



16242 - The Baryonic Content of Galaxies Mapped by MaNGA and Gas Flows Around Them

Cycle: 28, Proposal Category: GO

(UV Initiative)

(Availability Mode: SUPPORTED)

INVESTIGATORS

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Dr. Matthew A. Bershady (CoI)	University of Wisconsin - Madison	mab@astro.wisc.edu

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) J0755+3911	COS/FUV COS/NUV	1	09-Sep-2020 16:00:22.0	yes
02	(2) J1653+3945	COS/FUV COS/NUV	1	09-Sep-2020 16:00:23.0	yes
16	(2) J1653+3945	COS/FUV COS/NUV	1	09-Sep-2020 16:00:24.0	yes

Proposal 16242 (STScI Edit Number: 0, Created: Wednesday, September 9, 2020 at 3:00:40 PM Eastern Standard Time) - Overview

<i>Visit</i>	<i>Targets used in Visit</i>	<i>Configurations used in Visit</i>	<i>Orbits Used</i>	<i>Last Orbit Planner Run</i>	<i>OP Current with Visit?</i>
03	(3) J1338+2620	COS/FUV COS/NUV	1	09-Sep-2020 16:00:25.0	yes
04	(4) J0758+4219	COS/FUV COS/NUV	1	09-Sep-2020 16:00:26.0	yes
05	(5) J1237+4447	COS/FUV COS/NUV	2	09-Sep-2020 16:00:27.0	yes
06	(6) J2106+0909	COS/FUV COS/NUV	3	09-Sep-2020 16:00:28.0	yes
18	(6) J2106+0909	COS/FUV COS/NUV	3	09-Sep-2020 16:00:29.0	yes
07	(7) J1629+4007	COS/FUV COS/NUV	3	09-Sep-2020 16:00:30.0	yes
08	(8) J0950+4309	COS/FUV COS/NUV	3	09-Sep-2020 16:00:31.0	yes
09	(8) J0950+4309	COS/FUV COS/NUV	3	09-Sep-2020 16:00:33.0	yes
10	(9) J0838+2453	COS/FUV COS/NUV	3	09-Sep-2020 16:00:34.0	yes
11	(10) J2130-0025	COS/FUV COS/NUV	3	09-Sep-2020 16:00:35.0	yes
12	(10) J2130-0025	COS/FUV COS/NUV	3	09-Sep-2020 16:00:36.0	yes
13	(10) J2130-0025	COS/FUV COS/NUV	2	09-Sep-2020 16:00:37.0	yes
17	(10) J2130-0025	COS/FUV COS/NUV	2	09-Sep-2020 16:00:38.0	yes
14	(11) J1709+3421	COS/FUV COS/NUV	2	09-Sep-2020 16:00:39.0	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>
15	(11) J1709+3421	COS/FUV COS/NUV	2	09-Sep-2020 16:00:40.0	yes

39 Total Orbits Used

ABSTRACT

Galaxies interact with the intergalactic medium (IGM) through gas inflows and outflows that pass through the circumgalactic medium (CGM). Understanding how the gas in the galactic disk, bulge and halo couples with the CGM remains an important open question. Spatially resolved integral field spectroscopy of nearby galaxies from the SDSS IV MaNGA survey is revealing the structure and kinematics of the bulge and disk components in inner parts of galaxies. However, the MaNGA data offer little insight about the halos and CGM of these galaxies. Furthermore, the MaNGA data on ionized gas need to be complemented with measurements of the cool neutral gas, which reveals the role of accretion in the growth of galaxies. We propose to observe the cool gas in and around 14 nearby galaxies ($z < 0.1$) mapped with MaNGA by measuring absorption lines produced by the gas in spectra of background quasars/AGN at impact parameters of 0 to 25 effective radii from the galaxy center. Our specific goals are to (1) measure the cool-gas metallicity from absorption lines and compare to the ionized gas metallicity from MaNGA; (2) measure gas ionization based on ratios such as Si III/Si II; (3) examine how absorbing gas properties correlate with galaxy properties; and (4) compare the cool gas kinematics with ionized gas kinematics, e.g. does the cool gas lag behind the galaxy's mid plane as the ionized gas does. This is the first survey combining the power of absorption line spectroscopy with IFS for an exceptionally well-studied sample of nearby galaxies to determine the total baryonic content of galaxies and the gas flows around them. HST is essential due to the need for UV spectroscopy.

OBSERVING DESCRIPTION

We will use COS G130M 1222 or 1291 settings to cover the absorption lines of interest. All of the targets are either background quasars probing foreground galaxies, or are AGNs within the galaxies of interest. Thus the targets of interest are point sources in all cases. (Following advice from the contact scientist, in some cases, the galaxies whose AGNs are to be observed are listed as extended sources, but even in each of these cases, we are only interested in the AGN point source which is the brightest part of the galaxy, and this AGN needs to be centered in the aperture.)

The ICRS coordinate uncertainties (adopted from Simbad) are $< 0.1''$. Therefore target acquisitions are requested using the ACQ/IMAGE mode. The NUV/MIRRORB is assumed, to be safe, for all targets. Target acquisition calculations are performed assuming point source targets for $s/n=20$ for the faintest targets and $s/n=25$ to 40 for the remaining targets. The ETCs for the target acquisition exposures (in NUV) assume a flat continuum SED

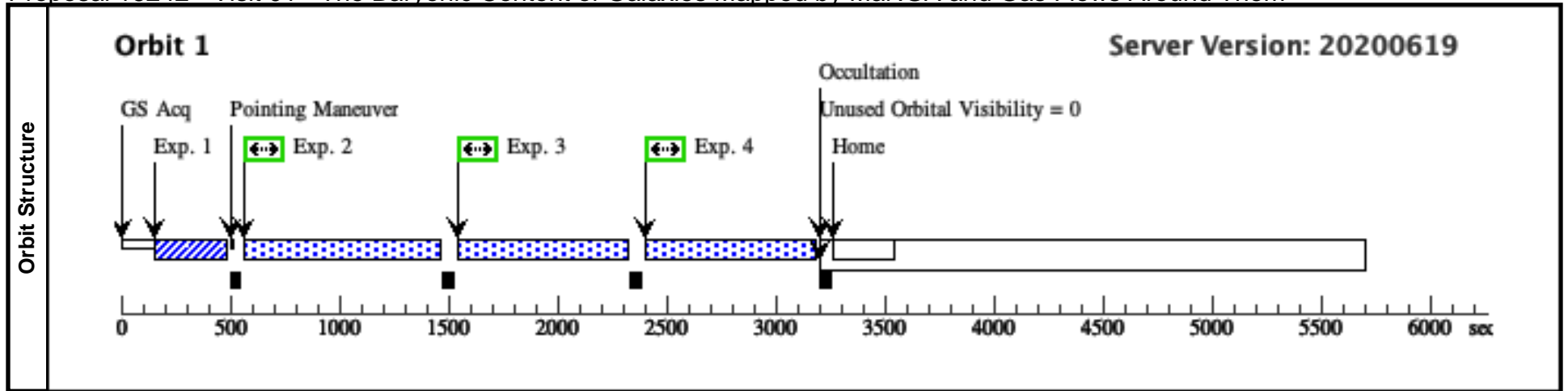
Proposal 16242 (STScI Edit Number: 0, Created: Wednesday, September 9, 2020 at 3:00:40 PM Eastern Standard Time) - Overview only because none of the QSO SEDs provided in the ETC have enough wavelength coverage for the instrument throughput. (In any case, the difference in the target acquisition exposure times calculated with a QSO SED and a flat continuum SED is negligible.)

As per COS 2025 policies, FP-POS=3,4 are used for 1291 and FP-POS=1,2,3,4 for 1222. Exposures of appropriate durations spanning the allowed range of FP-POS are accordingly distributed over orbits/visits. For targets with >4 exposures at the 1222 setting, the specific FP-POS choices are made to optimize coverage of the desired spectral lines.

Proposal 16242 - Visit 01 - The Baryonic Content of Galaxies Mapped by MaNGA and Gas Flows Around Them

Wed Sep 09 20:00:40 GMT 2020

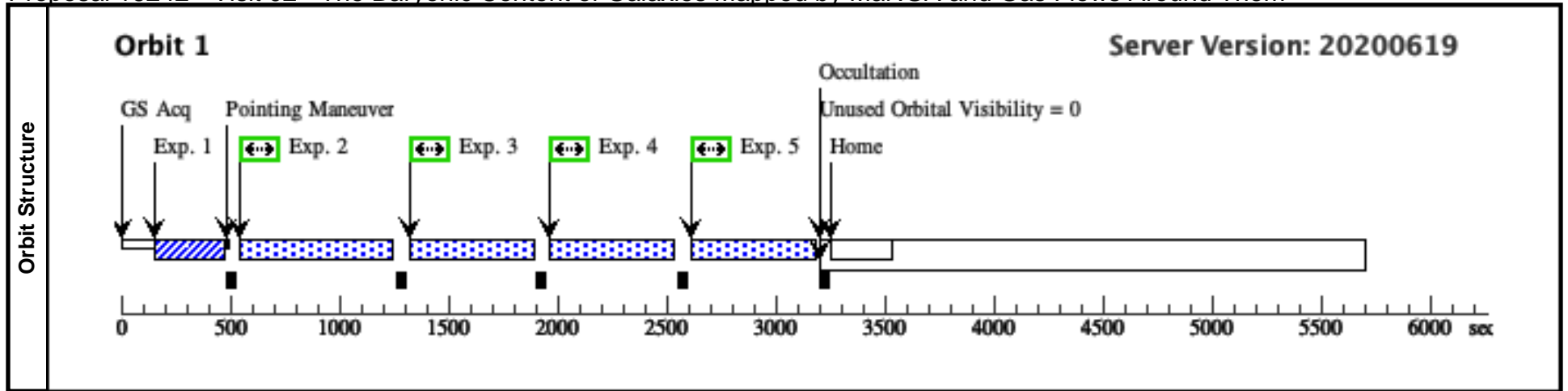
Visit	Proposal 16242, Visit 01, scheduled Diagnostic Status: Warning Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)																																																																																										
	(Exposure 2 (Visit 01)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details. (Exposure 3 (Visit 01)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details. (Exposure 4 (Visit 01)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details.																																																																																										
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Proposal 16242 - Visit 02 - The Baryonic Content of Galaxies Mapped by MaNGA and Gas Flows Around Them

Wed Sep 09 20:00:40 GMT 2020

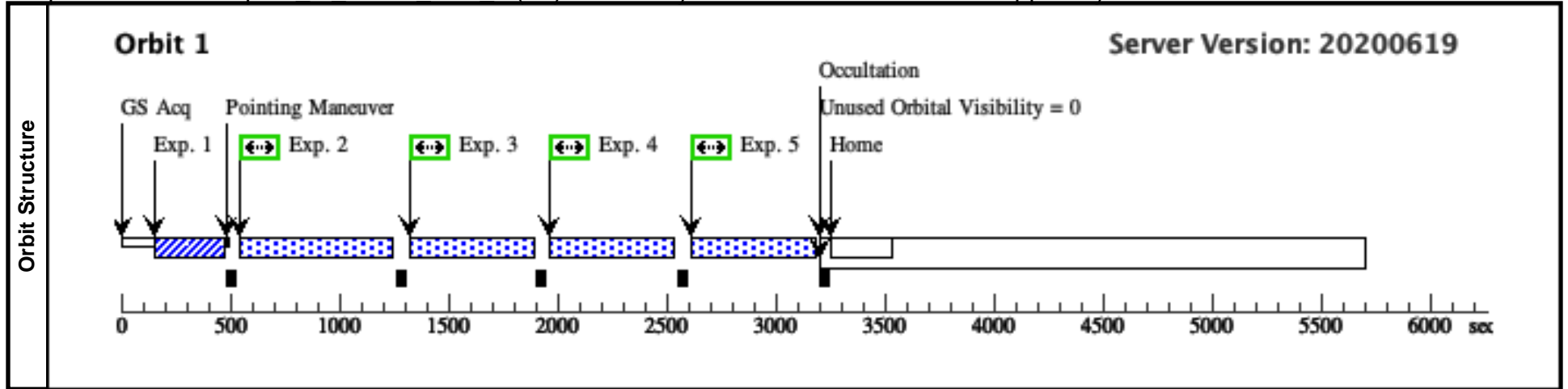
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(Exposure 3 (Visit 02)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details.											
(Exposure 4 (Visit 02)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details.											
(Exposure 5 (Visit 02)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details.											
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections		Fluxes	Miscellaneous				
	(2)	J1653+3945 Alt Name1: MRK0501	RA: 16 53 52.2167 (253.4675696d) Dec: +39 45 36.61 (39.76017d) Equinox: J2000	Proper Motion RA: 0.478 mas/yr Proper Motion Dec: 0.277 mas/yr Epoch of Position: 2000.0 Redshift: 0.0349309		V=13.95 FUV=15.86, NUV=15.44	Reference Frame: ICRS				
<i>Comments:</i> Category=GALAXY Description=[BL LAC, ELLIPTICAL, QSO] Extended=YES											
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
	1	(COS.ta.145 2033)	(2) J1653+3945	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				11 Secs (11 Secs) [==>]		[1]
	2	(COS.sp.145 2172)	(2) J1653+3945	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=1; BUFFER-TIME=18 21; FLASH=YES; SEGMENT=BOTH			521 Secs (521 Secs) [==>]		[1]
	3	(COS.sp.145 2172)	(2) J1653+3945	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=2; BUFFER-TIME=18 21; FLASH=YES; SEGMENT=BOTH			522 Secs (522 Secs) [==>]		[1]
	4	(COS.sp.145 2172)	(2) J1653+3945	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=18 21; FLASH=YES; SEGMENT=BOTH			521 Secs (521 Secs) [==>]		[1]
	5	(COS.sp.145 2172)	(2) J1653+3945	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=4; BUFFER-TIME=18 21; FLASH=YES; SEGMENT=BOTH			522 Secs (522 Secs) [==>]		[1]



Proposal 16242 - Repeat of Failed Visit 2 (16) - The Baryonic Content of Galaxies Mapped by MaNGA and Gas Flows Around Them

Wed Sep 09 20:00:40 GMT 2020

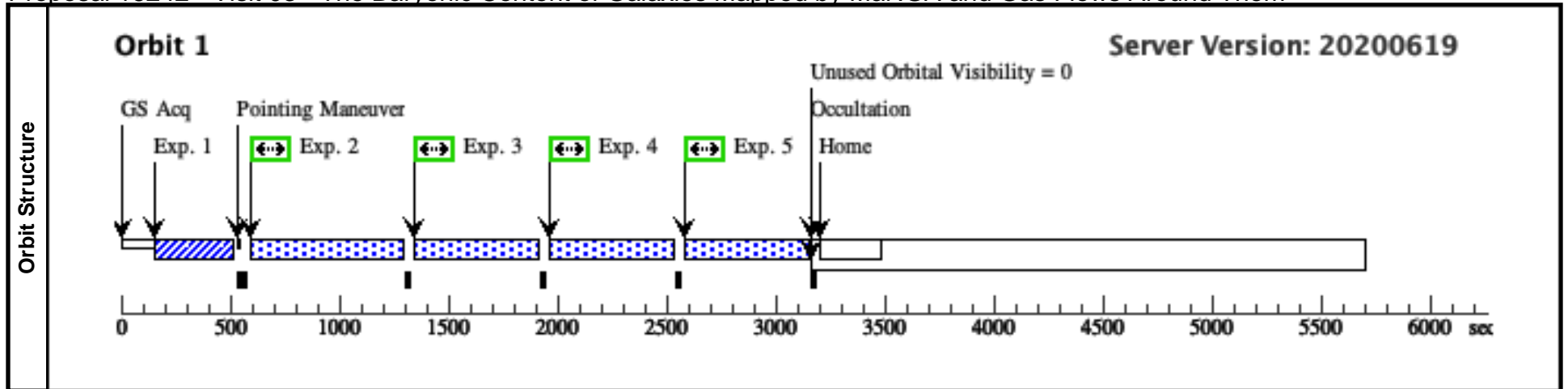
Visit	Proposal 16242, Repeat_of_Failed_Visit_2 (16) Diagnostic Status: Warning Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none) <i>Comments: This is a repeat of visit 2 which suffered a failed guide-star acquisition.</i>																																																																				
	Diagnosics (Exposure 2 (Repeat_of_Failed_Visit_2 (16))) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details. (Exposure 3 (Repeat_of_Failed_Visit_2 (16))) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details. (Exposure 4 (Repeat_of_Failed_Visit_2 (16))) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details. (Exposure 5 (Repeat_of_Failed_Visit_2 (16))) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details.																																																																				
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(2)	J1653+3945 Alt Name1: MRK0501	RA: 16 53 52.2167 (253.4675696d) Dec: +39 45 36.61 (39.76017d) Equinox: J2000	Proper Motion RA: 0.478 mas/yr Proper Motion Dec: 0.277 mas/yr Epoch of Position: 2000.0 Redshift: 0.0349309	V=13.95 FUV=15.86, NUV=15.44	Reference Frame: ICRS																																																																
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#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit																																																												
1	(COS.ta.145 2033)	(2) J1653+3945	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				11 Secs (11 Secs) [==>]	[1]																																																												
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Proposal 16242 - Visit 03 - The Baryonic Content of Galaxies Mapped by MaNGA and Gas Flows Around Them

Wed Sep 09 20:00:40 GMT 2020

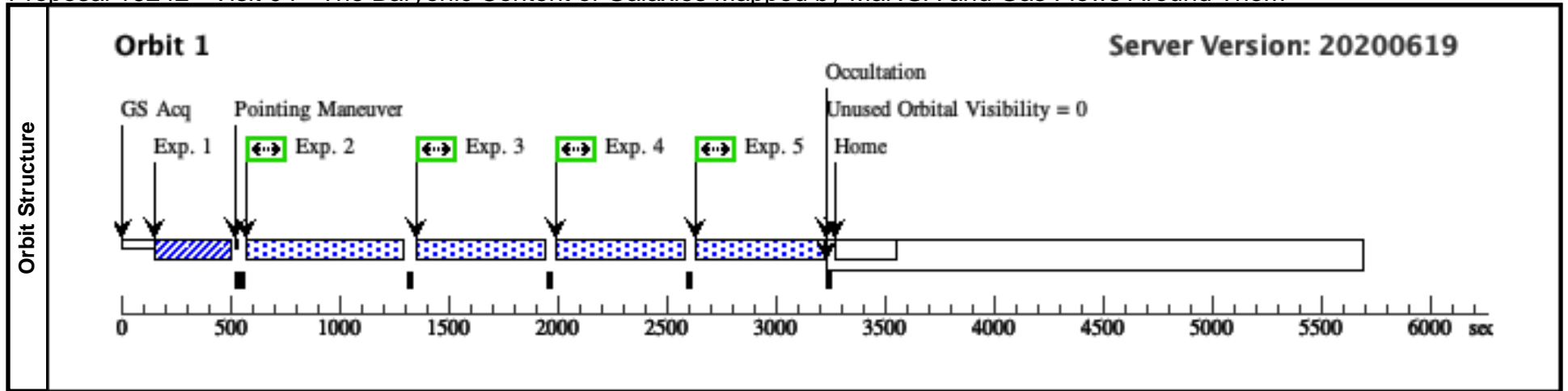
Visit	Proposal 16242, Visit 03, scheduling Diagnostic Status: Warning Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)									
	(Exposure 2 (Visit 03)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" 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.									
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(3)	J1338+2620 Alt Name1: WAS77	RA: 13 38 3.0890 (204.5128708d) Dec: +26 20 17.47 (26.33819d) Equinox: J2000	Proper Motion RA: 0 mas/yr Proper Motion Dec: 0 mas/yr Epoch of Position: 2000.0 Redshift: 0.0261462	V=15.9 FUV=17.40, NUV=17.31	Reference Frame: ICRS				
Comments: Category=GALAXY Description=[QSO] Extended=YES										
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(COS.ta.145 2037)	(3) J1338+2620	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				34 Secs (34 Secs) [==>]	[1]
	2	(COS.sp.145 2179)	(3) J1338+2620	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=1; BUFFER-TIME=57 43; FLASH=YES; SEGMENT=BOTH			515 Secs (515 Secs) [==>]	[1]
	3	(COS.sp.145 2179)	(3) J1338+2620	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=2; BUFFER-TIME=57 43; FLASH=YES; SEGMENT=BOTH			516 Secs (516 Secs) [==>]	[1]
	4	(COS.sp.145 2179)	(3) J1338+2620	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=57 43; FLASH=YES; SEGMENT=BOTH			515 Secs (515 Secs) [==>]	[1]
	5	(COS.sp.145 2179)	(3) J1338+2620	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=4; BUFFER-TIME=57 43; FLASH=YES; SEGMENT=BOTH			516 Secs (516 Secs) [==>]	[1]



Proposal 16242 - Visit 04 - The Baryonic Content of Galaxies Mapped by MaNGA and Gas Flows Around Them

Wed Sep 09 20:00:40 GMT 2020

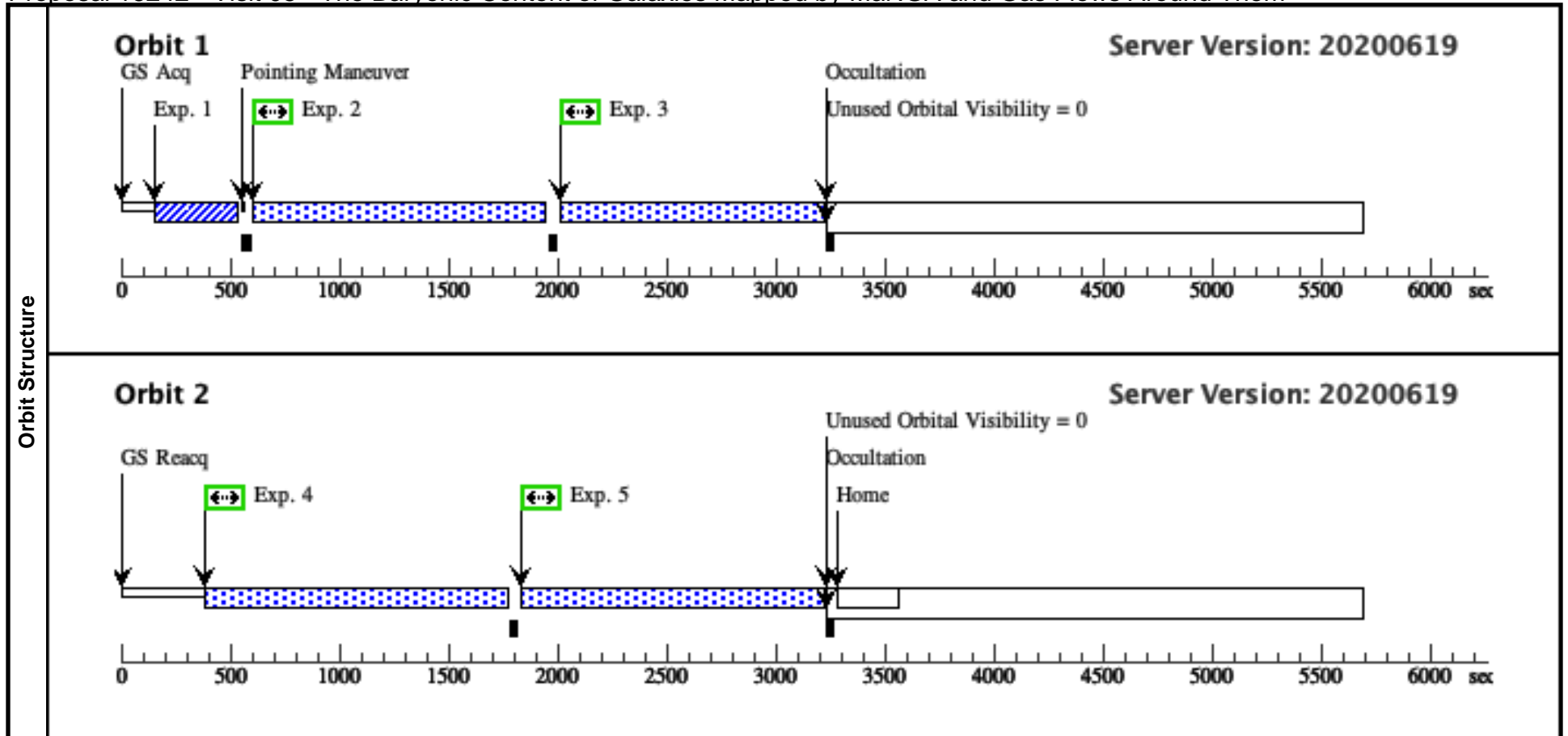
Visit	Proposal 16242, Visit 04, scheduled Diagnostic Status: Warning Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)																																																																					
Diagnostics	(Exposure 2 (Visit 04)) Warning (Form): COS FUV PSA science exposures with extended 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.																																																																					
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>(4)</td> <td>J0758+4219</td> <td>RA: 07 58 19.6936 (119.5820567d) Dec: +42 19 35.12 (42.32642d) Equinox: J2000</td> <td>Proper Motion RA: -0.377 mas/yr Proper Motion Dec: -0.120 mas/yr Epoch of Position: 2000.0 Redshift: 0.2112242</td> <td>V=17.1 FUV=17.16, NUV=17.11</td> <td>Reference Frame: ICRS</td> </tr> </tbody> </table> <p><i>Comments:</i> Category=GALAXY Description=[QSO, SEYFERT, ULTRALUMINOUS IR GAL] Extended=YES</p>										#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(4)	J0758+4219	RA: 07 58 19.6936 (119.5820567d) Dec: +42 19 35.12 (42.32642d) Equinox: J2000	Proper Motion RA: -0.377 mas/yr Proper Motion Dec: -0.120 mas/yr Epoch of Position: 2000.0 Redshift: 0.2112242	V=17.1 FUV=17.16, NUV=17.11	Reference Frame: ICRS																																																
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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.ta.145 2346)</td> <td>(4) J0758+4219</td> <td>COS/NUV, ACQ/IMAGE, PSA</td> <td>MIRRORB</td> <td></td> <td></td> <td></td> <td>28 Secs (28 Secs) [==>]</td> <td>[1]</td> </tr> <tr> <td>2</td> <td>(COS.sp.145 2350)</td> <td>(4) J0758+4219</td> <td>COS/FUV, TIME-TAG, PSA</td> <td>G130M 1222 A</td> <td>FP-POS=1; BUFFER-TIME=75 24; FLASH=YES; SEGMENT=BOTH</td> <td></td> <td></td> <td>536 Secs (536 Secs) [==>]</td> <td>[1]</td> </tr> <tr> <td>3</td> <td>(COS.sp.145 2350)</td> <td>(4) J0758+4219</td> <td>COS/FUV, TIME-TAG, PSA</td> <td>G130M 1222 A</td> <td>FP-POS=2; BUFFER-TIME=75 24; FLASH=YES; SEGMENT=BOTH</td> <td></td> <td></td> <td>537 Secs (537 Secs) [==>]</td> <td>[1]</td> </tr> <tr> <td>4</td> <td>(COS.sp.145 2350)</td> <td>(4) J0758+4219</td> <td>COS/FUV, TIME-TAG, PSA</td> <td>G130M 1222 A</td> <td>FP-POS=3; BUFFER-TIME=75 24; FLASH=YES; SEGMENT=BOTH</td> <td></td> <td></td> <td>537 Secs (537 Secs) [==>]</td> <td>[1]</td> </tr> <tr> <td>5</td> <td>(COS.sp.145 2350)</td> <td>(4) J0758+4219</td> <td>COS/FUV, TIME-TAG, PSA</td> <td>G130M 1222 A</td> <td>FP-POS=4; BUFFER-TIME=75 24; FLASH=YES; SEGMENT=BOTH</td> <td></td> <td></td> <td>537 Secs (537 Secs) [==>]</td> <td>[1]</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.ta.145 2346)	(4) J0758+4219	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				28 Secs (28 Secs) [==>]	[1]	2	(COS.sp.145 2350)	(4) J0758+4219	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=1; BUFFER-TIME=75 24; FLASH=YES; SEGMENT=BOTH			536 Secs (536 Secs) [==>]	[1]	3	(COS.sp.145 2350)	(4) J0758+4219	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=2; BUFFER-TIME=75 24; FLASH=YES; SEGMENT=BOTH			537 Secs (537 Secs) [==>]	[1]	4	(COS.sp.145 2350)	(4) J0758+4219	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=75 24; FLASH=YES; SEGMENT=BOTH			537 Secs (537 Secs) [==>]	[1]	5	(COS.sp.145 2350)	(4) J0758+4219	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=4; BUFFER-TIME=75 24; FLASH=YES; SEGMENT=BOTH			537 Secs (537 Secs) [==>]	[1]
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit																																																													
1	(COS.ta.145 2346)	(4) J0758+4219	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				28 Secs (28 Secs) [==>]	[1]																																																													
2	(COS.sp.145 2350)	(4) J0758+4219	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=1; BUFFER-TIME=75 24; FLASH=YES; SEGMENT=BOTH			536 Secs (536 Secs) [==>]	[1]																																																													
3	(COS.sp.145 2350)	(4) J0758+4219	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=2; BUFFER-TIME=75 24; FLASH=YES; SEGMENT=BOTH			537 Secs (537 Secs) [==>]	[1]																																																													
4	(COS.sp.145 2350)	(4) J0758+4219	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=75 24; FLASH=YES; SEGMENT=BOTH			537 Secs (537 Secs) [==>]	[1]																																																													
5	(COS.sp.145 2350)	(4) J0758+4219	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=4; BUFFER-TIME=75 24; FLASH=YES; SEGMENT=BOTH			537 Secs (537 Secs) [==>]	[1]																																																													



Proposal 16242 - Visit 05 - The Baryonic Content of Galaxies Mapped by MaNGA and Gas Flows Around Them

Wed Sep 09 20:00:40 GMT 2020

Visit	Proposal 16242, Visit 05, scheduling Diagnostic Status: No Diagnostics Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)									
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(5)	J1237+4447	RA: 12 37 34.4711 (189.3936296d) Dec: +44 47 31.75 (44.79215d) Equinox: J2000	Proper Motion RA: 0.075 mas/yr Proper Motion Dec: -0.166 mas/yr Epoch of Position: 2000.0 Redshift: 0.4606494	V=17.38 FUV=17.82, NUV=17.55	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[QSO] Extended=NO									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(COS.ta.145 2041)	(5) J1237+4447	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				42 Secs (42 Secs) [==>]	[1]
	2	(COS.sp.145 2186)	(5) J1237+4447	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=1; BUFFER-TIME=10 032; FLASH=YES; SEGMENT=BOTH			1159 Secs (1159 Secs) [==>]	[1]
	3	(COS.sp.145 2186)	(5) J1237+4447	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=2; BUFFER-TIME=10 032; FLASH=YES; SEGMENT=BOTH			1160 Secs (1160 Secs) [==>]	[1]
	4	(COS.sp.145 0397)	(5) J1237+4447	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=10 032; FLASH=YES; SEGMENT=BOTH			1333 Secs (1333 Secs) [==>]	[2]
	5	(COS.sp.145 0397)	(5) J1237+4447	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=4; BUFFER-TIME=10 032; FLASH=YES; SEGMENT=BOTH			1334 Secs (1334 Secs) [==>]	[2]



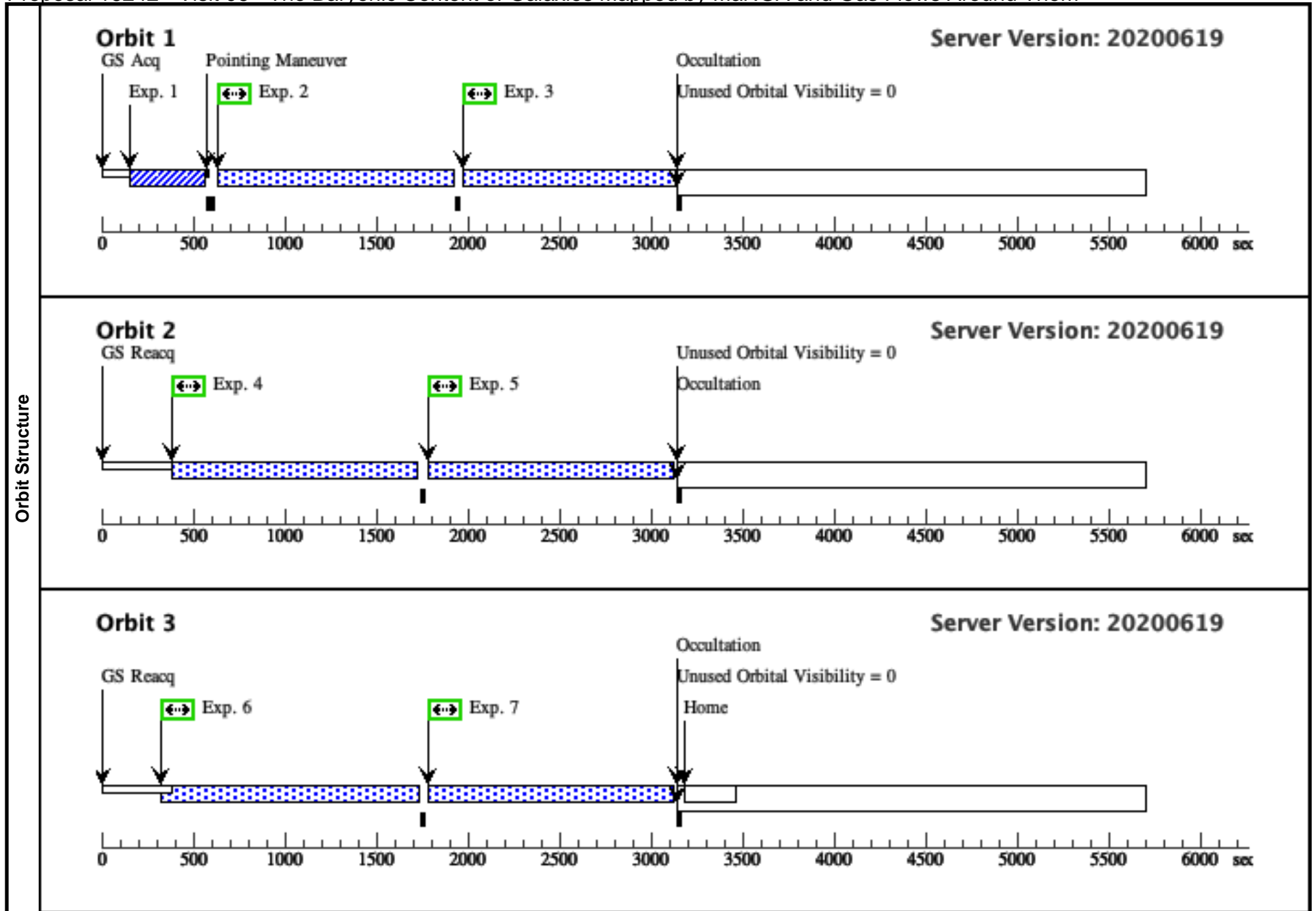
Proposal 16242 - Visit 06 - The Baryonic Content of Galaxies Mapped by MaNGA and Gas Flows Around Them

Wed Sep 09 20:00:41 GMT 2020

Visit	<p>Proposal 16242, Visit 06, completed</p> <p>Diagnostic Status: Warning</p> <p>Scientific Instruments: COS/FUV, COS/NUV</p> <p>Special Requirements: (none)</p>																						
Diagnostics	(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>(6)</td> <td>J2106+0909</td> <td>RA: 21 06 51.1177 (316.7129904d)</td> <td>Proper Motion RA: -0.035 mas/yr</td> <td>V=17.65</td> <td>Reference Frame: ICRS</td> </tr> <tr> <td></td> <td>Alt Name1: WISEAJ210651.12+0909 35.9</td> <td>Dec: +09 09 36.00 (9.16000d) Equinox: J2000</td> <td>Proper Motion Dec: 0.012 mas/yr Epoch of Position: 2000.0 Redshift: 0.3898055</td> <td>FUV=18.30, NUV=18.28</td> <td></td> </tr> </tbody> </table> <p><i>Comments:</i> <i>Category=GALAXY</i> <i>Description=[QSO]</i> <i>Extended=NO</i></p>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(6)	J2106+0909	RA: 21 06 51.1177 (316.7129904d)	Proper Motion RA: -0.035 mas/yr	V=17.65	Reference Frame: ICRS		Alt Name1: WISEAJ210651.12+0909 35.9	Dec: +09 09 36.00 (9.16000d) Equinox: J2000	Proper Motion Dec: 0.012 mas/yr Epoch of Position: 2000.0 Redshift: 0.3898055	FUV=18.30, NUV=18.28					
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous																		
(6)	J2106+0909	RA: 21 06 51.1177 (316.7129904d)	Proper Motion RA: -0.035 mas/yr	V=17.65	Reference Frame: ICRS																		
	Alt Name1: WISEAJ210651.12+0909 35.9	Dec: +09 09 36.00 (9.16000d) Equinox: J2000	Proper Motion Dec: 0.012 mas/yr Epoch of Position: 2000.0 Redshift: 0.3898055	FUV=18.30, NUV=18.28																			

Proposal 16242 - Visit 06 - The Baryonic Content of Galaxies Mapped by MaNGA and Gas Flows Around Them

Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit	
	1	(COS.ta.145 2074)	(6) J2106+0909	COS/NUV, ACQ/IMAGE, PSA	MIRRORB					56 Secs (56 Secs) [==>]	[1]
	2	(COS.sp.145 2152)	(6) J2106+0909	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=1; BUFFER-TIME=13 143; FLASH=YES; SEGMENT=BOTH				1104 Secs (1104 Secs) [==>]	[1]
	3	(COS.sp.145 2152)	(6) J2106+0909	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=2; BUFFER-TIME=13 143; FLASH=YES; SEGMENT=BOTH				1104 Secs (1104 Secs) [==>]	[1]
	4	(COS.sp.145 0399)	(6) J2106+0909	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=13 143; FLASH=YES; SEGMENT=BOTH				1292 Secs (1292 Secs) [==>]	[2]
	5	(COS.sp.145 0399)	(6) J2106+0909	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=4; BUFFER-TIME=13 143; FLASH=YES; SEGMENT=BOTH				1292 Secs (1292 Secs) [==>]	[2]
	6	(COS.sp.145 0399)	(6) J2106+0909	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=1; BUFFER-TIME=13 143; FLASH=YES; SEGMENT=BOTH				1292 Secs (1292 Secs) [==>]	[3]
	7	(COS.sp.145 0399)	(6) J2106+0909	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=2; BUFFER-TIME=13 143; FLASH=YES; SEGMENT=BOTH				1292 Secs (1292 Secs) [==>]	[3]



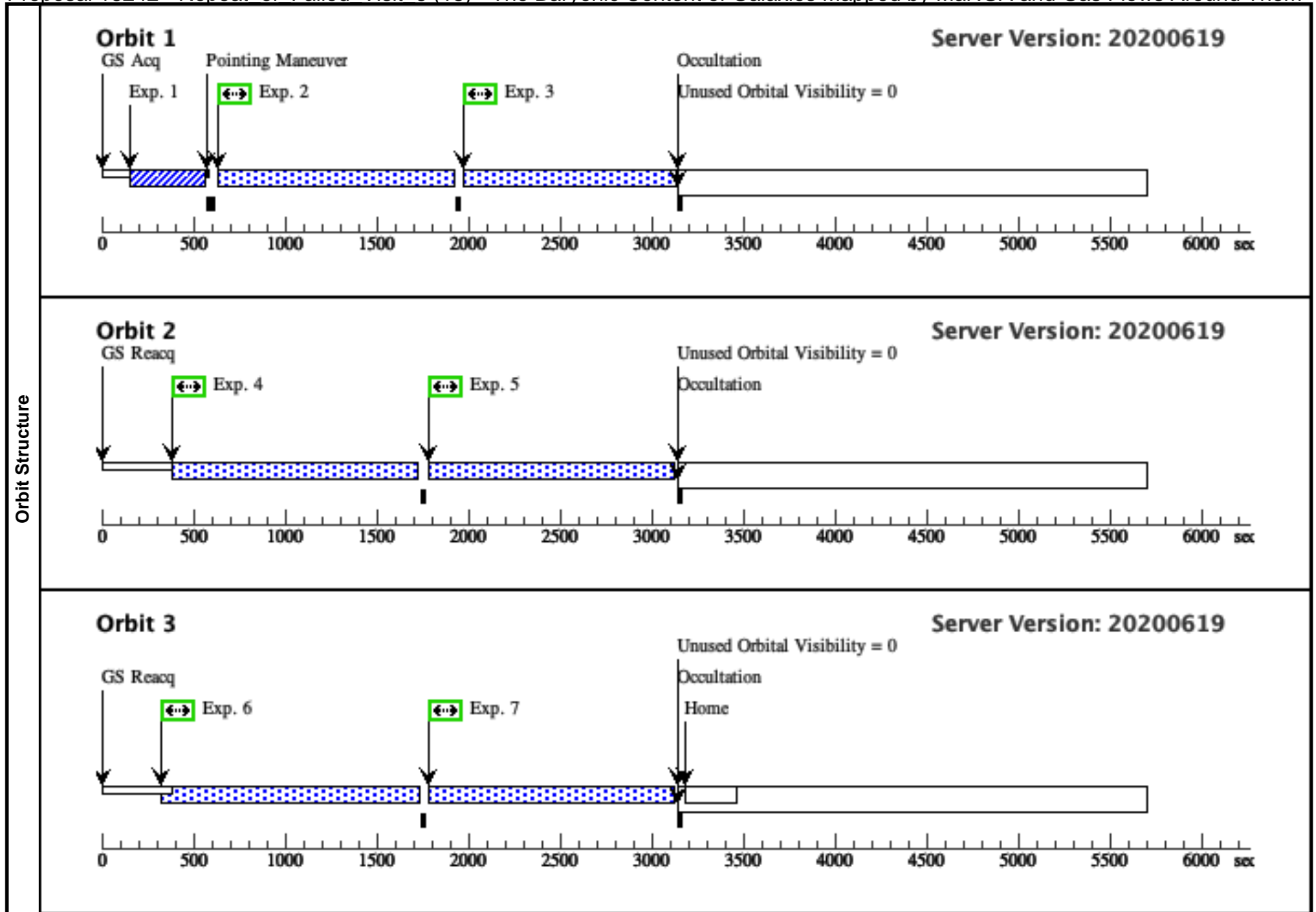
Proposal 16242 - Repeat of Failed Visit 6 (18) - The Baryonic Content of Galaxies Mapped by MaNGA and Gas Flows Around Them

Wed Sep 09 20:00:41 GMT 2020

Visit	<p>Proposal 16242, Repeat_of_Failed_Visit_6 (18)</p> <p>Diagnostic Status: Warning</p> <p>Scientific Instruments: COS/FUV, COS/NUV</p> <p>Special Requirements: (none)</p> <p><i>Comments: This is a repeat of visit 6 which suffered a failed guide-star acquisition.</i></p>																							
Diagnostics	(Repeat_of_Failed_Visit_6 (18)) 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>(6)</td> <td>J2106+0909</td> <td>RA: 21 06 51.1177 (316.7129904d)</td> <td>Proper Motion RA: -0.035 mas/yr</td> <td>V=17.65</td> <td>Reference Frame: ICRS</td> </tr> <tr> <td></td> <td>Alt Name1: WISEAJ210651.12+0909 35.9</td> <td>Dec: +09 09 36.00 (9.16000d) Equinox: J2000</td> <td>Proper Motion Dec: 0.012 mas/yr Epoch of Position: 2000.0 Redshift: 0.3898055</td> <td>FUV=18.30, NUV=18.28</td> <td></td> </tr> </tbody> </table> <p><i>Comments: Category=GALAXY Description=[QSO] Extended=NO</i></p>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(6)	J2106+0909	RA: 21 06 51.1177 (316.7129904d)	Proper Motion RA: -0.035 mas/yr	V=17.65	Reference Frame: ICRS		Alt Name1: WISEAJ210651.12+0909 35.9	Dec: +09 09 36.00 (9.16000d) Equinox: J2000	Proper Motion Dec: 0.012 mas/yr Epoch of Position: 2000.0 Redshift: 0.3898055	FUV=18.30, NUV=18.28						
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous																			
(6)	J2106+0909	RA: 21 06 51.1177 (316.7129904d)	Proper Motion RA: -0.035 mas/yr	V=17.65	Reference Frame: ICRS																			
	Alt Name1: WISEAJ210651.12+0909 35.9	Dec: +09 09 36.00 (9.16000d) Equinox: J2000	Proper Motion Dec: 0.012 mas/yr Epoch of Position: 2000.0 Redshift: 0.3898055	FUV=18.30, NUV=18.28																				

Proposal 16242 - Repeat of Failed Visit 6 (18) - The Baryonic Content of Galaxies Mapped by MaNGA and Gas Flows Around Them

Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit	
	1	(COS.ta.145 2074)	(6) J2106+0909	COS/NUV, ACQ/IMAGE, PSA	MIRRORB					56 Secs (56 Secs) [==>]	[1]
	2	(COS.sp.145 2152)	(6) J2106+0909	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=1; BUFFER-TIME=13 143; FLASH=YES; SEGMENT=BOTH				1104 Secs (1104 Secs) [==>]	[1]
	3	(COS.sp.145 2152)	(6) J2106+0909	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=2; BUFFER-TIME=13 143; FLASH=YES; SEGMENT=BOTH				1104 Secs (1104 Secs) [==>]	[1]
	4	(COS.sp.145 0399)	(6) J2106+0909	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=13 143; FLASH=YES; SEGMENT=BOTH				1292 Secs (1292 Secs) [==>]	[2]
	5	(COS.sp.145 0399)	(6) J2106+0909	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=4; BUFFER-TIME=13 143; FLASH=YES; SEGMENT=BOTH				1292 Secs (1292 Secs) [==>]	[2]
	6	(COS.sp.145 0399)	(6) J2106+0909	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=1; BUFFER-TIME=13 143; FLASH=YES; SEGMENT=BOTH				1292 Secs (1292 Secs) [==>]	[3]
	7	(COS.sp.145 0399)	(6) J2106+0909	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=2; BUFFER-TIME=13 143; FLASH=YES; SEGMENT=BOTH				1292 Secs (1292 Secs) [==>]	[3]



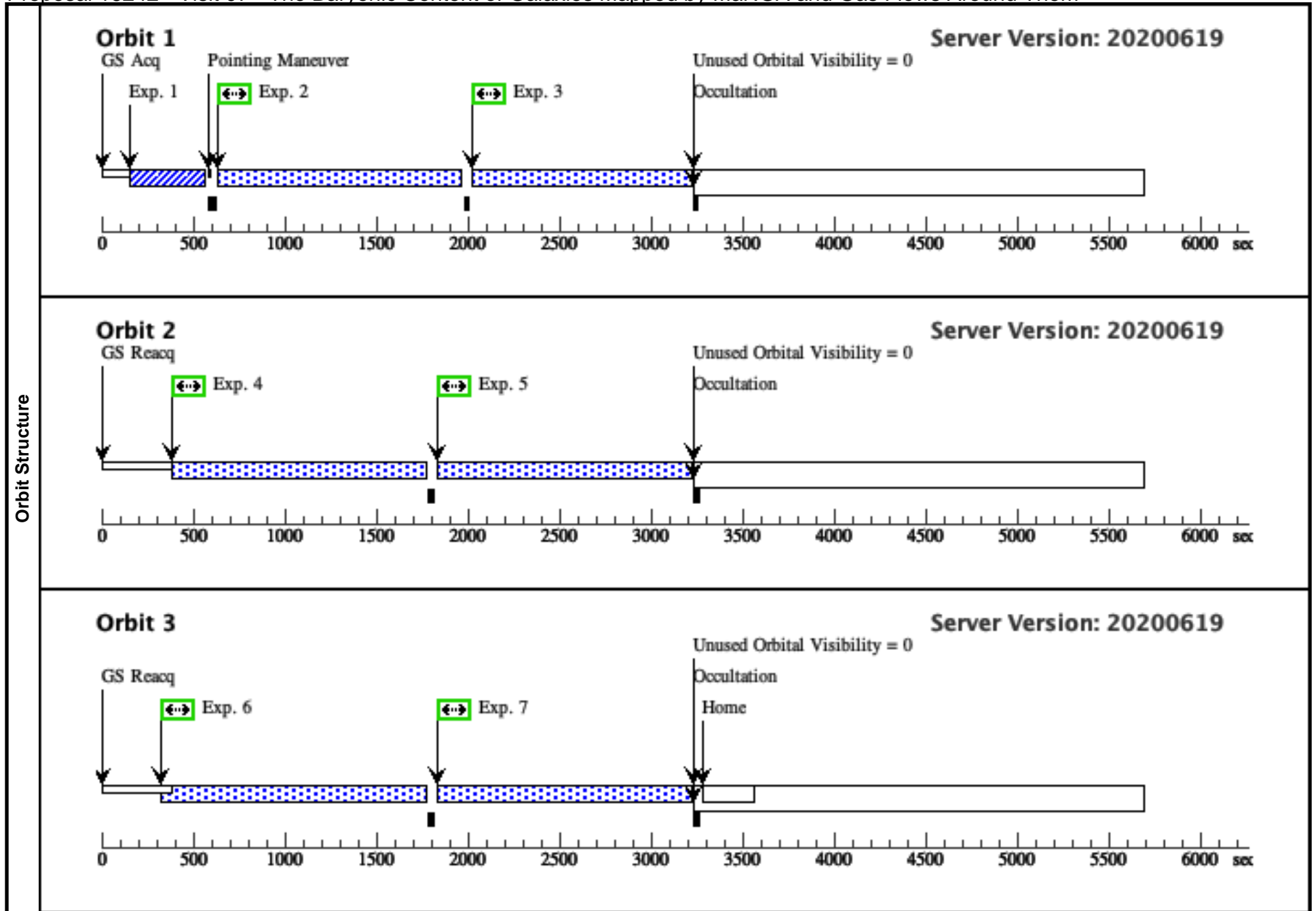
Proposal 16242 - Visit 07 - The Baryonic Content of Galaxies Mapped by MaNGA and Gas Flows Around Them

Wed Sep 09 20:00:41 GMT 2020

Visit	<p>Proposal 16242, Visit 07, completed</p> <p>Diagnostic Status: Warning</p> <p>Scientific Instruments: COS/FUV, COS/NUV</p> <p>Special Requirements: (none)</p>																						
Diagnostics	(Visit 07) 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>(7)</td> <td>J1629+4007</td> <td>RA: 16 29 1.3106 (247.2554608d)</td> <td>Proper Motion RA: -0.104 mas/yr</td> <td>V=17.80</td> <td>Reference Frame: ICRS</td> </tr> <tr> <td></td> <td>Alt Name1: FBQSJ1629+4007</td> <td>Dec: +40 07 59.91 (40.13331d) Equinox: J2000</td> <td>Proper Motion Dec: 0.020 mas/yr Epoch of Position: 2000.0 Redshift: 0.2720968</td> <td>FUV=18.27, NUV=18.29</td> <td></td> </tr> </tbody> </table> <p><i>Comments:</i> <i>Category=GALAXY</i> <i>Description=[QSO, SEYFERT]</i> <i>Extended=NO</i></p>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(7)	J1629+4007	RA: 16 29 1.3106 (247.2554608d)	Proper Motion RA: -0.104 mas/yr	V=17.80	Reference Frame: ICRS		Alt Name1: FBQSJ1629+4007	Dec: +40 07 59.91 (40.13331d) Equinox: J2000	Proper Motion Dec: 0.020 mas/yr Epoch of Position: 2000.0 Redshift: 0.2720968	FUV=18.27, NUV=18.29					
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous																		
(7)	J1629+4007	RA: 16 29 1.3106 (247.2554608d)	Proper Motion RA: -0.104 mas/yr	V=17.80	Reference Frame: ICRS																		
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Proposal 16242 - Visit 07 - The Baryonic Content of Galaxies Mapped by MaNGA and Gas Flows Around Them

Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit	
	1	(COS.ta.145 2046)	(7) J1629+4007	COS/NUV, ACQ/IMAGE, PSA	MIRRORB					58 Secs (58 Secs)	
									[==>]	[1]	
	2	(COS.sp.145 2196)	(7) J1629+4007	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=1; BUFFER-TIME=11 893; FLASH=YES; SEGMENT=BOTH				1148 Secs (1148 Secs)	
									[==>]	[1]	
	3	(COS.sp.145 2196)	(7) J1629+4007	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=2; BUFFER-TIME=11 893; FLASH=YES; SEGMENT=BOTH				1149 Secs (1149 Secs)	
									[==>]	[1]	
	4	(COS.sp.145 1262)	(7) J1629+4007	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=11 893; FLASH=YES; SEGMENT=BOTH				1333 Secs (1333 Secs)	
								[==>]	[2]		
5	(COS.sp.145 1262)	(7) J1629+4007	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=4; BUFFER-TIME=11 893; FLASH=YES; SEGMENT=BOTH				1334 Secs (1334 Secs)		
								[==>]	[2]		
6	(COS.sp.145 1262)	(7) J1629+4007	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=11 893; FLASH=YES; SEGMENT=BOTH				1333 Secs (1333 Secs)		
								[==>]	[3]		
7	(COS.sp.145 1262)	(7) J1629+4007	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=4; BUFFER-TIME=11 893; FLASH=YES; SEGMENT=BOTH				1334 Secs (1334 Secs)		
								[==>]	[3]		



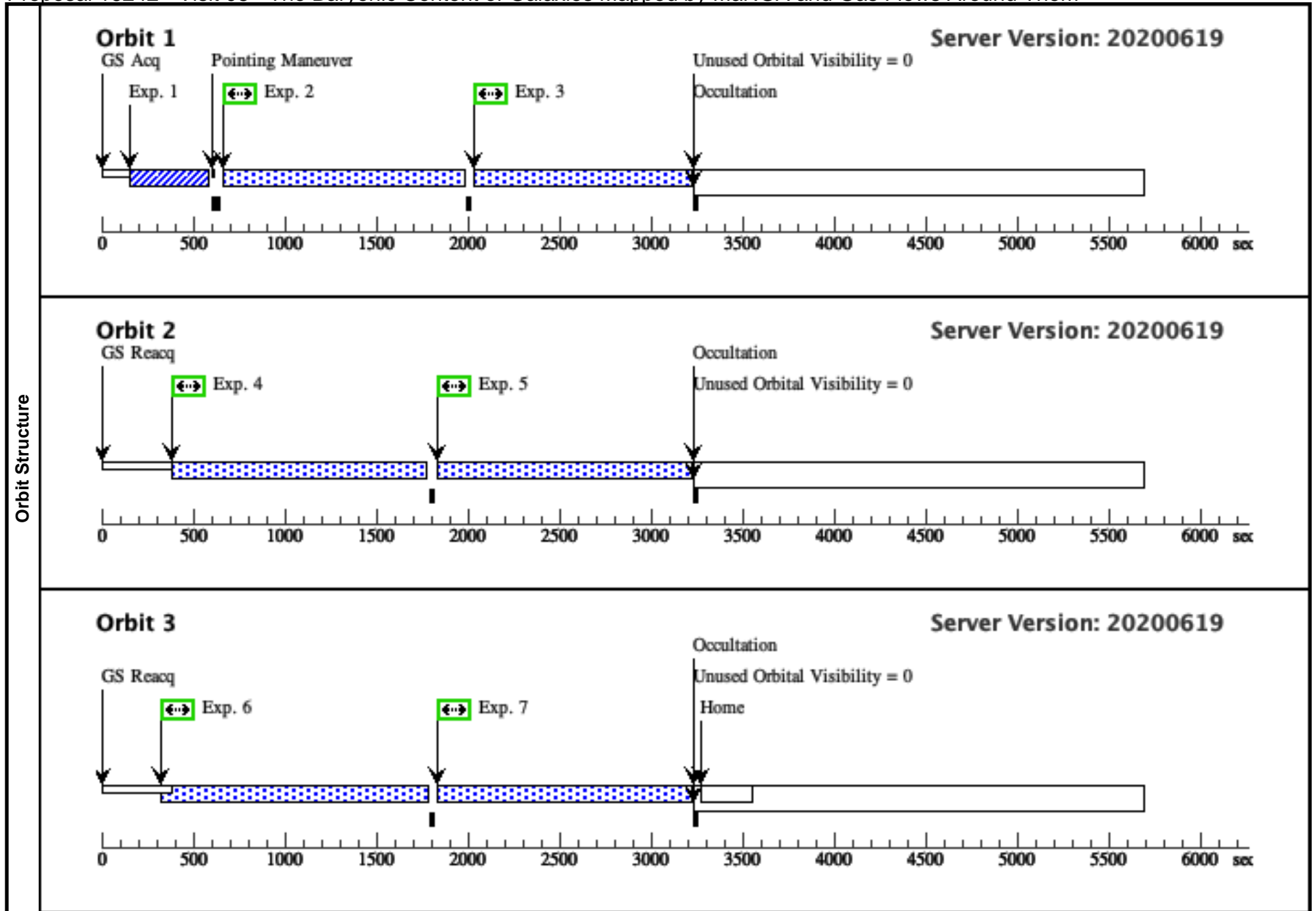
Proposal 16242 - Visit 08 - The Baryonic Content of Galaxies Mapped by MaNGA and Gas Flows Around Them

Wed Sep 09 20:00:41 GMT 2020

Visit	Proposal 16242, Visit 08, scheduling Diagnostic Status: Warning Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)																																		
Diagnostics	(Visit 08) 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>(8)</td> <td>J0950+4309</td> <td>RA: 09 50 14.9641 (147.5623504d)</td> <td>Proper Motion RA: 0.215 mas/yr</td> <td>V=19.22</td> <td>Reference Frame: ICRS</td> </tr> <tr> <td></td> <td>Alt Name1: US1016</td> <td>Dec: +43 09 6.34 (43.15176d)</td> <td>Proper Motion Dec: -0.565 mas/yr</td> <td>FUV=19.47,</td> <td></td> </tr> <tr> <td></td> <td></td> <td>Equinox: J2000</td> <td>Epoch of Position: 2000.0</td> <td>NUV=18.96</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td>Redshift: 0.3622445</td> <td></td> <td></td> </tr> </tbody> </table> <p> <i>Comments:</i> Category=GALAXY Description=[QSO] Extended=NO </p>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(8)	J0950+4309	RA: 09 50 14.9641 (147.5623504d)	Proper Motion RA: 0.215 mas/yr	V=19.22	Reference Frame: ICRS		Alt Name1: US1016	Dec: +43 09 6.34 (43.15176d)	Proper Motion Dec: -0.565 mas/yr	FUV=19.47,				Equinox: J2000	Epoch of Position: 2000.0	NUV=18.96					Redshift: 0.3622445						
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous																														
(8)	J0950+4309	RA: 09 50 14.9641 (147.5623504d)	Proper Motion RA: 0.215 mas/yr	V=19.22	Reference Frame: ICRS																														
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Proposal 16242 - Visit 08 - The Baryonic Content of Galaxies Mapped by MaNGA and Gas Flows Around Them

Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit	
	1	(COS.ta.145 2050)	(8) J0950+4309	COS/NUV, ACQ/IMAGE, PSA	MIRRORB					70 Secs (70 Secs)	
									[==>]	[1]	
	2	(COS.sp.145 1238)	(8) J0950+4309	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=1; BUFFER-TIME=16 151; FLASH=YES; SEGMENT=BOTH				1136 Secs (1136 Secs)	
									[==>]	[1]	
	3	(COS.sp.145 1238)	(8) J0950+4309	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=2; BUFFER-TIME=16 151; FLASH=YES; SEGMENT=BOTH				1137 Secs (1137 Secs)	
									[==>]	[1]	
	4	(COS.sp.145 1240)	(8) J0950+4309	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=16 151; FLASH=YES; SEGMENT=BOTH				1338 Secs (1338 Secs)	
									[==>]	[2]	
	5	(COS.sp.145 1240)	(8) J0950+4309	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=4; BUFFER-TIME=16 151; FLASH=YES; SEGMENT=BOTH				1339 Secs (1339 Secs)	
								[==>]	[2]		
6	(COS.sp.145 1240)	(8) J0950+4309	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=2; BUFFER-TIME=16 151; FLASH=YES; SEGMENT=BOTH				1338 Secs (1338 Secs)		
								[==>]	[3]		
7	(COS.sp.145 1240)	(8) J0950+4309	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=16 151; FLASH=YES; SEGMENT=BOTH				1339 Secs (1339 Secs)		
								[==>]	[3]		



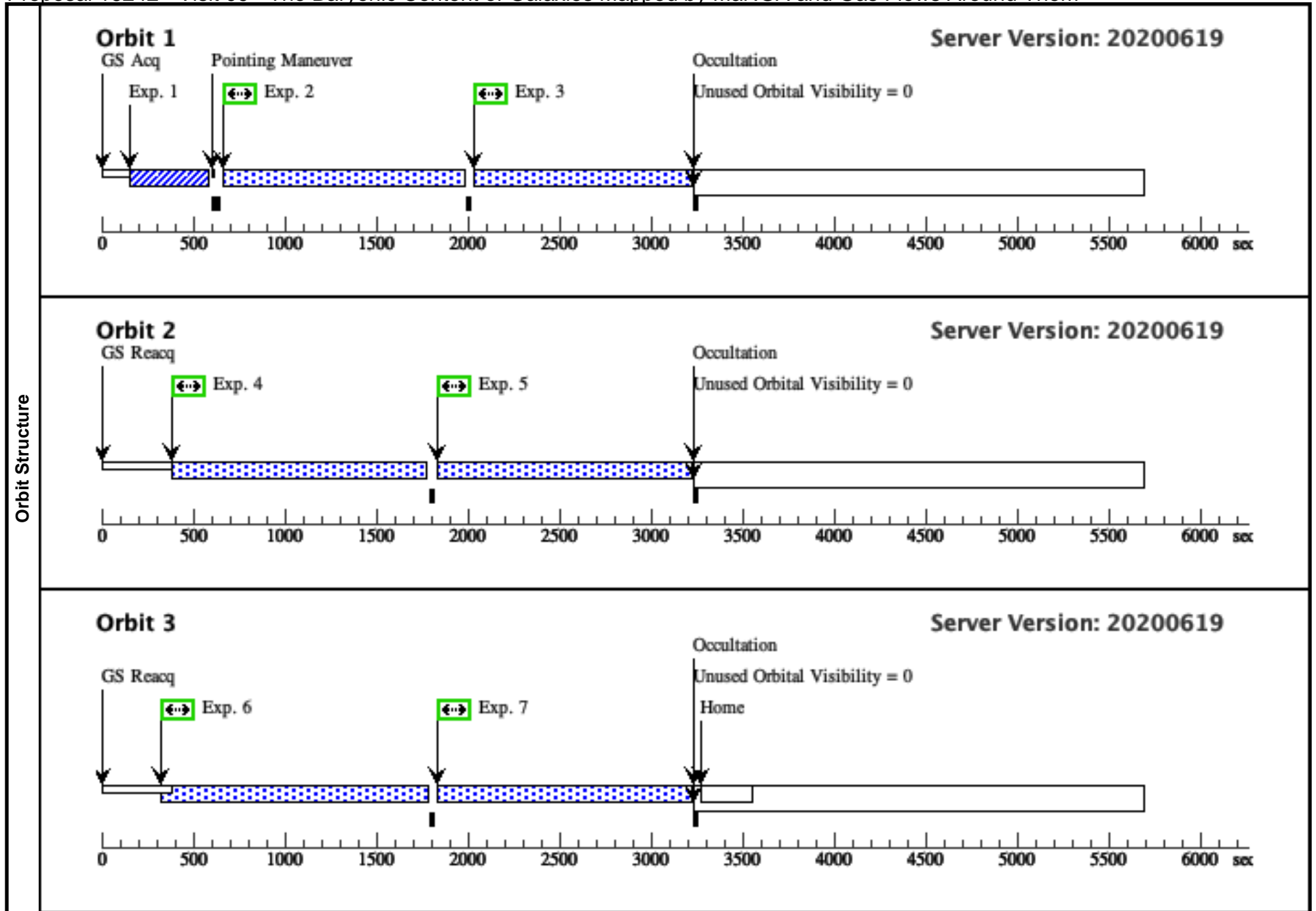
Proposal 16242 - Visit 09 - The Baryonic Content of Galaxies Mapped by MaNGA and Gas Flows Around Them

Wed Sep 09 20:00:41 GMT 2020

Visit	Proposal 16242, Visit 09, scheduling Diagnostic Status: Warning Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)																																		
Diagnostics	(Visit 09) 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>(8)</td> <td>J0950+4309</td> <td>RA: 09 50 14.9641 (147.5623504d)</td> <td>Proper Motion RA: 0.215 mas/yr</td> <td>V=19.22</td> <td>Reference Frame: ICRS</td> </tr> <tr> <td></td> <td>Alt Name1: US1016</td> <td>Dec: +43 09 6.34 (43.15176d)</td> <td>Proper Motion Dec: -0.565 mas/yr</td> <td>FUV=19.47,</td> <td></td> </tr> <tr> <td></td> <td></td> <td>Equinox: J2000</td> <td>Epoch of Position: 2000.0</td> <td>NUV=18.96</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td>Redshift: 0.3622445</td> <td></td> <td></td> </tr> </tbody> </table> <p> <i>Comments:</i> Category=GALAXY Description=[QSO] Extended=NO </p>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(8)	J0950+4309	RA: 09 50 14.9641 (147.5623504d)	Proper Motion RA: 0.215 mas/yr	V=19.22	Reference Frame: ICRS		Alt Name1: US1016	Dec: +43 09 6.34 (43.15176d)	Proper Motion Dec: -0.565 mas/yr	FUV=19.47,				Equinox: J2000	Epoch of Position: 2000.0	NUV=18.96					Redshift: 0.3622445						
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous																														
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Proposal 16242 - Visit 09 - The Baryonic Content of Galaxies Mapped by MaNGA and Gas Flows Around Them

Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit	
	1	(COS.ta.145 2050)	(8) J0950+4309	COS/NUV, ACQ/IMAGE, PSA	MIRRORB					70 Secs (70 Secs)	
									[==>]	[1]	
	2	(COS.sp.145 1238)	(8) J0950+4309	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=1; BUFFER-TIME=16 151; FLASH=YES; SEGMENT=BOTH				1136 Secs (1136 Secs)	
									[==>]	[1]	
	3	(COS.sp.145 1238)	(8) J0950+4309	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=2; BUFFER-TIME=16 151; FLASH=YES; SEGMENT=BOTH				1137 Secs (1137 Secs)	
									[==>]	[1]	
	4	(COS.sp.145 1240)	(8) J0950+4309	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=16 151; FLASH=YES; SEGMENT=BOTH				1338 Secs (1338 Secs)	
								[==>]	[2]		
5	(COS.sp.145 1240)	(8) J0950+4309	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=4; BUFFER-TIME=16 151; FLASH=YES; SEGMENT=BOTH				1339 Secs (1339 Secs)		
								[==>]	[2]		
6	(COS.sp.145 1240)	(8) J0950+4309	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=2; BUFFER-TIME=16 151; FLASH=YES; SEGMENT=BOTH				1338 Secs (1338 Secs)		
								[==>]	[3]		
7	(COS.sp.145 1240)	(8) J0950+4309	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=16 151; FLASH=YES; SEGMENT=BOTH				1339 Secs (1339 Secs)		
								[==>]	[3]		



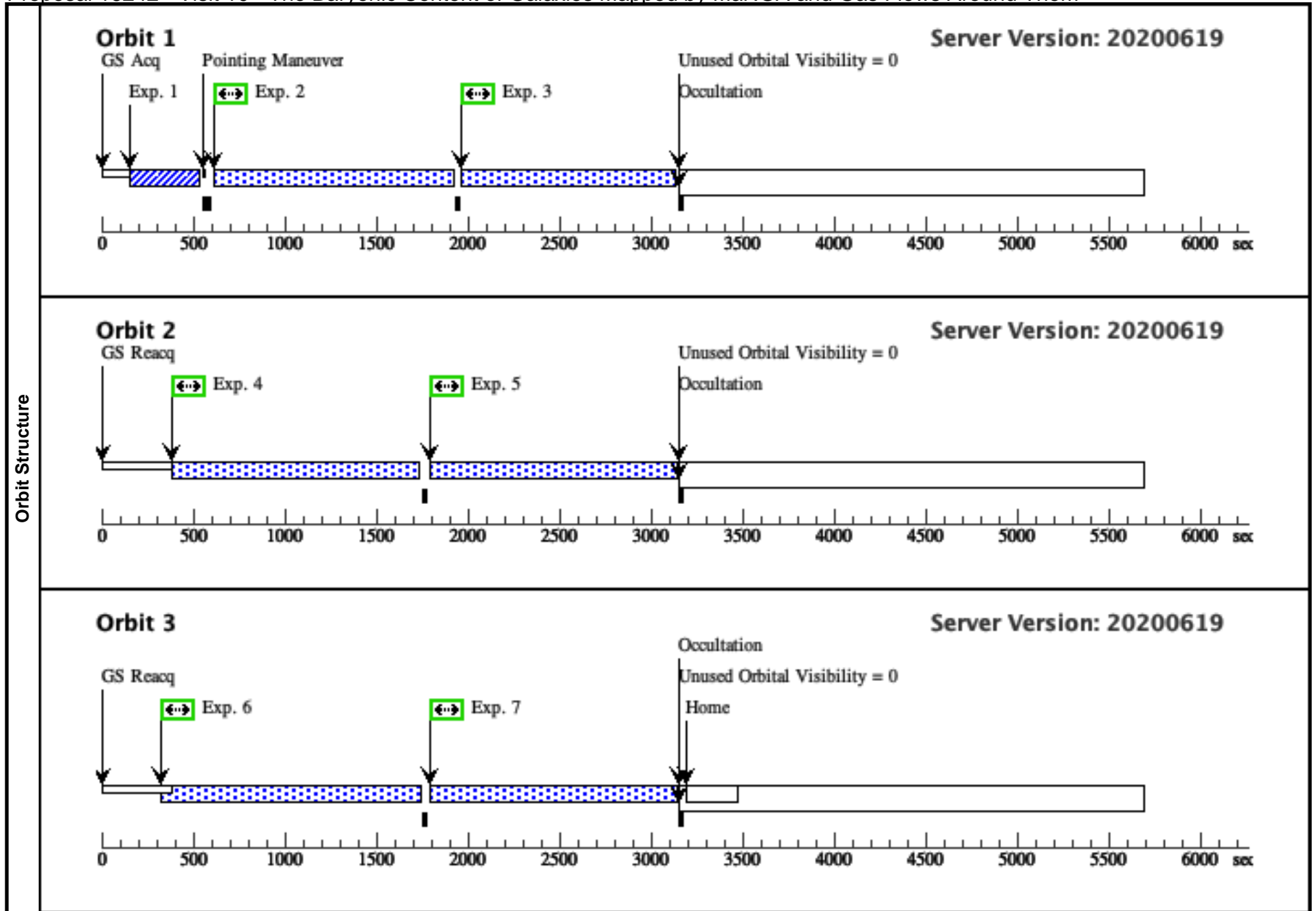
Proposal 16242 - Visit 10 - The Baryonic Content of Galaxies Mapped by MaNGA and Gas Flows Around Them

Wed Sep 09 20:00:41 GMT 2020

Visit	Proposal 16242, Visit 10, scheduling Diagnostic Status: Warning Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)																																		
Diagnostics	(Visit 10) Warning (Orbit Planner): INEFFICIENT ORDERING OF FP-POS POSITIONS (Exposure 2 (Visit 10)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details. (Exposure 3 (Visit 10)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details. (Exposure 4 (Visit 10)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details. (Exposure 5 (Visit 10)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details. (Exposure 6 (Visit 10)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details. (Exposure 7 (Visit 10)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details.																																		
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>(9)</td> <td>J0838+2453</td> <td>RA: 08 38 10.9363 (129.5455679d)</td> <td>Proper Motion RA: 0</td> <td>V=16.65</td> <td>Reference Frame: ICRS</td> </tr> <tr> <td></td> <td>Alt Name1: NGC2622</td> <td>Dec: +24 53 43.04 (24.89529d)</td> <td>Proper Motion Dec: 0</td> <td>FUV=18.85,</td> <td></td> </tr> <tr> <td></td> <td></td> <td>Equinox: J2000</td> <td>Epoch of Position: 2000.0</td> <td>NUV=18.00</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td>Redshift: 0.0286559</td> <td></td> <td></td> </tr> </tbody> </table> <p><i>Comments:</i> Category=GALAXY Description=[SEYFERT] Extended=YES</p>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(9)	J0838+2453	RA: 08 38 10.9363 (129.5455679d)	Proper Motion RA: 0	V=16.65	Reference Frame: ICRS		Alt Name1: NGC2622	Dec: +24 53 43.04 (24.89529d)	Proper Motion Dec: 0	FUV=18.85,				Equinox: J2000	Epoch of Position: 2000.0	NUV=18.00					Redshift: 0.0286559						
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous																														
(9)	J0838+2453	RA: 08 38 10.9363 (129.5455679d)	Proper Motion RA: 0	V=16.65	Reference Frame: ICRS																														
	Alt Name1: NGC2622	Dec: +24 53 43.04 (24.89529d)	Proper Motion Dec: 0	FUV=18.85,																															
		Equinox: J2000	Epoch of Position: 2000.0	NUV=18.00																															
			Redshift: 0.0286559																																

Proposal 16242 - Visit 10 - The Baryonic Content of Galaxies Mapped by MaNGA and Gas Flows Around Them

Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit	
	1	(COS.ta.145 2084)	(9) J0838+2453	COS/NUV, ACQ/IMAGE, PSA	MIRRORB					44 Secs (44 Secs) [==>]	[1]
	2	(COS.sp.145 2210)	(9) J0838+2453	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=1; BUFFER-TIME=12 186; FLASH=YES; SEGMENT=BOTH				1122 Secs (1122 Secs) [==>]	[1]
	3	(COS.sp.145 2210)	(9) J0838+2453	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=2; BUFFER-TIME=12 186; FLASH=YES; SEGMENT=BOTH				1122 Secs (1122 Secs) [==>]	[1]
	4	(COS.sp.145 1251)	(9) J0838+2453	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=12 186; FLASH=YES; SEGMENT=BOTH				1298 Secs (1298 Secs) [==>]	[2]
	5	(COS.sp.145 1251)	(9) J0838+2453	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=4; BUFFER-TIME=12 186; FLASH=YES; SEGMENT=BOTH				1298 Secs (1298 Secs) [==>]	[2]
	6	(COS.sp.145 1251)	(9) J0838+2453	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=12 186; FLASH=YES; SEGMENT=BOTH				1298 Secs (1298 Secs) [==>]	[3]
	7	(COS.sp.145 1251)	(9) J0838+2453	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=4; BUFFER-TIME=12 186; FLASH=YES; SEGMENT=BOTH				1298 Secs (1298 Secs) [==>]	[3]



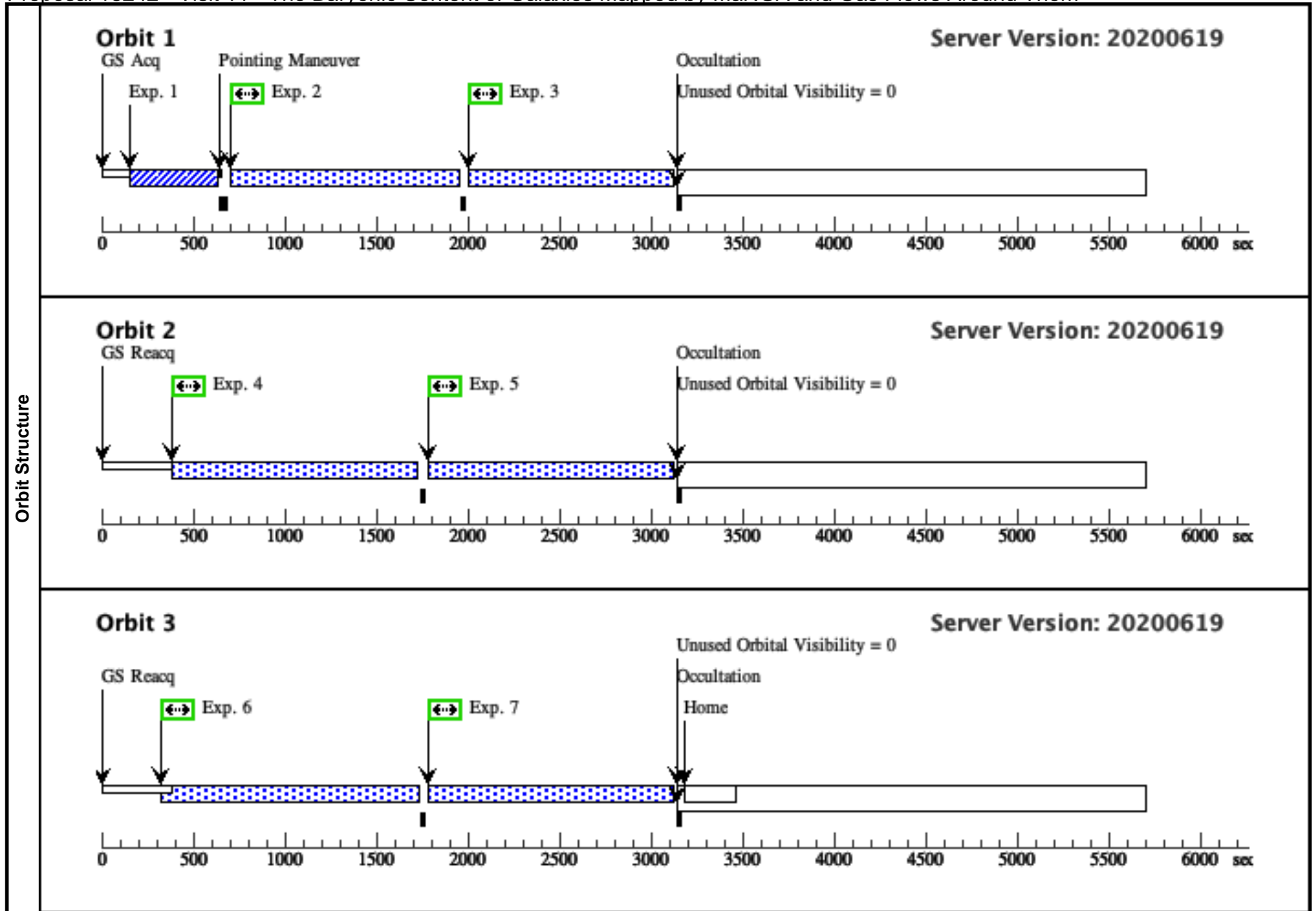
Proposal 16242 - Visit 11 - The Baryonic Content of Galaxies Mapped by MaNGA and Gas Flows Around Them

Wed Sep 09 20:00:41 GMT 2020

Visit	Proposal 16242, Visit 11, scheduled Diagnostic Status: Warning Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)					
Diagnostics	(Visit 11) Warning (Orbit Planner): INEFFICIENT ORDERING OF FP-POS POSITIONS					
Fixed Targets	# (10)	Name J2130-0025	Target Coordinates RA: 21 30 22.7015 (322.5945896d) Dec: -00 25 52.07 (-.43113d) Equinox: J2000	Targ. Coord. Corrections Proper Motion RA: 0.185 mas/yr Proper Motion Dec: -0.307 mas/yr Epoch of Position: 2000.0 Redshift: 0.49013	Fluxes V=18.89 FUV=19.79, NUV=19.24	Miscellaneous Reference Frame: ICRS
	Comments: Category=GALAXY Description=[QSO] Extended=NO					

Proposal 16242 - Visit 11 - The Baryonic Content of Galaxies Mapped by MaNGA and Gas Flows Around Them

	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
Exposures	1	(COS.ta.145 (10) J2130-0025 2069)	(10) J2130-0025	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				91 Secs (91 Secs)	[==>]	[1]
	2	(COS.sp.145 (10) J2130-0025 1258)	(10) J2130-0025	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=1; BUFFER-TIME=16 767; FLASH=YES; SEGMENT=BOTH			1067 Secs (1067 Secs)	[==>]	[1]
	3	(COS.sp.145 (10) J2130-0025 1258)	(10) J2130-0025	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=2; BUFFER-TIME=16 767; FLASH=YES; SEGMENT=BOTH			1068 Secs (1068 Secs)	[==>]	[1]
	4	(COS.sp.145 (10) J2130-0025 1259)	(10) J2130-0025	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=16 767; FLASH=YES; SEGMENT=BOTH			1290 Secs (1290 Secs)	[==>]	[2]
	5	(COS.sp.145 (10) J2130-0025 1259)	(10) J2130-0025	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=4; BUFFER-TIME=16 767; FLASH=YES; SEGMENT=BOTH			1291 Secs (1291 Secs)	[==>]	[2]
	6	(COS.sp.145 (10) J2130-0025 1259)	(10) J2130-0025	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=16 767; FLASH=YES; SEGMENT=BOTH			1290 Secs (1290 Secs)	[==>]	[3]
	7	(COS.sp.145 (10) J2130-0025 1259)	(10) J2130-0025	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=4; BUFFER-TIME=16 767; FLASH=YES; SEGMENT=BOTH			1291 Secs (1291 Secs)	[==>]	[3]



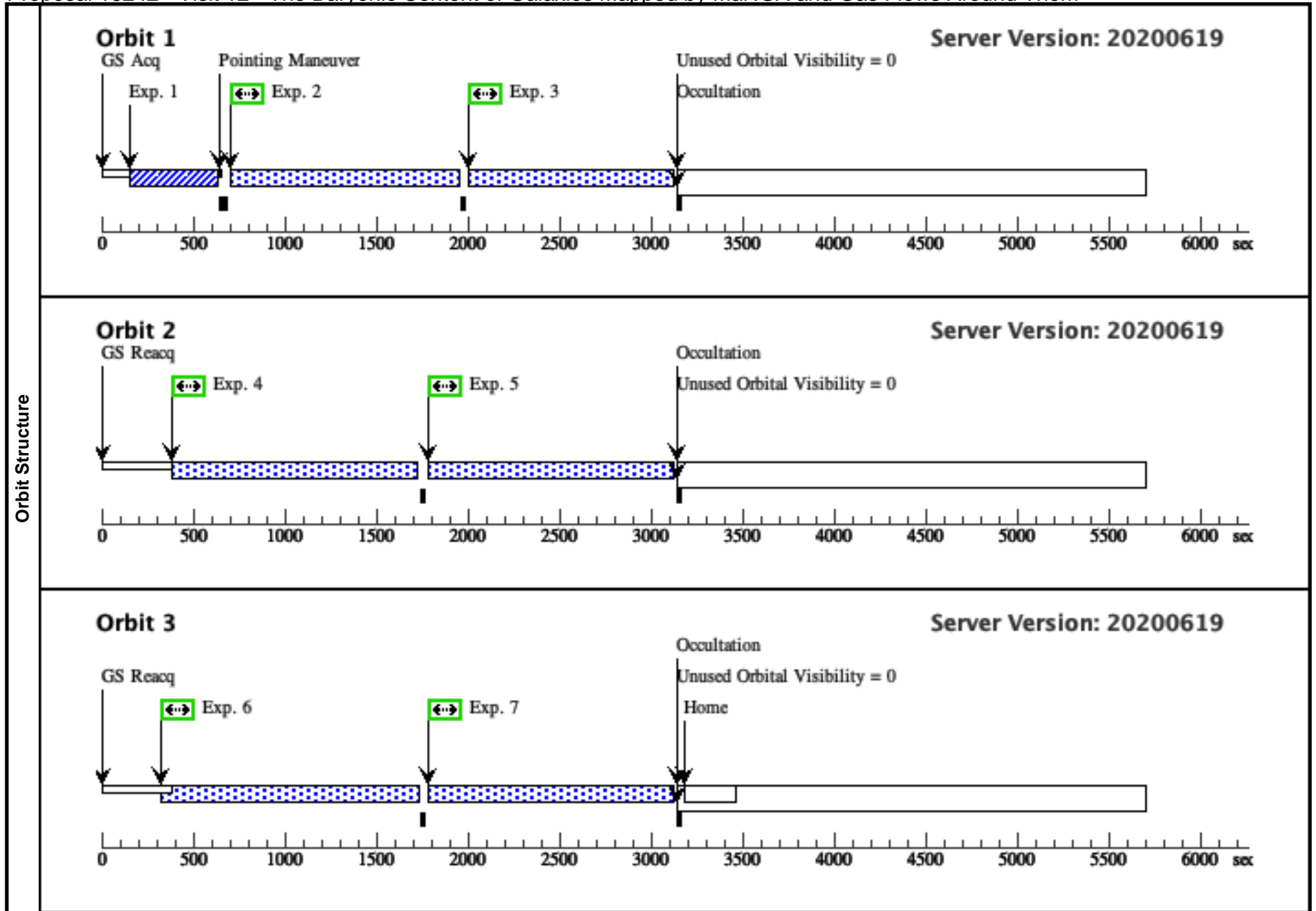
Proposal 16242 - Visit 12 - The Baryonic Content of Galaxies Mapped by MaNGA and Gas Flows Around Them

Wed Sep 09 20:00:41 GMT 2020

Visit	<p>Proposal 16242, Visit 12, scheduled</p> <p>Diagnostic Status: Warning</p> <p>Scientific Instruments: COS/FUV, COS/NUV</p> <p>Special Requirements: (none)</p>																	
Diagnostics	(Visit 12) 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>(10)</td> <td>J2130-0025</td> <td>RA: 21 30 22.7015 (322.5945896d) Dec: -00 25 52.07 (-.43113d) Equinox: J2000</td> <td>Proper Motion RA: 0.185 mas/yr Proper Motion Dec: -0.307 mas/yr Epoch of Position: 2000.0 Redshift: 0.49013</td> <td>V=18.89 FUV=19.79, NUV=19.24</td> <td>Reference Frame: ICRS</td> </tr> </tbody> </table> <p><i>Comments:</i> Category=GALAXY Description=[QSO] Extended=NO</p>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(10)	J2130-0025	RA: 21 30 22.7015 (322.5945896d) Dec: -00 25 52.07 (-.43113d) Equinox: J2000	Proper Motion RA: 0.185 mas/yr Proper Motion Dec: -0.307 mas/yr Epoch of Position: 2000.0 Redshift: 0.49013	V=18.89 FUV=19.79, NUV=19.24	Reference Frame: ICRS					
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous													
(10)	J2130-0025	RA: 21 30 22.7015 (322.5945896d) Dec: -00 25 52.07 (-.43113d) Equinox: J2000	Proper Motion RA: 0.185 mas/yr Proper Motion Dec: -0.307 mas/yr Epoch of Position: 2000.0 Redshift: 0.49013	V=18.89 FUV=19.79, NUV=19.24	Reference Frame: ICRS													

Proposal 16242 - Visit 12 - The Baryonic Content of Galaxies Mapped by MaNGA and Gas Flows Around Them

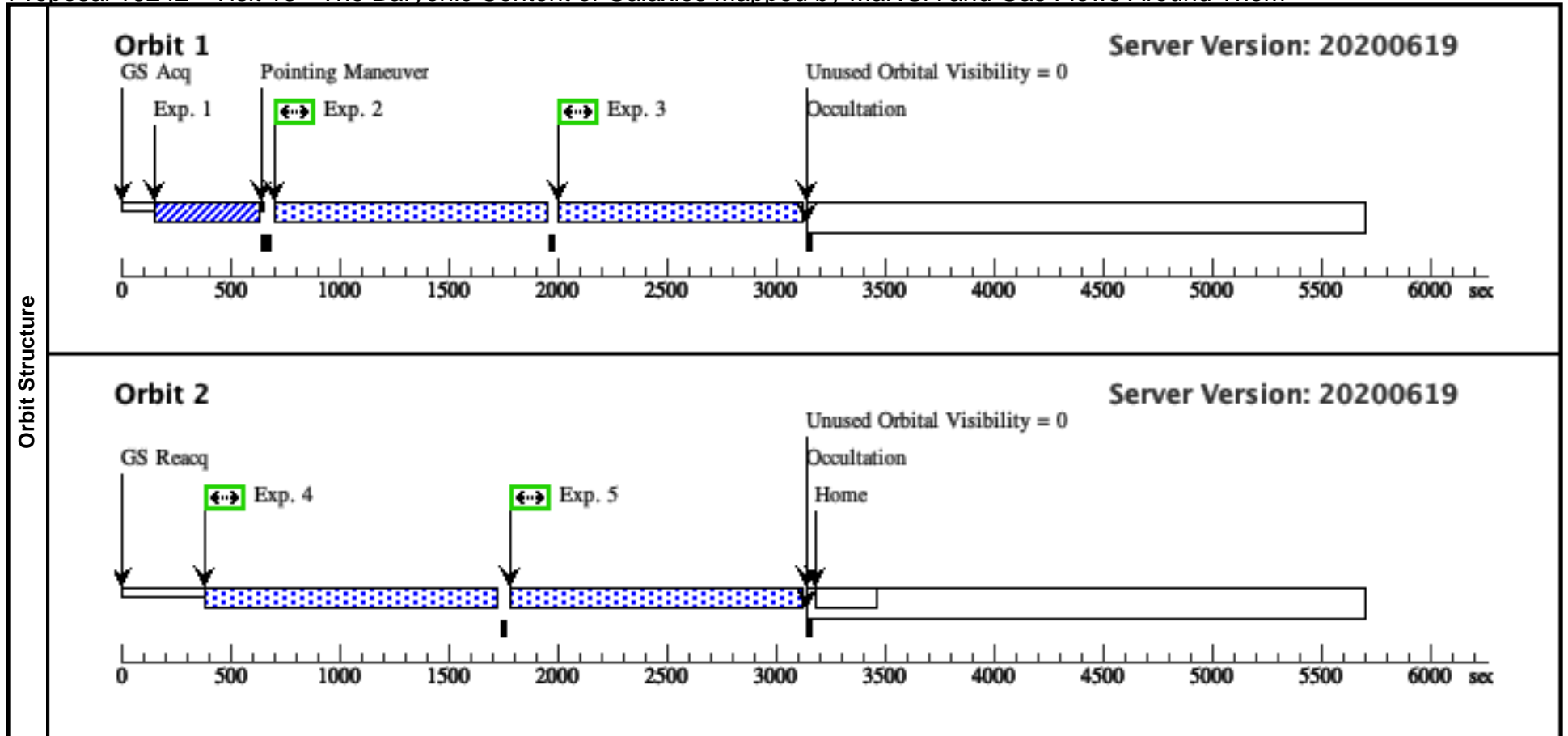
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit	
	1	(COS.ta.145 2069)	(10) J2130-0025	COS/NUV, ACQ/IMAGE, PSA	MIRRORB					91 Secs (91 Secs) [==>]	[1]
	2	(COS.sp.145 1258)	(10) J2130-0025	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=1; BUFFER-TIME=16 767; FLASH=YES; SEGMENT=BOTH				1067 Secs (1067 Secs) [==>]	[1]
	3	(COS.sp.145 1258)	(10) J2130-0025	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=2; BUFFER-TIME=16 767; FLASH=YES; SEGMENT=BOTH				1068 Secs (1068 Secs) [==>]	[1]
	4	(COS.sp.145 1259)	(10) J2130-0025	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=16 767; FLASH=YES; SEGMENT=BOTH				1290 Secs (1290 Secs) [==>]	[2]
	5	(COS.sp.145 1259)	(10) J2130-0025	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=4; BUFFER-TIME=16 767; FLASH=YES; SEGMENT=BOTH				1291 Secs (1291 Secs) [==>]	[2]
	6	(COS.sp.145 1259)	(10) J2130-0025	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=16 767; FLASH=YES; SEGMENT=BOTH				1290 Secs (1290 Secs) [==>]	[3]
	7	(COS.sp.145 1259)	(10) J2130-0025	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=4; BUFFER-TIME=16 767; FLASH=YES; SEGMENT=BOTH				1291 Secs (1291 Secs) [==>]	[3]



Proposal 16242 - Visit 13 - The Baryonic Content of Galaxies Mapped by MaNGA and Gas Flows Around Them

Wed Sep 09 20:00:41 GMT 2020

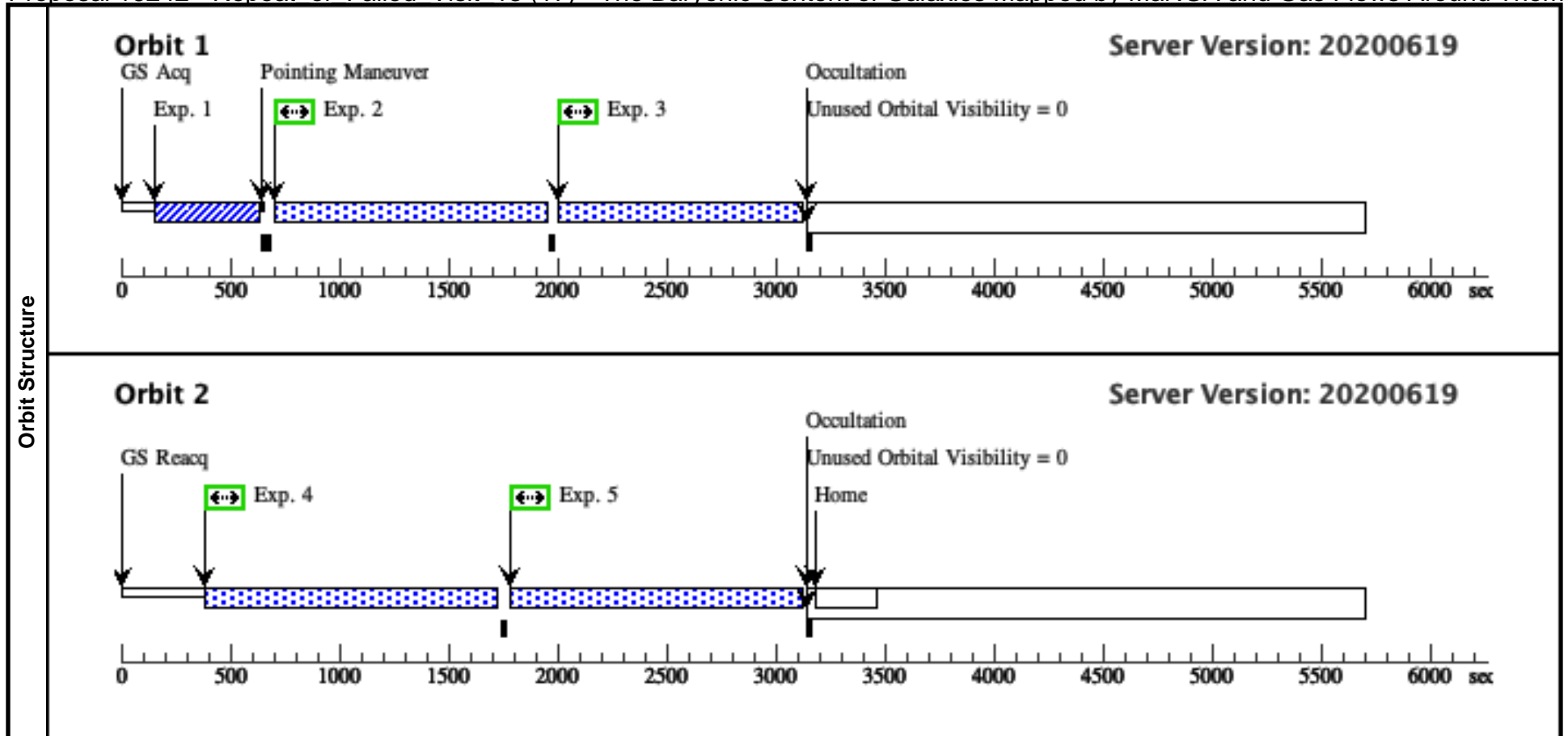
Visit	Proposal 16242, Visit 13, completed Diagnostic Status: No Diagnostics Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)									
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(10)	J2130-0025	RA: 21 30 22.7015 (322.5945896d) Dec: -00 25 52.07 (-.43113d) Equinox: J2000	Proper Motion RA: 0.185 mas/yr Proper Motion Dec: -0.307 mas/yr Epoch of Position: 2000.0 Redshift: 0.49013	V=18.89 FUV=19.79, NUV=19.24	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[QSO] Extended=NO									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(COS.ta.145 2069)	(10) J2130-0025	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				91 Secs (91 Secs) [==>]	[1]
	2	(COS.sp.145 1258)	(10) J2130-0025	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=1; BUFFER-TIME=16 767; FLASH=YES; SEGMENT=BOTH			1067 Secs (1067 Secs) [==>]	[1]
	3	(COS.sp.145 1258)	(10) J2130-0025	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=2; BUFFER-TIME=16 767; FLASH=YES; SEGMENT=BOTH			1068 Secs (1068 Secs) [==>]	[1]
	4	(COS.sp.145 1259)	(10) J2130-0025	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=16 767; FLASH=YES; SEGMENT=BOTH			1290 Secs (1290 Secs) [==>]	[2]
	5	(COS.sp.145 1259)	(10) J2130-0025	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=4; BUFFER-TIME=16 767; FLASH=YES; SEGMENT=BOTH			1291 Secs (1291 Secs) [==>]	[2]



Proposal 16242 - Repeat of Failed Visit 13 (17) - The Baryonic Content of Galaxies Mapped by MaNGA and Gas Flows Around Them

Wed Sep 09 20:00:41 GMT 2020

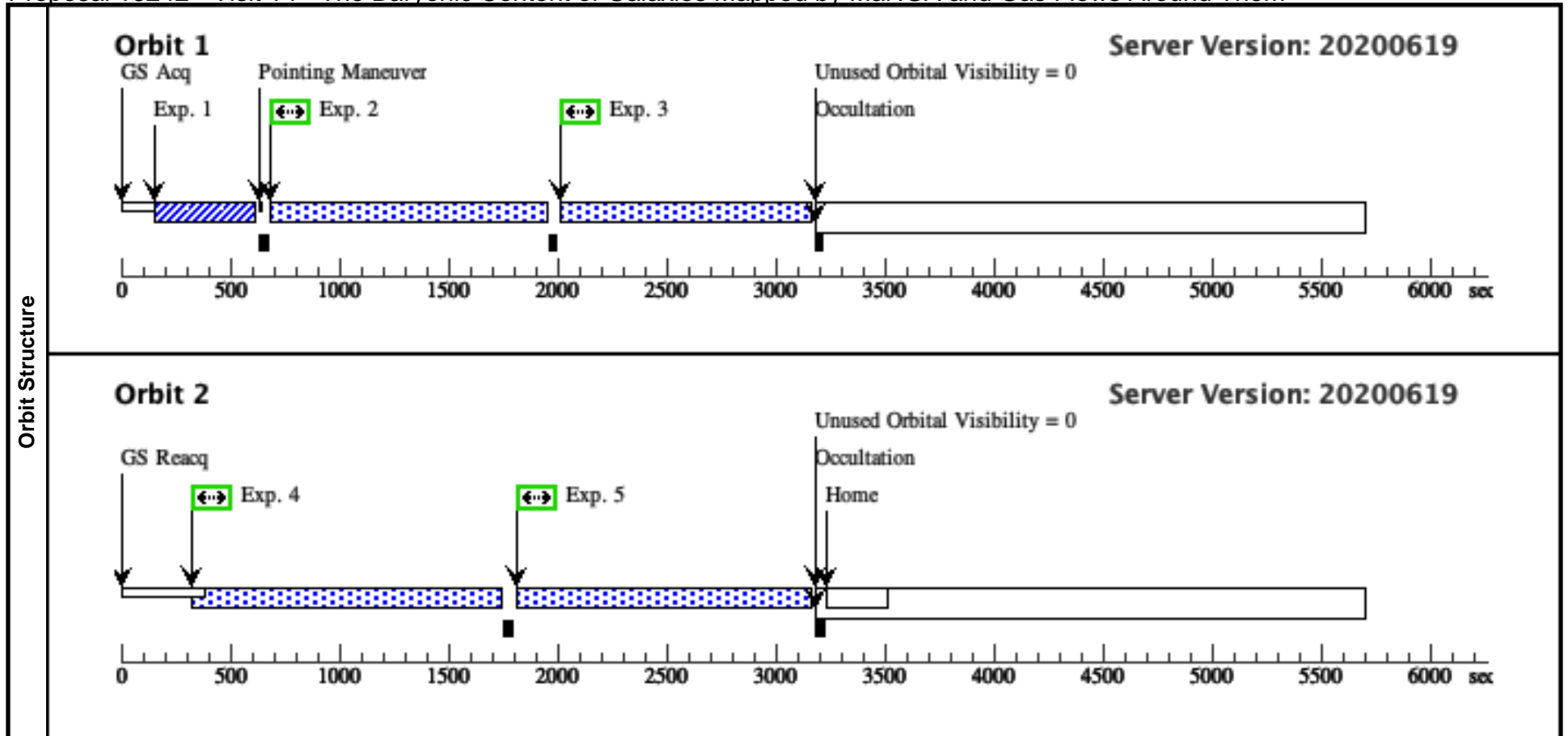
Visit	Proposal 16242, Repeat_of_Failed_Visit_13 (17) Diagnostic Status: No Diagnostics Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none) <i>Comments: This is a repeat of visit 13 which suffered a failed guide-star acquisition.</i>									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
		(10)	J2130-0025	RA: 21 30 22.7015 (322.5945896d) Dec: -00 25 52.07 (-.43113d) Equinox: J2000	Proper Motion RA: 0.185 mas/yr Proper Motion Dec: -0.307 mas/yr Epoch of Position: 2000.0 Redshift: 0.49013	V=18.89 FUV=19.79, NUV=19.24	Reference Frame: ICRS			
	<i>Comments:</i> Category=GALAXY Description=[QSO] Extended=NO									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(COS.ta.145 2069)	(10) J2130-0025	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				91 Secs (91 Secs) [==>]	[1]
	2	(COS.sp.145 1258)	(10) J2130-0025	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=1; BUFFER-TIME=16 767; FLASH=YES; SEGMENT=BOTH			1067 Secs (1067 Secs) [==>]	[1]
	3	(COS.sp.145 1258)	(10) J2130-0025	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=2; BUFFER-TIME=16 767; FLASH=YES; SEGMENT=BOTH			1068 Secs (1068 Secs) [==>]	[1]
	4	(COS.sp.145 1259)	(10) J2130-0025	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=3; BUFFER-TIME=16 767; FLASH=YES; SEGMENT=BOTH			1290 Secs (1290 Secs) [==>]	[2]
	5	(COS.sp.145 1259)	(10) J2130-0025	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=4; BUFFER-TIME=16 767; FLASH=YES; SEGMENT=BOTH			1291 Secs (1291 Secs) [==>]	[2]



Proposal 16242 - Visit 14 - The Baryonic Content of Galaxies Mapped by MaNGA and Gas Flows Around Them

Wed Sep 09 20:00:41 GMT 2020

Visit	Proposal 16242, Visit 14, scheduled Diagnostic Status: Warning Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)									
Diagnostics	(Visit 14) Warning (Orbit Planner): INEFFICIENT ORDERING OF FP-POS POSITIONS									
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(11)	J1709+3421 Alt Name1: WISEAJ170958.75+3421 29.4	RA: 17 09 58.7586 (257.4948275d) Dec: +34 21 29.33 (34.35815d) Equinox: J2000	Proper Motion RA: 0.026 mas/yr Proper Motion Dec: -0.132 mas/yr Epoch of Position: 2000.0 Redshift: 0.3143	V=18.67 FUV=18.87, NUV=18.66	Reference Frame: ICRS				
	<i>Comments:</i> Category=GALAXY Description=[QSO] Extended=NO									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(COS.ta.145 2060)	(11) J1709+3421	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				82 Secs (82 Secs) [==>]	[1]
	2	(COS.sp.145 2219)	(11) J1709+3421	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=3; BUFFER-TIME=49 77; FLASH=YES; SEGMENT=BOTH			1098 Secs (1098 Secs) [==>]	[1]
	3	(COS.sp.145 2219)	(11) J1709+3421	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=4; BUFFER-TIME=49 77; FLASH=YES; SEGMENT=BOTH			1098 Secs (1098 Secs) [==>]	[1]
	4	(COS.sp.145 1254)	(11) J1709+3421	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=3; BUFFER-TIME=49 77; FLASH=YES; SEGMENT=BOTH			1300 Secs (1300 Secs) [==>]	[2]
	5	(COS.sp.145 1254)	(11) J1709+3421	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=4; BUFFER-TIME=49 77; FLASH=YES; SEGMENT=BOTH			1300 Secs (1300 Secs) [==>]	[2]



Proposal 16242 - Visit 15 - The Baryonic Content of Galaxies Mapped by MaNGA and Gas Flows Around Them

Wed Sep 09 20:00:41 GMT 2020

Visit	Proposal 16242, Visit 15, completed Diagnostic Status: Warning Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)									
	(Visit 15) Warning (Orbit Planner): INEFFICIENT ORDERING OF FP-POS POSITIONS									
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(11)	J1709+3421 Alt Name1: WISEAJ170958.75+3421 29.4	RA: 17 09 58.7586 (257.4948275d) Dec: +34 21 29.33 (34.35815d) Equinox: J2000	Proper Motion RA: 0.026 mas/yr Proper Motion Dec: -0.132 mas/yr Epoch of Position: 2000.0 Redshift: 0.3143	V=18.67 FUV=18.87, NUV=18.66	Reference Frame: ICRS				
Comments: Category=GALAXY Description=[QSO] Extended=NO										
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(COS.ta.145 2060)	(11) J1709+3421	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				82 Secs (82 Secs) [==>]	[1]
	2	(COS.sp.145 2219)	(11) J1709+3421	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=3; BUFFER-TIME=49 77; FLASH=YES; SEGMENT=BOTH			1098 Secs (1098 Secs) [==>]	[1]
	3	(COS.sp.145 2219)	(11) J1709+3421	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=4; BUFFER-TIME=49 77; FLASH=YES; SEGMENT=BOTH			1098 Secs (1098 Secs) [==>]	[1]
	4	(COS.sp.145 1254)	(11) J1709+3421	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=3; BUFFER-TIME=49 77; FLASH=YES; SEGMENT=BOTH			1300 Secs (1300 Secs) [==>]	[2]
	5	(COS.sp.145 1254)	(11) J1709+3421	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=4; BUFFER-TIME=49 77; FLASH=YES; SEGMENT=BOTH			1300 Secs (1300 Secs) [==>]	[2]

