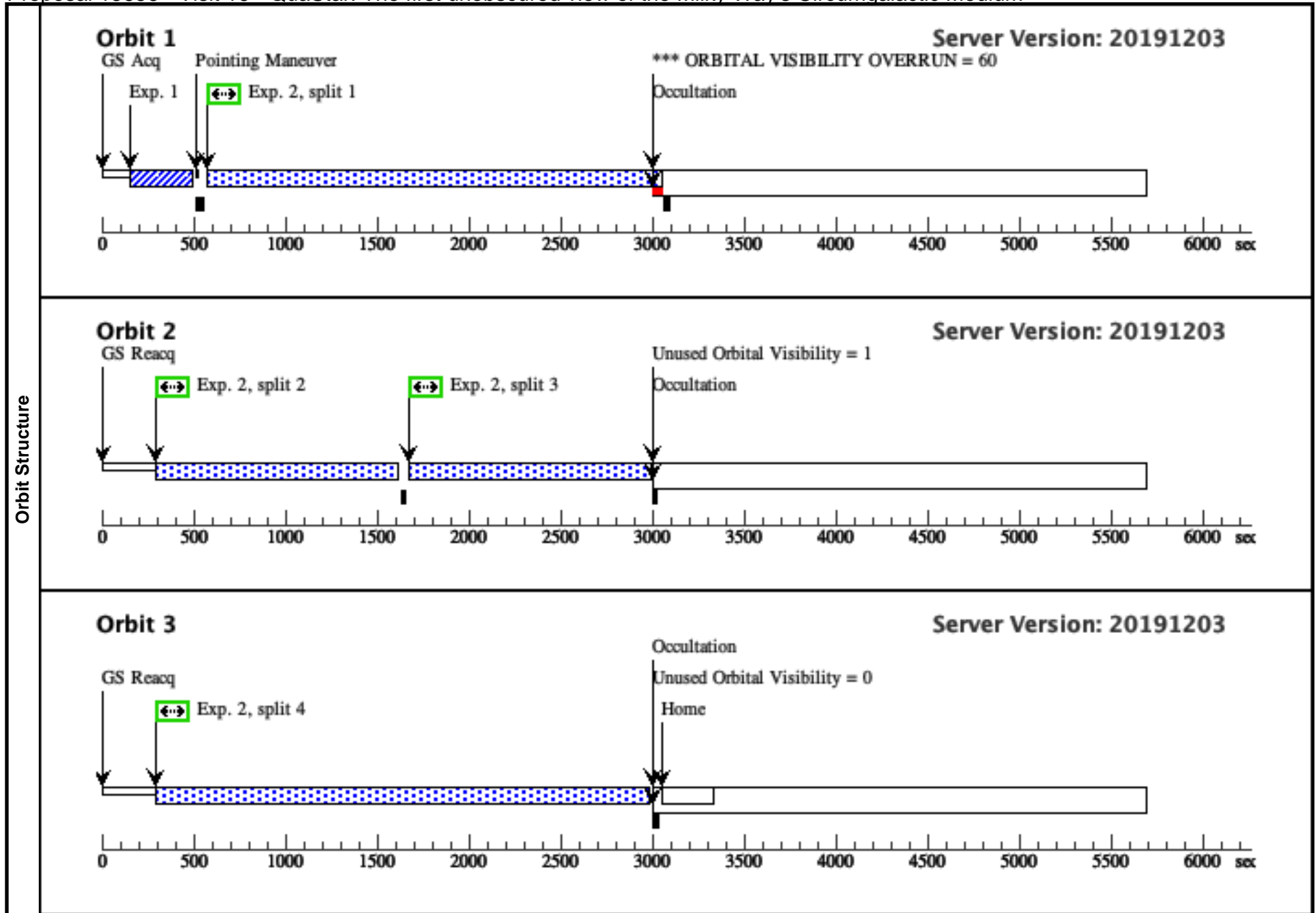
<b>Visit</b>	<b>Proposal 15656, Visit 15, completed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: SCHED 100%									
	(Visit 15) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE. (Visit 15) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN (Visit 15) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN									
<b>Diagnosics</b>										
<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(15)	GALEXASCJ113139.16+311248.2	RA: 11 31 39.1746 (172.9132275d) Dec: +31 12 47.98 (31.21333d) Equinox: J2000		V=15.224875 17.10393524169922	Reference Frame: ICRS				
Comments: "Other Fluxes" is the GALEX FUV mag of the source Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO										
<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(COS.ta.129 9872)	(15) GALEXASCJ1 13139.16+311248.2	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				11 Secs (11 Secs)	
									[==>]	[1]
	2	(COS.sp.126 3475)	(15) GALEXASCJ1 13139.16+311248.2	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=83 88; FP-POS=ALL			860 Secs (4570 Secs)	
									[==>1057.0 Secs (Split 1)] [==>1057.0 Secs (Split 2)] [==>1228.0 Secs (Split 3)] [==>1228.0 Secs (Split 4)]	[1]  [2]



Proposal 15656 - Visit 16 - QuaStar: The first unobscured view of the Milky Way's Circumgalactic Medium

Tue Apr 07 15:00:55 GMT 2020

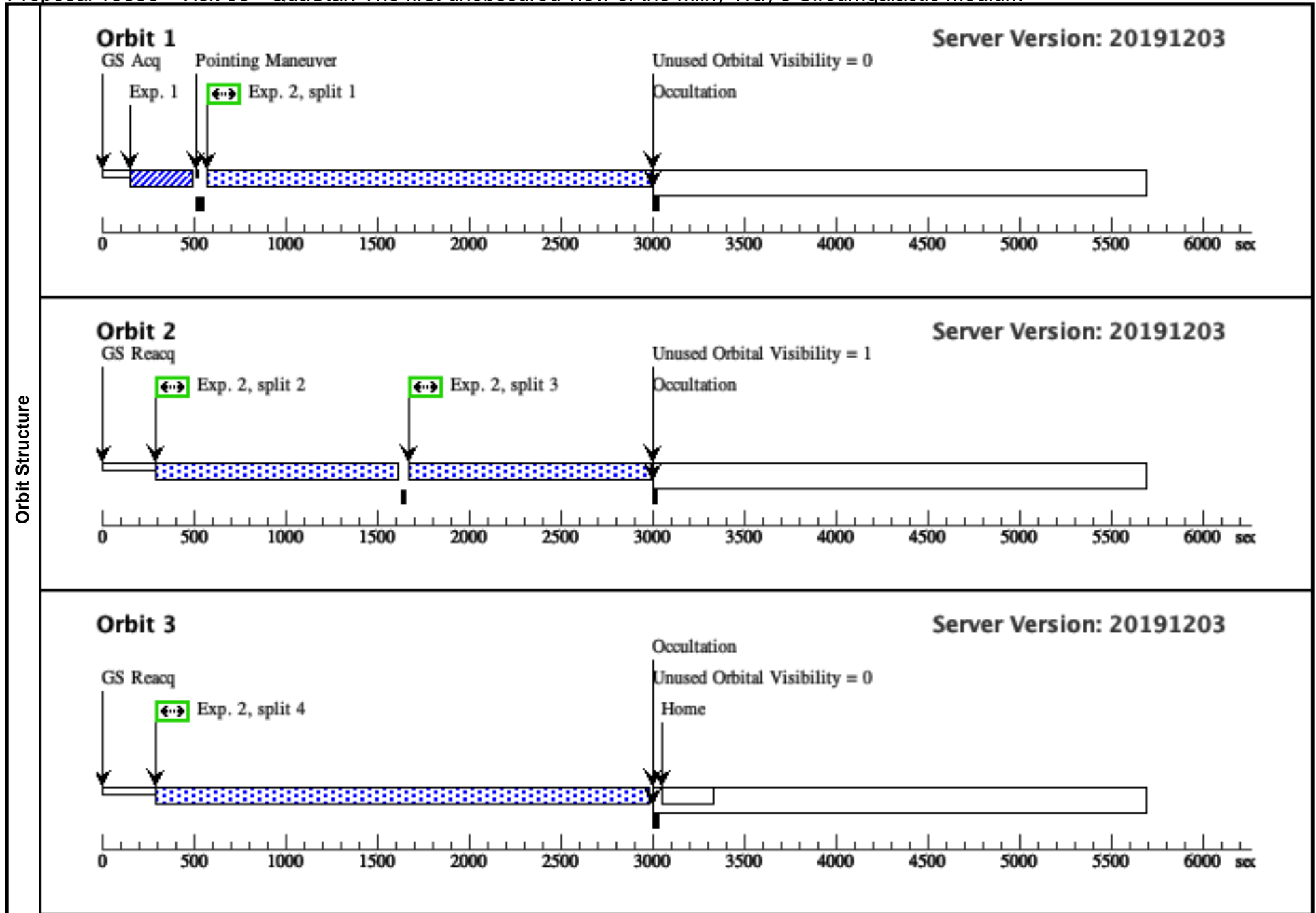
<b>Visit</b>	<b>Proposal 15656, Visit 16, failed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: SCHED 100%									
	(Visit 16) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE. (Visit 16) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN									
<b>Diagnosics</b>										
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(16)	GALEXASCJ015815.67-752724.6	RA: 01 58 15.7070 (29.5654458d) Dec: -75 27 25.37 (-75.45705d) Equinox: J2000		V=15.485939 18.032814025878906	Reference Frame: ICRS				
Comments: "Other Fluxes" is the GALEX FUV mag of the source Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO										
<b>Exposures</b>	<b>#</b>	<b>Label (ETC Run)</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	(COS.ta.129 9881)	(16) GALEXASCJ0 15815.67-752724.6	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				24 Secs (24 Secs)	
									[==>]	[1]
	2	(COS.sp.126 3475)	(16) GALEXASCJ0 15815.67-752724.6	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=14 151; FP-POS=ALL			1290 Secs (7452 Secs)	
									[==>2274.0 Secs (Split 1)]	[1]
								[==>1268.0 Secs (Split 2)]	[2]	
								[==>1268.0 Secs (Split 3)]		
								[==>2642.0 Secs (Split 4)]	[3]	



Proposal 15656 - Visit 66 - QuaStar: The first unobscured view of the Milky Way's Circumgalactic Medium

Tue Apr 07 15:00:55 GMT 2020

<b>Visit</b>	<b>Proposal 15656, Visit 66, scheduled</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: SCHED 100%									
	(Visit 66) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE.									
<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(16)	GALEXASCJ015815.67-752724.6	RA: 01 58 15.7070 (29.5654458d) Dec: -75 27 25.37 (-75.45705d) Equinox: J2000		V=15.485939 18.032814025878906	Reference Frame: ICRS				
Comments: "Other Fluxes" is the GALEX FUV mag of the source Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO										
<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(COS.ta.129 9881)	(16) GALEXASCJ0 15815.67-752724.6	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				24 Secs (24 Secs)	
									[==>]	[1]
	2	(COS.sp.126 3475)	(16) GALEXASCJ0 15815.67-752724.6	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=14 151; FP-POS=ALL			1290 Secs (7392 Secs)	
									[==>2214.0 Secs (Split 1)]	[1]
								[==>1268.0 Secs (Split 2)]	[2]	
								[==>1268.0 Secs (Split 3)]		
								[==>2642.0 Secs (Split 4)]	[3]	

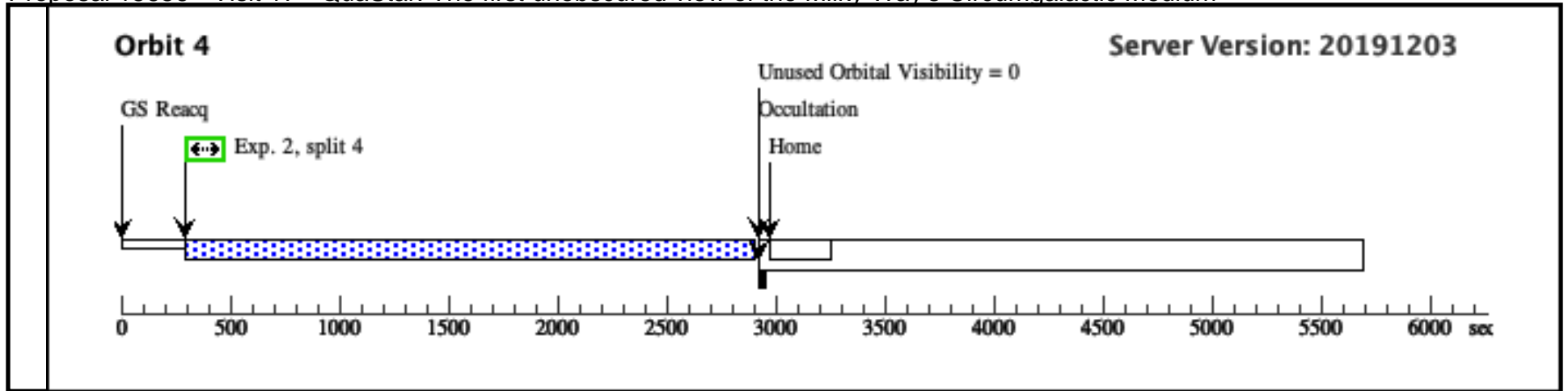


Proposal 15656 - Visit 17 - QuaStar: The first unobscured view of the Milky Way's Circumgalactic Medium

Tue Apr 07 15:00:55 GMT 2020

<b>Visit</b>	<b>Proposal 15656, Visit 17, completed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: SCHED 100%										
	(Visit 17) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE. (Visit 17) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN										
<b>Diagnosics</b>											
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>					
	(17)	GALEXASCJ212917.53-111202.0	RA: 21 29 17.5489 (322.3231204d) Dec: -11 12 3.19 (-11.20089d) Equinox: J2000		V=16.01428 18.142587661743164	Reference Frame: ICRS					
Comments: "Other Fluxes" is the GALEX FUV mag of the source Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO											
<b>Exposures</b>	<b>#</b>	<b>Label (ETC Run)</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>	
	1	(COS.ta.129 9882)	(17) GALEXASCJ2 12917.53-111202.0	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				27 Secs (27 Secs)		
									[==>]	[1]	
	2	(COS.sp.126 3475)	(17) GALEXASCJ2 12917.53-111202.0	COS/FUV, TIME-TAG, PSA	G160M 1577 A		BUFFER-TIME=14 877; FP-POS=ALL			1720 Secs (9870 Secs)	
									[==>2187.0 Secs (Split 1)]	[1]	
									[==>2561.0 Secs (Split 2)]	[2]	
								[==>2561.0 Secs (Split 3)]	[3]		
								[==>2561.0 Secs (Split 4)]	[4]		

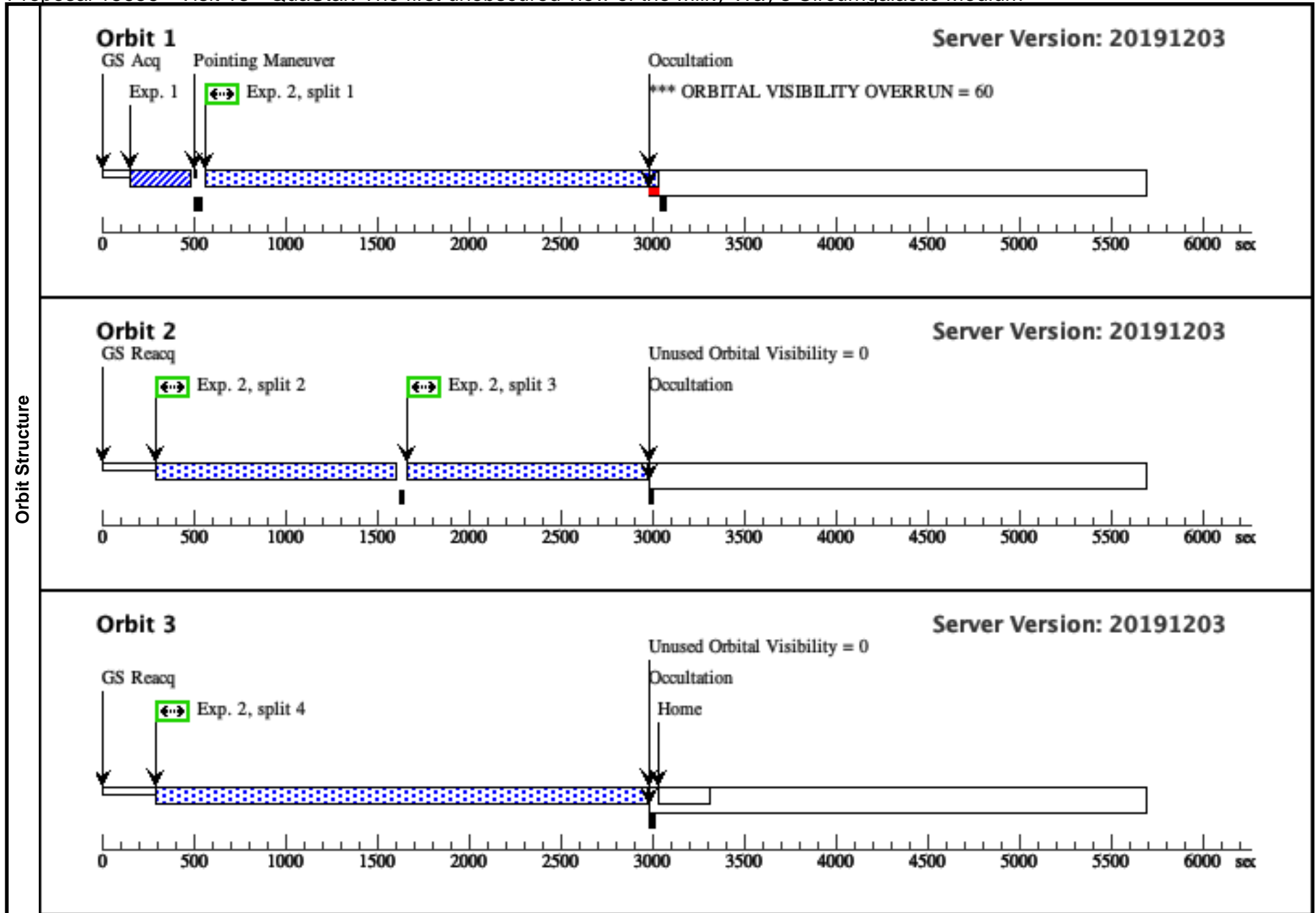




Proposal 15656 - Visit 18 - QuaStar: The first unobscured view of the Milky Way's Circumgalactic Medium

Tue Apr 07 15:00:55 GMT 2020

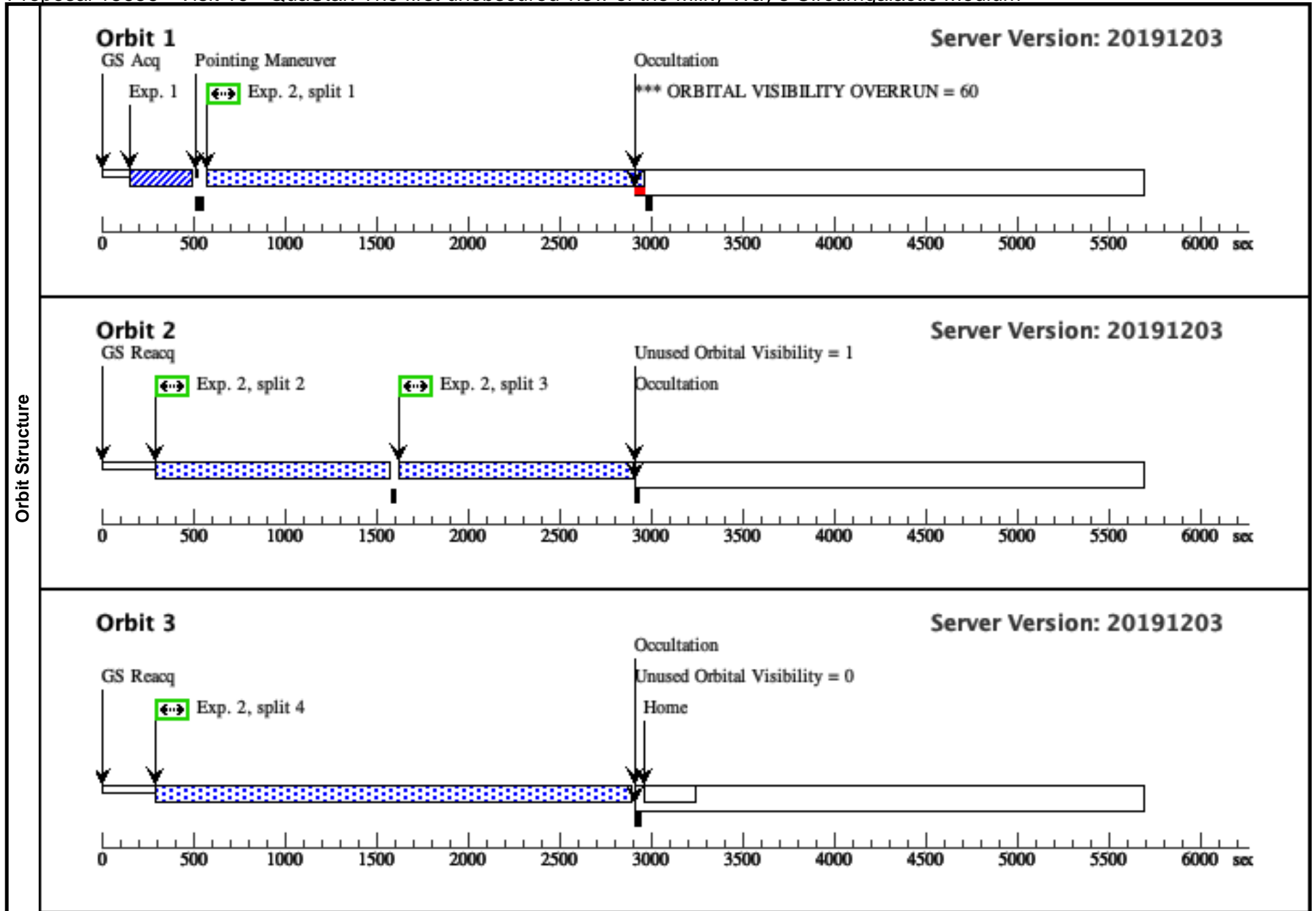
<b>Visit</b>	<b>Proposal 15656, Visit 18, completed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: SCHED 100%										
	(Visit 18) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE. (Visit 18) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN										
<b>Diagnosics</b>											
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>					
	(18)	GALEXASCJ232600.96-710839.6	RA: 23 26 1.0574 (351.5044058d) Dec: -71 08 39.21 (-71.14423d) Equinox: J2000		V=15.897998 17.73630142211914	Reference Frame: ICRS					
Comments: "Other Fluxes" is the GALEX FUV mag of the source Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO											
<b>Exposures</b>	<b>#</b>	<b>Label (ETC Run)</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>	
	1	(COS.ta.129 9878)	(18) GALEXASCJ2 32600.96-710839.6	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				19 Secs (19 Secs)		
									[==>]	[1]	
	2	(COS.sp.126 3475)	(18) GALEXASCJ2 32600.96-710839.6	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=12 204; FP-POS=ALL				1290 Secs (7406 Secs)	
									[==>2265.0 Secs (Split 1)]	[1]	
								[==>1259.0 Secs (Split 2)]		[2]	
								[==>1259.0 Secs (Split 3)]			
								[==>2623.0 Secs (Split 4)]		[3]	



Proposal 15656 - Visit 19 - QuaStar: The first unobscured view of the Milky Way's Circumgalactic Medium

Tue Apr 07 15:00:55 GMT 2020

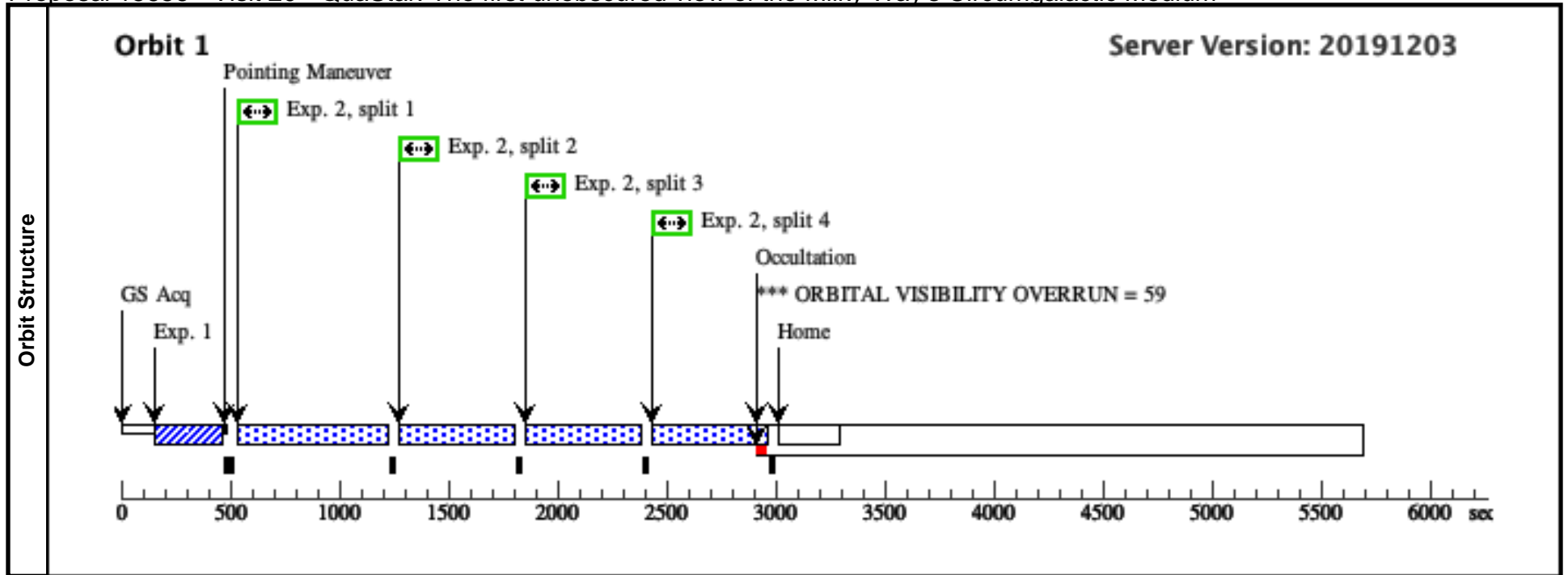
<b>Visit</b>	<b>Proposal 15656, Visit 19, completed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: SCHED 100%									
	(Visit 19) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE. (Visit 19) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN									
<b>Diagnosics</b>										
<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(19)	GALEXASCJ151138.21+045255.1	RA: 15 11 38.1653 (227.9090221d) Dec: +04 52 54.54 (4.88182d) Equinox: J2000		V=15.79991 18.001083374023438	Reference Frame: ICRS				
Comments: "Other Fluxes" is the GALEX FUV mag of the source Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO										
<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(COS.ta.129 9881)	(19) GALEXASCJ1 51138.21+045255.1	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				24 Secs (24 Secs)	
									[==>]	[1]
	2	(COS.sp.126 3475)	(19) GALEXASCJ1 51138.21+045255.1	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=13 941; FP-POS=ALL			1250 Secs (7182 Secs)	
									[==>2184.0 Secs (Split 1)]	[1]
								[==>1223.0 Secs (Split 2)]	[2]	
								[==>1223.0 Secs (Split 3)]		
								[==>2552.0 Secs (Split 4)]	[3]	



Proposal 15656 - Visit 20 - QuaStar: The first unobscured view of the Milky Way's Circumgalactic Medium

Tue Apr 07 15:00:55 GMT 2020

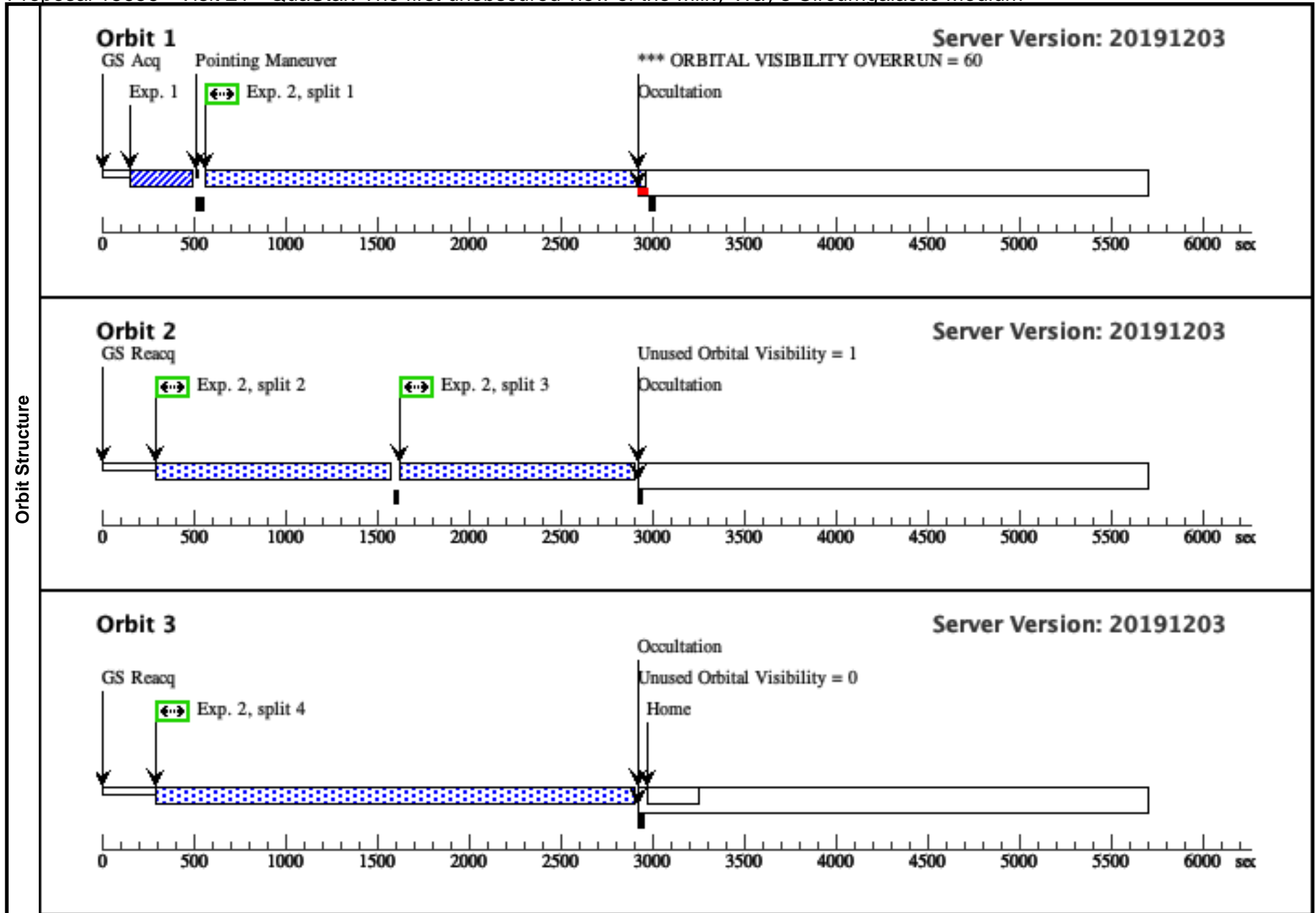
<b>Visit</b>	<b>Proposal 15656, Visit 20, completed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: SCHED 100%									
	(Visit 20) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE. (Visit 20) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN									
<b>Diagnosics</b>										
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(20)	GALEXASCJ101935.57-005112.1	RA: 10 19 35.5384 (154.8980767d) Dec: -00 51 12.57 (-.85349d) Equinox: J2000		V=14.4614935 16.495004653930664	Reference Frame: ICRS				
Comments: "Other Fluxes" is the GALEX FUV mag of the source Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO										
<b>Exposures</b>	<b>#</b>	<b>Label (ETC Run)</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	(COS.ta.129 9865)	(20) GALEXASCJ1 01935.57-005112.1	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				6 Secs (6 Secs)	
									[==>]	[1]
2	(COS.sp.126 3475)	(20) GALEXASCJ1 01935.57-005112.1	COS/FUV, TIME-TAG, PSA	G160M 1577 A		BUFFER-TIME=18 000; FP-POS=ALL			430 Secs (1904 Secs)	
									[==>476.0 Secs (Split 1)] [==>476.0 Secs (Split 2)] [==>476.0 Secs (Split 3)] [==>476.0 Secs (Split 4)]	[1]



Proposal 15656 - Visit 21 - QuaStar: The first unobscured view of the Milky Way's Circumgalactic Medium

Tue Apr 07 15:00:55 GMT 2020

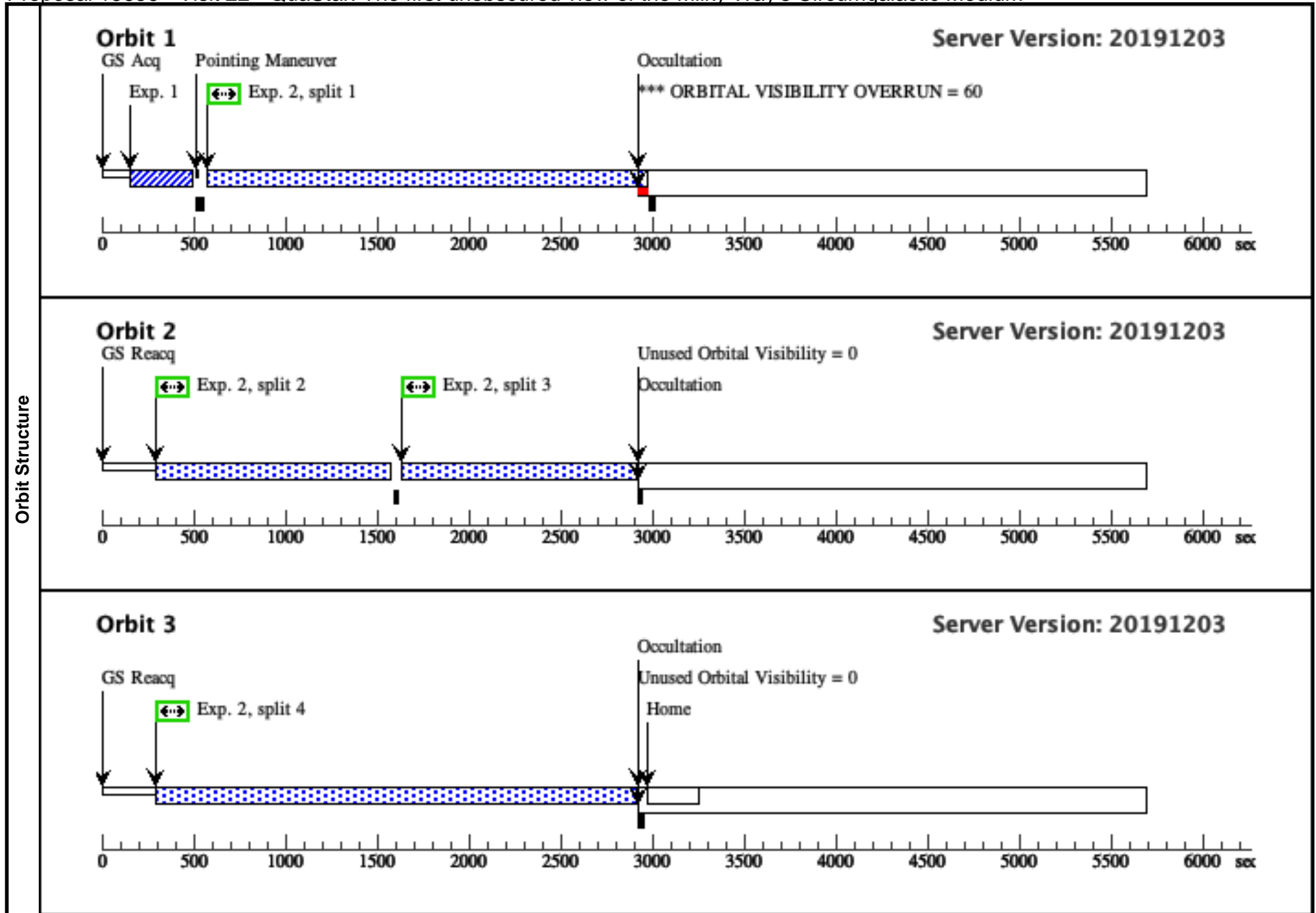
<b>Visit</b>	<b>Proposal 15656, Visit 21, completed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: SCHED 100%									
	(Visit 21) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE. (Visit 21) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN									
<b>Diagnosics</b>										
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(21)	GALEXASCJ000441.59-084506.8	RA: 00 04 41.6528 (1.1735533d) Dec: -08 45 6.77 (-8.75188d) Equinox: J2000		V=15.598176 17.901939392089844	Reference Frame: ICRS				
Comments: "Other Fluxes" is the GALEX FUV mag of the source Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO										
<b>Exposures</b>	<b>#</b>	<b>Label (ETC Run)</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	(COS.ta.129 9880)	(21) GALEXASCJ00441.59-084506.8	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				22 Secs (22 Secs)	
									[==>]	[1]
	2	(COS.sp.126 3475)	(21) GALEXASCJ00441.59-084506.8	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=13 287; FP-POS=ALL			1250 Secs (7198 Secs)	
									[==>2192.0 Secs (Split 1)]	[1]
								[==>1225.0 Secs (Split 2)]	[2]	
								[==>1225.0 Secs (Split 3)]		
								[==>2556.0 Secs (Split 4)]	[3]	



Proposal 15656 - Visit 22 - QuaStar: The first unobscured view of the Milky Way's Circumgalactic Medium

Tue Apr 07 15:00:55 GMT 2020

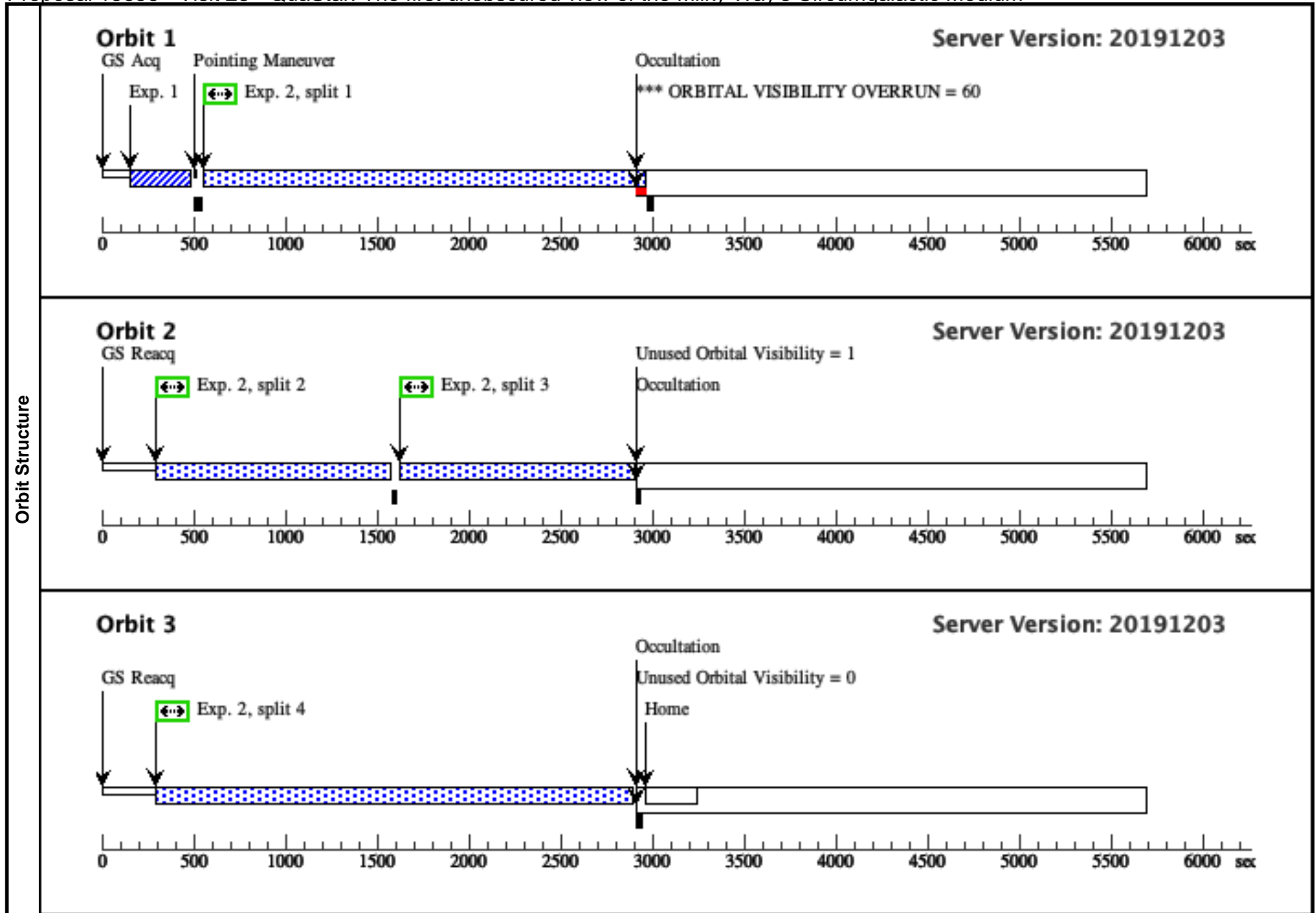
<b>Visit</b>	<b>Proposal 15656, Visit 22, completed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: SCHED 100%									
	(Visit 22) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE. (Visit 22) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN									
<b>Diagnosics</b>										
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(22)	GALEXASCJ225527.04-172710.0	RA: 22 55 27.0450 (343.8626875d) Dec: -17 27 10.53 (-17.45292d) Equinox: J2000		V=14.98143 18.0557804107666	Reference Frame: ICRS				
Comments: "Other Fluxes" is the GALEX FUV mag of the source Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO										
<b>Exposures</b>	<b>#</b>	<b>Label (ETC Run)</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	(COS.ta.129 9881)	(22) GALEXASCJ2 25527.04-172710.0	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				25 Secs (25 Secs)	
									[==>]	[1]
	2	(COS.sp.126 3475)	(22) GALEXASCJ2 25527.04-172710.0	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=14 303; FP-POS=ALL			1250 Secs (7214 Secs)	
									[==>2193.0 Secs (Split 1)]	[1]
								[==>1229.0 Secs (Split 2)]	[2]	
								[==>1229.0 Secs (Split 3)]		
								[==>2563.0 Secs (Split 4)]	[3]	



Proposal 15656 - Visit 23 - QuaStar: The first unobscured view of the Milky Way's Circumgalactic Medium

Tue Apr 07 15:00:55 GMT 2020

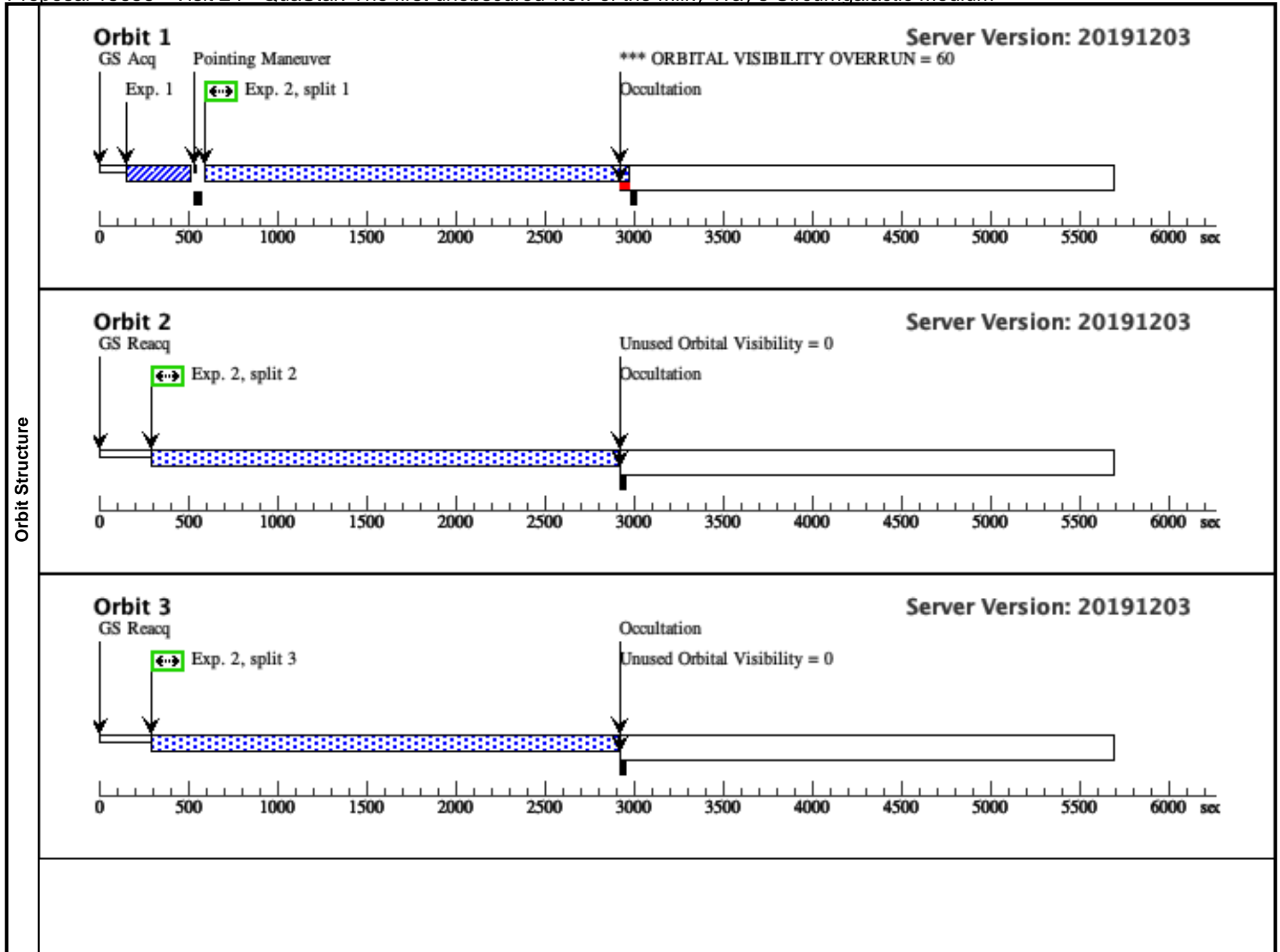
<b>Visit</b>	<b>Proposal 15656, Visit 23, completed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: SCHED 100%									
	(Visit 23) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE. (Visit 23) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN									
<b>Diagnosics</b>										
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(23)	GALEXASCJ234529.53-015728.2	RA: 23 45 29.5450 (356.3731042d) Dec: -01 57 28.50 (-1.95792d) Equinox: J2000		V=15.3807745 17.67428970336914	Reference Frame: ICRS				
Comments: "Other Fluxes" is the GALEX FUV mag of the source Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO										
<b>Exposures</b>	<b>#</b>	<b>Label (ETC Run)</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	(COS.ta.129 9877)	(23) GALEXASCJ2 34529.53-015728.2	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				18 Secs (18 Secs)	
									[==>]	[1]
	2	(COS.sp.126 3475)	(23) GALEXASCJ2 34529.53-015728.2	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=11 805; FP-POS=ALL			1250 Secs (7194 Secs)	
									[==>2196.0 Secs (Split 1)]	[1]
								[==>1223.0 Secs (Split 2)]	[2]	
								[==>1223.0 Secs (Split 3)]		
								[==>2552.0 Secs (Split 4)]	[3]	

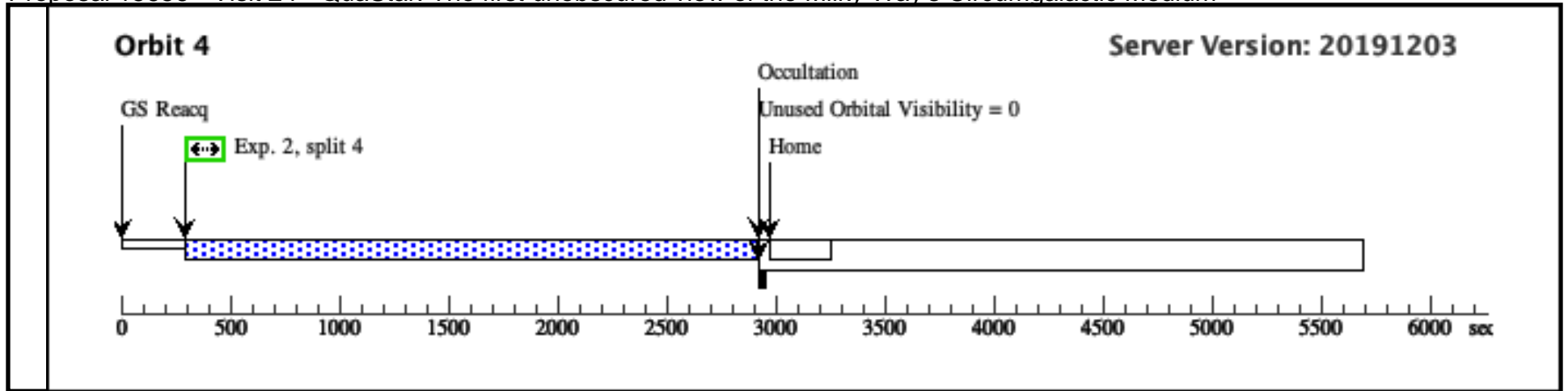


Proposal 15656 - Visit 24 - QuaStar: The first unobscured view of the Milky Way's Circumgalactic Medium

Tue Apr 07 15:00:55 GMT 2020

<b>Visit</b>	<b>Proposal 15656, Visit 24, failed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: SCHED 100%									
	(Visit 24) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE. (Visit 24) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN									
<b>Diagnosics</b>										
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(24)	GALEXASCJ023531.74-175734.4	RA: 02 35 31.7756 (38.8823983d) Dec: -17 57 34.98 (-17.95972d) Equinox: J2000		V=15.909562 18.435123443603516	Reference Frame: ICRS				
Comments: "Other Fluxes" is the GALEX FUV mag of the source Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO										
<b>Exposures</b>	<b>#</b>	<b>Label (ETC Run)</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	(COS.ta.129 9884)	(24) GALEXASCJ0 23531.74-175734.4	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				34 Secs (34 Secs)	
									[==>]	[1]
	2	(COS.sp.126 3475)	(24) GALEXASCJ0 23531.74-175734.4	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=16 791; FP-POS=ALL			1500 Secs (9864 Secs)	
									[==>2175.0 Secs (Split 1)]	[1]
								[==>2563.0 Secs (Split 2)]	[2]	
								[==>2563.0 Secs (Split 3)]	[3]	
								[==>2563.0 Secs (Split 4)]	[4]	





Proposal 15656 - Visit 74 - QuaStar: The first unobscured view of the Milky Way's Circumgalactic Medium

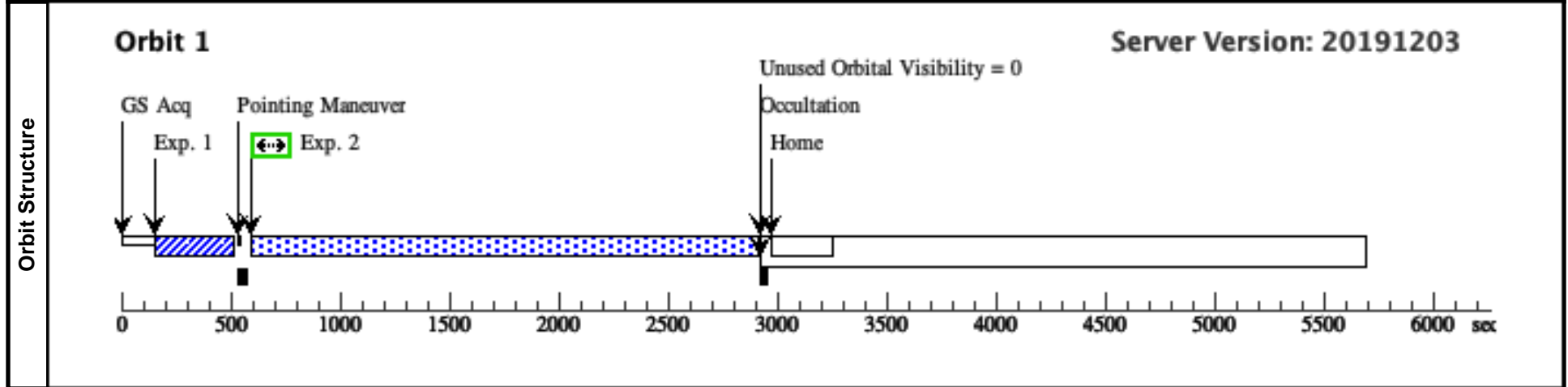
Tue Apr 07 15:00:55 GMT 2020

<b>Visit</b>	Proposal 15656, Visit 74, completed <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: SCHED 100%
	(Visit 74) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE.

<b>Diagnostics</b>	(Visit 74) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE.
--------------------	---

<b>Fixed Targets</b>	<table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Fluxes</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(24)</td> <td>GALEXASCJ023531.74-175734.4</td> <td>RA: 02 35 31.7756 (38.8823983d) Dec: -17 57 34.98 (-17.95972d) Equinox: J2000</td> <td></td> <td>V=15.909562 18.435123443603516</td> <td>Reference Frame: ICRS</td> </tr> </tbody> </table>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(24)	GALEXASCJ023531.74-175734.4	RA: 02 35 31.7756 (38.8823983d) Dec: -17 57 34.98 (-17.95972d) Equinox: J2000		V=15.909562 18.435123443603516	Reference Frame: ICRS
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous							
(24)	GALEXASCJ023531.74-175734.4	RA: 02 35 31.7756 (38.8823983d) Dec: -17 57 34.98 (-17.95972d) Equinox: J2000		V=15.909562 18.435123443603516	Reference Frame: ICRS								
Comments: "Other Fluxes" is the GALEX FUV mag of the source Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO													

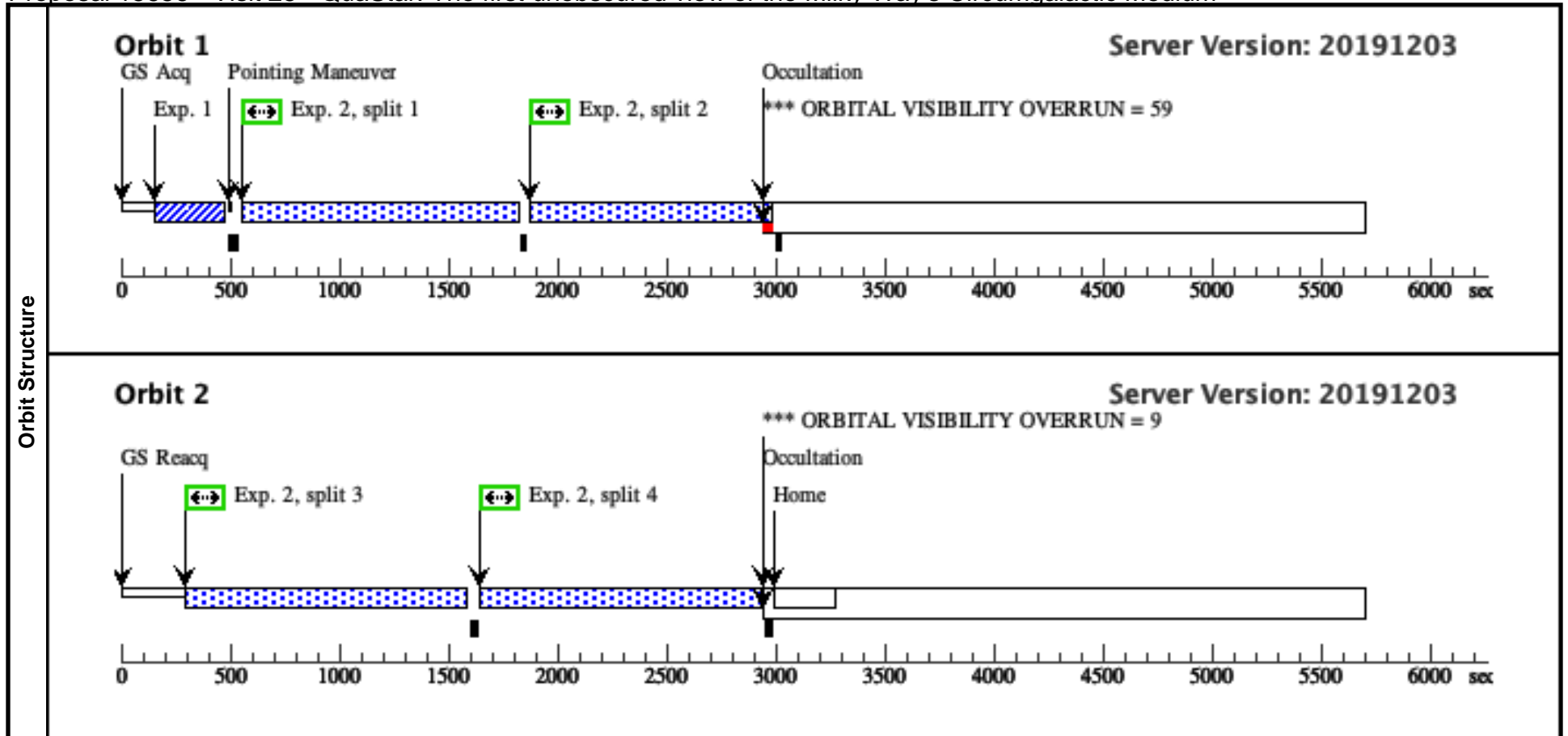
<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(COS.ta.129 9884)	(24) GALEXASCJ0 23531.74-175734.4	COS/NUV, ACQ/IMAGE, PSA	MIRRORB					34 Secs (34 Secs) [==>]
2	(COS.sp.126 3475)	(24) GALEXASCJ0 23531.74-175734.4	COS/FUV, TIME-TAG, PSA	G160M 1577 A	791; FP-POS=3	BUFFER-TIME=16			430 Secs (2115 Secs) [==>2115.0 Secs ]	[1]



Proposal 15656 - Visit 25 - QuaStar: The first unobscured view of the Milky Way's Circumgalactic Medium

Tue Apr 07 15:00:55 GMT 2020

<b>Visit</b>	<b>Proposal 15656, Visit 25, failed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: SCHED 100%									
	(Visit 25) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE. (Visit 25) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN (Visit 25) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN									
<b>Diagnosics</b>										
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(25)	GALEXASCJ042008.27-523347.9	RA: 04 20 8.3349 (65.0347287d) Dec: -52 33 47.75 (-52.56326d) Equinox: J2000		V=15.342563 17.403776168823242	Reference Frame: ICRS				
Comments: "Other Fluxes" is the GALEX FUV mag of the source Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO										
<b>Exposures</b>	<b>#</b>	<b>Label (ETC Run)</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	(COS.ta.129 9875)	(25) GALEXASCJ042008.27-523347.9	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				14 Secs (14 Secs)	
									[==>]	[1]
	2	(COS.sp.126 3475)	(25) GALEXASCJ042008.27-523347.9	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=10 118; FP-POS=ALL			860 Secs (4592 Secs)	
									[==>1061.0 Secs (Split 1)] [==>1061.0 Secs (Split 2)] [==>1235.0 Secs (Split 3)] [==>1235.0 Secs (Split 4)]	[1]  [2]



Proposal 15656 - Visit 75 - QuaStar: The first unobscured view of the Milky Way's Circumgalactic Medium

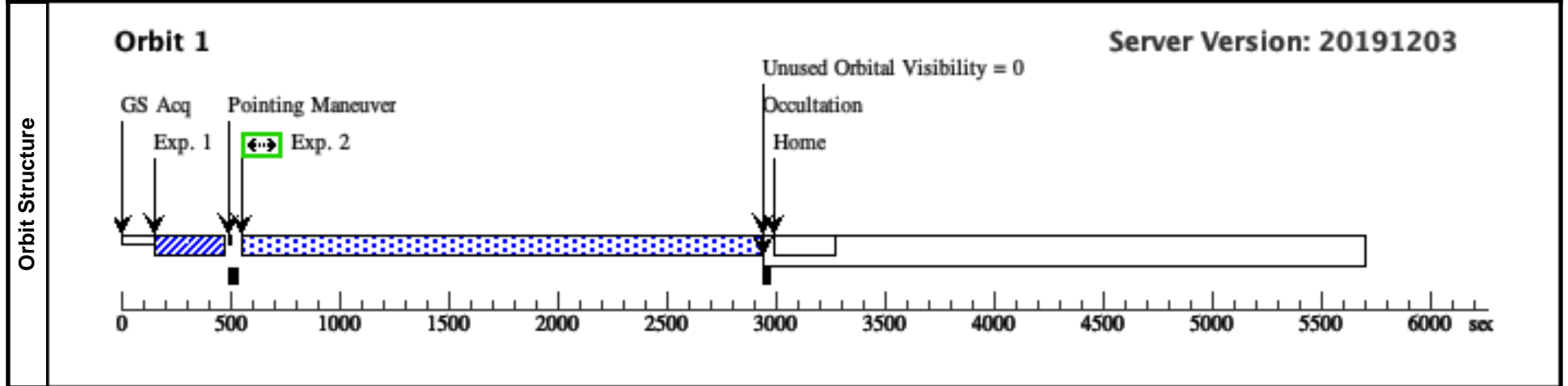
Tue Apr 07 15:00:55 GMT 2020

<b>Visit</b>	Proposal 15656, Visit 75, completed <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: SCHED 100%
	(Visit 75) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE.

<b>Diagnostics</b>	(Visit 75) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE.
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<b>Fixed Targets</b>	<table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Fluxes</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(25)</td> <td>GALEXASCJ042008.27-523347.9</td> <td>RA: 04 20 8.3349 (65.0347287d) Dec: -52 33 47.75 (-52.56326d) Equinox: J2000</td> <td></td> <td>V=15.342563 17.403776168823242</td> <td>Reference Frame: ICRS</td> </tr> </tbody> </table>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(25)	GALEXASCJ042008.27-523347.9	RA: 04 20 8.3349 (65.0347287d) Dec: -52 33 47.75 (-52.56326d) Equinox: J2000		V=15.342563 17.403776168823242	Reference Frame: ICRS
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous							
(25)	GALEXASCJ042008.27-523347.9	RA: 04 20 8.3349 (65.0347287d) Dec: -52 33 47.75 (-52.56326d) Equinox: J2000		V=15.342563 17.403776168823242	Reference Frame: ICRS								
Comments: "Other Fluxes" is the GALEX FUV mag of the source Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO													

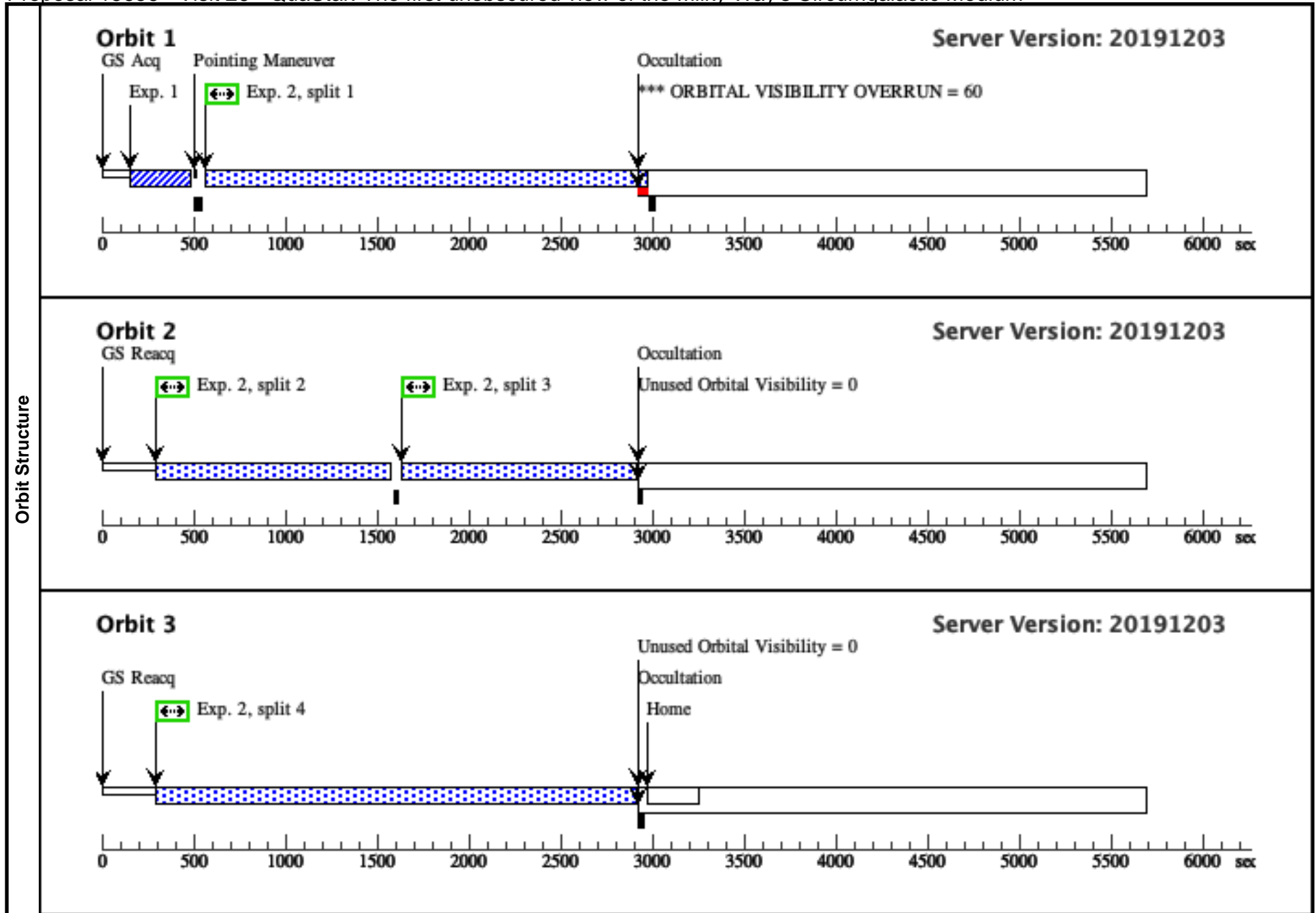
<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(COS.ta.129 9875)	(25) GALEXASCJ042008.27-523347.9	COS/NUV, ACQ/IMAGE, PSA	MIRRORB					14 Secs (14 Secs) [==>]
2	(COS.sp.126 3475)	(25) GALEXASCJ042008.27-523347.9	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=10 118; FP-POS=4				860 Secs (2168 Secs) [==>2168.0 Secs ]	[1]



Proposal 15656 - Visit 26 - QuaStar: The first unobscured view of the Milky Way's Circumgalactic Medium

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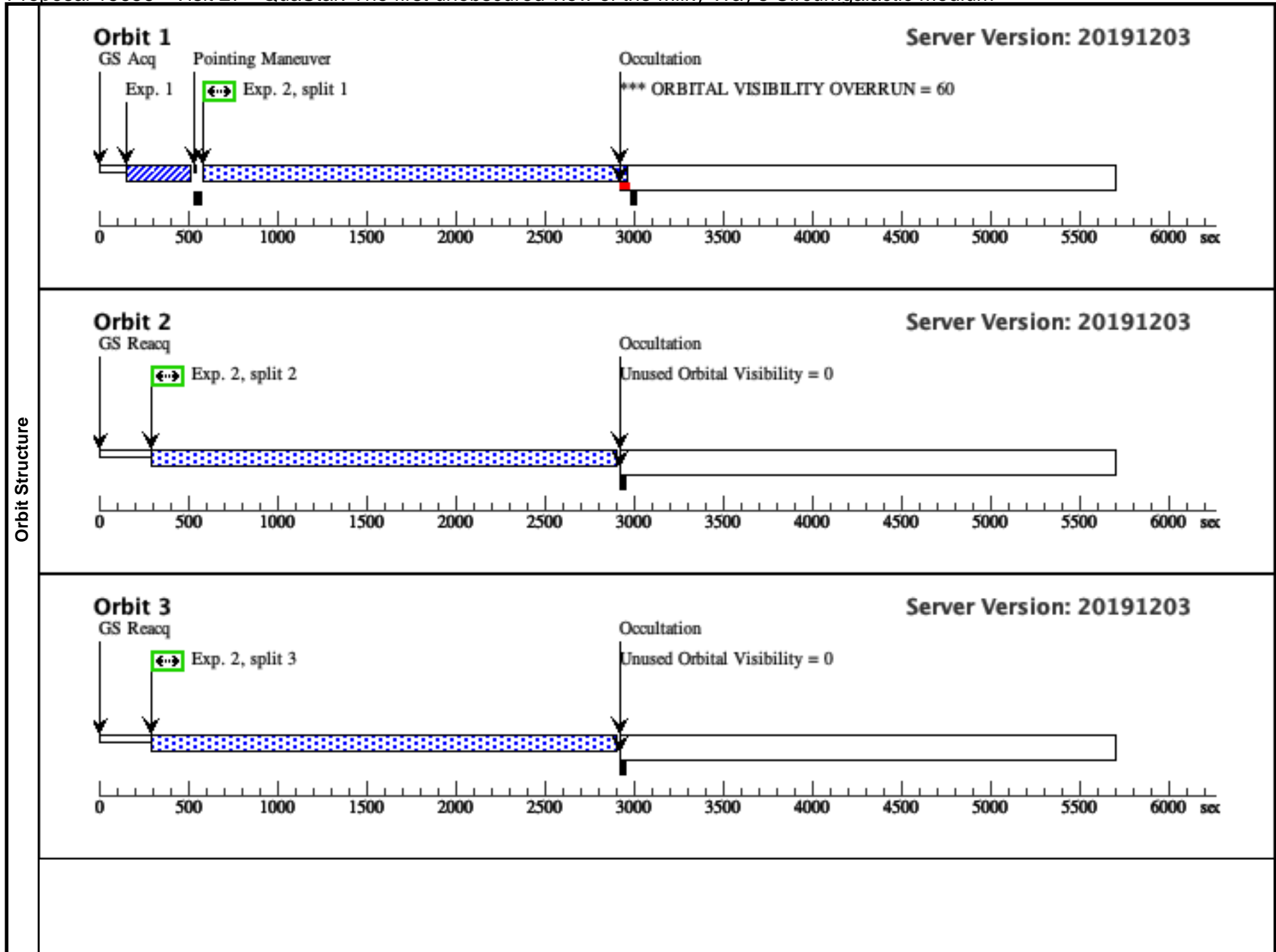
<b>Visit</b>	<b>Proposal 15656, Visit 26, completed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: SCHED 100%									
	(Visit 26) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE. (Visit 26) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN									
<b>Diagnosics</b>										
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(26)	GALEXASCJ045615.25-244736.8	RA: 04 56 15.2197 (74.0634154d) Dec: -24 47 36.77 (-24.79355d) Equinox: J2000		V=16.36884 17.798269271850586	Reference Frame: ICRS				
Comments: "Other Fluxes" is the GALEX FUV mag of the source Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO										
<b>Exposures</b>	<b>#</b>	<b>Label (ETC Run)</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	(COS.ta.129 9878)	(26) GALEXASCJ0 45615.25-244736.8	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				20 Secs (20 Secs)	
									[==>]	[1]
	2	(COS.sp.126 3475)	(26) GALEXASCJ0 45615.25-244736.8	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=12 607; FP-POS=ALL			1250 Secs (7224 Secs)	
									[==>2203.0 Secs (Split 1)]	[1]
								[==>1229.0 Secs (Split 2)]	[2]	
								[==>1229.0 Secs (Split 3)]		
								[==>2563.0 Secs (Split 4)]	[3]	



Proposal 15656 - Visit 27 - QuaStar: The first unobscured view of the Milky Way's Circumgalactic Medium

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<b>Visit</b>	<b>Proposal 15656, Visit 27, completed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: SCHED 100%									
	(Visit 27) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE. (Visit 27) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN									
<b>Diagnosics</b>										
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(27)	GALEXASCJ024343.23-063658.4	RA: 02 43 43.2599 (40.9302496d) Dec: -06 36 59.69 (-6.61658d) Equinox: J2000		V=15.407376 18.33596420288086	Reference Frame: ICRS				
Comments: "Other Fluxes" is the GALEX FUV mag of the source Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO										
<b>Exposures</b>	<b>#</b>	<b>Label (ETC Run)</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	(COS.ta.129 9884)	(27) GALEXASCJ0 24343.23-063658.4	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				32 Secs (32 Secs)	
									[==>]	[1]
	2	(COS.sp.126 3475)	(27) GALEXASCJ0 24343.23-063658.4	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=16 148; FP-POS=ALL			1500 Secs (9840 Secs)	
									[==>2172.0 Secs (Split 1)]	[1]
									[==>2556.0 Secs (Split 2)]	[2]
								[==>2556.0 Secs (Split 3)]	[3]	
								[==>2556.0 Secs (Split 4)]	[4]	



### Orbit 3

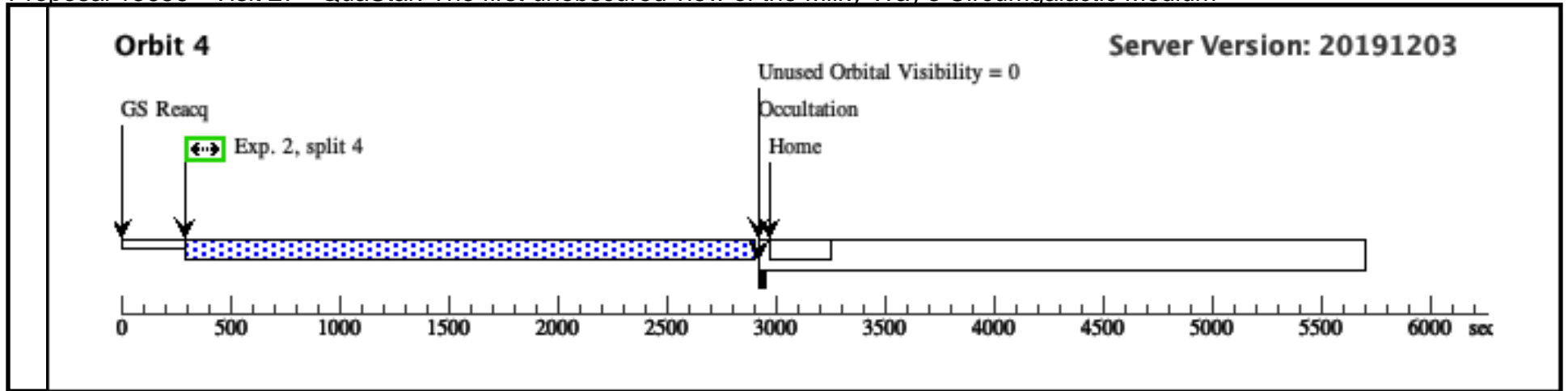
GS Reacq

Exp. 2, split 3

Occultation

Unused Orbital Visibility = 0

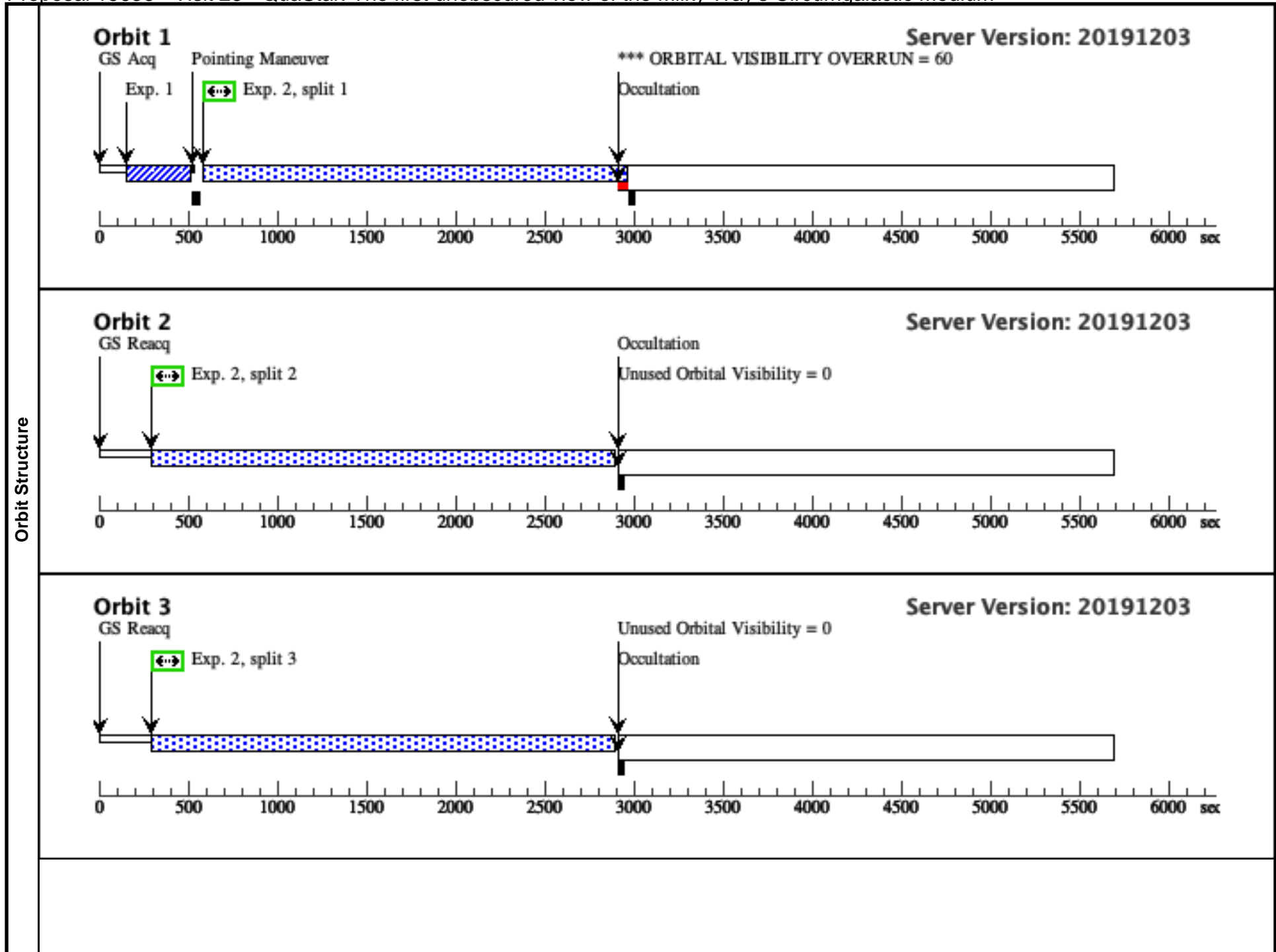
**Server Version: 20191203**

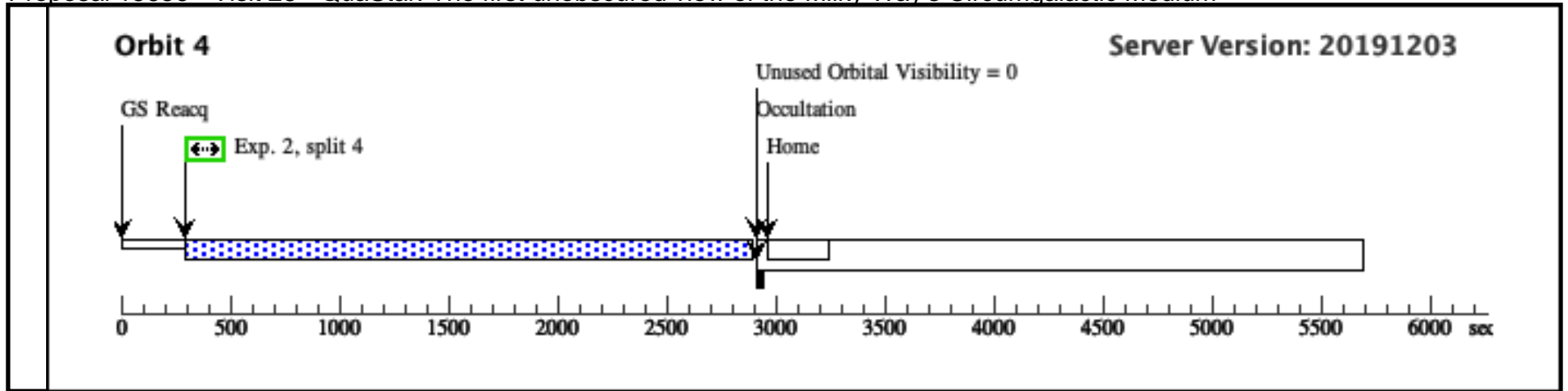


Proposal 15656 - Visit 28 - QuaStar: The first unobscured view of the Milky Way's Circumgalactic Medium

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<b>Visit</b>	<b>Proposal 15656, Visit 28, failed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: SCHED 100%									
	(Visit 28) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE. (Visit 28) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN									
<b>Diagnosics</b>										
<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(28)	GALEXASCJ011147.11-001150.0	RA: 01 11 47.1862 (17.9466092d) Dec: -00 11 50.13 (-.19726d) Equinox: J2000		V=14.622591 18.292381286621094	Reference Frame: ICRS				
Comments: "Other Fluxes" is the GALEX FUV mag of the source Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO										
<b>Exposures</b>	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(COS.ta.129 9883)	(28) GALEXASCJ0 11147.11-001150.0	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				31 Secs (31 Secs)	
									[==>]	[1]
	2	(COS.sp.126 3475)	(28) GALEXASCJ0 11147.11-001150.0	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=15 864; FP-POS=ALL			1500 Secs (9826 Secs)	
									[==>2170.0 Secs (Split 1)]	[1]
								[==>2552.0 Secs (Split 2)]	[2]	
								[==>2552.0 Secs (Split 3)]	[3]	
								[==>2552.0 Secs (Split 4)]	[4]	

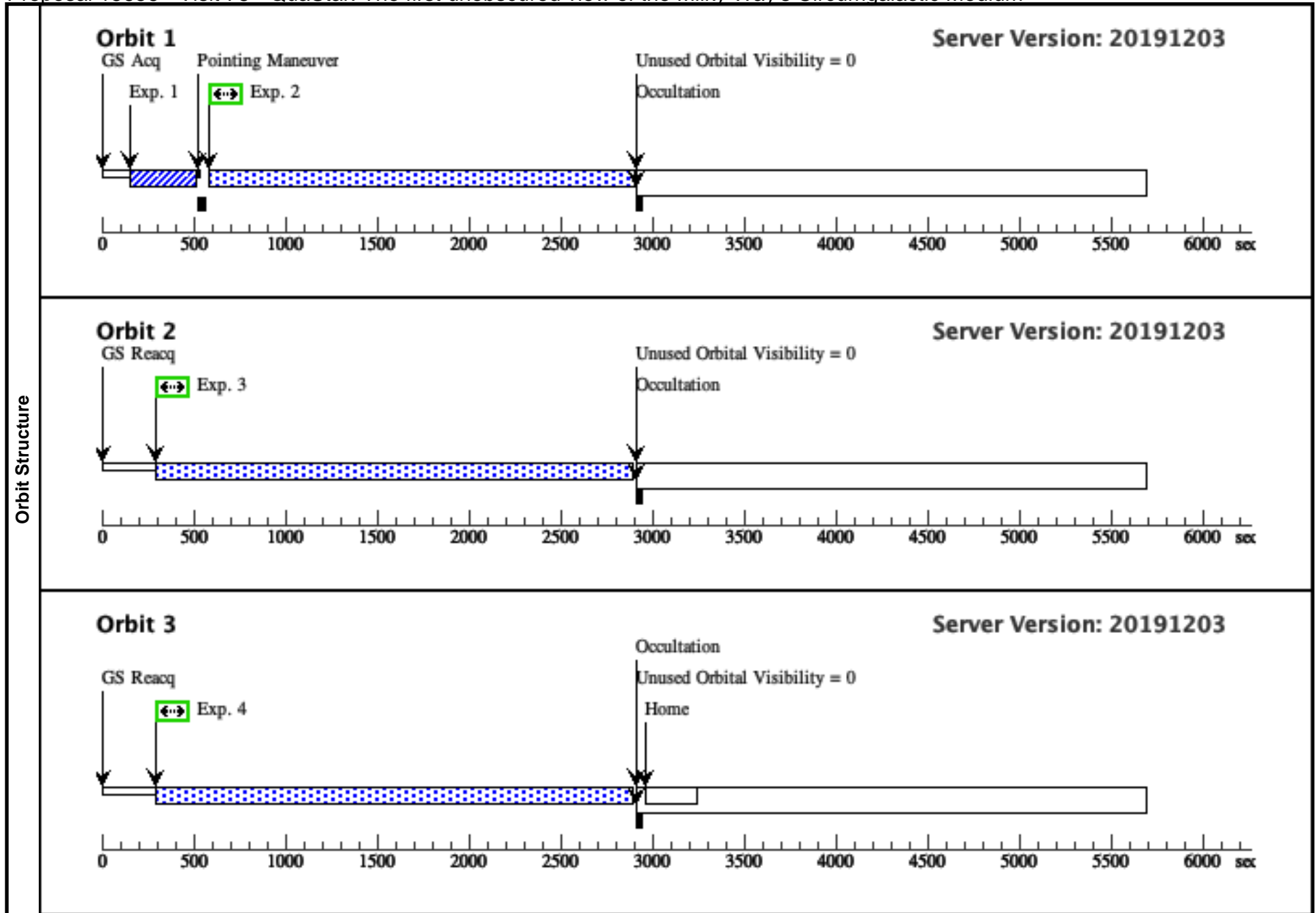




Proposal 15656 - Visit 78 - QuaStar: The first unobscured view of the Milky Way's Circumgalactic Medium

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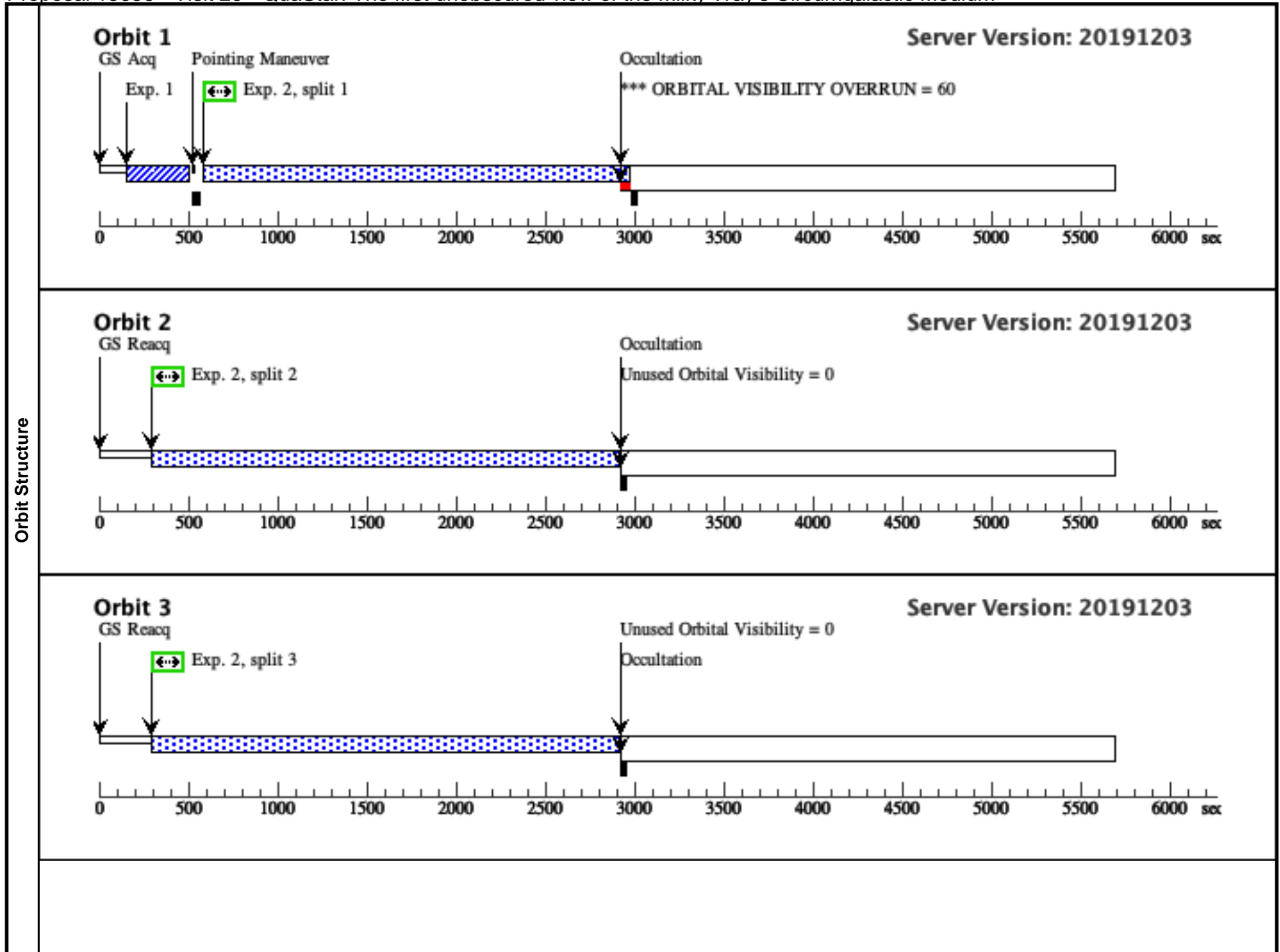
<b>Visit</b>	<b>Proposal 15656, Visit 78</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: SCHED 100%									
	(Visit 78) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE.									
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>			<b>Fluxes</b>	<b>Miscellaneous</b>		
	(28)	GALEXASCJ011147.11-001150.0	RA: 01 11 47.1862 (17.9466092d) Dec: -00 11 50.13 (-.19726d) Equinox: J2000				V=14.622591 18.292381286621094	Reference Frame: ICRS		
Comments: "Other Fluxes" is the GALEX FUV mag of the source Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO										
<b>Exposures</b>	<b>#</b>	<b>Label (ETC Run)</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	(COS.ta.129 9883)	(28) GALEXASCJ0 11147.11-001150.0	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				31 Secs (31 Secs) [==>]	[1]
	2	(COS.sp.126 3475)	(28) GALEXASCJ0 11147.11-001150.0	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=15 864; FP-POS=2			1500 Secs (2110 Secs) [==>2110.0 Secs ]	[1]
	3	(COS.sp.126 3475)	(28) GALEXASCJ0 11147.11-001150.0	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=15 864; FP-POS=3			1500 Secs (2552 Secs) [==>2552.0 Secs ]	[2]
	4	(COS.sp.126 3475)	(28) GALEXASCJ0 11147.11-001150.0	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=15 864; FP-POS=4			1500 Secs (2552 Secs) [==>2552.0 Secs ]	[3]

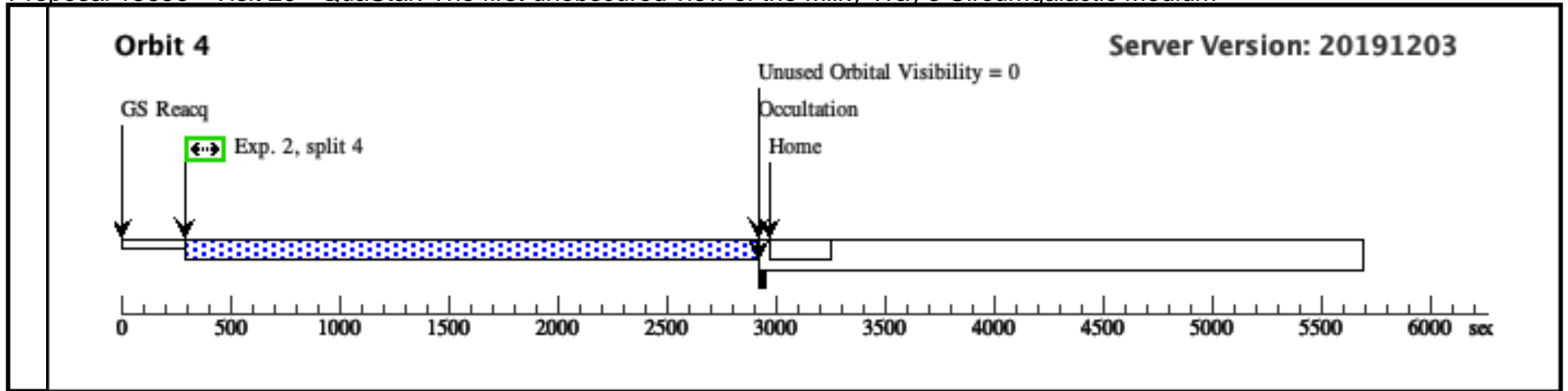


Proposal 15656 - Visit 29 - QuaStar: The first unobscured view of the Milky Way's Circumgalactic Medium

Tue Apr 07 15:00:55 GMT 2020

<b>Visit</b>	<b>Proposal 15656, Visit 29, completed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: SCHED 100%									
	(Visit 29) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE. (Visit 29) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN									
<b>Diagnosics</b>										
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(29)	GALEXASCJ084140.72 +234004.4	RA: 08 41 40.7407 (130.4197529d) Dec: +23 40 3.36 (23.66760d) Equinox: J2000		V=14.532561 18.225383758544922	Reference Frame: ICRS				
Comments: "Other Fluxes" is the GALEX FUV mag of the source Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO										
<b>Exposures</b>	<b>#</b>	<b>Label (ETC Run)</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	(COS.ta.129 9883)	(29) GALEXASCJ0 84140.72+234004.4	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				29 Secs (29 Secs)	
									[==>]	[1]
	2	(COS.sp.126 3475)	(29) GALEXASCJ0 84140.72+234004.4	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=15 424; FP-POS=ALL			1500 Secs (9874 Secs)	
									[==>2185.0 Secs (Split 1)]	[1]
									[==>2563.0 Secs (Split 2)]	[2]
								[==>2563.0 Secs (Split 3)]	[3]	
								[==>2563.0 Secs (Split 4)]	[4]	





Proposal 15656 - Visit 30 - QuaStar: The first unobscured view of the Milky Way's Circumgalactic Medium

Tue Apr 07 15:00:56 GMT 2020

<b>Visit</b>	<b>Proposal 15656, Visit 30, completed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: SCHED 100%									
	(Visit 30) Warning (Form): If the target position is not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/IMAGE. (Visit 30) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN									
<b>Diagnosics</b>										
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>				
	(30)	GALEXASCJ084121.51 +452912.4	RA: 08 41 21.5350 (130.3397292d) Dec: +45 29 12.42 (45.48678d) Equinox: J2000		V=14.7104025 17.746736526489258	Reference Frame: ICRS				
Comments: "Other Fluxes" is the GALEX FUV mag of the source Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO										
<b>Exposures</b>	<b>#</b>	<b>Label (ETC Run)</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time (Total)/[Actual Dur.]</b>	<b>Orbit</b>
	1	(COS.ta.129 9878)	(30) GALEXASCJ0 84121.51+452912.4	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				19 Secs (19 Secs)	
									[==>]	[1]
	2	(COS.sp.126 3475)	(30) GALEXASCJ0 84121.51+452912.4	COS/FUV, TIME-TAG, PSA	G160M 1577 A	BUFFER-TIME=12 272;			1230 Secs (7238 Secs)	
									[==>2209.0 Secs (Split 1)]	[1]
								[==>1231.0 Secs (Split 2)]	[2]	
								[==>1231.0 Secs (Split 3)]		
								[==>2567.0 Secs (Split 4)]	[3]	

