17896 - A COMPLETE PICTURE OF REPROCESSING GAS: SUPPORTING THE XRISM OBSERVATION OF NGC 4051

Cycle: 32, Proposal Category: GO

(Availability Mode: SUPPORTED)

INVESTIGATORS

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VISITS

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
01	(1) NGC-4051	COS/FUV COS/NUV	4	14-Jan-2025 08:00:13.0	yes

4 Total Orbits Used

ABSTRACT

We propose a 220 ks XMM exposure with 150 ks of NuSTAR and 4 orbits of HST in support of a 150 ks approved cycle 1 XRISM observation of NGC 4051. Together these will reveal reprocessing signatures over a broad range of xi, NH and velocity. The tightly-constrained black hole mass in NGC 4051 will facilitate translation of measurements to accurate

radial and geometric constraints, elucidating contributions from the accretion disk, BLR and torus. The proposed campaign will provide a major step toward a complete model for the reprocessor.

OBSERVING DESCRIPTION

We propose a 220 ks XMM exposure with 150 ks of NuSTAR and 4 orbits of HST in support of a 150 ks approved cycle 1 XRISM observation of NGC 4051.

Visit

Proposal 17896, Visit 01, implementation Tue Jan 14 13:00:13 GMT 2025

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: (none)

Diagnostics

(Visit 01) Warning (Orbit Planner): COORDINATES SHOULD BE IN THE ICRS REFERENCE SYSTEM FOR A SMALL APERTURE
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Fixed Targets

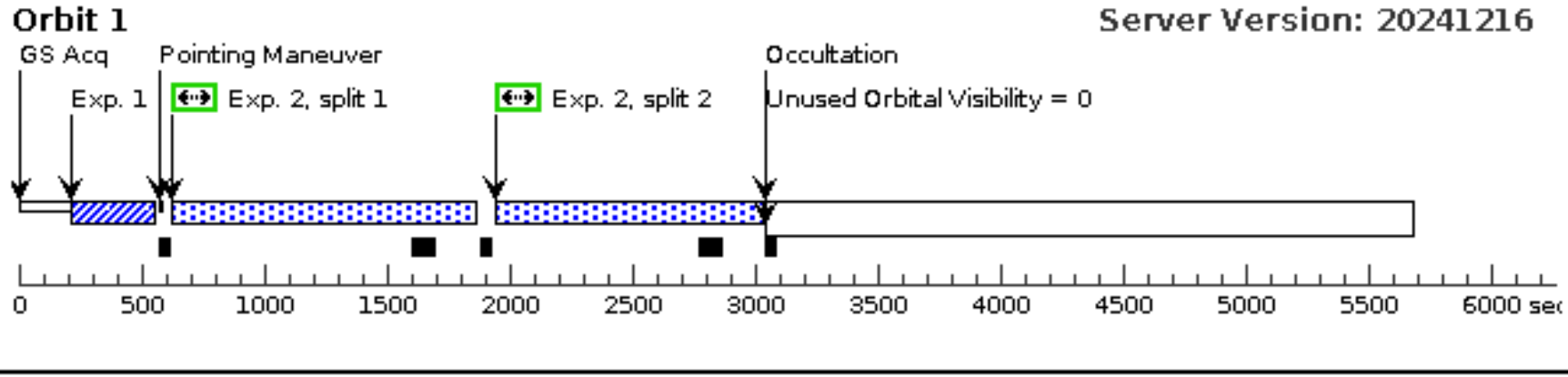
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	NGC-4051	RA: 12 03 9.6072 (180.7900300d) Dec: +44 31 52.72 (44.53131d) Equinox: J2000		V=12.92+/-0.10	Reference Frame: NED

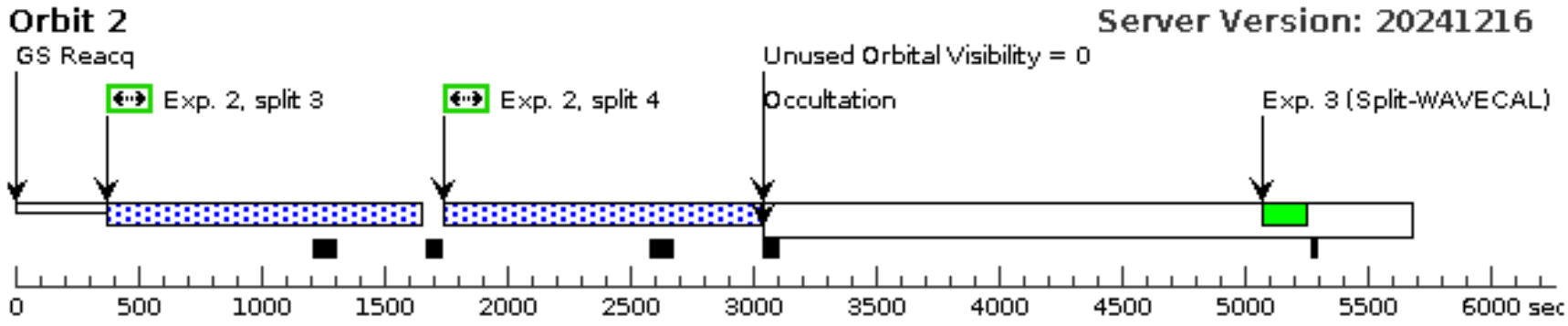
Comments: This object was generated by the targetselector and retrieved from the NED database.
Category=GALAXY
Description=[ACCRETION DISK, SEYFERT]
Extended=NO

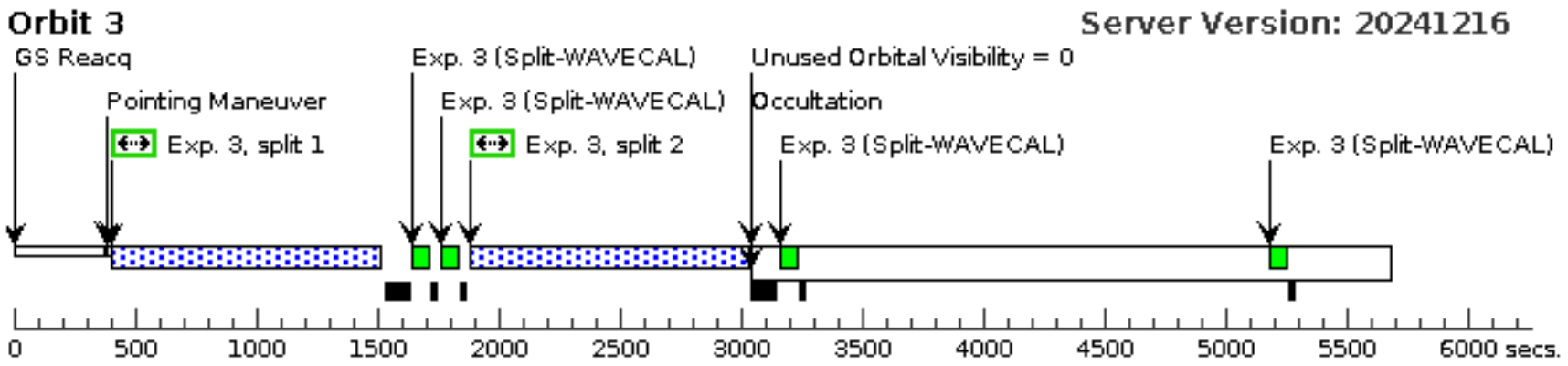
Exposures

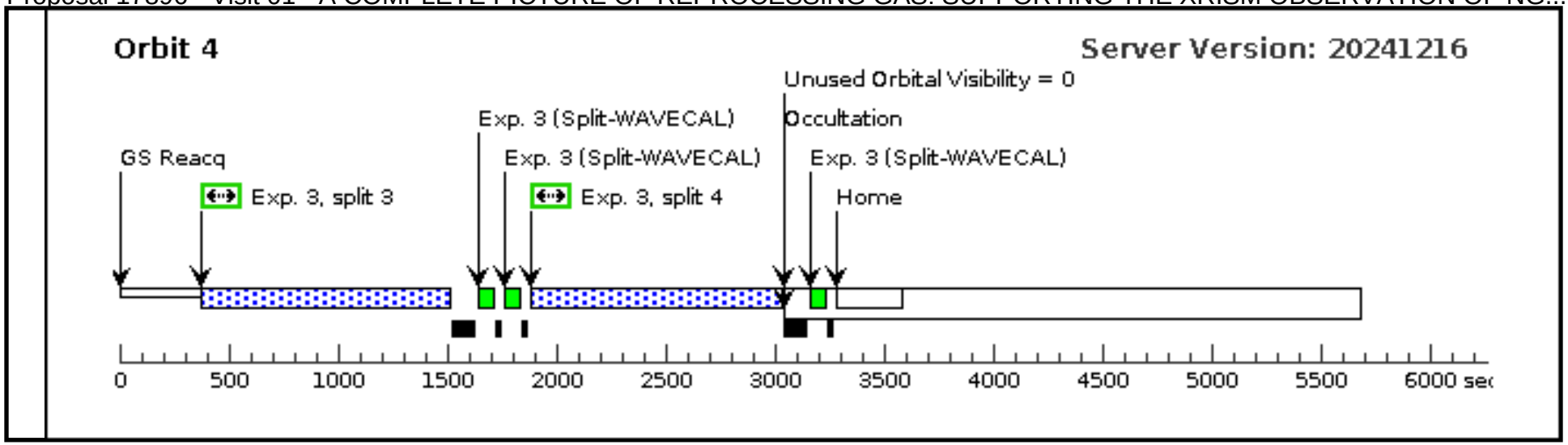
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(1946643)	(1) NGC-4051	COS/NUV, ACQ/IMAGE, BOA	MIRRORA				60 Secs (60 Secs) *[==>]*	***[1]***
2	(1946642)	(1) NGC-4051	COS/FUV, TIME-TAG, PSA	G130M 1222 A	FP-POS=ALL; BUFFER-TIME=798			940 Secs (4554 Secs) *[==>1050.0 Secs (Split 1)]* *[==>1042.0 Secs (Split 2)]*	***[1]***
								[==>1227.0 Secs (Split 3)] *[==>1235.0 Secs (Split 4)]*	***[2]***
Comments: Schedule with XMM									
3	(1946641)	(1) NGC-4051	COS/FUV, TIME-TAG, PSA	G160M 1533 A	FP-POS=ALL; BUFFER-TIME=1115			1088 Secs (4351 Secs) *[==>1062.0 Secs (Split 1)]* *[==>1098.0 Secs (Split 2)]*	***[3]***
								[==>1088 Secs (Split 3)] *[==>1103.0 Secs (Split 4)]*	***[4]***

Orbit Structure








Orbit 4
Server Version: 20241216
Unused Orbital Visibility = 0
Exp. 3 (Split-WAVECAL)
Occultation
GS Reacq
Exp. 3 (Split-WAVECAL)
Exp. 3 (Split-WAVECAL)
Exp. 3, split 3
Exp. 3, split 4
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000 sec