14054 - Tracking Down the Ionized Outflow of NGC 7469

Cycle: 23, 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-7469	COS/FUV	2	07-Mar-2015 21:02:09.0	yes
02	(1) NGC-7469	COS/FUV	2	07-Mar-2015 21:02:12.0	yes
03	(1) NGC-7469	COS/FUV	2	07-Mar-2015 21:02:15.0	yes
04	(1) NGC-7469	COS/FUV	2	07-Mar-2015 21:02:18.0	yes
05	(1) NGC-7469	COS/FUV	2	07-Mar-2015 21:02:20.0	yes
06	(1) NGC-7469	COS/FUV	2	07-Mar-2015 21:02:23.0	yes
07	(1) NGC-7469	COS/FUV	2	07-Mar-2015 21:02:26.0	yes

14 Total Orbits Used

ABSTRACT

Using a multiwavelength campaign on NGC 7469, led by XMM-Newton, HST, Swift, NuSTAR, and optical, we propose to achieve new physical insights into the enigmatic AGN winds, by obtaining the deepest ever RGS spectrum of this highly- accreting source. It will allow us to determine the accurate ionisation and chemical structure of the wind. Using EPIC and RGS, we will measure the response of the outflow to continuum variations, which combined with HST/COS data will unambiguously determine the location, and abundances of the outflow components. Our team pioneered this approach, and applied it successfully (14 refereed papers) to Mrk 509 that featured only a multi-year response. The unique properties of NGC 7469 make it the ideal candidate to respond on shorter, better-monitored time scales.

OBSERVING DESCRIPTION

NGC-7469 shows far-UV continuum variations of 17% (rms) over time scales of days to months (Dunn et al. 2006). Historically from HST observations, the UV absorption troughs in NGC-7469 exhibit strong variations in depth as the continuum flux changes (Scott et al. 2005). We expect a roughly linear response for the column density of Ly alpha, NV, and CIV in response to continuum changes. To be sensitive to changes in the absorption lines at the 3-sigma level, a conservative estimate of the required S/N per resolution element is 3/0.17=17.6.

For Ly alpha and NV we will use grating G130M, with FP-POS positions 3 and 4 at a central wavelength setting of 1291, and FP-POS positions 1 and 2 at a central wavelength setting of 1309. This places the detector gap well beyond the N V emission line, and enables us to sample the shortest possible wavelengths down to 1132 A, thus also covering PV 1118,1124, and bridging the gap between detector segments A and B with our two

wavelength settings. The four FP-POS positions will permit us to effectively remove detector artifcats and flat-field non-uniformities. We will use grating G160M to cover the C IV line. To place the detector gap redward of the peak in the C IV line (and to avoid the blue-shifted intrinsic absorption lines), we will use central wavelength settings of 1600, FP-POS=1 and 2, and 1623 with FP-POS=1 and 2.

NGC 7469 is fairly bright, and at its historical maximum flux it is too bright to safely do an imaging target acquisition. We therefore use a spectroscopic target acquisition using G130M at the central wavelength setting of 1291 to match the first exposure in each of our visits. We use a conservative estimate of the exposure time in case the target is faint. We calcualte the exposure time at the minimum flux of 2.7e-14 (Dunn et al. 2006), obtain an exposure time of 1.37 s, and then increase that to 3 s to allow for even fainter potential variations.

NGC-7469 has been observed previously with COS on HST. No field objects are bright enough present any dangers due to over illumination of the COS detector. Likewise, the maximum flux of 7.0e-14 observed historically for NGC-7469 is well below the count-rate threshold for safe COS spectroscopic observations.

ETC IDs:
Target Acq Max (7.0e-14): COS.sa.663779 2692 cts/s on B
Target Acq Min (2.7e-14): COS.sa.663788 1236 cts/s on B; requires 1.37 s for S/N=40.
G130M: At the historical median flux of 4.7e-14 at 1377 A (Dunn et al. 2006) and 2000 s total exposure time, we expect a S/N per resolution element of 25. (ETC ID COS.sp.663800)
G160M: At the historical median flux of 4.7e-14 at 1377 A (Dunn et al. 2006) and 2400 s total exposure time, we expect a S/N per resolution element of 26 at 1525 A. (ETC ID COS.sp.663801)

Visit

Proposal 14054, Visit 01 Sun Mar 08 02:02:28 GMT 2015

Diagnostic Status: Warning

Scientific Instruments: COS/FUV

Special Requirements: SCHED 40%

Comments: To be coordinated with an XMM-Newton observation.
The observation is yet to be scheduled in May or June 2015.
The XMM observation will be 80 ks in length (approximately one day), and the HST visit should be within 1 day or less of the XMM observation.

Diagnostics

(Visit 01) Warning (Form): If the target coordinates are not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/PEAKXD.

(Visit 01) Warning (Form): For the best data quality, it is strongly recommended that all four FP-POS positions be used when observing at a given COS CENWAVE setting.

Fixed Targets

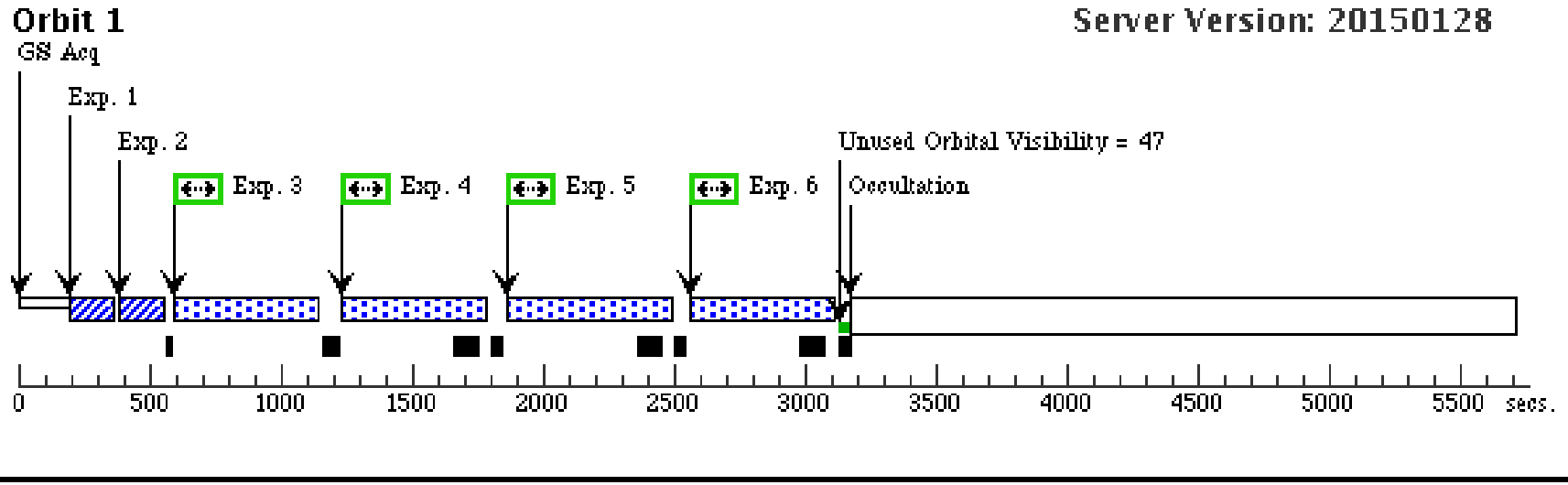
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	NGC-7469	RA: 23 03 15.6400 (345.8151667d) Dec: +08 52 25.40 (8.87372d) Equinox: J2000	Epoch of Position: 1983.844 Redshift: 0.016317	V=12.34+/-0.5 f(1370 A)=4.7e-14	Reference Frame: ICRS

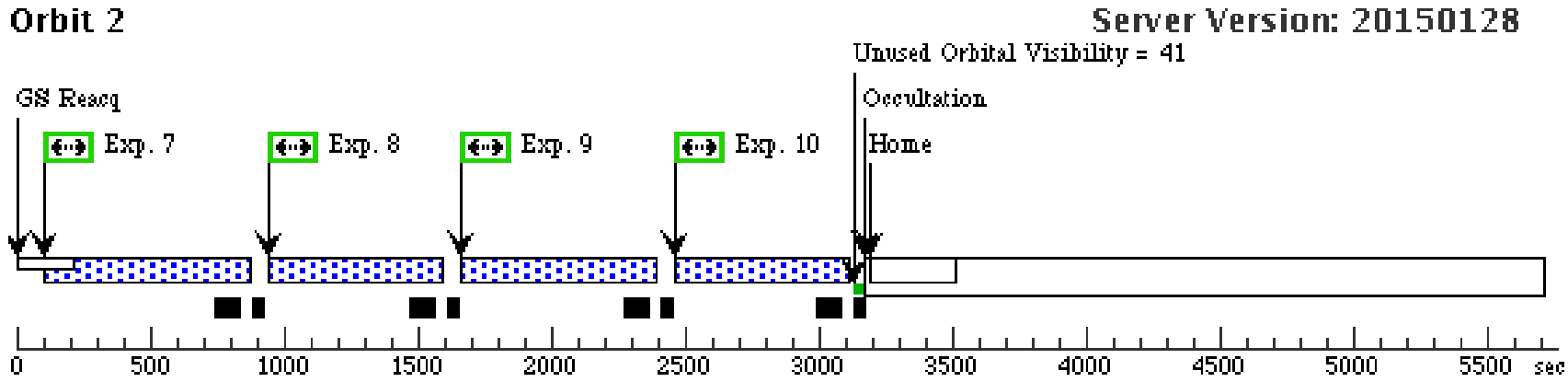
Comments: This object was identified in the GSC1 catalog, and coordinates were updated to GSC2/ICRS.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(COS.sa.663788)	(1) NGC-7469	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A				3.0 Secs (3 Secs) *[==>]*	*[1]*
2	(COS.sa.663788)	(1) NGC-7469	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	NUM-POS=5; STEP-SIZE=0.9; CENTER=FLUX-WT-FLR			3.0 Secs (3 Secs) *[==>]*	*[1]*
3	(COS.sp.663791)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=3; BUFFER-TIME=930			500. Secs (500 Secs) *[==>]*	*[1]*
4	(COS.sp.663791)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=4; BUFFER-TIME=390			500. Secs (500 Secs) *[==>]*	*[1]*
5	(COS.sp.663791)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G130M 1309 A	FP-POS=1; BUFFER-TIME=390			500. Secs (500 Secs) *[==>]*	*[1]*
6	(COS.sp.663791)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G130M 1309 A	FP-POS=2; BUFFER-TIME=390			500. Secs (500 Secs) *[==>]*	*[1]*
7	(COS.sp.663793)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=3; BUFFER-TIME=490			600. Secs (600 Secs) *[==>]*	*[2]*
8	(COS.sp.663793)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=4; BUFFER-TIME=490			600 Secs (600 Secs) *[==>]*	*[2]*
9	(COS.sp.663793)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=3; BUFFER-TIME=490			600. Secs (600 Secs) *[==>]*	*[2]*
10	(COS.sp.663793)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=4; BUFFER-TIME=490			600. Secs (600 Secs) *[==>]*	*[2]*

Orbit Structure





Proposal 14054 - Visit 02 - Tracking Down the Ionized Outflow of NGC 7469

Visit

Proposal 14054, Visit 02 Sun Mar 08 02:02:29 GMT 2015

Diagnostic Status: Warning

Scientific Instruments: COS/FUV

Special Requirements: SCHED 40%

Comments: To be coordinated with an XMM-Newton observation.
The observation is currently scheduled for XMM rev 2923, 2015-11-24T07:42:47Z to 2015-11-26T07:36:33Z.
The XMM observation will be 80 ks in length (approximately one day), and the HST visit should be within 1 day or less of the XMM observation.

Diagnostics

(Visit 02) Warning (Form): If the target coordinates are not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/PEAKXD.

(Visit 02) Warning (Form): For the best data quality, it is strongly recommended that all four FP-POS positions be used when observing at a given COS CENWAVE setting.

Fixed Targets

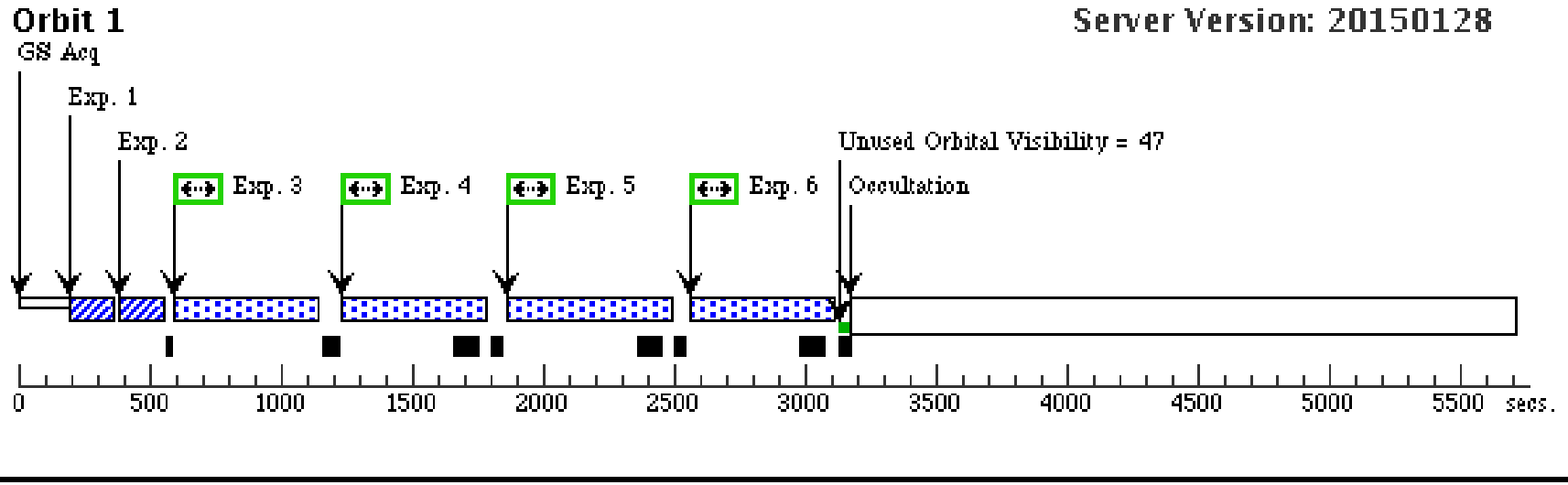
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	NGC-7469	RA: 23 03 15.6400 (345.8151667d) Dec: +08 52 25.40 (8.87372d) Equinox: J2000	Epoch of Position: 1983.844 Redshift: 0.016317	V=12.34+/-0.5 f(1370 A)=4.7e-14	Reference Frame: ICRS

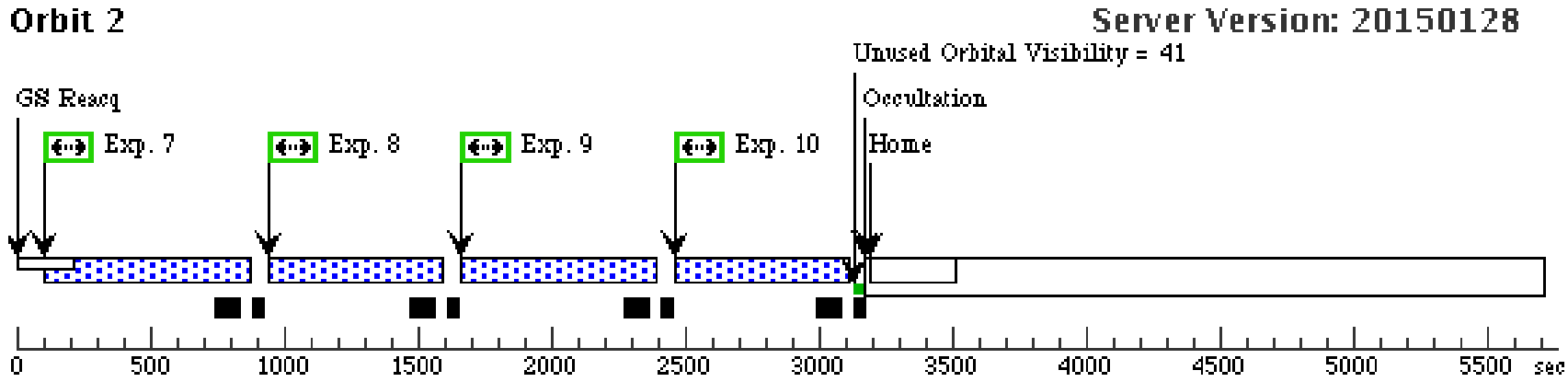
Comments: This object was identified in the GSC1 catalog, and coordinates were updated to GSC2/ICRS.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(COS.sa.663 788)	(1) NGC-7469	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A				3.0 Secs (3 Secs) *[==>]*	*[1]*
2	(COS.sa.663 788)	(1) NGC-7469	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	NUM-POS=5; STEP-SIZE=0.9; CENTER=FLUX-WT-FLR			3.0 Secs (3 Secs) *[==>]*	*[1]*
3	(COS.sp.663 791)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=3; BUFFER-TIME=930			500. Secs (500 Secs) *[==>]*	*[1]*
4	(COS.sp.663 791)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=4; BUFFER-TIME=390			500. Secs (500 Secs) *[==>]*	*[1]*
5	(COS.sp.663 791)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G130M 1309 A	FP-POS=1; BUFFER-TIME=390			500. Secs (500 Secs) *[==>]*	*[1]*
6	(COS.sp.663 791)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G130M 1309 A	FP-POS=2; BUFFER-TIME=390			500. Secs (500 Secs) *[==>]*	*[1]*
7	(COS.sp.663 793)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=3; BUFFER-TIME=490			600. Secs (600 Secs) *[==>]*	*[2]*
8	(COS.sp.663 793)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=4; BUFFER-TIME=490			600 Secs (600 Secs) *[==>]*	*[2]*
9	(COS.sp.663 793)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=3; BUFFER-TIME=490			600. Secs (600 Secs) *[==>]*	*[2]*
10	(COS.sp.663 793)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=4; BUFFER-TIME=490			600. Secs (600 Secs) *[==>]*	*[2]*

Orbit Structure





Visit

Proposal 14054, Visit 03 Sun Mar 08 02:02:29 GMT 2015

Diagnostic Status: Warning

Scientific Instruments: COS/FUV

Special Requirements: SCHED 40%

Comments: To be coordinated with an XMM-Newton observation.
The observation is currently scheduled for XMM rev 2933, 2015-12-14T06:40:07Z to 2015-12-16T06:33:41Z.
The XMM observation will be 80 ks in length (approximately one day), and the HST visit should be within 1 day or less of the XMM observation.

Diagnostics

(Visit 03) Warning (Form): If the target coordinates are not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/PEAKXD.

(Visit 03) Warning (Form): For the best data quality, it is strongly recommended that all four FP-POS positions be used when observing at a given COS CENWAVE setting.

Fixed Targets

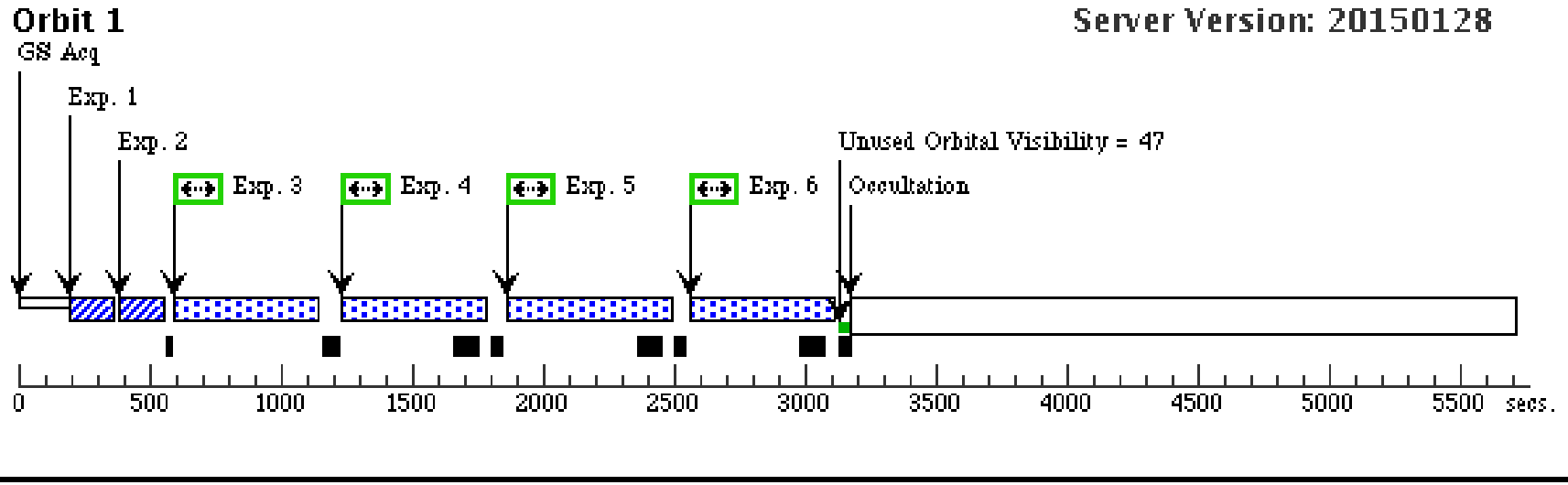
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	NGC-7469	RA: 23 03 15.6400 (345.8151667d) Dec: +08 52 25.40 (8.87372d) Equinox: J2000	Epoch of Position: 1983.844 Redshift: 0.016317	V=12.34+/-0.5 f(1370 A)=4.7e-14	Reference Frame: ICRS

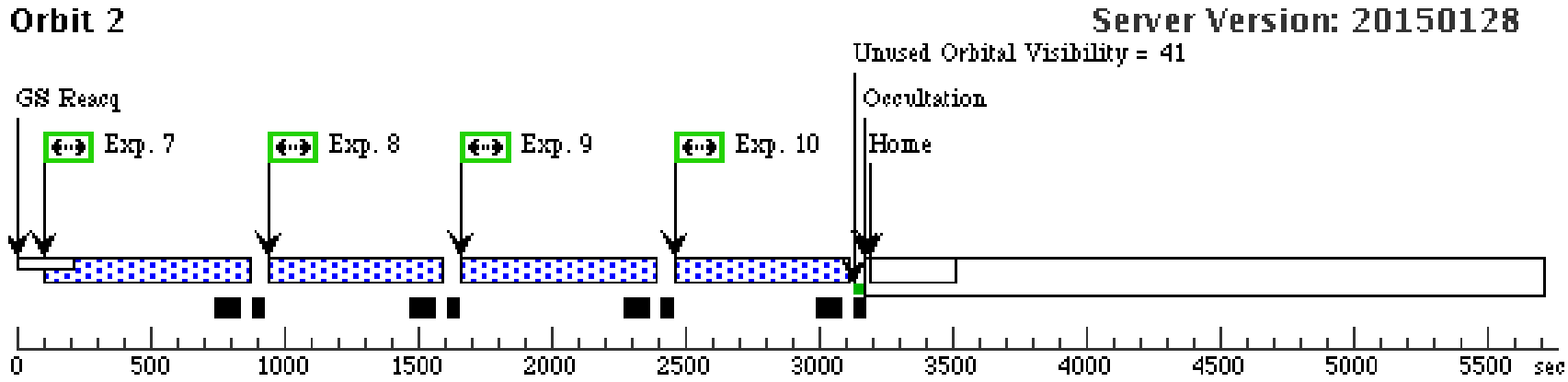
Comments: This object was identified in the GSC1 catalog, and coordinates were updated to GSC2/ICRS.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(COS.sa.663 788)	(1) NGC-7469	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A				3.0 Secs (3 Secs) *[==>]*	*[1]*
2	(COS.sa.663 788)	(1) NGC-7469	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	NUM-POS=5; STEP-SIZE=0.9; CENTER=FLUX-WT-FLR			3.0 Secs (3 Secs) *[==>]*	*[1]*
3	(COS.sp.663 791)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=3; BUFFER-TIME=930			500. Secs (500 Secs) *[==>]*	*[1]*
4	(COS.sp.663 791)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=4; BUFFER-TIME=390			500. Secs (500 Secs) *[==>]*	*[1]*
5	(COS.sp.663 791)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G130M 1309 A	FP-POS=1; BUFFER-TIME=390			500. Secs (500 Secs) *[==>]*	*[1]*
6	(COS.sp.663 791)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G130M 1309 A	FP-POS=2; BUFFER-TIME=390			500. Secs (500 Secs) *[==>]*	*[1]*
7	(COS.sp.663 793)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=3; BUFFER-TIME=490			600. Secs (600 Secs) *[==>]*	*[2]*
8	(COS.sp.663 793)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=4; BUFFER-TIME=490			600 Secs (600 Secs) *[==>]*	*[2]*
9	(COS.sp.663 793)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=3; BUFFER-TIME=490			600. Secs (600 Secs) *[==>]*	*[2]*
10	(COS.sp.663 793)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=4; BUFFER-TIME=490			600. Secs (600 Secs) *[==>]*	*[2]*

Orbit Structure





Visit

Proposal 14054, Visit 04 Sun Mar 08 02:02:29 GMT 2015

Diagnostic Status: Warning

Scientific Instruments: COS/FUV

Special Requirements: SCHED 40%

Comments: To be coordinated with an XMM-Newton observation.
The observation is currently scheduled for XMM rev 2937, 2015-12-22T06:12:32Z to 2015-12-24T06:06:12Z.
The XMM observation will be 80 ks in length (approximately one day), and the HST visit should be within 1 day or less of the XMM observation.

Diagnostics

(Visit 04) Warning (Form): For the best data quality, it is strongly recommended that all four FP-POS positions be used when observing at a given COS CENWAVE setting.

(Visit 04) Warning (Form): If the target coordinates are not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/PEAKXD.

Fixed Targets

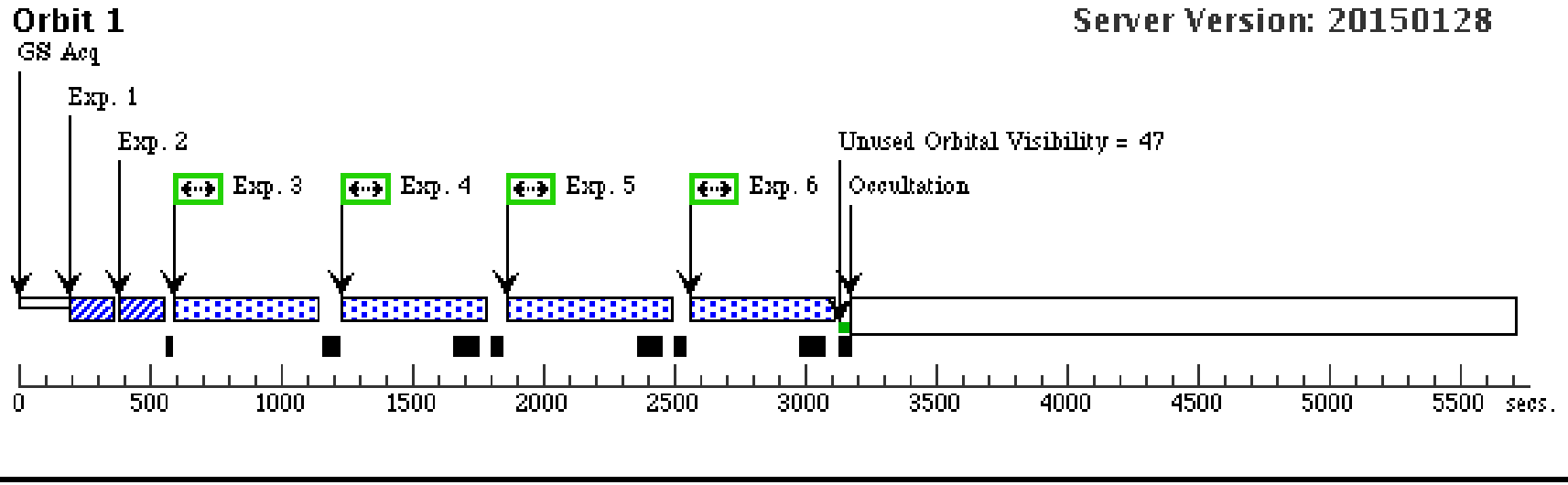
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	NGC-7469	RA: 23 03 15.6400 (345.8151667d) Dec: +08 52 25.40 (8.87372d) Equinox: J2000	Epoch of Position: 1983.844 Redshift: 0.016317	V=12.34+/-0.5 f(1370 A)=4.7e-14	Reference Frame: ICRS

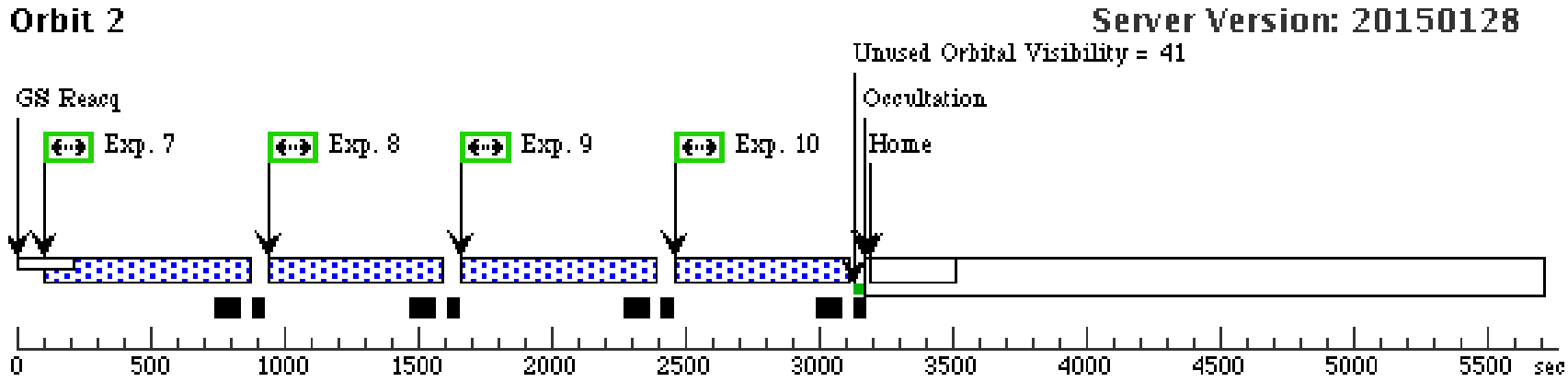
Comments: This object was identified in the GSC1 catalog, and coordinates were updated to GSC2/ICRS.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(COS.sa.663 788)	(1) NGC-7469	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A				3.0 Secs (3 Secs) *[==>]*	*[1]*
2	(COS.sa.663 788)	(1) NGC-7469	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	NUM-POS=5; STEP-SIZE=0.9; CENTER=FLUX-WT-FLR			3.0 Secs (3 Secs) *[==>]*	*[1]*
3	(COS.sp.663 791)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=3; BUFFER-TIME=930			500. Secs (500 Secs) *[==>]*	*[1]*
4	(COS.sp.663 791)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=4; BUFFER-TIME=390			500. Secs (500 Secs) *[==>]*	*[1]*
5	(COS.sp.663 791)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G130M 1309 A	FP-POS=1; BUFFER-TIME=390			500. Secs (500 Secs) *[==>]*	*[1]*
6	(COS.sp.663 791)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G130M 1309 A	FP-POS=2; BUFFER-TIME=390			500. Secs (500 Secs) *[==>]*	*[1]*
7	(COS.sp.663 793)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=3; BUFFER-TIME=490			600. Secs (600 Secs) *[==>]*	*[2]*
8	(COS.sp.663 793)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=4; BUFFER-TIME=490			600 Secs (600 Secs) *[==>]*	*[2]*
9	(COS.sp.663 793)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=3; BUFFER-TIME=490			600. Secs (600 Secs) *[==>]*	*[2]*
10	(COS.sp.663 793)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=4; BUFFER-TIME=490			600. Secs (600 Secs) *[==>]*	*[2]*

Orbit Structure





Visit

Proposal 14054, Visit 05 Sun Mar 08 02:02:29 GMT 2015

Diagnostic Status: Warning

Scientific Instruments: COS/FUV

Special Requirements: SCHED 40%

Comments: To be coordinated with an XMM-Newton observation.
The observation is currently scheduled for XMM rev 2938, 2015-12-24T06:06:12Z to 2015-12-26T06:00:26Z.
The XMM observation will be 80 ks in length (approximately one day), and the HST visit should be within 1 day or less of the XMM observation.

Diagnostics

(Visit 05) Warning (Form): For the best data quality, it is strongly recommended that all four FP-POS positions be used when observing at a given COS CENWAVE setting.

(Visit 05) Warning (Form): If the target coordinates are not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/PEAKXD.

Fixed Targets

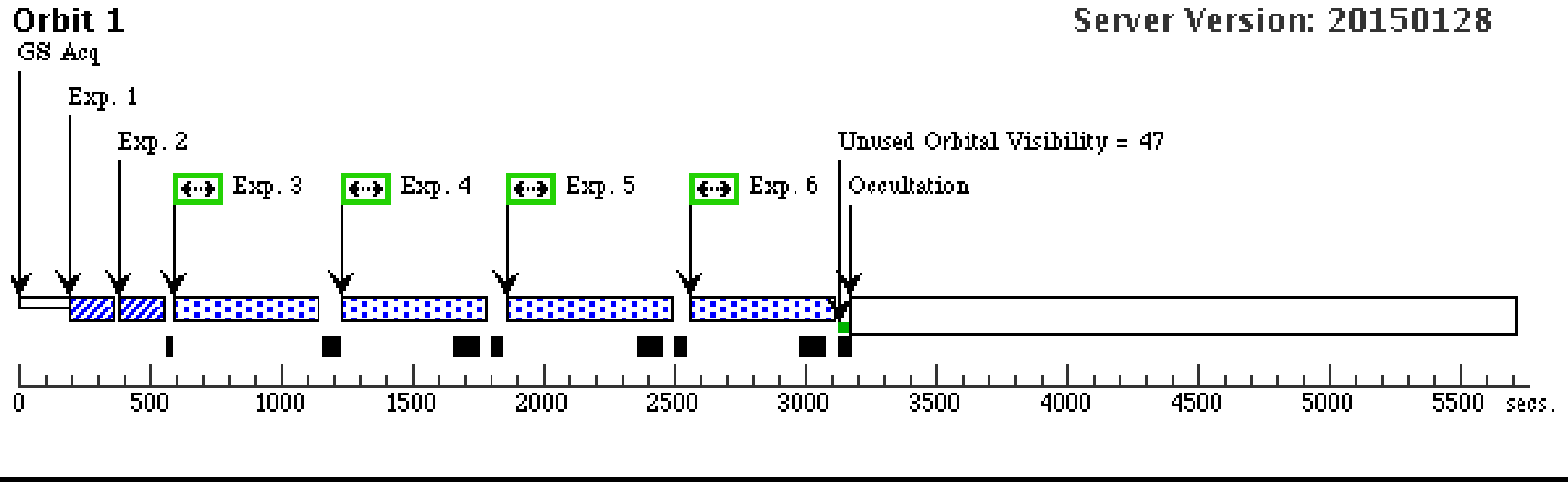
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	NGC-7469	RA: 23 03 15.6400 (345.8151667d) Dec: +08 52 25.40 (8.87372d) Equinox: J2000	Epoch of Position: 1983.844 Redshift: 0.016317	V=12.34+/-0.5 f(1370 A)=4.7e-14	Reference Frame: ICRS

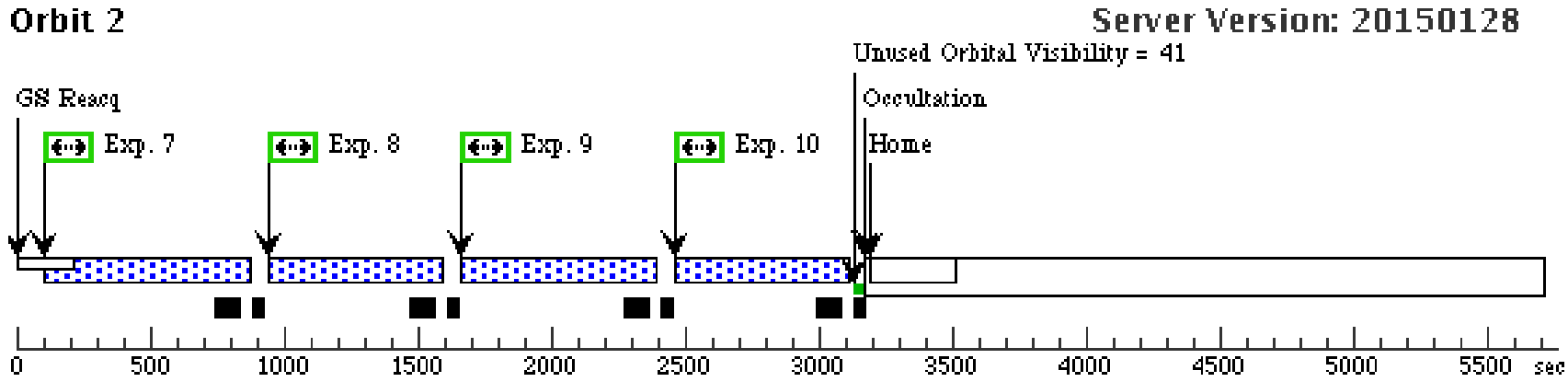
Comments: This object was identified in the GSC1 catalog, and coordinates were updated to GSC2/ICRS.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(COS.sa.663788)	(1) NGC-7469	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A				3.0 Secs (3 Secs) *[==>]*	*[1]*
2	(COS.sa.663788)	(1) NGC-7469	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	NUM-POS=5; STEP-SIZE=0.9; CENTER=FLUX-WT-FLR			3.0 Secs (3 Secs) *[==>]*	*[1]*
3	(COS.sp.663791)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=3; BUFFER-TIME=930			500. Secs (500 Secs) *[==>]*	*[1]*
4	(COS.sp.663791)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=4; BUFFER-TIME=390			500. Secs (500 Secs) *[==>]*	*[1]*
5	(COS.sp.663791)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G130M 1309 A	FP-POS=1; BUFFER-TIME=390			500. Secs (500 Secs) *[==>]*	*[1]*
6	(COS.sp.663791)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G130M 1309 A	FP-POS=2; BUFFER-TIME=390			500. Secs (500 Secs) *[==>]*	*[1]*
7	(COS.sp.663793)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=3; BUFFER-TIME=490			600. Secs (600 Secs) *[==>]*	*[2]*
8	(COS.sp.663793)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=4; BUFFER-TIME=490			600 Secs (600 Secs) *[==>]*	*[2]*
9	(COS.sp.663793)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=3; BUFFER-TIME=490			600. Secs (600 Secs) *[==>]*	*[2]*
10	(COS.sp.663793)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=4; BUFFER-TIME=490			600. Secs (600 Secs) *[==>]*	*[2]*

Orbit Structure





Visit

Proposal 14054, Visit 06 Sun Mar 08 02:02:29 GMT 2015

Diagnostic Status: Warning

Scientific Instruments: COS/FUV

Special Requirements: SCHED 40%

Comments: To be coordinated with an XMM-Newton observation.
The observation is currently scheduled for XMM rev 2939, 2015-12-26T06:00:26Z to 2015-12-28T05:54:48Z.
The XMM observation will be 80 ks in length (approximately one day), and the HST visit should be within 1 day or less of the XMM observation.

Diagnostics

(Visit 06) Warning (Form): If the target coordinates are not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/PEAKXD.

(Visit 06) Warning (Form): For the best data quality, it is strongly recommended that all four FP-POS positions be used when observing at a given COS CENWAVE setting.

Fixed Targets

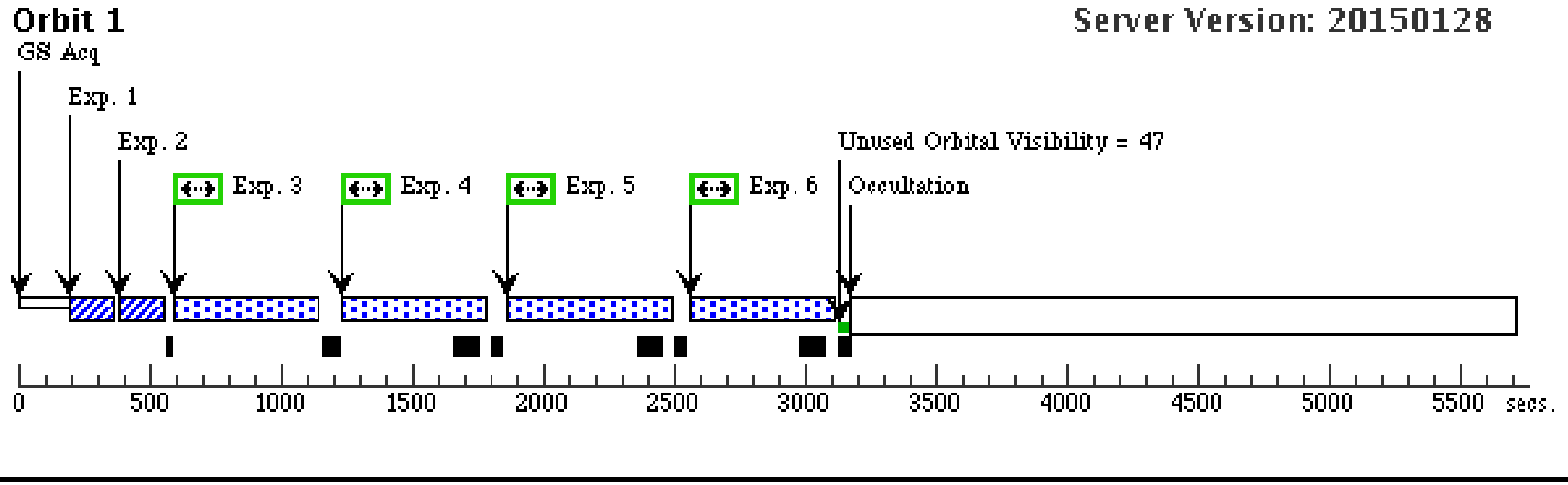
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	NGC-7469	RA: 23 03 15.6400 (345.8151667d) Dec: +08 52 25.40 (8.87372d) Equinox: J2000	Epoch of Position: 1983.844 Redshift: 0.016317	V=12.34+/-0.5 f(1370 A)=4.7e-14	Reference Frame: ICRS

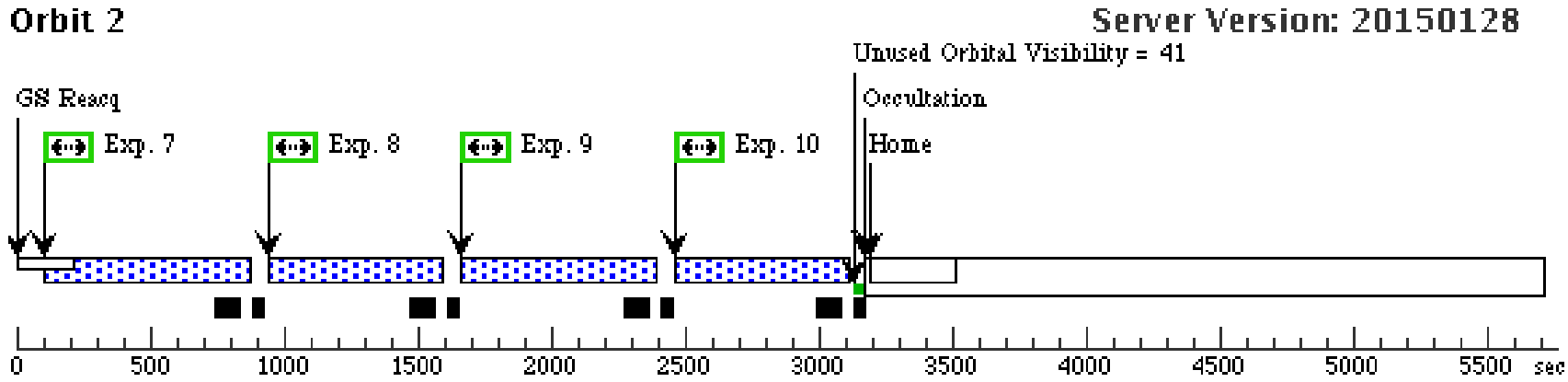
Comments: This object was identified in the GSC1 catalog, and coordinates were updated to GSC2/ICRS.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(COS.sa.663 788)	(1) NGC-7469	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A				3.0 Secs (3 Secs) *[==>]*	*[1]*
2	(COS.sa.663 788)	(1) NGC-7469	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	NUM-POS=5; STEP-SIZE=0.9; CENTER=FLUX-WT-FLR			3.0 Secs (3 Secs) *[==>]*	*[1]*
3	(COS.sp.663 791)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=3; BUFFER-TIME=930			500. Secs (500 Secs) *[==>]*	*[1]*
4	(COS.sp.663 791)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=4; BUFFER-TIME=390			500. Secs (500 Secs) *[==>]*	*[1]*
5	(COS.sp.663 791)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G130M 1309 A	FP-POS=1; BUFFER-TIME=390			500. Secs (500 Secs) *[==>]*	*[1]*
6	(COS.sp.663 791)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G130M 1309 A	FP-POS=2; BUFFER-TIME=390			500. Secs (500 Secs) *[==>]*	*[1]*
7	(COS.sp.663 793)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=3; BUFFER-TIME=490			600. Secs (600 Secs) *[==>]*	*[2]*
8	(COS.sp.663 793)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=4; BUFFER-TIME=490			600 Secs (600 Secs) *[==>]*	*[2]*
9	(COS.sp.663 793)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=3; BUFFER-TIME=490			600. Secs (600 Secs) *[==>]*	*[2]*
10	(COS.sp.663 793)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=4; BUFFER-TIME=490			600. Secs (600 Secs) *[==>]*	*[2]*

Orbit Structure





Visit

Proposal 14054, Visit 07 Sun Mar 08 02:02:30 GMT 2015

Diagnostic Status: Warning

Scientific Instruments: COS/FUV

Special Requirements: SCHED 40%

Comments: To be coordinated with an XMM-Newton observation.
The observation is currently scheduled for XMM rev 2940, 2015-12-28T05:54:48Z to 2015-12-30T05:45:00Z.
The XMM observation will be 80 ks in length (approximately one day), and the HST visit should be within 1 day or less of the XMM observation.

Diagnostics

(Visit 07) Warning (Form): For the best data quality, it is strongly recommended that all four FP-POS positions be used when observing at a given COS CENWAVE setting.

(Visit 07) Warning (Form): If the target coordinates are not known to 0.4" (or better), an ACQ/SEARCH should precede the ACQ/PEAKXD.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	NGC-7469	RA: 23 03 15.6400 (345.8151667d) Dec: +08 52 25.40 (8.87372d) Equinox: J2000	Epoch of Position: 1983.844 Redshift: 0.016317	V=12.34+/-0.5 f(1370 A)=4.7e-14	Reference Frame: ICRS

Comments: This object was identified in the GSC1 catalog, and coordinates were updated to GSC2/ICRS.

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	(COS.sa.663788)	(1) NGC-7469	COS/FUV, ACQ/PEAKXD, PSA	G130M 1291 A				3.0 Secs (3 Secs) *[==>]*	*[1]*
2	(COS.sa.663788)	(1) NGC-7469	COS/FUV, ACQ/PEAKD, PSA	G130M 1291 A	NUM-POS=5; STEP-SIZE=0.9; CENTER=FLUX-WT-FLR			3.0 Secs (3 Secs) *[==>]*	*[1]*
3	(COS.sp.663791)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=3; BUFFER-TIME=930			500. Secs (500 Secs) *[==>]*	*[1]*
4	(COS.sp.663791)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=4; BUFFER-TIME=390			500. Secs (500 Secs) *[==>]*	*[1]*
5	(COS.sp.663791)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G130M 1309 A	FP-POS=1; BUFFER-TIME=390			500. Secs (500 Secs) *[==>]*	*[1]*
6	(COS.sp.663791)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G130M 1309 A	FP-POS=2; BUFFER-TIME=390			500. Secs (500 Secs) *[==>]*	*[1]*
7	(COS.sp.663793)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=3; BUFFER-TIME=490			600. Secs (600 Secs) *[==>]*	*[2]*
8	(COS.sp.663793)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G160M 1600 A	FP-POS=4; BUFFER-TIME=490			600 Secs (600 Secs) *[==>]*	*[2]*
9	(COS.sp.663793)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=3; BUFFER-TIME=490			600. Secs (600 Secs) *[==>]*	*[2]*
10	(COS.sp.663793)	(1) NGC-7469	COS/FUV, TIME-TAG, PSA	G160M 1623 A	FP-POS=4; BUFFER-TIME=490			600. Secs (600 Secs) *[==>]*	*[2]*

Orbit Structure