



18099 - Uncovering the Ionizing Sources in Metal Poor Galaxies: UV Spectroscopy of an X-ray Observed Sample

Cycle: 33, Proposal Category: GO

(UV Initiative)

(Availability Mode: SUPPORTED)

INVESTIGATORS

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Dr. Bret Lehmer (PI) (Contact)	University of Arkansas Main Campus
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Dr. Andres Gurrpide Lasheras (CoI) (ESA Member)	University of Southampton
Dr. Omkar Bait (CoI) (ESA Member)	University of Geneva, Department of Astronomy
Emerson Gehr (CoI)	University of Arkansas Main Campus

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) J003710.56-092725.3	COS/FUV COS/NUV	1	02-Apr-2026 15:00:14.0	yes
02	(2) J143345.14+264915.2	COS/FUV COS/NUV	1	02-Apr-2026 15:00:15.0	yes

Proposal 18099 (STScI Edit Number: 0, Created: Thursday, April 2, 2026, 2:00:21PM 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) J023749.51-092556.1	COS/FUV COS/NUV	1	02-Apr-2026 15:00:15.0	yes
04	(4) J131603.92+292254.1	COS/FUV COS/NUV	1	02-Apr-2026 15:00:15.0	yes
05	(5) J082730.65+192160.0	COS/FUV COS/NUV	1	02-Apr-2026 15:00:16.0	yes
06	(6) J131436.60+544753.7	COS/FUV COS/NUV	1	02-Apr-2026 15:00:16.0	yes
07	(7) J123733.71+085255.8	COS/FUV COS/NUV	2	02-Apr-2026 15:00:17.0	yes
08	(8) J155636.42+415250.5	COS/FUV COS/NUV	1	02-Apr-2026 15:00:17.0	yes
09	(9) J091934.54+481614.9	COS/FUV COS/NUV	2	02-Apr-2026 15:00:17.0	yes
10	(10) J122558.57+042826.4	COS/FUV COS/NUV	1	02-Apr-2026 15:00:18.0	yes
11	(11) J152322.14+124133.3	COS/FUV COS/NUV	2	02-Apr-2026 15:00:18.0	yes
12	(12) J095322.23+202655.0	COS/FUV COS/NUV	1	02-Apr-2026 15:00:19.0	yes
16	(12) J095322.23+202655.0	COS/FUV COS/NUV	1	02-Apr-2026 15:00:19.0	yes
13	(13) J112728.74+195112.3	COS/FUV COS/NUV	1	02-Apr-2026 15:00:20.0	yes
14	(14) J074231.57+273818.8	COS/FUV COS/NUV	1	02-Apr-2026 15:00:20.0	yes
15	(16) J132549.42+330354.3	COS/FUV COS/NUV	1	02-Apr-2026 15:00:21.0	yes

19 Total Orbits Used

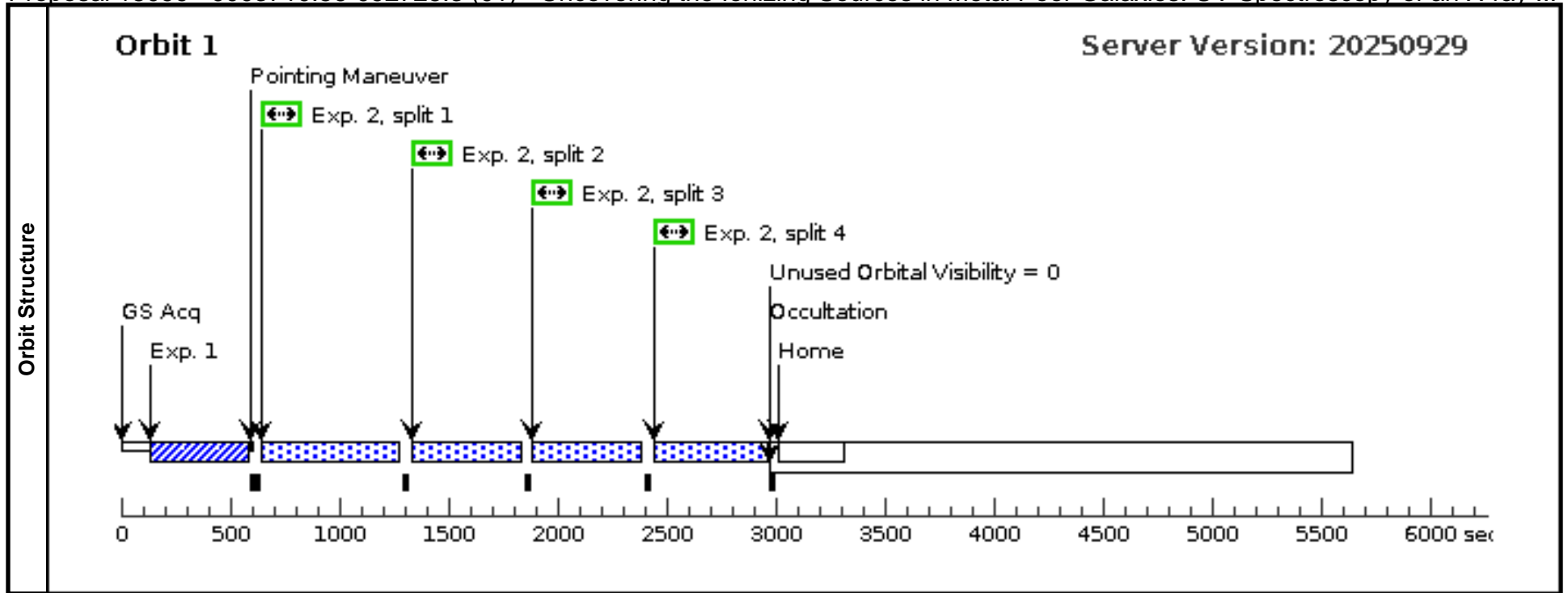
ABSTRACT

Recent investigations have shown that star-forming galaxies (SFGs) show signatures of hard ionizing spectra (based primarily on the presence of nebular He II 4686), with a rising fraction of SFGs showing these signatures with decreasing metallicity. While stellar population models struggle to reproduce these emission lines, emerging binary population synthesis models are showing promise in reproducing these spectral signatures. In this proposal, we aim to obtain critical UV spectroscopy with HST/COS (G140L) for a legacy sample of 15 metal-poor SFGs (MPGs) with $Z \sim 0.03-0.2$ Z_{sol} that have or will have securely measured X-ray properties and span a range of optical ionization conditions. UV spectroscopy will provide unique emission/absorption-line diagnostics that aid in characterizing the stellar and nebular conditions, including photoionization versus shock signatures, ionizing spectral hardness, and stellar population ages that cannot be obtained from optical spectra. We will simultaneously model the UV spectra along with rich multiwavelength data suites from X-rays, SDSS spectra, and UV-to-IR photometry to obtain complete pictures of the shapes of intrinsic ionizing continua of these galaxies, their detailed star-formation histories, and the role that binary populations play in powering extreme emission lines.

OBSERVING DESCRIPTION

We will conduct COS observations of an X-ray observed sample of 15 metal-poor star-forming galaxies (MPGs). We will use the COS FUV G140L/1105 Angstrom grating for our observations. This choice allows for the detection of features related to hard ionizing spectra (when present), including C iv 1550, He ii 1640, O iii] 1666, (when strong) C iii] 1908, as well as Ly α for our full sample (redshifts $z = 0.017-0.045$). NUV acquisition images of the targets will be obtained with Mirror B and the ACQ/IMAGE mode to reach a $S/N > 15$ inside a 9×9 pixel box centered on the brightest part of the galaxy. The MPGs satisfy safety conditions for observing with the COS, including lacking bright sources within a 43 arcsec diameter surrounding the sources. We estimated UV spectra exposures using the ETC, requiring $S/N > 5$ in the continuum at 1550 Angstrom. While our MPGs are compact in size, $\leq 40\%$ of their total FUV fluxes will lie outside of the COS aperture. For the ETC we conservatively used 50% of the objects' total FUV fluxes, showing that exposures of $\sim 500-3,000$ s (1-2 orbits) are sufficient for our program.

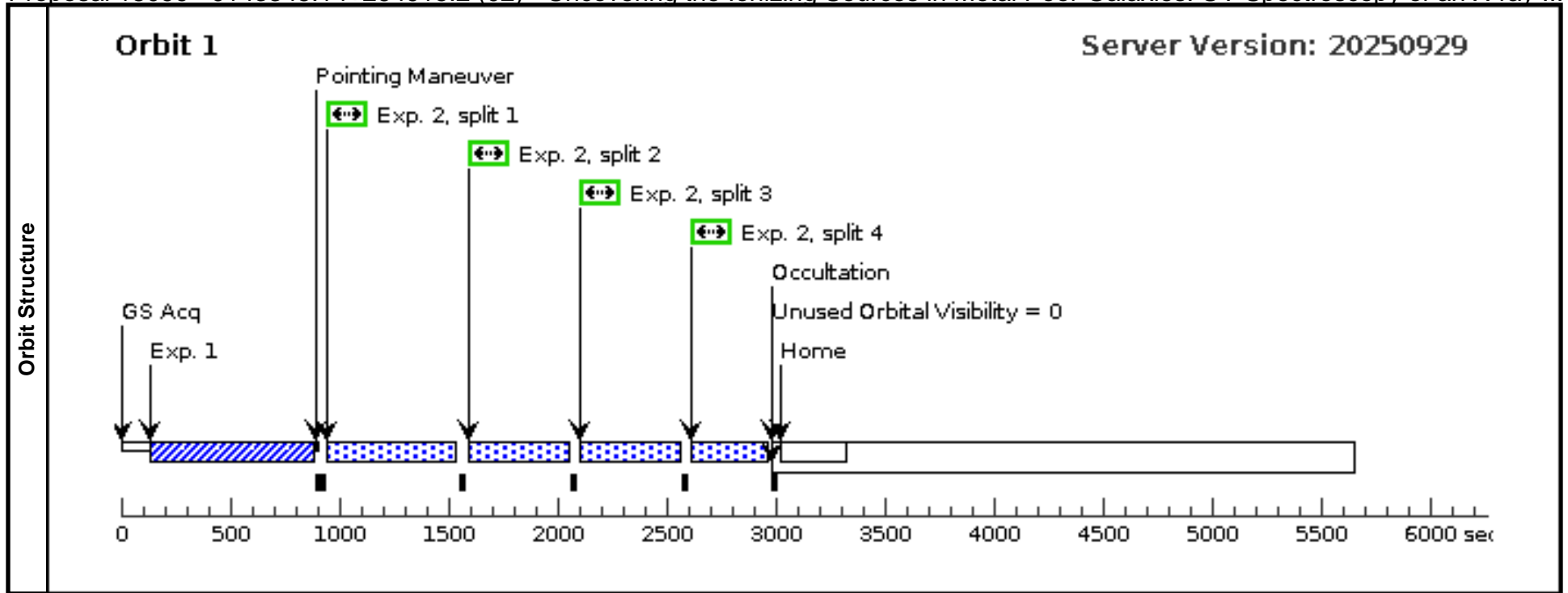
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	(G140L Spec (01.002)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details.									
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	(1)	J003710.56-092725.3	RA: 00 37 10.5600 (9.2940000d) Dec: -09 27 25.25 (-9.45701d) Equinox: J2000	Redshift: 0.01744	V=14.8+/-0.05 FUV=16.90+/-0.01, NUV=16.56+/-0.01	Reference Frame: ICRS				
Comments: Category=GALAXY Description=[DWARF COMPACT, STARBURST] Extended=YES										
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	ACQ (COS.ta.202 3401)	(1) J003710.56-0927 25.3	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				70 Secs (70 Secs) [==>]	[1]
	2	G140L Spec (COS.sp.202 2904)	(1) J003710.56-0927 25.3	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=75 65; FLASH=YES; FP-POS=ALL; SEGMENT=A			450 Secs (1816 Secs) [==>(Split 1)] [==>(Split 2)] [==>(Split 3)] [==>466.0 Secs (Split 4)]	[1]



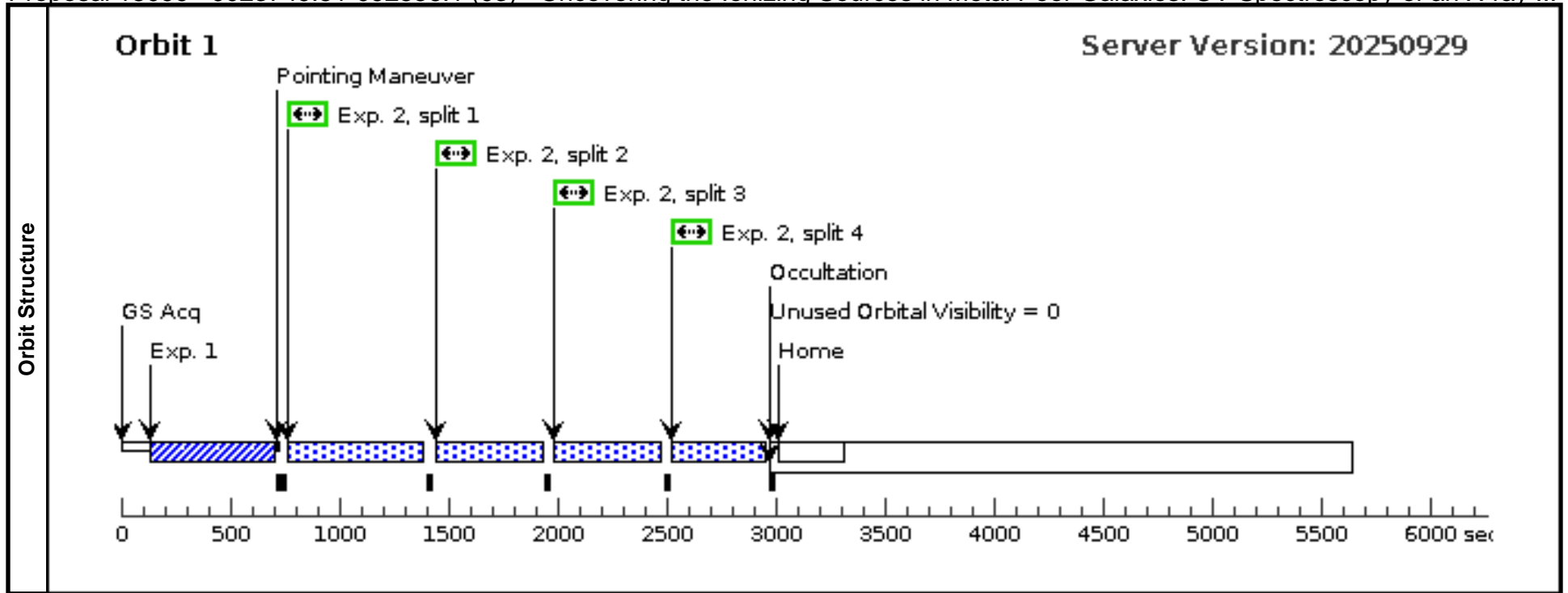
Proposal 18099 - J143345.14+264915.2 (02) - Uncovering the Ionizing Sources in Metal Poor Galaxies: UV Spectroscopy of an X-ray ...

Thu Apr 02 19:00:21 GMT 2026

Visit	Proposal 18099, J143345.14+264915.2 (02), completed Diagnostic Status: Warning Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)									
Diagnostics	(G140L Spec (02.002)) 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)	J143345.14+264915.2	RA: 14 33 45.1400 (218.4380833d) Dec: +26 49 15.21 (26.82089d) Equinox: J2000	Redshift: 0.03841	V=16.6+/-0.05 FUV=18.13+/-0.10, NUV=17.74+/-0.06	Reference Frame: ICRS				
	Comments: Category=GALAXY Description=[DWARF COMPACT, STARBURST] Extended=YES									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	ACQ (COS.ta.202 3403)	(2) J143345.14+264 915.2	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				219 Secs (219 Secs) [==>]	[1]
	2	G140L Spec (COS.sp.202 3191)	(2) J143345.14+264 915.2	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=8200; FLASH=YES; FP-POS=ALL; SEGMENT=A			408 Secs (1524 Secs) [==>(Split 1)] [==>(Split 2)] [==>(Split 3)] [==>300 Secs (Split 4)]	[1]



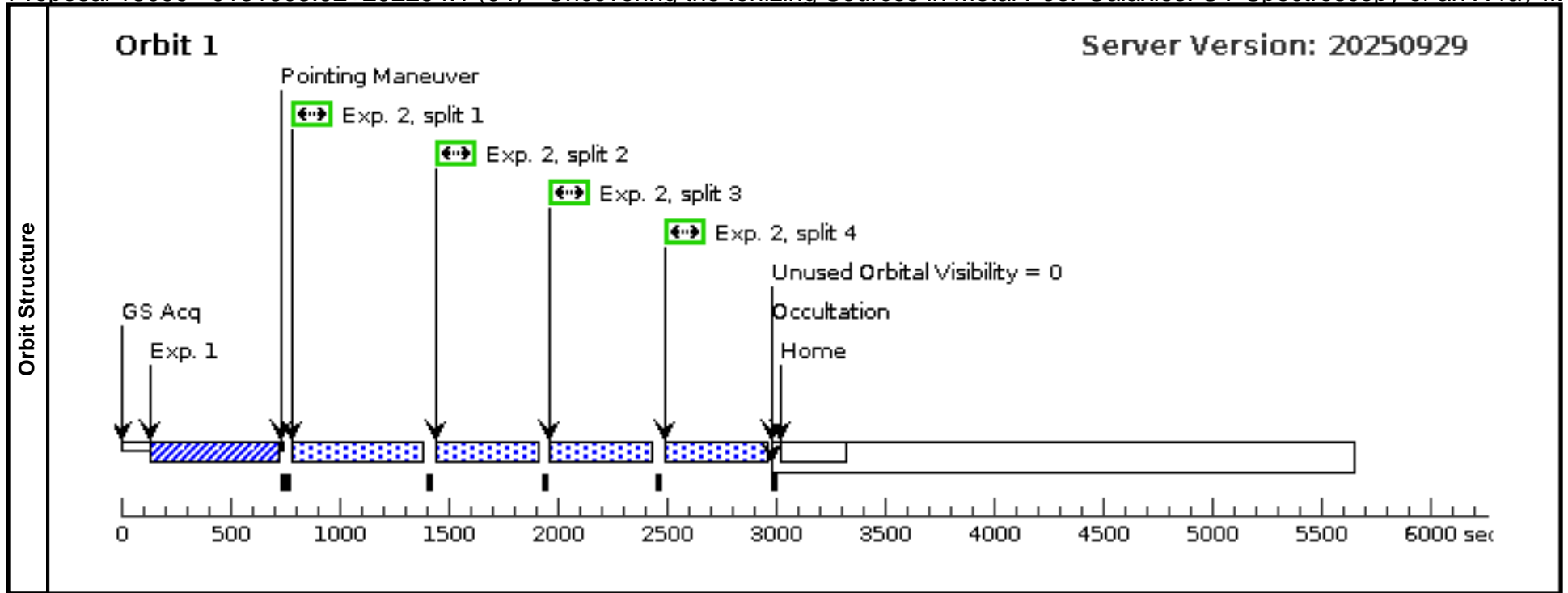
Visit	Proposal 18099, J023749.51-092556.1 (03), scheduling Diagnostic Status: Warning Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)									
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	(3)	J023749.51-092556.1	RA: 02 37 49.5100 (39.4562917d) Dec: -09 25 56.10 (-9.43225d) Equinox: J2000	Redshift: 0.04463	V=15.7+/-0.05 FUV=17.59+/-0.04, NUV=17.20+/-0.02	Reference Frame: ICRS				
Comments: Category=GALAXY Description=[DWARF COMPACT, STARBURST] Extended=YES										
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	ACQ (COS.ta.202 3404)	(3) J023749.51-0925 56.1	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				129 Secs (129 Secs)	
									[==>]	[1]
2	G140L Spec (COS.sp.202 3195)	(3) J023749.51-0925 56.1	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=75 34;	FLASH=YES; FP-POS=ALL; SEGMENT=A			439 Secs (1698 Secs)	
									[==>(Split 1)] [==>(Split 2)] [==>(Split 3)] [==>381 Secs (Split 4)]	[1]



Proposal 18099 - J131603.92+292254.1 (04) - Uncovering the Ionizing Sources in Metal Poor Galaxies: UV Spectroscopy of an X-ray ...

Thu Apr 02 19:00:21 GMT 2026

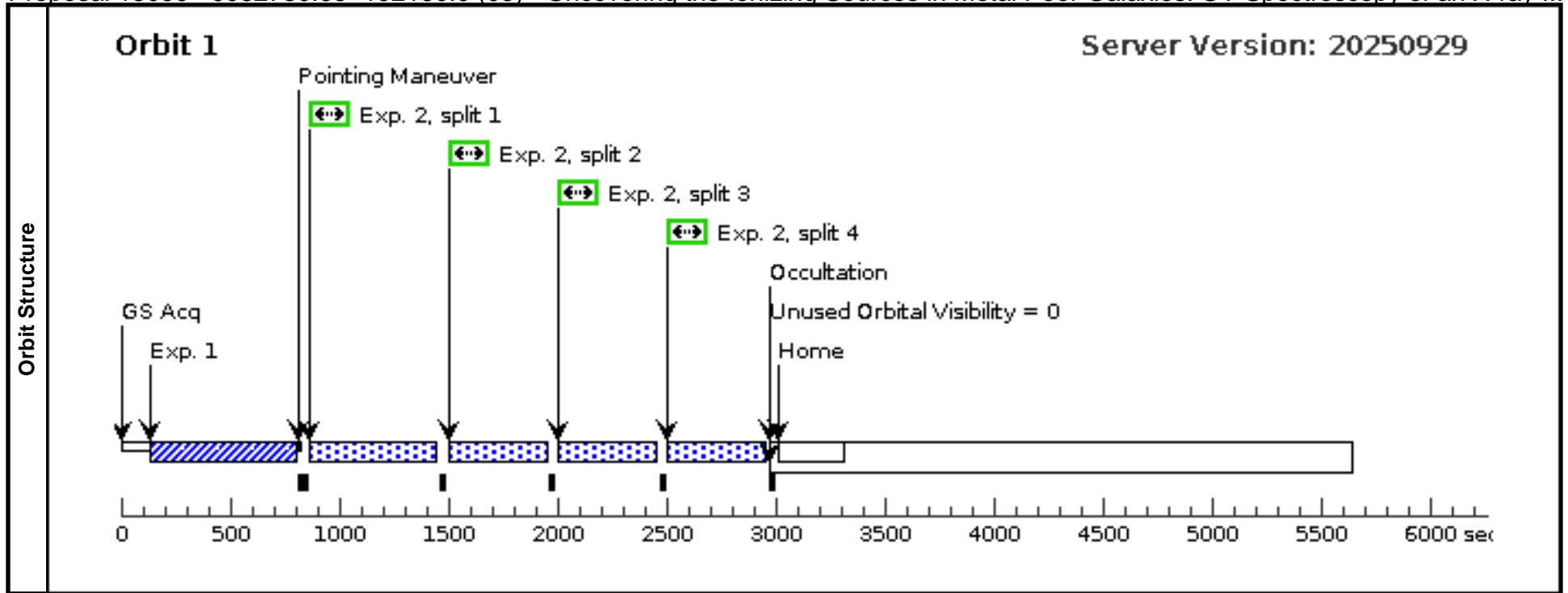
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Diagnostics	(G140L Spec (04.002)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details.									
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(4)	J131603.92+292254.1	RA: 13 16 3.9200 (199.0163333d) Dec: +29 22 54.08 (29.38169d) Equinox: J2000	Redshift: 0.03779	V=16.3+/-0.05 FUV=17.49+/-0.06, NUV=17.29+/-0.03	Reference Frame: ICRS				
	Comments: Category=GALAXY Description=[DWARF COMPACT, STARBURST] Extended=YES									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	ACQ (COS.ta.202 3405)	(4) J131603.92+292 254.1	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				140 Secs (140 Secs) [==>]	[1]
	2	G140L Spec (COS.sp.202 3196)	(4) J131603.92+292 254.1	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=72 50; FLASH=YES; FP-POS=ALL; SEGMENT=A			420 Secs (1682 Secs) [==>(Split 1)] [==>(Split 2)] [==>(Split 3)] [==>422.0 Secs (Split 4)]	[1]



Proposal 18099 - J082730.65+192160.0 (05) - Uncovering the Ionizing Sources in Metal Poor Galaxies: UV Spectroscopy of an X-ray ...

Thu Apr 02 19:00:21 GMT 2026

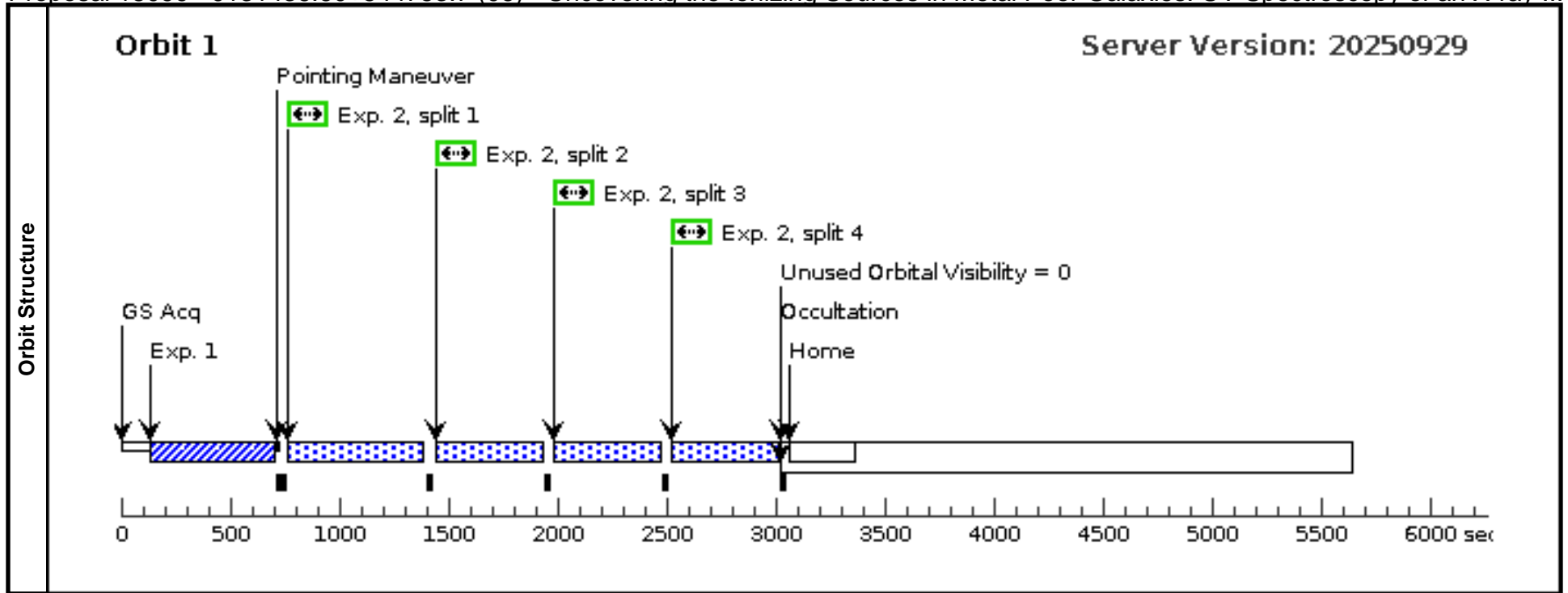
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	(G140L Spec (05.002)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details.									
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(5)	J082730.65+192160.0	RA: 08 27 30.6500 (126.8777083d) Dec: +19 21 59.97 (19.36666d) Equinox: J2000	Redshift: 0.03626	V=15.8+/-0.05 FUV=17.91+/-0.07, NUV=17.55+/-0.04	Reference Frame: ICRS				
Comments: Category=GALAXY Description=[DWARF COMPACT, STARBURST] Extended=YES										
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	ACQ (COS.ta.202 3406)	(5) J082730.65+192 160.0	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				180 Secs (180 Secs)	
									[==>]	[1]
2	G140L Spec (COS.sp.202 3270)	(5) J082730.65+192 160.0	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=79 60; FLASH=YES; FP-POS=ALL; SEGMENT=A			398 Secs (1595 Secs)		
								[==>(Split 1)] [==>(Split 2)] [==>(Split 3)] [==>401.0 Secs (Split 4)]	[1]	



Proposal 18099 - J131436.60+544753.7 (06) - Uncovering the Ionizing Sources in Metal Poor Galaxies: UV Spectroscopy of an X-ray ...

Thu Apr 02 19:00:21 GMT 2026

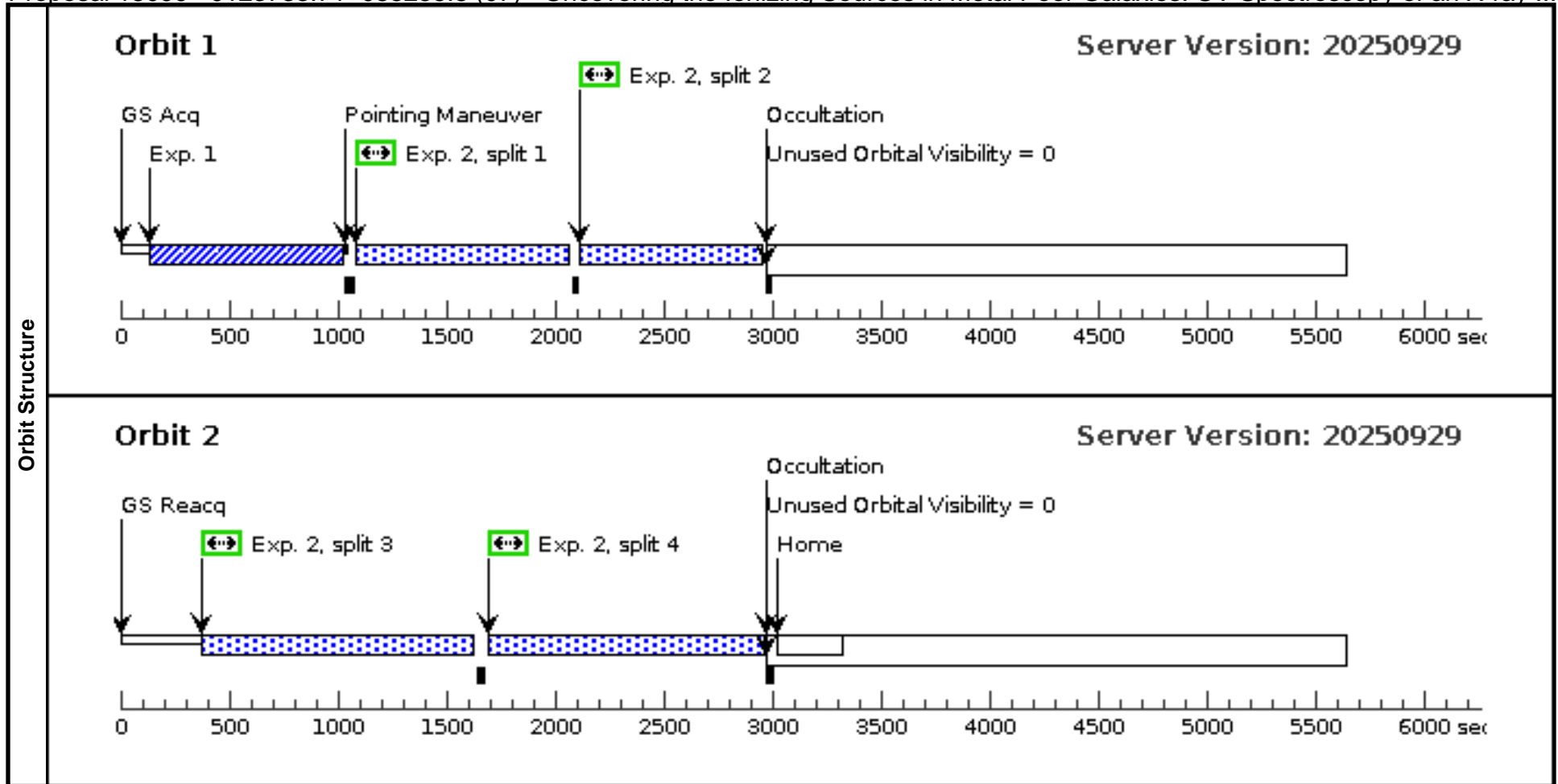
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Diagnosics										
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(6)	J131436.60+544753.7	RA: 13 14 36.6000 (198.6525000d) Dec: +54 47 53.67 (54.79824d) Equinox: J2000	Redshift: 0.03232	V=15.3+/-0.05	Reference Frame: ICRS				
Comments: Category=GALAXY Description=[DWARF COMPACT, STARBURST] Extended=YES										
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	ACQ (COS.ta.202 4480)	(6) J131436.60+544 753.7	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				130 Secs (130 Secs) [==>]	[1]
	2	G140L Spec (COS.sp.202 4481)	(6) J131436.60+544 753.7	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=79 29; FLASH=YES; FP-POS=ALL; SEGMENT=A			436 Secs (1745 Secs) [==>(Split 1)] [==>(Split 2)] [==>(Split 3)] [==>437.0 Secs (Split 4)]	[1]



Proposal 18099 - J123733.71+085255.8 (07) - Uncovering the Ionizing Sources in Metal Poor Galaxies: UV Spectroscopy of an X-ray ...

Thu Apr 02 19:00:21 GMT 2026

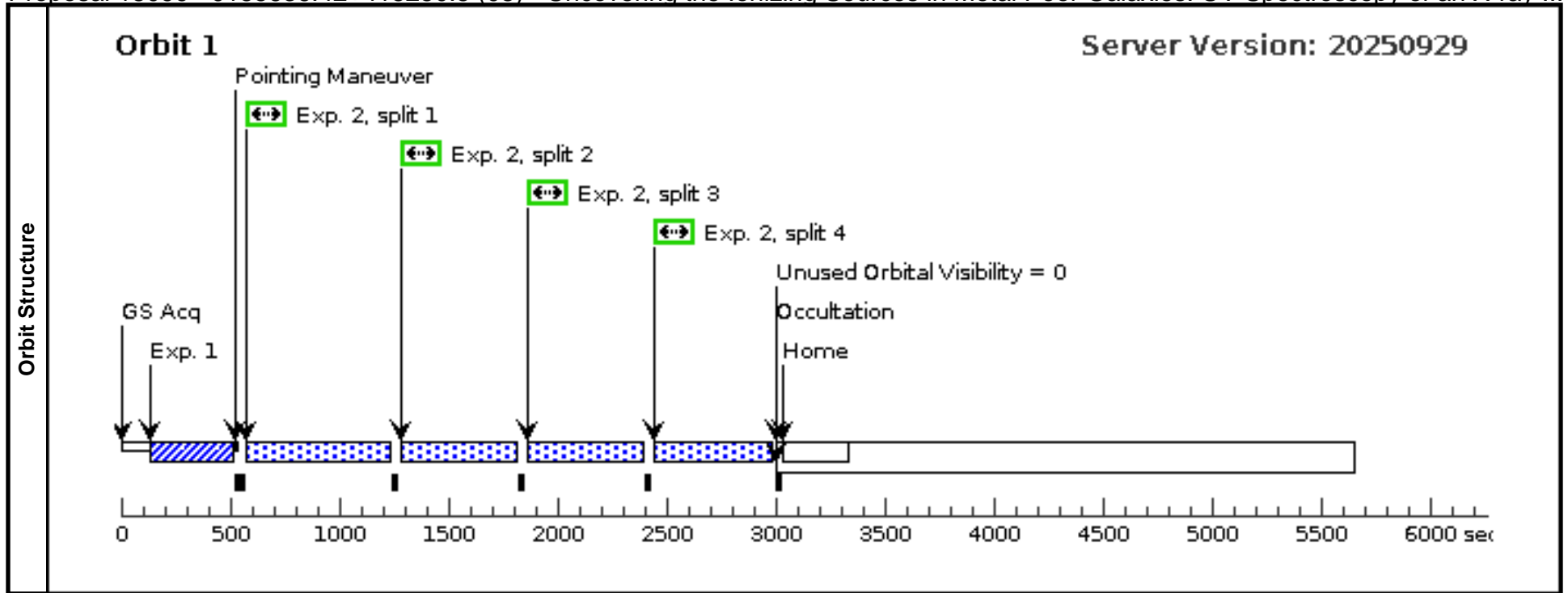
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	(G140L Spec (07.002)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details.									
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(7)	J123733.71+085255.8	RA: 12 37 33.7100 (189.3904583d) Dec: +08 52 55.79 (8.88216d) Equinox: J2000	Redshift: 0.04368	V=16.7+/-0.05 FUV=18.34+/-0.09, NUV=18.03+/-0.05	Reference Frame: ICRS				
Comments: Category=GALAXY Description=[DWARF COMPACT, STARBURST] Extended=YES										
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	ACQ (COS.ta.202 3409)	(7) J123733.71+085 255.8	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				290 Secs (290 Secs)	
									[==>]	[1]
	2	G140L Spec (COS.sp.202 3275)	(7) J123733.71+085 255.8	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=84 94; FLASH=YES; FP-POS=ALL; SEGMENT=A			840 Secs (4004 Secs)	
									[==>795.0 Secs (Split 1)] [==>791.0 Secs (Split 2)] [==>1200.0 Secs (Split 3)] [==>1218.0 Secs (Split 4)]	[1] [2]



Proposal 18099 - J155636.42+415250.5 (08) - Uncovering the Ionizing Sources in Metal Poor Galaxies: UV Spectroscopy of an X-ray ...

Thu Apr 02 19:00:21 GMT 2026

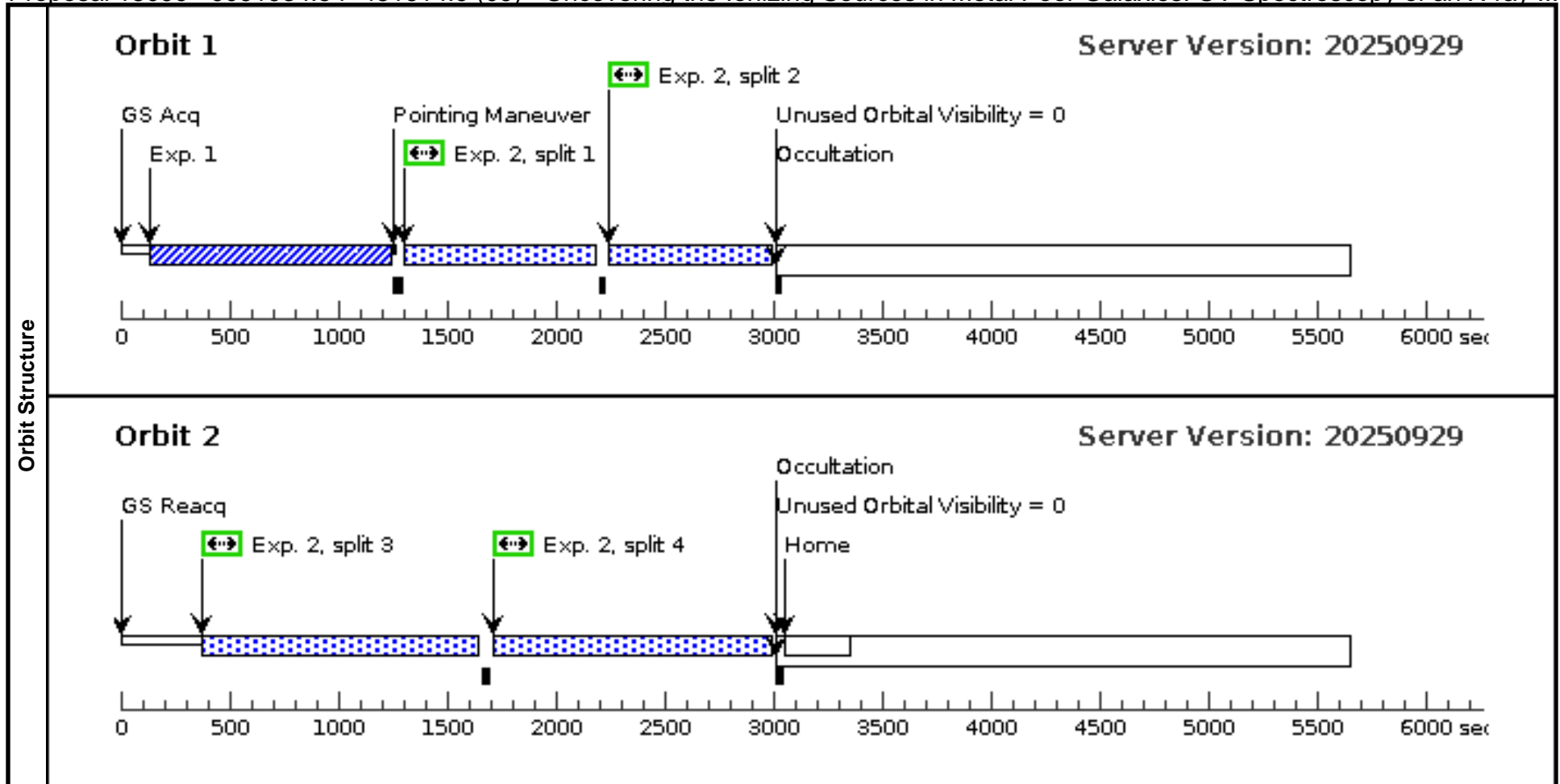
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	(G140L Spec (08.002)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details.																																			
Fixed Targets	<table border="1"> <thead> <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>(8)</td> <td>J155636.42+415250.5</td> <td>RA: 15 56 36.4200 (239.1517500d) Dec: +41 52 50.54 (41.88071d) Equinox: J2000</td> <td>Redshift: 0.03471</td> <td>V=14.4+/-0.05 NUV=15.81+/-0.00</td> <td>Reference Frame: ICRS</td> </tr> </tbody> </table>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(8)	J155636.42+415250.5	RA: 15 56 36.4200 (239.1517500d) Dec: +41 52 50.54 (41.88071d) Equinox: J2000	Redshift: 0.03471	V=14.4+/-0.05 NUV=15.81+/-0.00	Reference Frame: ICRS	Comments: Category=GALAXY Description=[DWARF COMPACT, STARBURST] Extended=YES																						
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous																														
(8)	J155636.42+415250.5	RA: 15 56 36.4200 (239.1517500d) Dec: +41 52 50.54 (41.88071d) Equinox: J2000	Redshift: 0.03471	V=14.4+/-0.05 NUV=15.81+/-0.00	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>ACQ (COS.ta.202 3410)</td> <td>(8) J155636.42+415 250.5</td> <td>COS/NUV, ACQ/IMAGE, PSA</td> <td>MIRRORB</td> <td></td> <td></td> <td></td> <td>34 Secs (34 Secs) [==>]</td> <td>[1]</td> </tr> <tr> <td>2</td> <td>G140L Spec (COS.sp.202 3278)</td> <td>(8) J155636.42+415 250.5</td> <td>COS/FUV, TIME-TAG, PSA</td> <td>G140L 1105 A</td> <td>BUFFER-TIME=49 85; FLASH=YES; FP-POS=ALL; SEGMENT=A</td> <td></td> <td></td> <td>475 Secs (1912 Secs) [==>(Split 1)] [==>(Split 2)] [==>(Split 3)] [==>487.0 Secs (Split 4)]</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	ACQ (COS.ta.202 3410)	(8) J155636.42+415 250.5	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				34 Secs (34 Secs) [==>]	[1]	2	G140L Spec (COS.sp.202 3278)	(8) J155636.42+415 250.5	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=49 85; FLASH=YES; FP-POS=ALL; SEGMENT=A			475 Secs (1912 Secs) [==>(Split 1)] [==>(Split 2)] [==>(Split 3)] [==>487.0 Secs (Split 4)]	[1]					
	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit																										
	1	ACQ (COS.ta.202 3410)	(8) J155636.42+415 250.5	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				34 Secs (34 Secs) [==>]	[1]																										
2	G140L Spec (COS.sp.202 3278)	(8) J155636.42+415 250.5	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=49 85; FLASH=YES; FP-POS=ALL; SEGMENT=A			475 Secs (1912 Secs) [==>(Split 1)] [==>(Split 2)] [==>(Split 3)] [==>487.0 Secs (Split 4)]	[1]																											



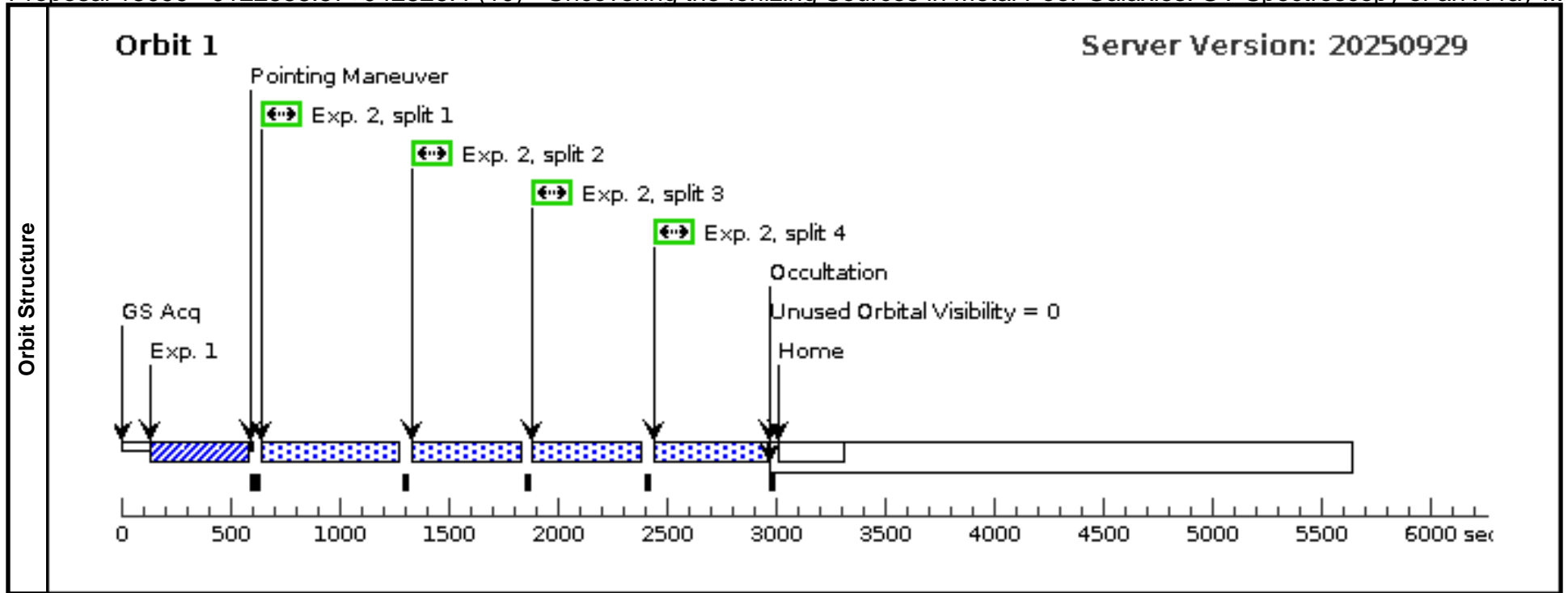
Proposal 18099 - J091934.54+481614.9 (09) - Uncovering the Ionizing Sources in Metal Poor Galaxies: UV Spectroscopy of an X-ray ...

Thu Apr 02 19:00:21 GMT 2026

Visit	Proposal 18099, J091934.54+481614.9 (09), scheduling Diagnostic Status: Warning Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)										
	(G140L Spec (09.002)) 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					
	(9)	J091934.54+481614.9	RA: 09 19 34.5400 (139.8939167d) Dec: +48 16 14.87 (48.27080d) Equinox: J2000	Redshift: 0.03023	V=16.7+/-0.05 FUV=18.85+/-0.08, NUV=18.36+/-0.04	Reference Frame: ICRS					
Comments: Category=GALAXY Description=[DWARF COMPACT, STARBURST] Extended=YES											
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit	
	1	ACQ (COS.ta.202 3413)	(9) J091934.54+481 614.9	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				400 Secs (400 Secs)		
									[==>]	[1]	
	2	G140L Spec (COS.sp.202 3273)	(9) J091934.54+481 614.9	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=87 36;	FLASH=YES; FP-POS=ALL; SEGMENT=A			820 Secs (3852 Secs)	
									[==>700.0 Secs (Split 1)] [==>700.0 Secs (Split 2)] [==>1220.0 Secs (Split 3)] [==>1232.0 Secs (Split 4)]	[1] [2]	



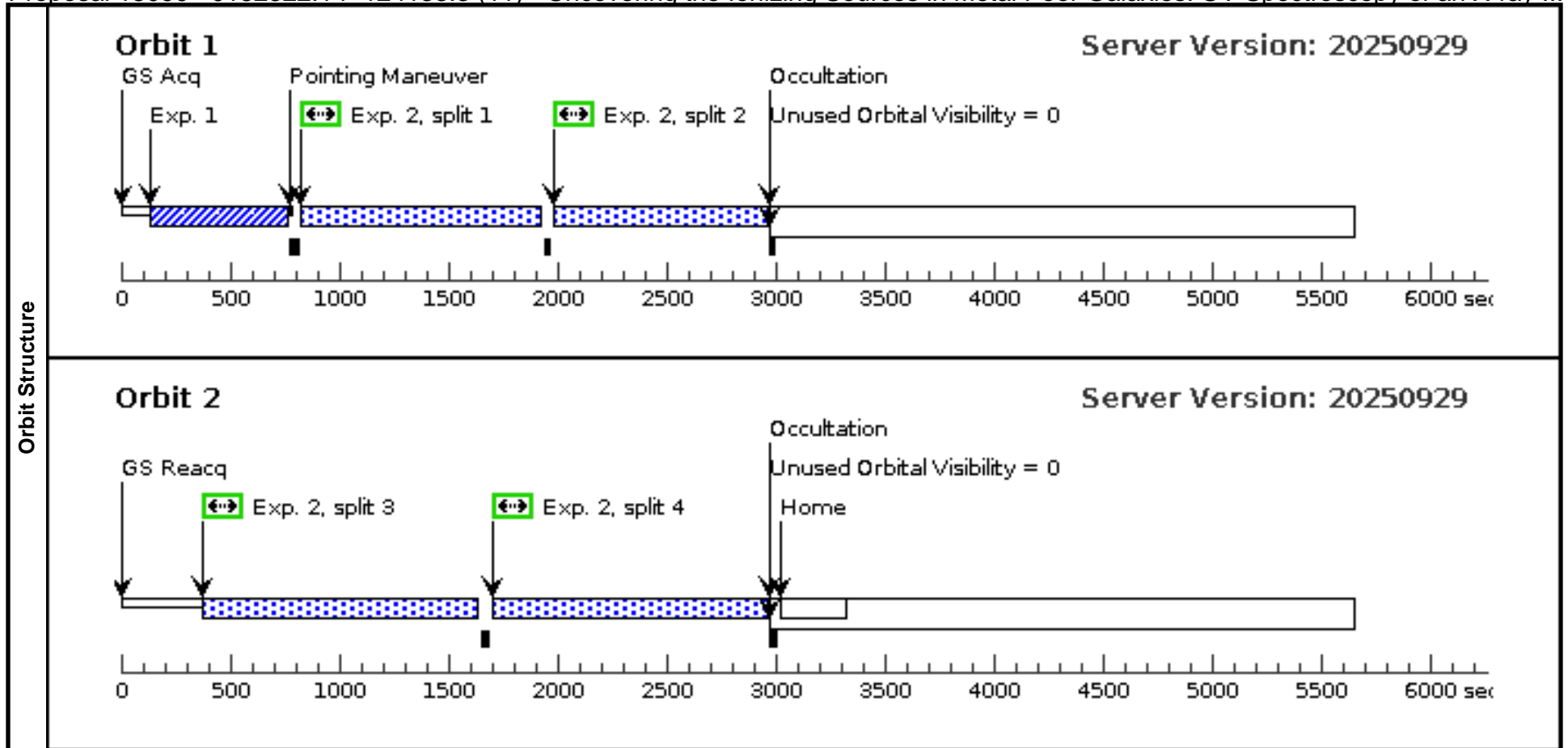
Visit	Proposal 18099, J122558.57+042826.4 (10), scheduling Diagnostic Status: Warning Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)									
	(G140L Spec (10.002)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details.									
Diagnosics										
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(10)	J122558.57+042826.4	RA: 12 25 58.5700 (186.4940417d) Dec: +04 28 26.41 (4.47400d) Equinox: J2000	Redshift: 0.01849	V=14.6+/-0.05 FUV=17.07+/-0.04, NUV=16.56+/-0.02	Reference Frame: ICRS				
Comments: Category=GALAXY Description=[DWARF COMPACT, STARBURST] Extended=YES										
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	ACQ (COS.ta.202 3414)	(10) J122558.57+04 2826.4	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				70 Secs (70 Secs) [==>]	[1]
	2	G140L Spec (COS.sp.202 3280)	(10) J122558.57+04 2826.4	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=66 22; FLASH=YES; FP-POS=ALL; SEGMENT=A			450 Secs (1818 Secs) [==>(Split 1)] [==>(Split 2)] [==>(Split 3)] [==>468.0 Secs (Split 4)]	[1]



Proposal 18099 - J152322.14+124133.3 (11) - Uncovering the Ionizing Sources in Metal Poor Galaxies: UV Spectroscopy of an X-ray ...

Thu Apr 02 19:00:21 GMT 2026

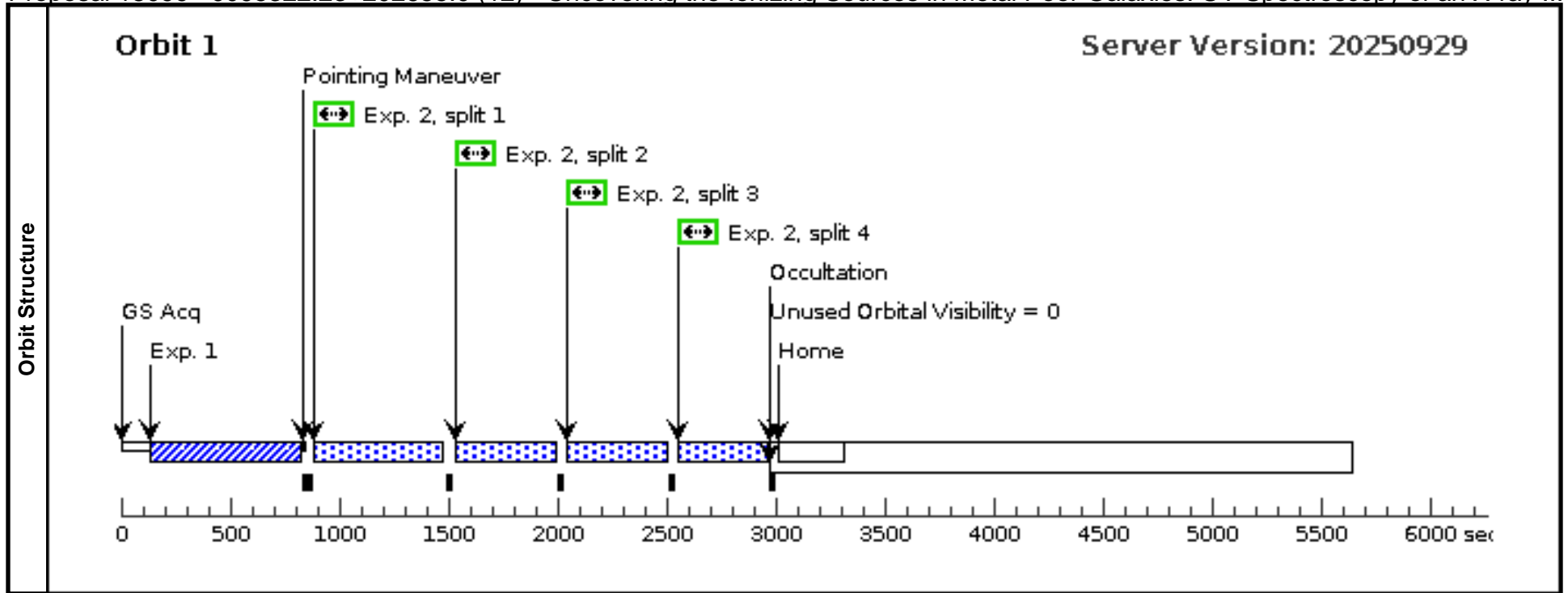
Visit	Proposal 18099, J152322.14+124133.3 (11), scheduled Diagnostic Status: Warning Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)																																		
	(G140L Spec (11.002)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration 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>(11)</td> <td>J152322.14+124133.3</td> <td>RA: 15 23 22.1400 (230.8422500d) Dec: +12 41 33.26 (12.69257d) Equinox: J2000</td> <td>Redshift: 0.02179</td> <td>V=15.5+/-0.05</td> <td>Reference Frame: ICRS</td> </tr> </tbody> </table>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(11)	J152322.14+124133.3	RA: 15 23 22.1400 (230.8422500d) Dec: +12 41 33.26 (12.69257d) Equinox: J2000	Redshift: 0.02179	V=15.5+/-0.05	Reference Frame: ICRS	Comments: Category=GALAXY Description=[DWARF COMPACT, STARBURST] Extended=YES																					
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous																													
(11)	J152322.14+124133.3	RA: 15 23 22.1400 (230.8422500d) Dec: +12 41 33.26 (12.69257d) Equinox: J2000	Redshift: 0.02179	V=15.5+/-0.05	Reference Frame: ICRS																														
<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>ACQ (COS.ta.202 4485)</td> <td>(11) J152322.14+12 4133.3</td> <td>COS/NUV, ACQ/IMAGE, PSA</td> <td>MIRRORB</td> <td></td> <td></td> <td></td> <td>160 Secs (160 Secs) [==>]</td> <td>[1]</td> </tr> <tr> <td>2</td> <td>G140L Spec (COS.sp.202 4483)</td> <td>(11) J152322.14+12 4133.3</td> <td>COS/FUV, TIME-TAG, PSA</td> <td>G140L 1105 A</td> <td>BUFFER-TIME=89 78; FLASH=YES; FP-POS=ALL; SEGMENT=A</td> <td></td> <td></td> <td>920 Secs (4258 Secs) [==>(Split 1)] [==>923.0 Secs (Split 2)] [==>1210.0 Secs (Split 3)] [==>1205.0 Secs (Split 4)]</td> <td>[1] [2]</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	ACQ (COS.ta.202 4485)	(11) J152322.14+12 4133.3	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				160 Secs (160 Secs) [==>]	[1]	2	G140L Spec (COS.sp.202 4483)	(11) J152322.14+12 4133.3	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=89 78; FLASH=YES; FP-POS=ALL; SEGMENT=A			920 Secs (4258 Secs) [==>(Split 1)] [==>923.0 Secs (Split 2)] [==>1210.0 Secs (Split 3)] [==>1205.0 Secs (Split 4)]	[1] [2]
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit																										
1	ACQ (COS.ta.202 4485)	(11) J152322.14+12 4133.3	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				160 Secs (160 Secs) [==>]	[1]																										
2	G140L Spec (COS.sp.202 4483)	(11) J152322.14+12 4133.3	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=89 78; FLASH=YES; FP-POS=ALL; SEGMENT=A			920 Secs (4258 Secs) [==>(Split 1)] [==>923.0 Secs (Split 2)] [==>1210.0 Secs (Split 3)] [==>1205.0 Secs (Split 4)]	[1] [2]																										



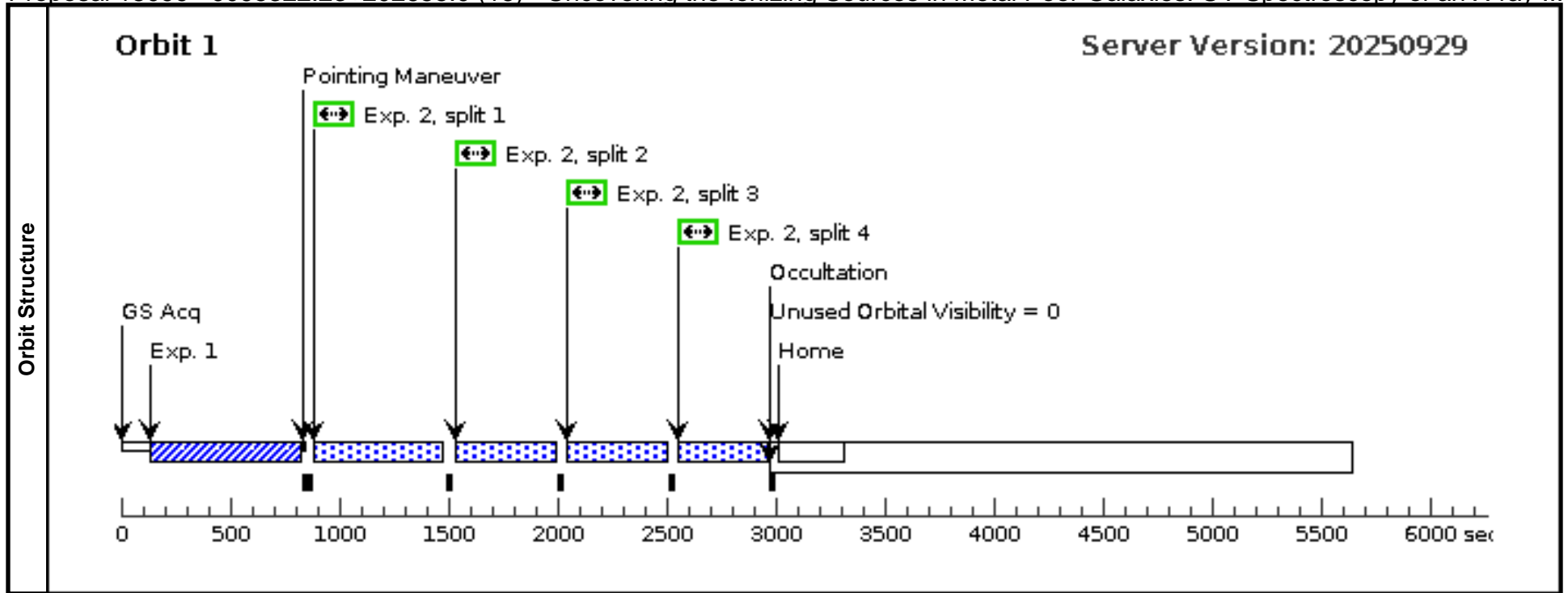
Proposal 18099 - J095322.23+202655.0 (12) - Uncovering the Ionizing Sources in Metal Poor Galaxies: UV Spectroscopy of an X-ray ...

Thu Apr 02 19:00:21 GMT 2026

Visit	<p>Proposal 18099, J095322.23+202655.0 (12), failed</p> <p>Diagnostic Status: Warning</p> <p>Scientific Instruments: COS/FUV, COS/NUV</p> <p>Special Requirements: (none)</p>									
Diagnostics	<p>(G140L Spec (12.002)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details.</p>									
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(12)	J095322.23+202655.0	RA: 09 53 22.2300 (148.3426250d) Dec: +20 26 55.00 (20.44861d) Equinox: J2000	Redshift: 0.01999	V=15.8+/-0.05 FUV=18.02+/-0.05, NUV=17.59+/-0.03	Reference Frame: ICRS				
	<p><i>Comments:</i> Category=GALAXY Description=[DWARF COMPACT, STARBURST] Extended=YES</p>									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	ACQ (COS.ta.202 3416)	(12) J095322.23+20 2655.0	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				189 Secs (189 Secs) [==>]	[1]
	2	G140L Spec (COS.sp.202 3284)	(12) J095322.23+20 2655.0	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=81 77; FLASH=YES; FP-POS=ALL; SEGMENT=A			408 Secs (1580 Secs) [==>(Split 1)] [==>(Split 2)] [==>(Split 3)] [==>356.0 Secs (Split 4)]	[1]



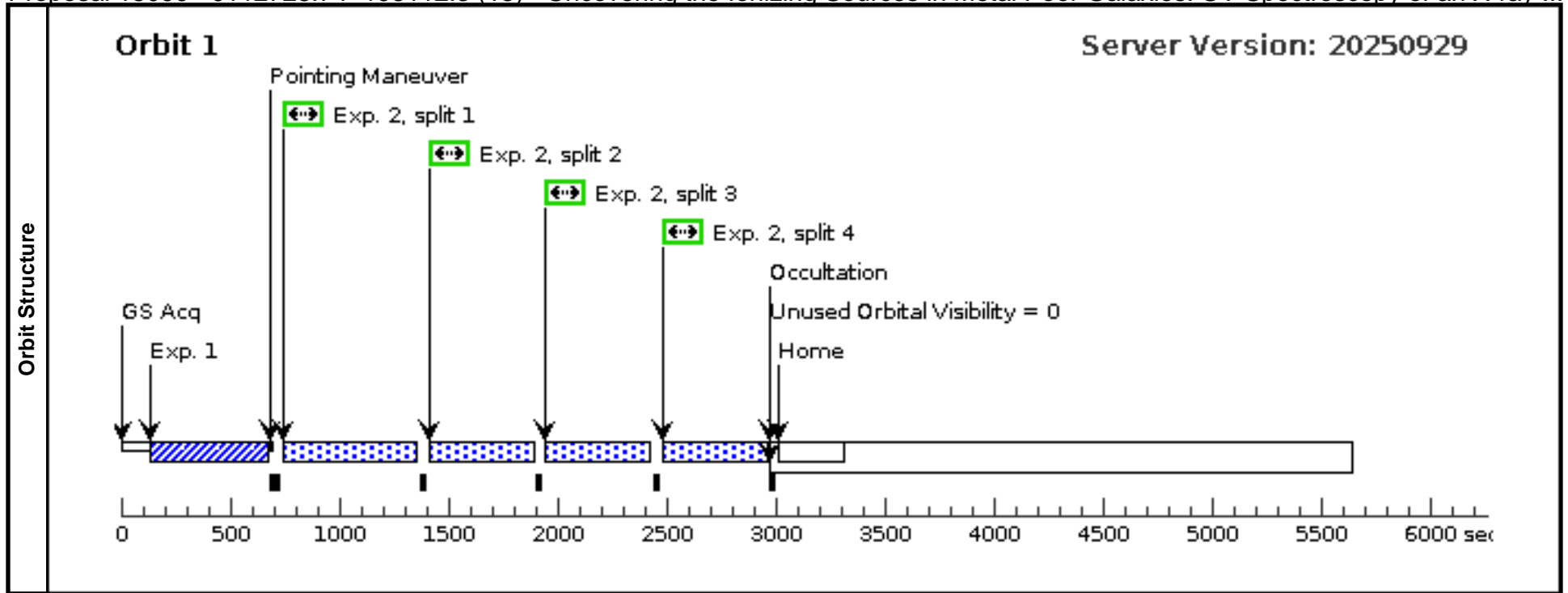
Visit	Proposal 18099, J095322.23+202655.0 (16) Diagnostic Status: Warning Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)									
	(G140L Spec (16.002)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details.									
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(12)	J095322.23+202655.0	RA: 09 53 22.2300 (148.3426250d) Dec: +20 26 55.00 (20.44861d) Equinox: J2000	Redshift: 0.01999	V=15.8+/-0.05 FUV=18.02+/-0.05, NUV=17.59+/-0.03	Reference Frame: ICRS				
Comments: Category=GALAXY Description=[DWARF COMPACT, STARBURST] Extended=YES										
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	ACQ (COS.ta.202 3416)	(12) J095322.23+20 2655.0	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				189 Secs (189 Secs)	
									[==>]	[1]
2	G140L Spec (COS.sp.202 3284)	(12) J095322.23+20 2655.0	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=81 77; FLASH=YES; FP-POS=ALL; SEGMENT=A			408 Secs (1580 Secs)		
								[==>(Split 1)] [==>(Split 2)] [==>(Split 3)] [==>356.0 Secs (Split 4)]	[1]	



Proposal 18099 - J112728.74+195112.3 (13) - Uncovering the Ionizing Sources in Metal Poor Galaxies: UV Spectroscopy of an X-ray ...

Thu Apr 02 19:00:21 GMT 2026

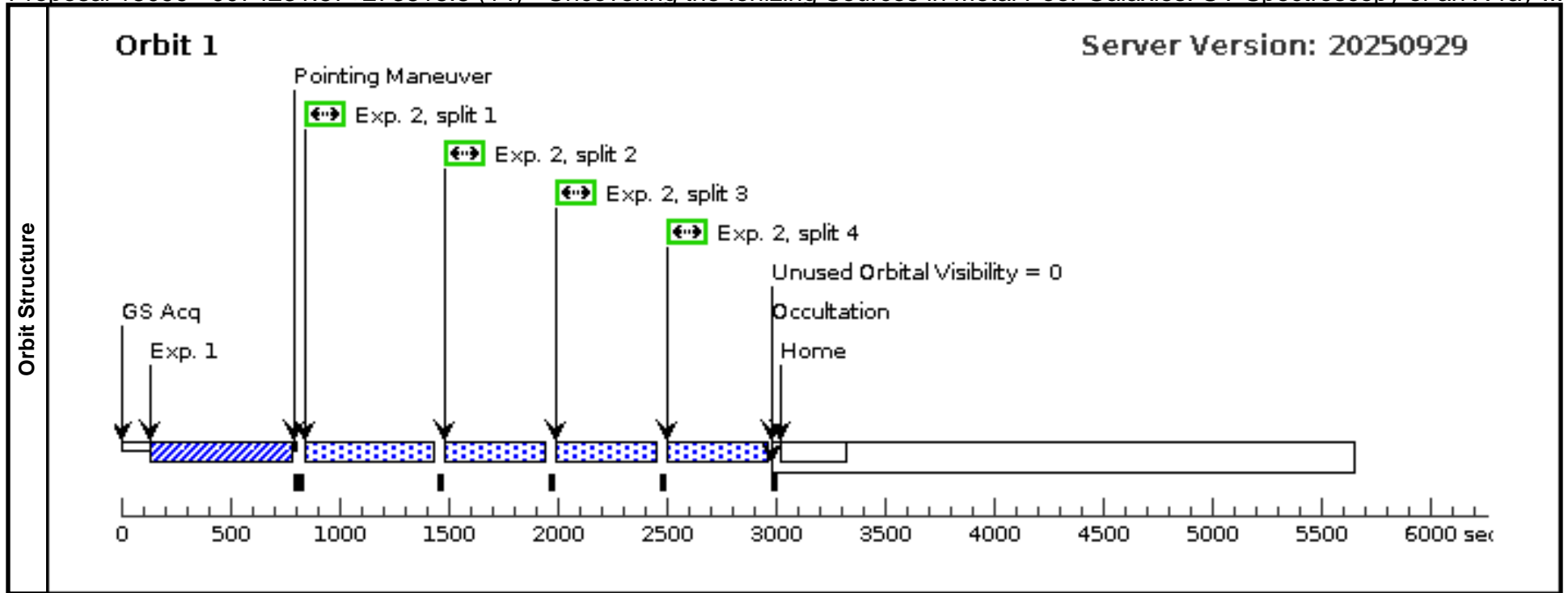
Visit	Proposal 18099, J112728.74+195112.3 (13), scheduling Diagnostic Status: Warning Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)									
Diagnostics	(G140L Spec (13.002)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details.									
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(13)	J112728.74+195112.3	RA: 11 27 28.7400 (171.8697500d) Dec: +19 51 12.29 (19.85341d) Equinox: J2000	Redshift: 0.02179	V=15.2+/-0.05 FUV=17.60+/-0.04, NUV=17.11+/-0.01	Reference Frame: ICRS				
	Comments: Category=GALAXY Description=[DWARF COMPACT, STARBURST] Extended=YES									
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	ACQ (COS.ta.202 3412)	(13) J112728.74+19 5112.3	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				118 Secs (118 Secs) [==>]	[1]
	2	G140L Spec (COS.sp.202 3285)	(13) J112728.74+19 5112.3	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=74 97; FLASH=YES; FP-POS=ALL; SEGMENT=A			430 Secs (1719 Secs) [==>(Split 1)] [==>(Split 2)] [==>(Split 3)] [==>429.0 Secs (Split 4)]	[1]



Proposal 18099 - J074231.57+273818.8 (14) - Uncovering the Ionizing Sources in Metal Poor Galaxies: UV Spectroscopy of an X-ray ...

Thu Apr 02 19:00:21 GMT 2026

Visit	Proposal 18099, J074231.57+273818.8 (14), scheduling Diagnostic Status: Warning Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)																																		
	(G140L Spec (14.002)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details.																																		
Diagnosics																																			
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>(14)</td> <td>J074231.57+273818.8</td> <td>RA: 07 42 31.5700 (115.6315417d) Dec: +27 38 18.81 (27.63856d) Equinox: J2000</td> <td>Redshift: 0.02686</td> <td>V=15.5+/-0.05</td> <td>Reference Frame: ICRS</td> </tr> </tbody> </table>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(14)	J074231.57+273818.8	RA: 07 42 31.5700 (115.6315417d) Dec: +27 38 18.81 (27.63856d) Equinox: J2000	Redshift: 0.02686	V=15.5+/-0.05	Reference Frame: ICRS	Comments: Category=GALAXY Description=[DWARF COMPACT, STARBURST] Extended=YES																					
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous																													
(14)	J074231.57+273818.8	RA: 07 42 31.5700 (115.6315417d) Dec: +27 38 18.81 (27.63856d) Equinox: J2000	Redshift: 0.02686	V=15.5+/-0.05	Reference Frame: ICRS																														
<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>ACQ (COS.ta.202 4479)</td> <td>(14) J074231.57+27 3818.8</td> <td>COS/NUV, ACQ/IMAGE, PSA</td> <td>MIRRORB</td> <td></td> <td></td> <td></td> <td>170 Secs (170 Secs) [==>]</td> <td>[1]</td> </tr> <tr> <td>2</td> <td>G140L Spec (COS.sp.202 4478)</td> <td>(14) J074231.57+27 3818.8</td> <td>COS/FUV, TIME-TAG, PSA</td> <td>G140L 1105 A</td> <td>BUFFER-TIME=86 79; FLASH=YES; FP-POS=ALL; SEGMENT=A</td> <td></td> <td></td> <td>405 Secs (1622 Secs) [==>(Split 1)] [==>(Split 2)] [==>(Split 3)] [==>407.0 Secs (Split 4)]</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	ACQ (COS.ta.202 4479)	(14) J074231.57+27 3818.8	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				170 Secs (170 Secs) [==>]	[1]	2	G140L Spec (COS.sp.202 4478)	(14) J074231.57+27 3818.8	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=86 79; FLASH=YES; FP-POS=ALL; SEGMENT=A			405 Secs (1622 Secs) [==>(Split 1)] [==>(Split 2)] [==>(Split 3)] [==>407.0 Secs (Split 4)]	[1]
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit																										
1	ACQ (COS.ta.202 4479)	(14) J074231.57+27 3818.8	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				170 Secs (170 Secs) [==>]	[1]																										
2	G140L Spec (COS.sp.202 4478)	(14) J074231.57+27 3818.8	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=86 79; FLASH=YES; FP-POS=ALL; SEGMENT=A			405 Secs (1622 Secs) [==>(Split 1)] [==>(Split 2)] [==>(Split 3)] [==>407.0 Secs (Split 4)]	[1]																										
Exposures																																			



Visit	Proposal 18099, J132549.42+330354.3 (15), completed Diagnostic Status: Warning Scientific Instruments: COS/FUV, COS/NUV Special Requirements: (none)									
	(G140L Spec (15.002)) Warning (Form): COS FUV PSA science exposures with extended targets have special calibration limitations. See "Errors and Warnings" for more details.									
Diagnosics										
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(16)	J132549.42+330354.3	RA: 13 25 49.4200 (201.4559167d) Dec: +33 03 54.30 (33.06508d) Equinox: J2000	Redshift: 0.0146	V=16.7+/-0.05 FUV=18.2+/-0.1, NUV=17.9+/-0.1	Reference Frame: ICRS				
Comments: Category=GALAXY Description=[DWARF COMPACT, STARBURST] Extended=YES										
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	ACQ (COS.ta.202 3416)	(16) J132549.42+33 0354.3	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				180 Secs (180 Secs) [==>]	[1]
	2	G140L Spec (COS.sp.202 3284)	(16) J132549.42+33 0354.3	COS/FUV, TIME-TAG, PSA	G140L 1105 A	BUFFER-TIME=81 77; FLASH=YES; FP-POS=ALL; SEGMENT=A			408 Secs (1606 Secs) [==>(Split 1)] [==>(Split 2)] [==>(Split 3)] [==>382.0 Secs (Split 4)]	[1]

