



# 16698 - The Impact of Radio-Mode Feedback on the Circumgalactic Medium of Centaurus A

Cycle: 29, Proposal Category: GO

(UV Initiative)

(Availability Mode: SUPPORTED)

## INVESTIGATORS

<i>Name</i>	<i>Institution</i>
<b>Prof. Sylvain Veilleux (PI) (Contact)</b>	<b>University of Maryland</b>
Dr. Weizhe Liu (CoI)	University of Arizona
Dr. Benjamin McKinley (CoI)	Curtin University

## 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) WISEA-J131909.66-412659.6	COS/FUV COS/NUV	3	05-Jun-2023 11:00:15.0	yes
02	(1) WISEA-J131909.66-412659.6	COS/FUV COS/NUV	2	05-Jun-2023 11:00:16.0	yes
Z2	(1) WISEA-J131909.66-412659.6	COS/FUV COS/NUV	2	05-Jun-2023 11:00:16.0	yes
ZA	(1) WISEA-J131909.66-412659.6	COS/FUV COS/NUV	2	05-Jun-2023 11:00:17.0	yes
03	(2) WISEA-J132250.36-451051.0	COS/FUV COS/NUV	3	05-Jun-2023 11:00:18.0	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>
04	(2) WISEA-J132250.36-451051.0	COS/FUV COS/NUV	3	05-Jun-2023 11:00:19.0	yes
05	(2) WISEA-J132250.36-451051.0	COS/FUV COS/NUV	3	05-Jun-2023 11:00:20.0	yes
06	(3) WISEA-J133034.43-445509.9	COS/FUV COS/NUV	3	05-Jun-2023 11:00:21.0	yes
07	(3) WISEA-J133034.43-445509.9	COS/FUV COS/NUV	3	05-Jun-2023 11:00:22.0	yes
08	(4) WISEA-J133011.24-405434.2	COS/FUV COS/NUV	3	05-Jun-2023 11:00:22.0	yes
09	(4) WISEA-J133011.24-405434.2	COS/FUV COS/NUV	2	05-Jun-2023 11:00:23.0	yes
Z9	(4) WISEA-J133011.24-405434.2	COS/FUV COS/NUV	2	05-Jun-2023 11:00:24.0	yes
ZB	(4) WISEA-J133011.24-405434.2	COS/FUV COS/NUV	2	05-Jun-2023 11:00:25.0	yes

33 Total Orbits Used

## **ABSTRACT**

The iconic radio galaxy Centaurus A is the nearest example of radio-mode AGN feedback in action. Gas accretion onto the central supermassive black hole has powered multiple cycles of jet- and wind-driven outflows that span 10 orders of magnitude in physics scale from the milli-parsec radio jets and ultra-fast X-ray wind to the mega-parsec scale radio structure. Yet we still do not know if this giant radio structure is affecting the thermodynamic state of the circumgalactic medium (CGM) enough to prevent future star formation in this galaxy, as predicted by cosmological hydrodynamical simulations of massive galaxies. Here we propose high-S/N COS FUV spectroscopy of four newly catalogued FUV-bright background QSOs with projected distances of 130-150 kpc from Cen A to directly probe the radio structure of Centaurus A for the first time. These data will be combined with archival data of similar quality on QSOs with projected distances of 270-510 kpc (which will be used as control sight lines outside of the radio structure) to probe the covering fraction, kinematics, ionization, relative metallicity, and multi-phase nature of the CGM using a diverse set of diagnostics (Si II, Si III, Si IV, O I, and C II). These data will provide new insights into the process of radio-mode feedback and

new tests for current and future models.

## **OBSERVING DESCRIPTION**

We requested and were allocated 25 orbits to observe 4 targets with COS G130M. The requested number of orbits per target ranges from 5 to 9 orbits. We follow the Cycle 29 recommendations to limit the durations of each visit to 1-3 orbits: the 5-orbit allocations for targets #1 and #4 are each split into two visits of 3+2 orbits, the 6-orbit allocation for target #3 is split into two visits of 3+3 orbits, and the 9-orbit allocation for target #2 is split into three visits of 3+3+3 orbits. This strategy will reduce time loss to overheads (target acquisition) associated with shorter 1-orbit visits, increase time spent on target, and thus S/N.

For each visit, we first use ACQ/IMAGE to obtain a NUV image of the field and center the aperture on the intensity peak. For this procedure, we make use of MIRRORA for all of the targets since all of them have integrated GALEX NUV magnitudes  $> 18$  (listed under "V magnitude" in the target description) so they are not particularly bright. The exposure time of 60 seconds for ACQ/IMAGE is generous and results in S/N that range over 50-100.

For the spectroscopic observations, we request the cenwave = 1291 Å setting with both segments A and B for all of our targets to capture redshifted Si II 1190/1193, Si III 1206, Si II 1260, O I 1302, Si II 1304, C II 1334, and Si IV 1393/1402 from the CGM of Centaurus A ( $z = 0.00183$ ). These metal transitions are among the strongest in massive quiescent, star-forming, and active galaxies, and cover a range of ionization level which can be used to constrain the conditions of the absorbing gas. Following the COS2025 policies, we only use FP-POS = 3 and 4 to get equal exposures for segments A and B. The exposures are split into 1 or 2 equal-duration observations per orbit with different FP-POS values to reduce the fixed pattern noise. The number of spectroscopic observations per orbit is chosen to minimize the overhead and maximize the on-target exposure time. All of the observations are done in TIME-TAG mode. This temporal sampling will allow us to exclude poor quality data and get improved thermal correction and background removal. For simplicity and to guard against the (unlikely) possibility that our targets are more than ~50% brighter than expected, we set buffer-time = exposure-time.

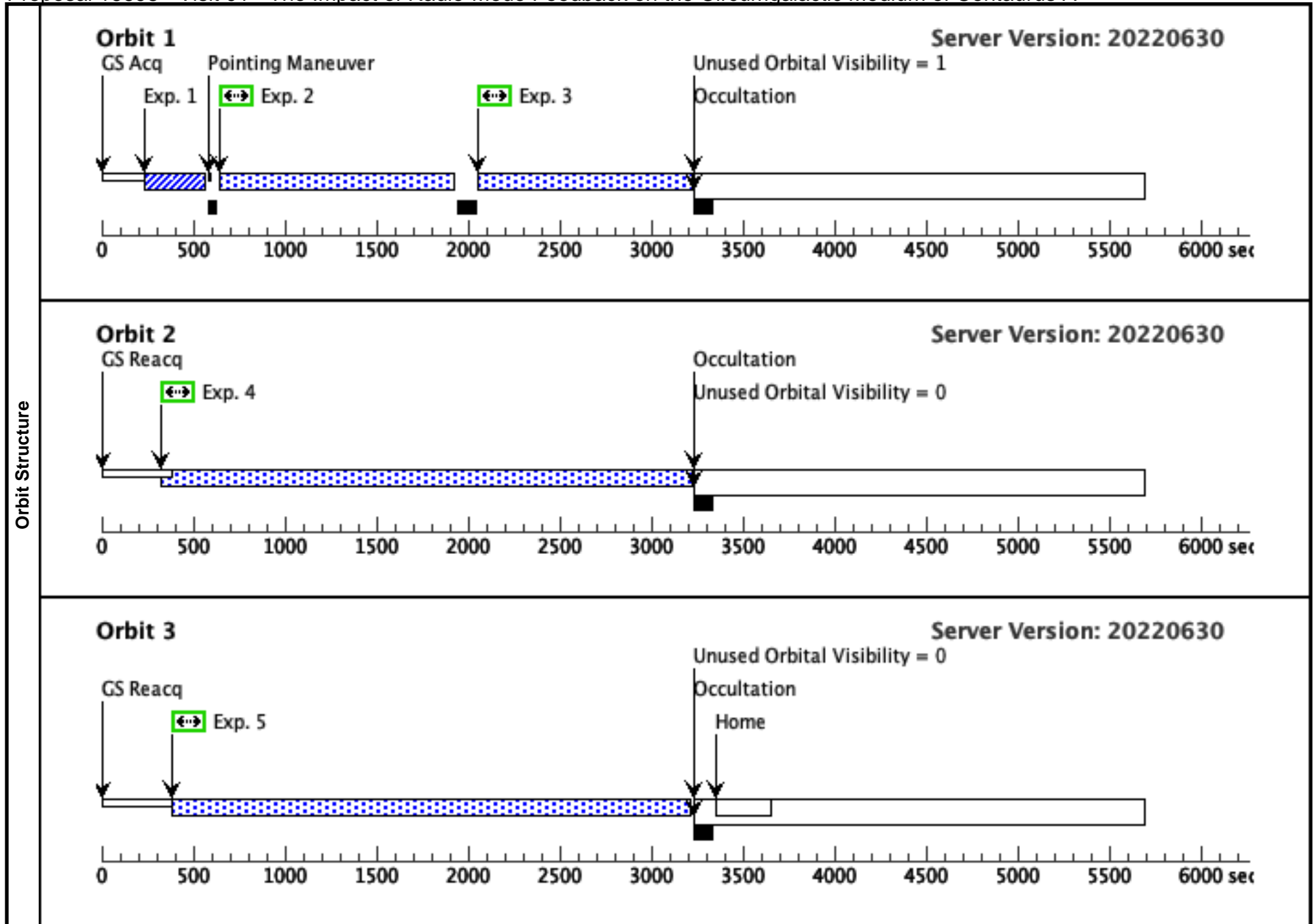
According to the Bright Object Tool (BOT), there are no bright sources near our targets that could cause a problem for COS.

The RA and DEC coordinates of these objects are extracted from the GSC 2.3 database and have been verified using the finding charts generated by the Target Confirmation tool of APT. The nearest target in the sample, target #2 ( $z = 0.1$ ), appears to be slightly extended.

Proposal 16698 - Visit 01 - The Impact of Radio-Mode Feedback on the Circumgalactic Medium of Centaurus A

Mon Jun 05 15:00:26 GMT 2023

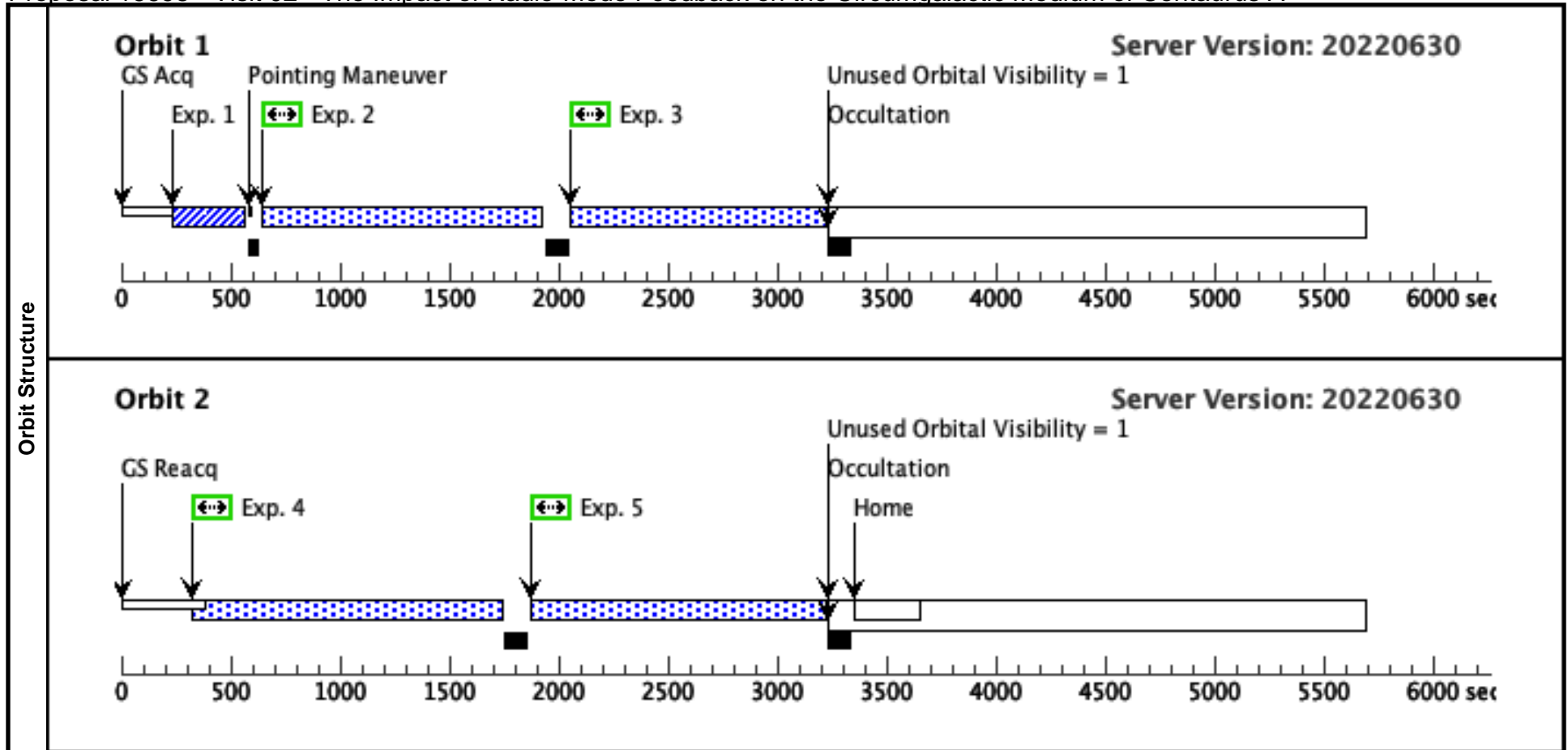
<b>Visit</b>	<b>Proposal 16698, Visit 01, completed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)									
	(Visit 01) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave. See the COS Instrument Handbook for exceptions that may apply to observations with G130M/1291 or G160M. (Visit 01) Warning (Orbit Planner): INEFFICIENT ORDERING OF FP-POS POSITIONS									
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>		<b>Fluxes</b>	<b>Miscellaneous</b>			
	(1)	WISEA-J131909.66-412659.6	RA: 13 19 9.6350 (199.7901458d) Dec: -41 26 59.47 (-41.44985d) Equinox: J2000	Proper Motion RA: -8.247704836671769E-6 sec of time/yr Proper Motion Dec: 7.87346E-4 arcsec/yr Epoch of Position: 1993.16 Redshift: 1.1		V=18.30 GALEX FUV 18.75 mag (integrated)	Reference Frame: ICRS			
Comments: This object was generated by the targetselector and retrieved from the GSC 2.3 database. Category=GALAXY Description=[QUASAR] 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.im.15 23609)	(1) WISEA-J131909.66-412659.6	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				60 Secs (60 Secs) [==>]	[1]
	2	(COS.sp.152 3748)	(1) WISEA-J131909.66-412659.6	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=11 15; FLASH=YES; FP-POS=3			1115 Secs (1115 Secs) [==>]	[1]
	3	(COS.sp.152 3748)	(1) WISEA-J131909.66-412659.6	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=11 15; FLASH=YES; FP-POS=4			1115 Secs (1115 Secs) [==>]	[1]
	4	(COS.sp.152 3748)	(1) WISEA-J131909.66-412659.6	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=27 82; FLASH=YES; FP-POS=3			2782 Secs (2782 Secs) [==>]	[2]
	5	(COS.sp.152 3748)	(1) WISEA-J131909.66-412659.6	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=27 82; FLASH=YES; FP-POS=4			2782 Secs (2782 Secs) [==>]	[3]



Proposal 16698 - Visit 02 - The Impact of Radio-Mode Feedback on the Circumgalactic Medium of Centaurus A

Mon Jun 05 15:00:26 GMT 2023

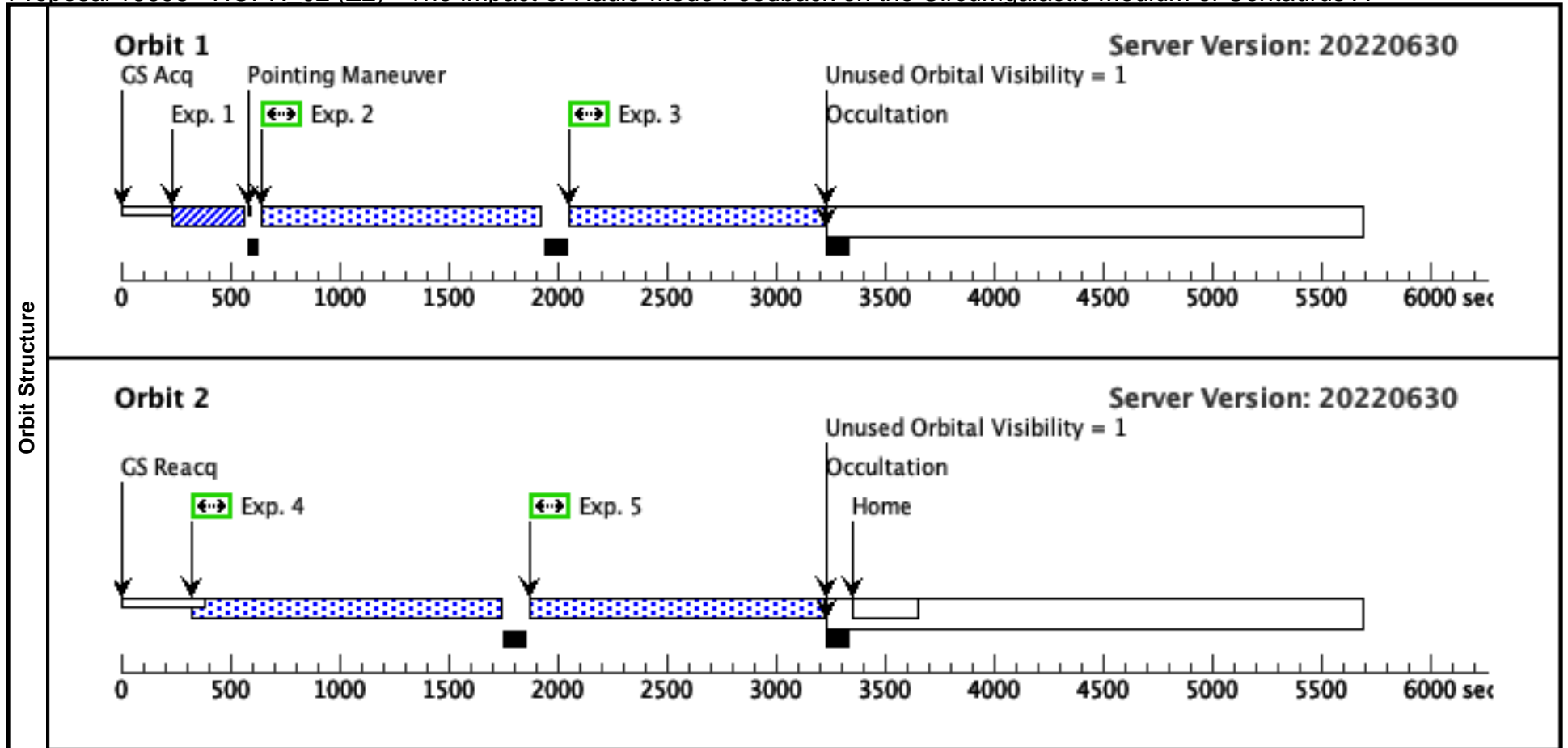
<b>Visit</b>	<b>Proposal 16698, Visit 02, failed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)									
	(Visit 02) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave. See the COS Instrument Handbook for exceptions that may apply to observations with G130M/1291 or G160M. (Visit 02) Warning (Orbit Planner): INEFFICIENT ORDERING OF FP-POS POSITIONS									
<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>				
	(1)	WISEA-J131909.66-412659.6	RA: 13 19 9.6350 (199.7901458d) Dec: -41 26 59.47 (-41.44985d) Equinox: J2000	Proper Motion RA: -8.247704836671769E-6 sec of time/yr Proper Motion Dec: 7.87346E-4 arcsec/yr Epoch of Position: 1993.16 Redshift: 1.1	V=18.30 GALEX FUV 18.75 mag (integrated)	Reference Frame: ICRS				
<i>Comments: This object was generated by the targetselector and retrieved from the GSC 2.3 database.</i> Category=GALAXY Description=[QUASAR] 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.im.15 23609)	(1) WISEA-J131909.66-412659.6	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				60 Secs (60 Secs)	
									[==>]	[1]
	2	(COS.sp.152 3748)	(1) WISEA-J131909.66-412659.6	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=11 15; FLASH=YES; FP-POS=3			1115 Secs (1115 Secs)	
									[==>]	[1]
	3	(COS.sp.152 3748)	(1) WISEA-J131909.66-412659.6	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=11 15; FLASH=YES; FP-POS=4			1115 Secs (1115 Secs)	
									[==>]	[1]
4	(COS.sp.152 3748)	(1) WISEA-J131909.66-412659.6	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=13 00; FLASH=YES; FP-POS=3			1300 Secs (1300 Secs)		
								[==>]	[2]	
5	(COS.sp.152 3748)	(1) WISEA-J131909.66-412659.6	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=13 00; FLASH=YES; FP-POS=4			1300 Secs (1300 Secs)		
								[==>]	[2]	



Proposal 16698 - HOPR\_02 (Z2) - The Impact of Radio-Mode Feedback on the Circumgalactic Medium of Centaurus A

Mon Jun 05 15:00:26 GMT 2023

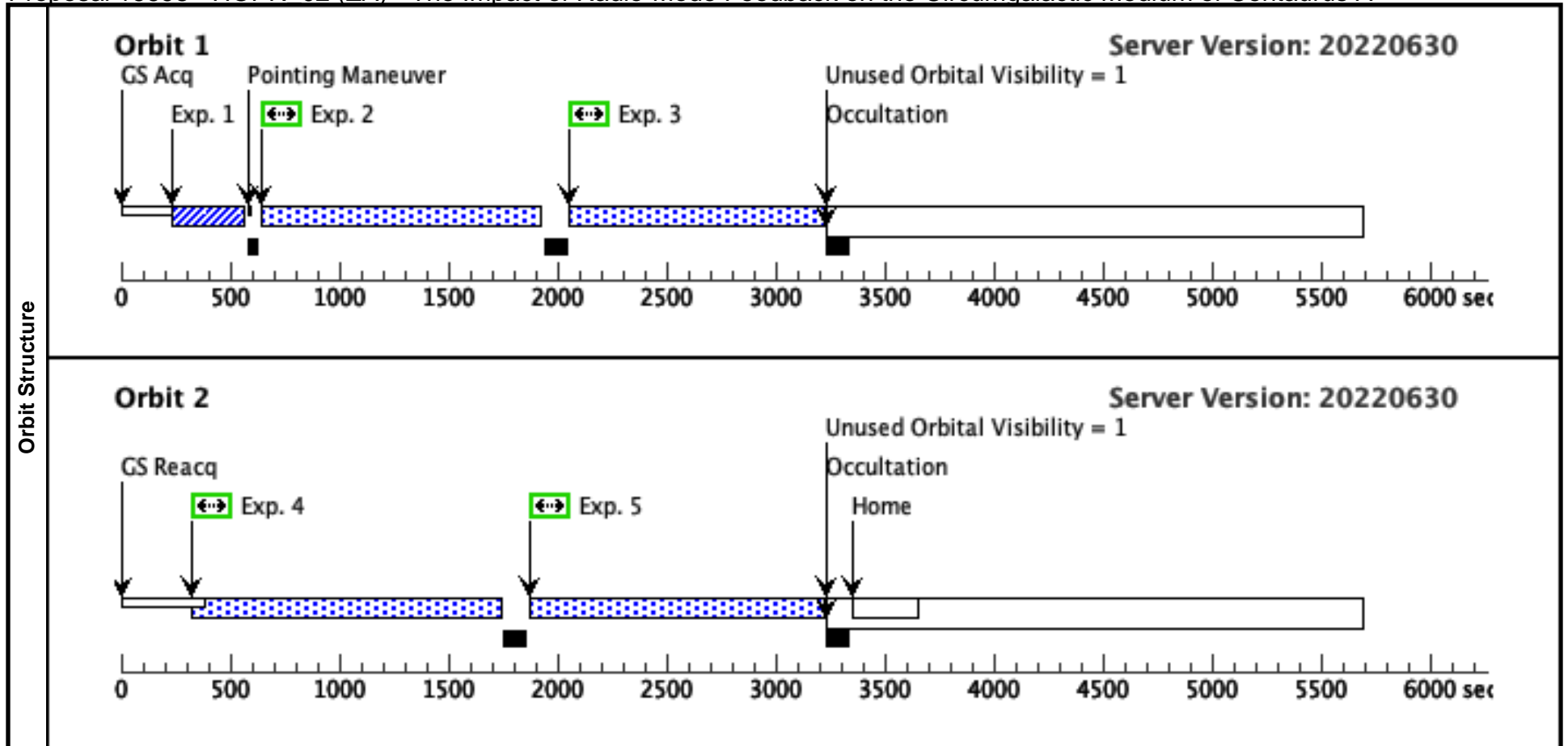
<b>Visit</b>	<b>Proposal 16698, HOPR_02 (Z2), failed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)									
	(HOPR_02 (Z2)) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave. See the COS Instrument Handbook for exceptions that may apply to observations with G130M/1291 or G160M. (HOPR_02 (Z2)) Warning (Orbit Planner): INEFFICIENT ORDERING OF FP-POS POSITIONS									
<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>				
	(1)	WISEA-J131909.66-412659.6	RA: 13 19 9.6350 (199.7901458d) Dec: -41 26 59.47 (-41.44985d) Equinox: J2000	Proper Motion RA: -8.247704836671769E-6 sec of time/yr Proper Motion Dec: 7.87346E-4 arcsec/yr Epoch of Position: 1993.16 Redshift: 1.1	V=18.30 GALEX FUV 18.75 mag (integrated)	Reference Frame: ICRS				
<i>Comments: This object was generated by the targetselector and retrieved from the GSC 2.3 database.</i> Category=GALAXY Description=[QUASAR] 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.im.15 23609)	(1) WISEA-J131909.66-412659.6	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				60 Secs (60 Secs)	
									[==>]	[1]
	2	(COS.sp.152 3748)	(1) WISEA-J131909.66-412659.6	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=11 15; FLASH=YES; FP-POS=3			1115 Secs (1115 Secs)	
									[==>]	[1]
	3	(COS.sp.152 3748)	(1) WISEA-J131909.66-412659.6	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=11 15; FLASH=YES; FP-POS=4			1115 Secs (1115 Secs)	
									[==>]	[1]
4	(COS.sp.152 3748)	(1) WISEA-J131909.66-412659.6	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=13 00; FLASH=YES; FP-POS=3			1300 Secs (1300 Secs)		
								[==>]	[2]	
5	(COS.sp.152 3748)	(1) WISEA-J131909.66-412659.6	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=13 00; FLASH=YES; FP-POS=4			1300 Secs (1300 Secs)		
								[==>]	[2]	



Proposal 16698 - HOPR\_02 (ZA) - The Impact of Radio-Mode Feedback on the Circumgalactic Medium of Centaurus A

Mon Jun 05 15:00:26 GMT 2023

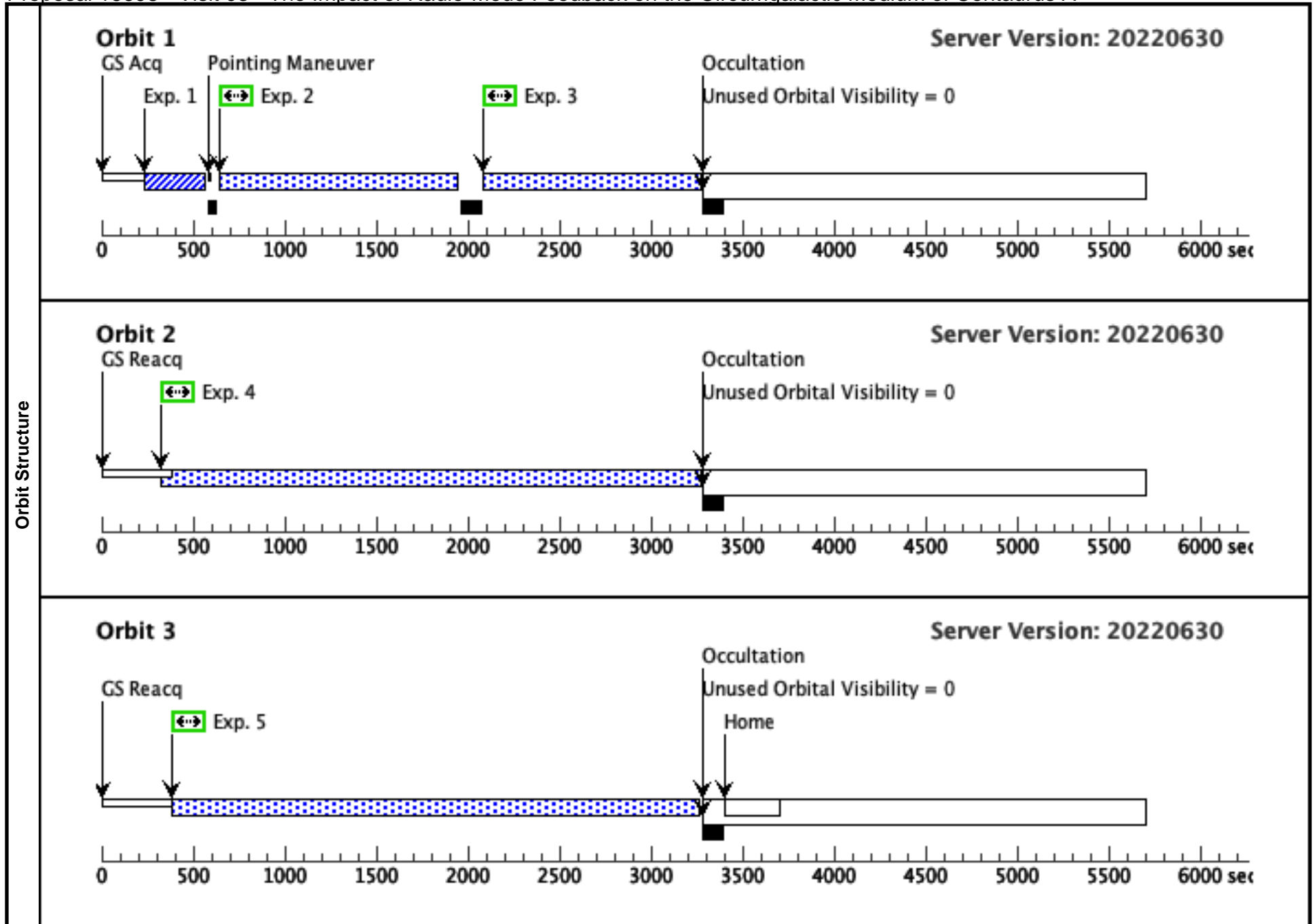
<b>Visit</b>	<b>Proposal 16698, HOPR_02 (ZA)</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none) <i>Comments: HOPR copy of Z2</i>									
	(HOPR_02 (ZA)) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave. See the COS Instrument Handbook for exceptions that may apply to observations with G130M/1291 or G160M. (HOPR_02 (ZA)) Warning (Orbit Planner): INEFFICIENT ORDERING OF FP-POS POSITIONS									
<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>				
	(1)	WISEA-J131909.66-412659.6	RA: 13 19 9.6350 (199.7901458d) Dec: -41 26 59.47 (-41.44985d) Equinox: J2000	Proper Motion RA: -8.247704836671769E-6 sec of time/yr Proper Motion Dec: 7.87346E-4 arcsec/yr Epoch of Position: 1993.16 Redshift: 1.1	V=18.30 GALEX FUV 18.75 mag (integrated)	Reference Frame: ICRS				
<i>Comments: This object was generated by the targetselector and retrieved from the GSC 2.3 database.</i> Category=GALAXY Description=[QUASAR] 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.im.15 23609)	(1) WISEA-J131909.66-412659.6	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				60 Secs (60 Secs) [==>]	[1]
	2	(COS.sp.152 3748)	(1) WISEA-J131909.66-412659.6	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=11 15; FLASH=YES; FP-POS=3			1115 Secs (1115 Secs) [==>]	[1]
	3	(COS.sp.152 3748)	(1) WISEA-J131909.66-412659.6	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=11 15; FLASH=YES; FP-POS=4			1115 Secs (1115 Secs) [==>]	[1]
	4	(COS.sp.152 3748)	(1) WISEA-J131909.66-412659.6	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=13 00; FLASH=YES; FP-POS=3			1300 Secs (1300 Secs) [==>]	[2]
	5	(COS.sp.152 3748)	(1) WISEA-J131909.66-412659.6	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=13 00; FLASH=YES; FP-POS=4			1300 Secs (1300 Secs) [==>]	[2]



Proposal 16698 - Visit 03 - The Impact of Radio-Mode Feedback on the Circumgalactic Medium of Centaurus A

Mon Jun 05 15:00:26 GMT 2023

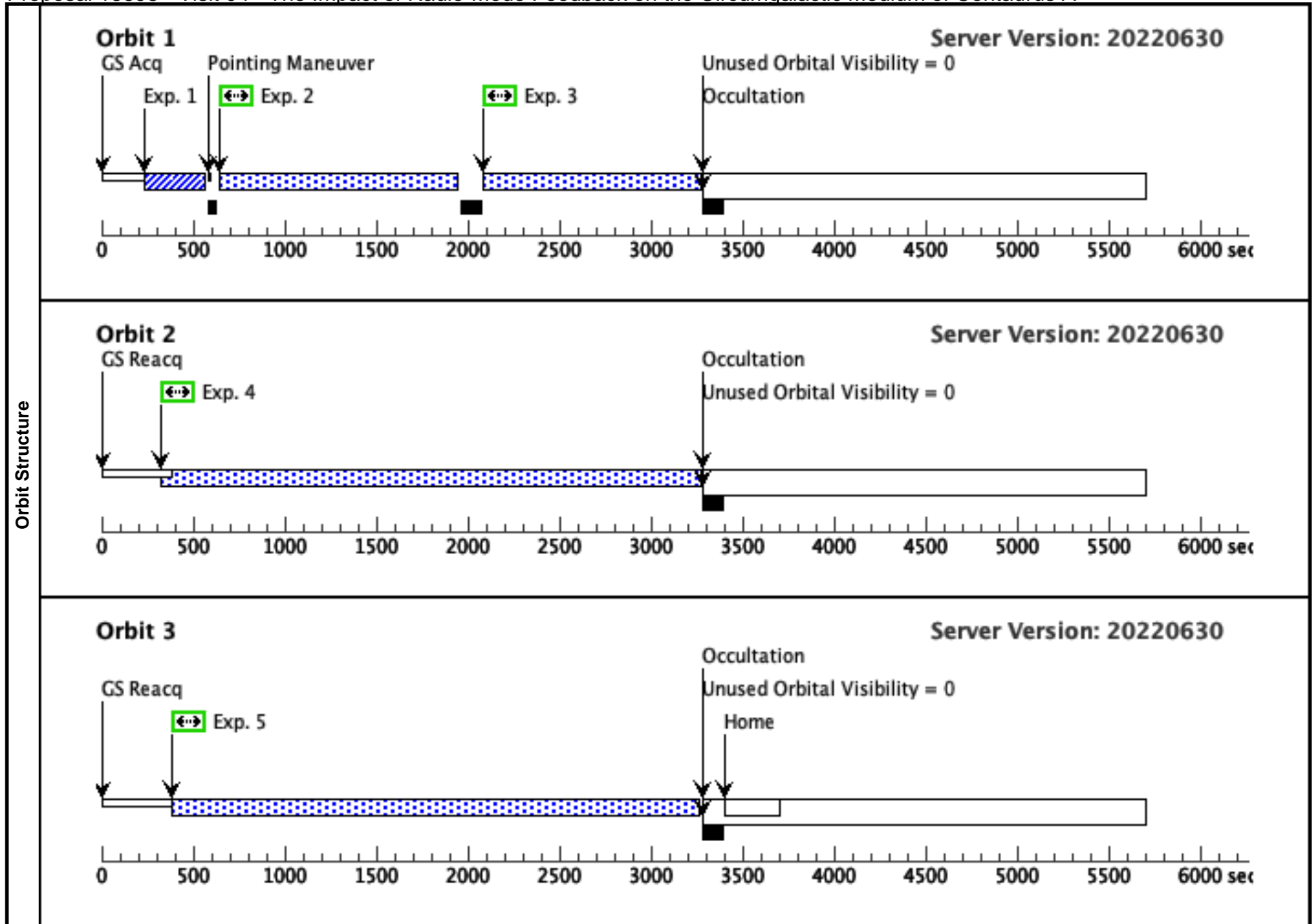
<b>Visit</b>	<b>Proposal 16698, Visit 03, completed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)										
	(Visit 03) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave. See the COS Instrument Handbook for exceptions that may apply to observations with G130M/1291 or G160M. (Visit 03) Warning (Orbit Planner): INEFFICIENT ORDERING OF FP-POS POSITIONS (Exposure 2 (Visit 03)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details. (Exposure 3 (Visit 03)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details. (Exposure 4 (Visit 03)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details. (Exposure 5 (Visit 03)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details.										
<b>Diagnostics</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>					
	(2)	WISEA-J132250.36-451051.0	RA: 13 22 50.4163 (200.7100679d) Dec: -45 10 51.59 (-45.18100d) Equinox: J2000	Proper Motion RA: -0.001372556622676066 sec of time/yr Proper Motion Dec: 0.00616256 arcsec/yr Epoch of Position: 1991.22 Redshift: 0.1	V=19.64 GALEX FUV 19.81 mag. (integrated)	Reference Frame: ICRS					
Comments: This object was generated by the targetselector and retrieved from the GSC 2.3 database. Category=GALAXY Description=[QUASAR, SEYFERT] Extended=YES											
<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.im.15 23610)	(2) WISEA-J132250.36-451051.0	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				60 Secs (60 Secs) [==>]	[1]	
	2	(COS.sp.152 3749)	(2) WISEA-J132250.36-451051.0	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=11 15; FLASH=YES; FP-POS=3			1115 Secs (1134 Secs) [==>1134.0 Secs ]	[1]	
	3	(COS.sp.152 3749)	(2) WISEA-J132250.36-451051.0	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=11 15; FLASH=YES; FP-POS=4			1115 Secs (1134 Secs) [==>1134.0 Secs ]	[1]	
	4	(COS.sp.152 3749)	(2) WISEA-J132250.36-451051.0	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=27 82; FLASH=YES; FP-POS=3			2782 Secs (2829 Secs) [==>2829.0 Secs ]	[2]	
	5	(COS.sp.152 3749)	(2) WISEA-J132250.36-451051.0	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=27 82; FLASH=YES; FP-POS=4			2782 Secs (2829 Secs) [==>2829.0 Secs ]	[3]	



Proposal 16698 - Visit 04 - The Impact of Radio-Mode Feedback on the Circumgalactic Medium of Centaurus A

Mon Jun 05 15:00:26 GMT 2023

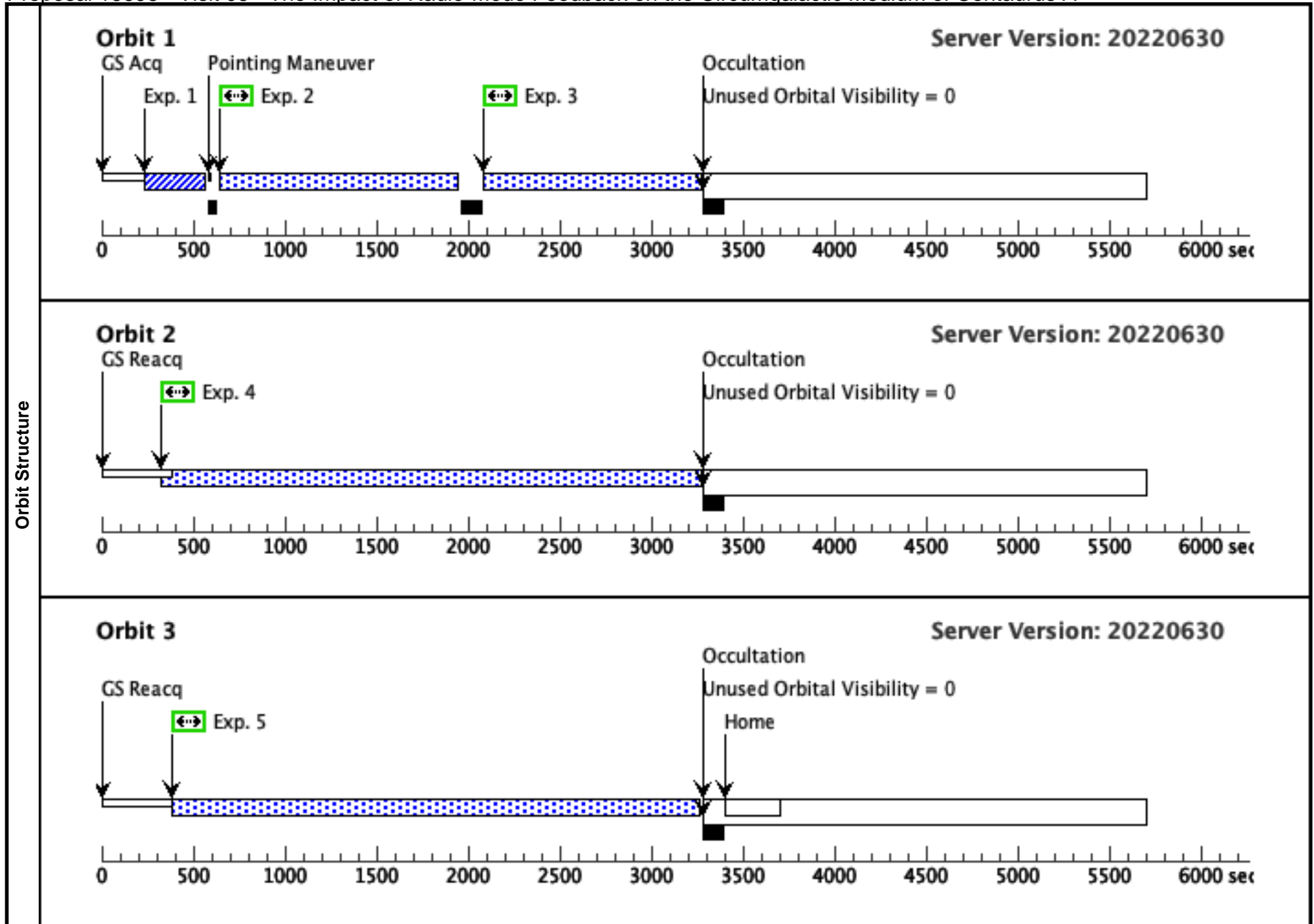
<b>Visit</b>	<b>Proposal 16698, Visit 04, completed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)										
	(Visit 04) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave. See the COS Instrument Handbook for exceptions that may apply to observations with G130M/1291 or G160M. (Visit 04) Warning (Orbit Planner): INEFFICIENT ORDERING OF FP-POS POSITIONS (Exposure 2 (Visit 04)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details. (Exposure 3 (Visit 04)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details. (Exposure 4 (Visit 04)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details. (Exposure 5 (Visit 04)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details.										
<b>Diagnostics</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>					
	(2)	WISEA-J132250.36-451051.0	RA: 13 22 50.4163 (200.7100679d) Dec: -45 10 51.59 (-45.18100d) Equinox: J2000	Proper Motion RA: -0.001372556622676066 sec of time/yr Proper Motion Dec: 0.00616256 arcsec/yr Epoch of Position: 1991.22 Redshift: 0.1	V=19.64 GALEX FUV 19.81 mag. (integrated)	Reference Frame: ICRS					
Comments: This object was generated by the targetselector and retrieved from the GSC 2.3 database. Category=GALAXY Description=[QUASAR, SEYFERT] Extended=YES											
<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.im.15 23610)	(2) WISEA-J132250.36-451051.0	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				60 Secs (60 Secs) [==>]	[1]	
	2	(COS.sp.152 3749)	(2) WISEA-J132250.36-451051.0	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=11 15; FLASH=YES; FP-POS=3			1115 Secs (1134 Secs) [==>1134.0 Secs ]	[1]	
	3	(COS.sp.152 3749)	(2) WISEA-J132250.36-451051.0	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=11 15; FLASH=YES; FP-POS=4			1115 Secs (1134 Secs) [==>1134.0 Secs ]	[1]	
	4	(COS.sp.152 3749)	(2) WISEA-J132250.36-451051.0	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=27 82; FLASH=YES; FP-POS=3			2782 Secs (2829 Secs) [==>2829.0 Secs ]	[2]	
	5	(COS.sp.152 3749)	(2) WISEA-J132250.36-451051.0	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=27 82; FLASH=YES; FP-POS=4			2782 Secs (2829 Secs) [==>2829.0 Secs ]	[3]	



Proposal 16698 - Visit 05 - The Impact of Radio-Mode Feedback on the Circumgalactic Medium of Centaurus A

Mon Jun 05 15:00:26 GMT 2023

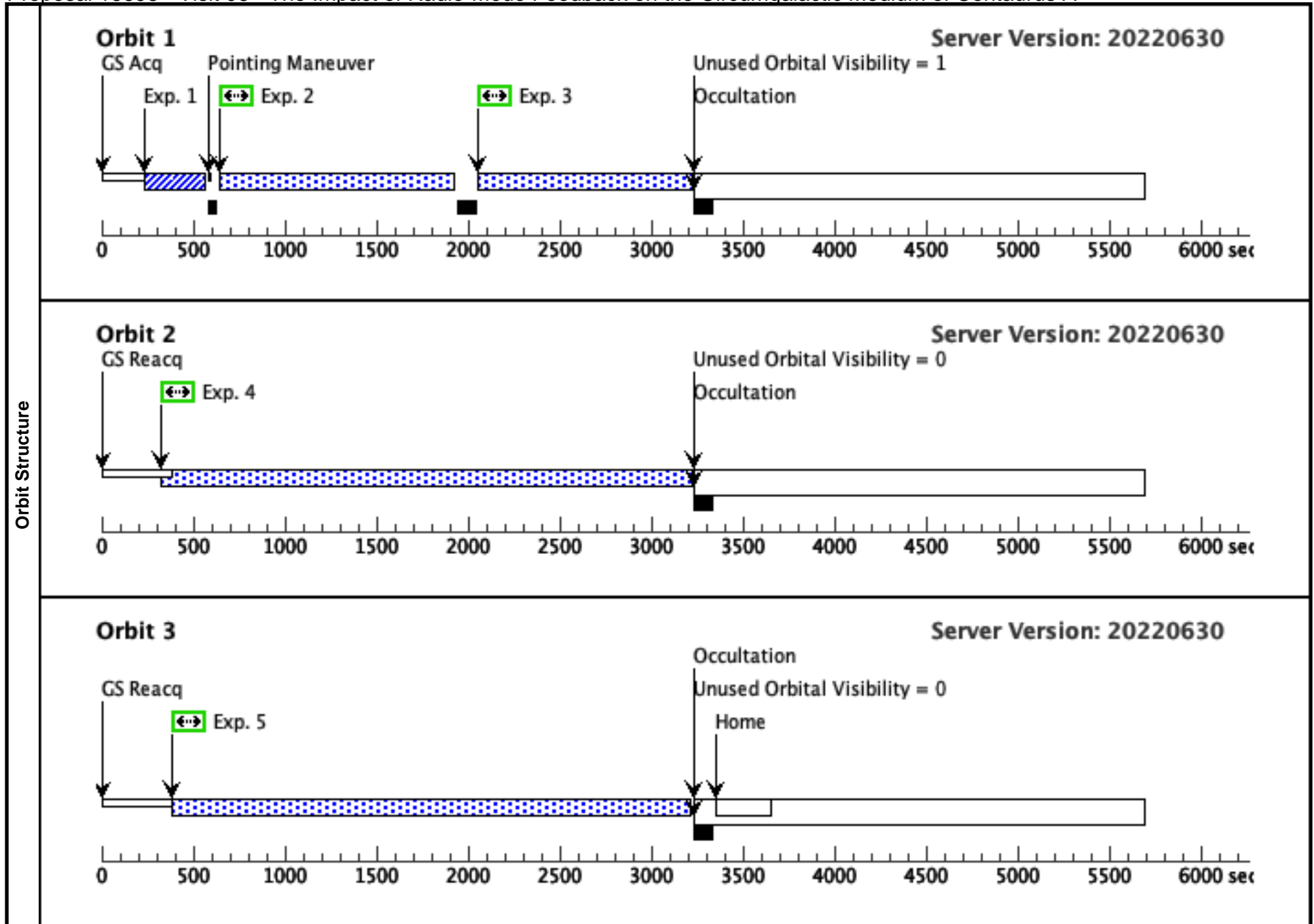
<b>Visit</b>	<b>Proposal 16698, Visit 05, completed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)										
	(Visit 05) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave. See the COS Instrument Handbook for exceptions that may apply to observations with G130M/1291 or G160M. (Visit 05) Warning (Orbit Planner): INEFFICIENT ORDERING OF FP-POS POSITIONS (Exposure 2 (Visit 05)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details. (Exposure 3 (Visit 05)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details. (Exposure 4 (Visit 05)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details. (Exposure 5 (Visit 05)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details.										
<b>Diagnostics</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>					
	(2)	WISEA-J132250.36-451051.0	RA: 13 22 50.4163 (200.7100679d) Dec: -45 10 51.59 (-45.18100d) Equinox: J2000	Proper Motion RA: -0.001372556622676066 sec of time/yr Proper Motion Dec: 0.00616256 arcsec/yr Epoch of Position: 1991.22 Redshift: 0.1	V=19.64 GALEX FUV 19.81 mag. (integrated)	Reference Frame: ICRS					
Comments: This object was generated by the targetselector and retrieved from the GSC 2.3 database. Category=GALAXY Description=[QUASAR, SEYFERT] Extended=YES											
<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.im.15 23610)	(2) WISEA-J132250.36-451051.0	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				60 Secs (60 Secs) [==>]	[1]	
	2	(COS.sp.152 3749)	(2) WISEA-J132250.36-451051.0	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=11 15; FLASH=YES; FP-POS=3			1115 Secs (1134 Secs) [==>1134.0 Secs ]	[1]	
	3	(COS.sp.152 3749)	(2) WISEA-J132250.36-451051.0	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=11 15; FLASH=YES; FP-POS=4			1115 Secs (1134 Secs) [==>1134.0 Secs ]	[1]	
	4	(COS.sp.152 3749)	(2) WISEA-J132250.36-451051.0	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=27 82; FLASH=YES; FP-POS=3			2782 Secs (2829 Secs) [==>2829.0 Secs ]	[2]	
	5	(COS.sp.152 3749)	(2) WISEA-J132250.36-451051.0	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=27 82; FLASH=YES; FP-POS=4			2782 Secs (2829 Secs) [==>2829.0 Secs ]	[3]	



Proposal 16698 - Visit 06 - The Impact of Radio-Mode Feedback on the Circumgalactic Medium of Centaurus A

Mon Jun 05 15:00:27 GMT 2023

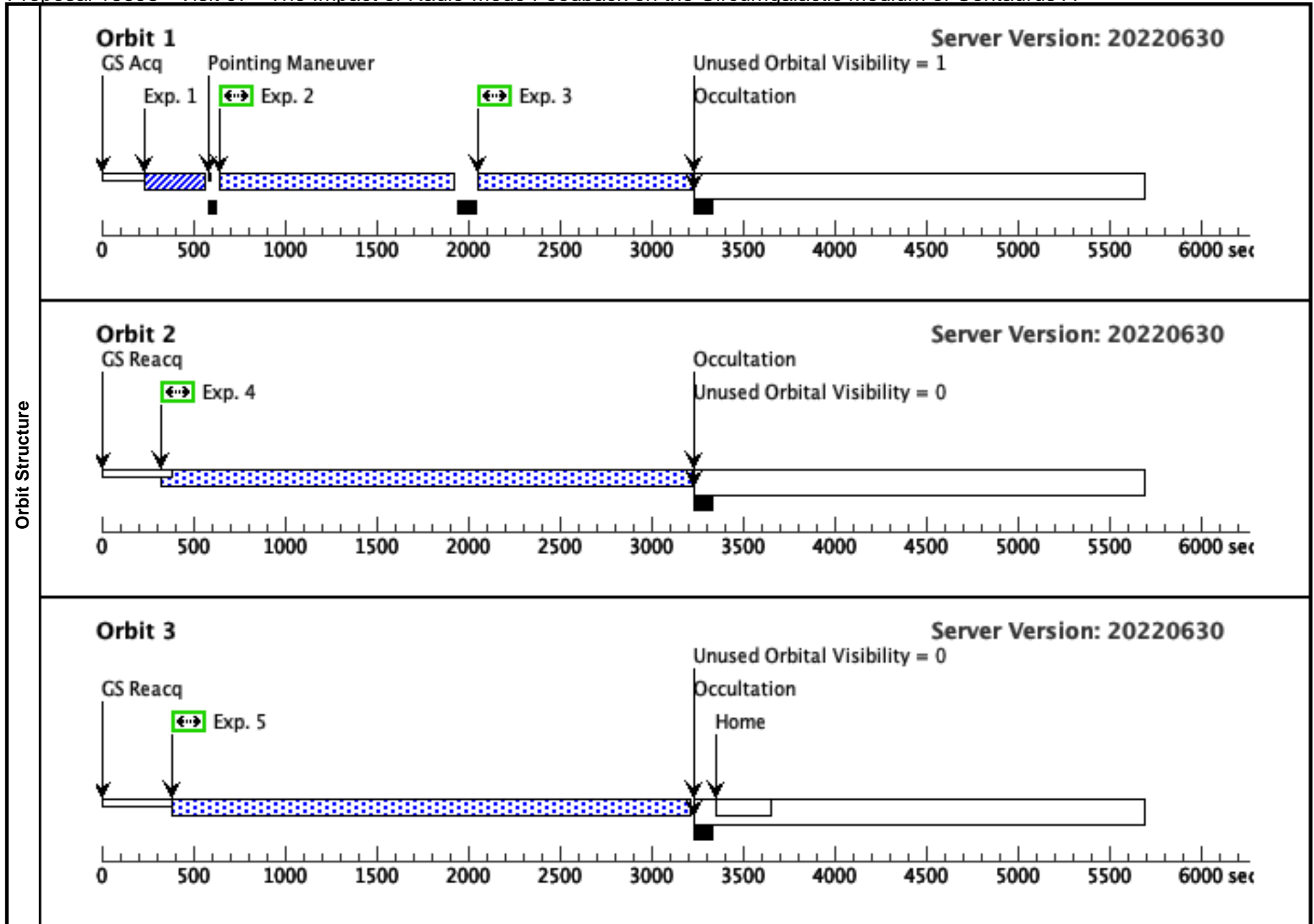
Visit	<b>Proposal 16698, Visit 06, completed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)																																																																						
Diagnostics	(Visit 06) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave. See the COS Instrument Handbook for exceptions that may apply to observations with G130M/1291 or G160M. (Visit 06) Warning (Orbit Planner): INEFFICIENT ORDERING OF FP-POS POSITIONS																																																																						
Fixed Targets	<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>(3)</td> <td>WISEA-J133034.43-445509.9</td> <td>RA: 13 30 34.4128 (202.6433867d) Dec: -44 55 9.85 (-44.91940d) Equinox: J2000</td> <td>Proper Motion RA: -3.6990498596931547E-4 sec of time/yr Proper Motion Dec: 0.00605878 arcsec/yr Epoch of Position: 1991.22 Redshift: 0.4</td> <td>V=18.63 GALEX FUV 19.11 mag. (integrated)</td> <td>Reference Frame: ICRS</td> </tr> </tbody> </table> <p><i>Comments: This object was generated by the targetselector and retrieved from the GSC 2.3 database.</i>                      Category=GALAXY                      Description=[QUASAR, SEYFERT]                      Extended=NO</p>											#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(3)	WISEA-J133034.43-445509.9	RA: 13 30 34.4128 (202.6433867d) Dec: -44 55 9.85 (-44.91940d) Equinox: J2000	Proper Motion RA: -3.6990498596931547E-4 sec of time/yr Proper Motion Dec: 0.00605878 arcsec/yr Epoch of Position: 1991.22 Redshift: 0.4	V=18.63 GALEX FUV 19.11 mag. (integrated)	Reference Frame: ICRS																																																
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous																																																																		
(3)	WISEA-J133034.43-445509.9	RA: 13 30 34.4128 (202.6433867d) Dec: -44 55 9.85 (-44.91940d) Equinox: J2000	Proper Motion RA: -3.6990498596931547E-4 sec of time/yr Proper Motion Dec: 0.00605878 arcsec/yr Epoch of Position: 1991.22 Redshift: 0.4	V=18.63 GALEX FUV 19.11 mag. (integrated)	Reference Frame: ICRS																																																																		
Exposures	<table border="1"> <thead> <tr> <th>#</th> <th>Label (ETC Run)</th> <th>Target</th> <th>Config,Mode,Aperture</th> <th>Spectral Els.</th> <th>Opt. Params.</th> <th>Special Reqs.</th> <th>Groups</th> <th>Exp. Time (Total)/[Actual Dur.]</th> <th>Orbit</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>(COS.im.15 23611)</td> <td>(3) WISEA-J133034.43-445509.9</td> <td>COS/NUV, ACQ/IMAGE, PSA</td> <td>MIRRORA</td> <td></td> <td></td> <td></td> <td>60 Secs (60 Secs) [==&gt;]</td> <td>[1]</td> </tr> <tr> <td>2</td> <td>(COS.sp.152 3750)</td> <td>(3) WISEA-J133034.43-445509.9</td> <td>COS/FUV, TIME-TAG, PSA</td> <td>G130M 1291 A</td> <td>BUFFER-TIME=11 15; FLASH=YES; FP-POS=3</td> <td></td> <td></td> <td>1115 Secs (1115 Secs) [==&gt;]</td> <td>[1]</td> </tr> <tr> <td>3</td> <td>(COS.sp.152 3750)</td> <td>(3) WISEA-J133034.43-445509.9</td> <td>COS/FUV, TIME-TAG, PSA</td> <td>G130M 1291 A</td> <td>BUFFER-TIME=11 15; FLASH=YES; FP-POS=4</td> <td></td> <td></td> <td>1115 Secs (1115 Secs) [==&gt;]</td> <td>[1]</td> </tr> <tr> <td>4</td> <td>(COS.sp.152 3750)</td> <td>(3) WISEA-J133034.43-445509.9</td> <td>COS/FUV, TIME-TAG, PSA</td> <td>G130M 1291 A</td> <td>BUFFER-TIME=27 82; FLASH=YES; FP-POS=3</td> <td></td> <td></td> <td>2782 Secs (2782 Secs) [==&gt;]</td> <td>[2]</td> </tr> <tr> <td>5</td> <td>(COS.sp.152 3750)</td> <td>(3) WISEA-J133034.43-445509.9</td> <td>COS/FUV, TIME-TAG, PSA</td> <td>G130M 1291 A</td> <td>BUFFER-TIME=27 82; FLASH=YES; FP-POS=4</td> <td></td> <td></td> <td>2782 Secs (2782 Secs) [==&gt;]</td> <td>[3]</td> </tr> </tbody> </table>											#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit	1	(COS.im.15 23611)	(3) WISEA-J133034.43-445509.9	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				60 Secs (60 Secs) [==>]	[1]	2	(COS.sp.152 3750)	(3) WISEA-J133034.43-445509.9	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=11 15; FLASH=YES; FP-POS=3			1115 Secs (1115 Secs) [==>]	[1]	3	(COS.sp.152 3750)	(3) WISEA-J133034.43-445509.9	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=11 15; FLASH=YES; FP-POS=4			1115 Secs (1115 Secs) [==>]	[1]	4	(COS.sp.152 3750)	(3) WISEA-J133034.43-445509.9	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=27 82; FLASH=YES; FP-POS=3			2782 Secs (2782 Secs) [==>]	[2]	5	(COS.sp.152 3750)	(3) WISEA-J133034.43-445509.9	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=27 82; FLASH=YES; FP-POS=4			2782 Secs (2782 Secs) [==>]	[3]
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit																																																														
1	(COS.im.15 23611)	(3) WISEA-J133034.43-445509.9	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				60 Secs (60 Secs) [==>]	[1]																																																														
2	(COS.sp.152 3750)	(3) WISEA-J133034.43-445509.9	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=11 15; FLASH=YES; FP-POS=3			1115 Secs (1115 Secs) [==>]	[1]																																																														
3	(COS.sp.152 3750)	(3) WISEA-J133034.43-445509.9	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=11 15; FLASH=YES; FP-POS=4			1115 Secs (1115 Secs) [==>]	[1]																																																														
4	(COS.sp.152 3750)	(3) WISEA-J133034.43-445509.9	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=27 82; FLASH=YES; FP-POS=3			2782 Secs (2782 Secs) [==>]	[2]																																																														
5	(COS.sp.152 3750)	(3) WISEA-J133034.43-445509.9	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=27 82; FLASH=YES; FP-POS=4			2782 Secs (2782 Secs) [==>]	[3]																																																														



Proposal 16698 - Visit 07 - The Impact of Radio-Mode Feedback on the Circumgalactic Medium of Centaurus A

Mon Jun 05 15:00:27 GMT 2023

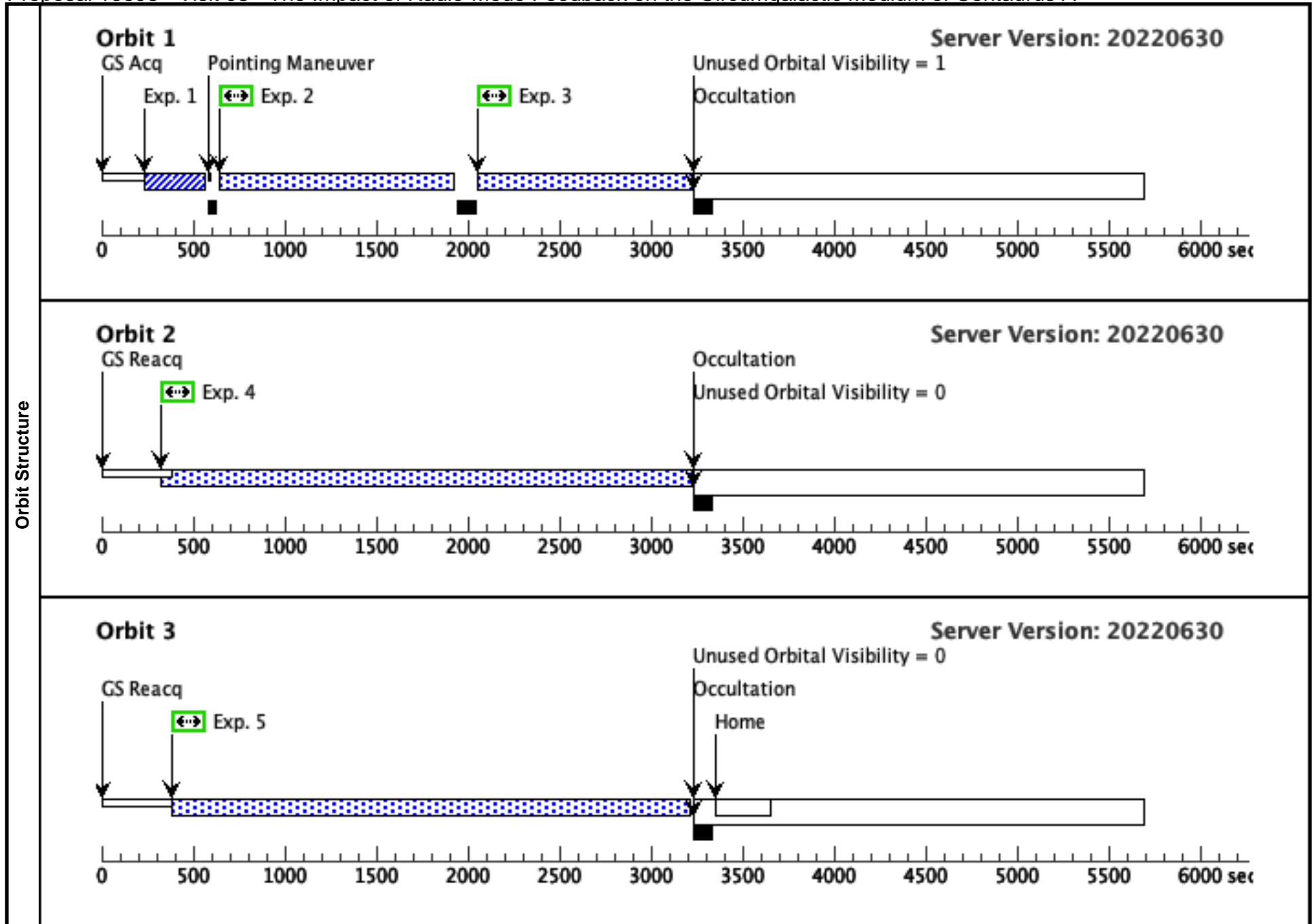
<b>Visit</b>	<b>Proposal 16698, Visit 07, completed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)									
	(Visit 07) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave. See the COS Instrument Handbook for exceptions that may apply to observations with G130M/1291 or G160M. (Visit 07) Warning (Orbit Planner): INEFFICIENT ORDERING OF FP-POS POSITIONS									
<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)	WISEA-J133034.43-445509.9	RA: 13 30 34.4128 (202.6433867d) Dec: -44 55 9.85 (-44.91940d) Equinox: J2000	Proper Motion RA: -3.6990498596931547E-4 sec of time/yr Proper Motion Dec: 0.00605878 arcsec/yr Epoch of Position: 1991.22 Redshift: 0.4	V=18.63 GALEX FUV 19.11 mag. (integrated)	Reference Frame: ICRS				
<i>Comments: This object was generated by the targetselector and retrieved from the GSC 2.3 database.</i> Category=GALAXY Description=[QUASAR, SEYFERT] 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.im.15 23611)	(3) WISEA-J133034.43-445509.9	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				60 Secs (60 Secs) [==>]	[1]
	2	(COS.sp.152 3750)	(3) WISEA-J133034.43-445509.9	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=11 15; FLASH=YES; FP-POS=3			1115 Secs (1115 Secs) [==>]	[1]
	3	(COS.sp.152 3750)	(3) WISEA-J133034.43-445509.9	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=11 15; FLASH=YES; FP-POS=4			1115 Secs (1115 Secs) [==>]	[1]
	4	(COS.sp.152 3750)	(3) WISEA-J133034.43-445509.9	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=27 82; FLASH=YES; FP-POS=3			2782 Secs (2782 Secs) [==>]	[2]
	5	(COS.sp.152 3750)	(3) WISEA-J133034.43-445509.9	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=27 82; FLASH=YES; FP-POS=4			2782 Secs (2782 Secs) [==>]	[3]



Proposal 16698 - Visit 08 - The Impact of Radio-Mode Feedback on the Circumgalactic Medium of Centaurus A

Mon Jun 05 15:00:27 GMT 2023

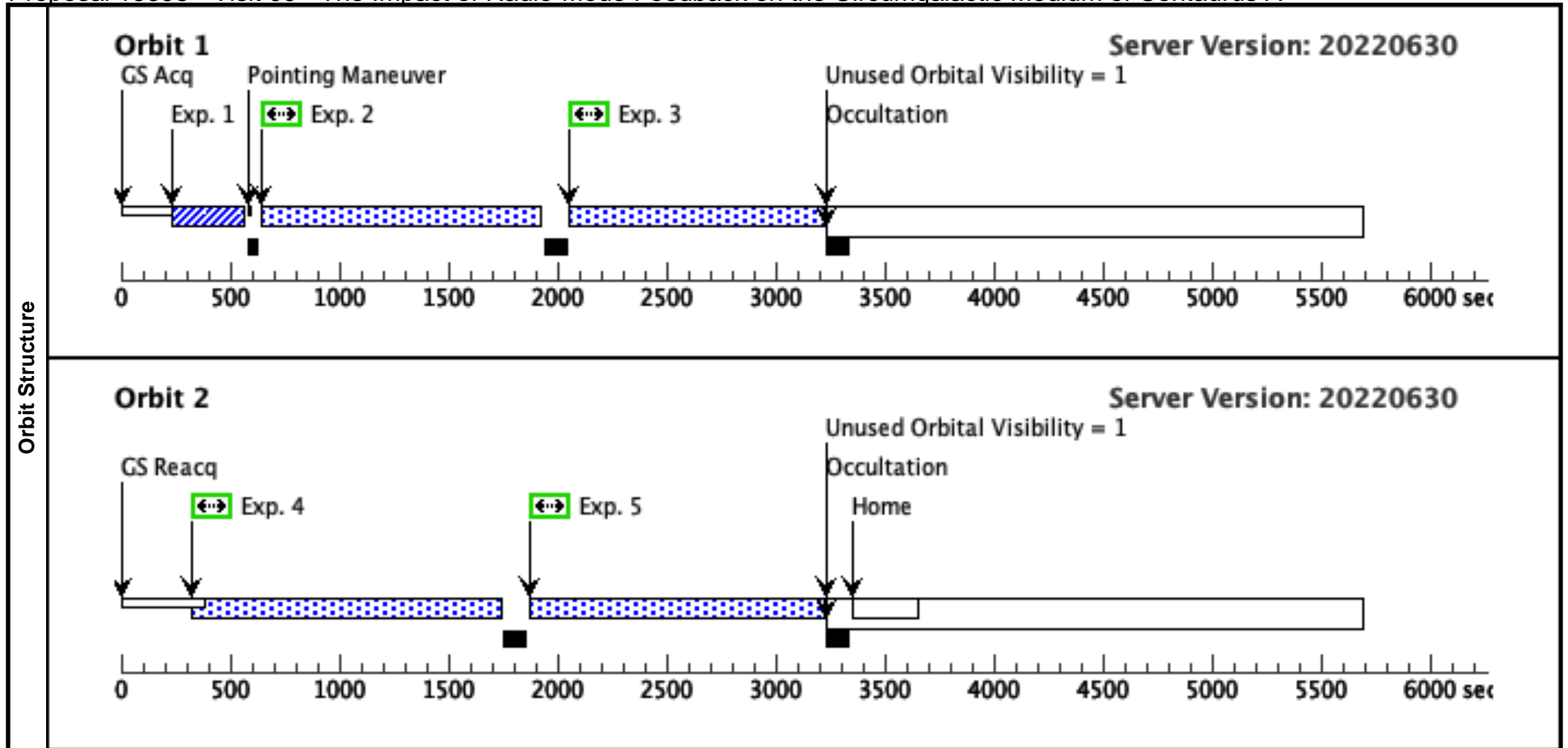
<b>Visit</b>	<b>Proposal 16698, Visit 08, completed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)									
	<b>Diagnostics</b>	(Visit 08) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave. See the COS Instrument Handbook for exceptions that may apply to observations with G130M/1291 or G160M. (Visit 08) Warning (Orbit Planner): INEFFICIENT ORDERING OF FP-POS POSITIONS								
<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)	WISEA-J133011.24-405434.2	RA: 13 30 11.2061 (202.5466921d) Dec: -40 54 34.24 (-40.90951d) Equinox: J2000	Proper Motion RA: -0.00135708956101559 sec of time/yr Proper Motion Dec: 0.0014655599999999999 arcsec/yr Epoch of Position: 1993.16 Redshift: 1.2	V=18.61 GALEX FUV 18.97 mag. (integrated)	Reference Frame: ICRS				
Comments: This object was generated by the targetselector and retrieved from the GSC 2.3 database. Category=GALAXY Description=[BL LAC, QUASAR] 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.im.15 23612)	(4) WISEA-J133011.24-405434.2	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				60 Secs (60 Secs) [==>]	[1]
	2	(COS.sp.152 3751)	(4) WISEA-J133011.24-405434.2	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=11 15; FLASH=YES; FP-POS=3			1115 Secs (1115 Secs) [==>]	[1]
	3	(COS.sp.152 3751)	(4) WISEA-J133011.24-405434.2	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=11 15; FLASH=YES; FP-POS=4			1115 Secs (1115 Secs) [==>]	[1]
	4	(COS.sp.152 3751)	(4) WISEA-J133011.24-405434.2	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=27 82; FLASH=YES; FP-POS=3			2782 Secs (2782 Secs) [==>]	[2]
	5	(COS.sp.152 3751)	(4) WISEA-J133011.24-405434.2	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=27 82; FLASH=YES; FP-POS=4			2782 Secs (2782 Secs) [==>]	[3]



Proposal 16698 - Visit 09 - The Impact of Radio-Mode Feedback on the Circumgalactic Medium of Centaurus A

Mon Jun 05 15:00:27 GMT 2023

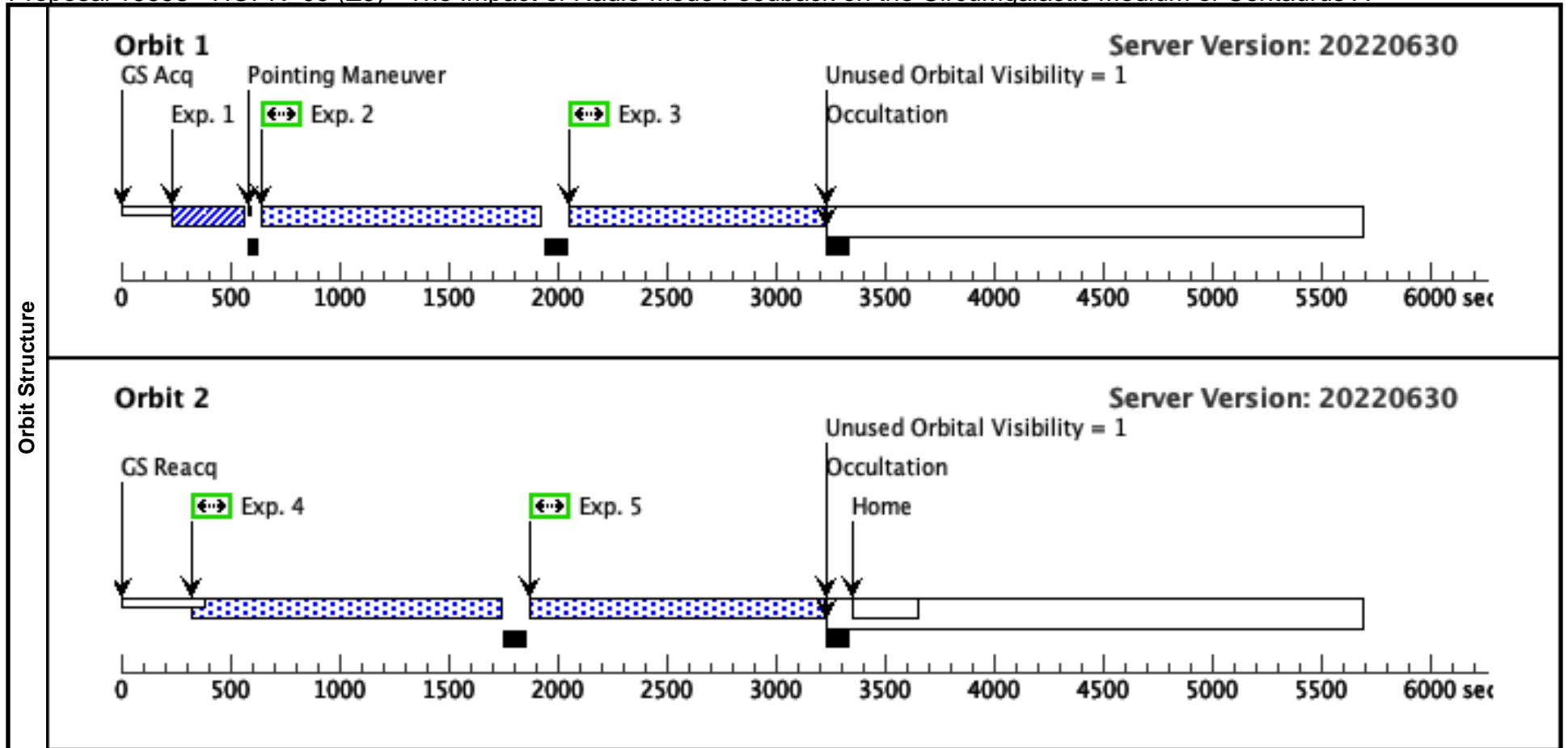
<b>Visit</b>	<b>Proposal 16698, Visit 09, failed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)									
	<b>Diagnostics</b>	(Visit 09) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave. See the COS Instrument Handbook for exceptions that may apply to observations with G130M/1291 or G160M. (Visit 09) Warning (Orbit Planner): INEFFICIENT ORDERING OF FP-POS POSITIONS								
<b>Fixed Targets</b>		#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(4)	WISEA-J133011.24-405434.2	RA: 13 30 11.2061 (202.5466921d) Dec: -40 54 34.24 (-40.90951d) Equinox: J2000	Proper Motion RA: -0.00135708956101559 sec of time/yr Proper Motion Dec: 0.0014655599999999999 arcsec/yr Epoch of Position: 1993.16 Redshift: 1.2	V=18.61 GALEX FUV 18.97 mag. (integrated)	Reference Frame: ICRS				
Comments: This object was generated by the targetselector and retrieved from the GSC 2.3 database. Category=GALAXY Description=[BL LAC, QUASAR] 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.im.15 23612)	(4) WISEA-J133011.24-405434.2	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				60 Secs (60 Secs) [==>]	[1]
	2	(COS.sp.152 3751)	(4) WISEA-J133011.24-405434.2	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=1115; FLASH=YES; FP-POS=3			1115 Secs (1115 Secs) [==>]	[1]
	3	(COS.sp.152 3751)	(4) WISEA-J133011.24-405434.2	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=1115; FLASH=YES; FP-POS=4			1115 Secs (1115 Secs) [==>]	[1]
	4	(COS.sp.152 3751)	(4) WISEA-J133011.24-405434.2	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=1300; FLASH=YES; FP-POS=3			1300 Secs (1300 Secs) [==>]	[2]
	5	(COS.sp.152 3751)	(4) WISEA-J133011.24-405434.2	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=1300; FLASH=YES; FP-POS=4			1300 Secs (1300 Secs) [==>]	[2]



Proposal 16698 - HOPR\_09 (Z9) - The Impact of Radio-Mode Feedback on the Circumgalactic Medium of Centaurus A

Mon Jun 05 15:00:27 GMT 2023

<b>Visit</b>	<b>Proposal 16698, HOPR_09 (Z9), failed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)									
	(HOPR_09 (Z9)) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave. See the COS Instrument Handbook for exceptions that may apply to observations with G130M/1291 or G160M. (HOPR_09 (Z9)) Warning (Orbit Planner): INEFFICIENT ORDERING OF FP-POS POSITIONS									
<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)	WISEA-J133011.24-405434.2	RA: 13 30 11.2061 (202.5466921d) Dec: -40 54 34.24 (-40.90951d) Equinox: J2000	Proper Motion RA: -0.00135708956101559 sec of time/yr Proper Motion Dec: 0.0014655599999999999 arcsec/yr Epoch of Position: 1993.16 Redshift: 1.2	V=18.61 GALEX FUV 18.97 mag. (integrated)	Reference Frame: ICRS				
Comments: This object was generated by the targetselector and retrieved from the GSC 2.3 database. Category=GALAXY Description=[BL LAC, QUASAR] 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.im.15 23612)	(4) WISEA-J133011.24-405434.2	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				60 Secs (60 Secs) [==>]	[1]
	2	(COS.sp.152 3751)	(4) WISEA-J133011.24-405434.2	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=1115; FLASH=YES; FP-POS=3			1115 Secs (1115 Secs) [==>]	[1]
	3	(COS.sp.152 3751)	(4) WISEA-J133011.24-405434.2	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=1115; FLASH=YES; FP-POS=4			1115 Secs (1115 Secs) [==>]	[1]
	4	(COS.sp.152 3751)	(4) WISEA-J133011.24-405434.2	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=1300; FLASH=YES; FP-POS=3			1300 Secs (1300 Secs) [==>]	[2]
	5	(COS.sp.152 3751)	(4) WISEA-J133011.24-405434.2	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=1300; FLASH=YES; FP-POS=4			1300 Secs (1300 Secs) [==>]	[2]



Proposal 16698 - HOPR\_09 (ZB) - The Impact of Radio-Mode Feedback on the Circumgalactic Medium of Centaurus A

Mon Jun 05 15:00:27 GMT 2023

<b>Visit</b>	<b>Proposal 16698, HOPR_09 (ZB)</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none) <i>Comments: HOPR copy of Z9</i>									
	(HOPR_09 (ZB)) Warning (Form): For the best data quality, it is generally required to use all four FP-POS positions when observing at a given COS cenwave. See the COS Instrument Handbook for exceptions that may apply to observations with G130M/1291 or G160M. (HOPR_09 (ZB)) Warning (Orbit Planner): INEFFICIENT ORDERING OF FP-POS POSITIONS									
<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)	WISEA-J133011.24-405434.2	RA: 13 30 11.2061 (202.5466921d) Dec: -40 54 34.24 (-40.90951d) Equinox: J2000	Proper Motion RA: -0.00135708956101559 sec of time/yr Proper Motion Dec: 0.0014655599999999999 arcsec/yr Epoch of Position: 1993.16 Redshift: 1.2	V=18.61 GALEX FUV 18.97 mag. (integrated)	Reference Frame: ICRS				
<i>Comments: This object was generated by the targetselector and retrieved from the GSC 2.3 database.</i> Category=GALAXY Description=[BL LAC, QUASAR] 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.im.15 23612)	(4) WISEA-J133011.24-405434.2	COS/NUV, ACQ/IMAGE, PSA	MIRRORA				60 Secs (60 Secs) [==>]	[1]
	2	(COS.sp.152 3751)	(4) WISEA-J133011.24-405434.2	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=1115; FLASH=YES; FP-POS=3			1115 Secs (1115 Secs) [==>]	[1]
	3	(COS.sp.152 3751)	(4) WISEA-J133011.24-405434.2	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=1115; FLASH=YES; FP-POS=4			1115 Secs (1115 Secs) [==>]	[1]
	4	(COS.sp.152 3751)	(4) WISEA-J133011.24-405434.2	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=1300; FLASH=YES; FP-POS=3			1300 Secs (1300 Secs) [==>]	[2]
	5	(COS.sp.152 3751)	(4) WISEA-J133011.24-405434.2	COS/FUV, TIME-TAG, PSA	G130M 1291 A	BUFFER-TIME=1300; FLASH=YES; FP-POS=4			1300 Secs (1300 Secs) [==>]	[2]

