12486 - QSO Absorption Line Systems from Dwarf Galaxies

Cycle: 19, Proposal Category: GO

(Availability Mode: SUPPORTED)

INVESTIGATORS

Name	*Institution*	*E-Mail*
Dr. David V. Bowen (PI) (Contact)	**Princeton University**	**dvb@astro.princeton.edu**
Dr. Joseph Meiring (CoI)	University of Louisville Research Foundation, Inc.	josephmeiring@gmail.com
Dr. Doron Chelouche (CoI)	University of Haifa	doron@ias.edu
Prof. Donald G. York (CoI)	University of Chicago	don@oddjob.uchicago.edu
Prof. Todd Tripp (CoI)	University of Massachusetts	tripp@astro.umass.edu
Dr. Edward B. Jenkins (CoI)	Princeton University	ebj@astro.princeton.edu
Dr. Renyue Cen (CoI)	Princeton University	cen@astro.princeton.edu
Prof. Max Pettini (CoI) (ESA Member)	University of Cambridge	pettini@ast.cam.ac.uk
Dr. Celine Peroux (CoI) (ESA Member)	INAF, Osservatorio Astronomico di Trieste	peroux@ts.astro.it
Prof. Norman Murray (CoI)	University of Toronto	murray@cita.utoronto.ca
Dr. Varsha Kulkarni (CoI)	University of South Carolina Research Foundation	kulkarni@sc.edu
Dr. Sanchayeeta Borthakur (CoI)	The Johns Hopkins University	sanch@pha.jhu.edu

VISITS

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
10	(1) SDSSJ095109.12+330745.8	COS/FUV COS/NUV	3	26-Feb-2013 02:01:09.0	yes
15	(1) SDSSJ095109.12+330745.8	COS/FUV COS/NUV	3	26-Feb-2013 02:01:19.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
20	(2) SDSSJ122106.87+454852.1	COS/FUV COS/NUV	3	26-Feb-2013 02:01:31.0	yes
30	(3) SDSSJ140732.25+550725.6	COS/FUV COS/NUV	4	26-Feb-2013 02:01:40.0	yes
35	(3) SDSSJ140732.25+550725.6	COS/FUV COS/NUV	4	26-Feb-2013 02:01:49.0	yes
40	(4) SDSSJ145907.58+714019.9	COS/FUV COS/NUV	3	26-Feb-2013 02:01:57.0	yes
45	(4) SDSSJ145907.58+714019.9	COS/FUV COS/NUV	3	26-Feb-2013 02:02:05.0	yes
50	(5) SDSSJ123304.05-003134.1	COS/FUV COS/NUV	2	26-Feb-2013 02:02:11.0	yes
60	(6) SDSSJ141542.90+163413.8	COS/FUV COS/NUV	4	26-Feb-2013 02:02:18.0	yes
65	(6) SDSSJ141542.90+163413.8	COS/FUV COS/NUV	3	26-Feb-2013 02:02:26.0	yes

32 Total Orbits Used

ABSTRACT

We propose observing 6 QSOs who sightlines pass within 14 kpc of nearby (cz ~ 400-3300 km/s) faint [M_B = -15.3 to -17.7] blue dwarf galaxies, in order to study the UV absorption lines arising from the disks and halos of the dwarfs. Low mass, gas-rich galaxies are expected to have a pivotal role in providing feedback mechanisms for regulating galaxy evolution, and for enriching the intergalactic medium (IGM). Our observations are designed to answer a simple set of questions, including: do outflows exist from the majority of low mass galaxies, and how far do the halos extend before merging with the IGM?

What are the kinematics of the warm diffuse gas, and are the bulk velocities sufficient for the gas to escape from the potential wells of the galaxies? What are the metallicities of the outflows, and are they high enough to significantly effect the metallicity of the IGM? Do the metallicities of the outflows agree with measurements from HII regions within the galaxy itself? And how do the characteristics of the absorption lines compare with the family of QSO Absorption Line Systems seen at high redshifts? That is, do dwarf galaxies contribute significantly to the population of absorbers at earlier epochs?

OBSERVING DESCRIPTION

Our aim is to use the G130M of COS to search for absorption lines along QSO sightlines that pass close to low-redshift dwarf galaxies. In all cases, we can predict the wavelengths at which particular absorption lines are expected, given the redshift of an intervening galaxy, and select the central wavelength of a grating, along with its associated FP-POS positions, to cover those lines. Not all FP-POS positions are used if important lines are not covered as a result. In general, two central wavelength settings are used to cover the gap that comes from a single central wavelength setting (though at a reduced S/N). All targets have known GALEX FUV and NUV mags. A S/N of ~14 per resolution element is expected based on the FUV magnitude in the G130M spectra.

Visit

Proposal 12486, Visit 10, completed Tue Feb 26 02:02:34 GMT 2013

Diagnostic Status: Warning

Scientific Instruments: COS/NUV, COS/FUV

Special Requirements: (none)

Comments: First visit to target 1, J095109.12+330745.8, with G130M at second position of 1291A. 3 orbits, with 3 different FP-POS. Intervening galaxy is cz=1557 km/s. Total of 6 orbits for this object, so split into two orbits of 3 and 3.

Diagnostics

(Visit 10) Warning (Orbit Planner): VISIBILITY OVERRUN

(Visit 10) 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 10) Warning (Orbit Planner): VISIBILITY OVERRUN

(Visit 10) Warning (Orbit Planner): VISIBILITY OVERRUN

Fixed Targets

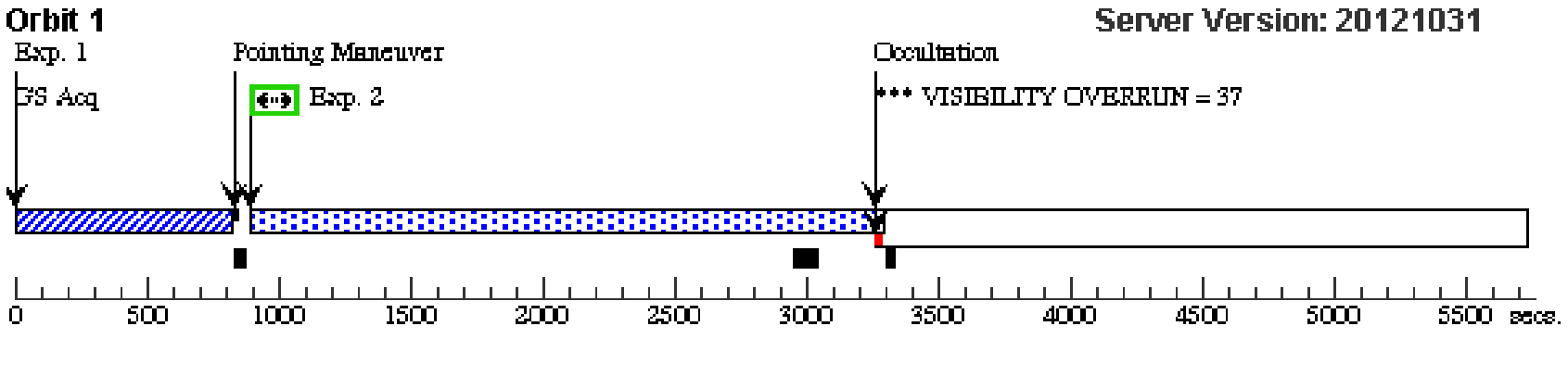
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	SDSSJ095109.12+330745.8 Alt Name1: UGC5282-QSO	RA: 09 51 9.1243 (147.7880179d) Dec: +33 07 45.80 (33.12939d) Equinox: J2000	Redshift: 0.645	V=19.1+/-0.05 GALEX FUV: 18.9 mag, 104 micro-Jy, or F(1530)=1.3e-15; GALEX N UV: 17.76, 286 micro-Jy, or F(2270)=1.7e-15	Reference Frame: ICRS

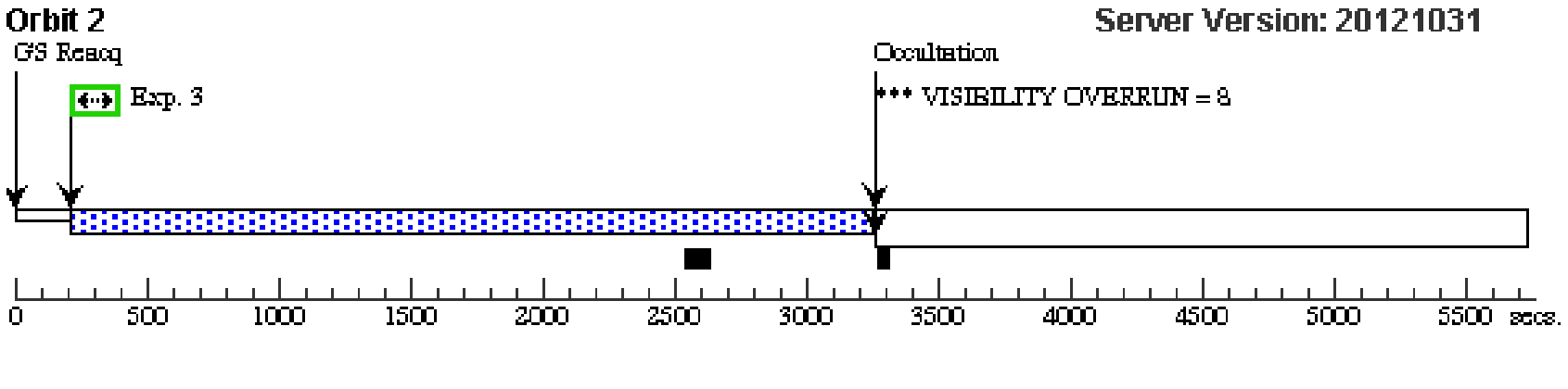
Comments: Coords and error from DR7 of SDSS (PhotoObj)

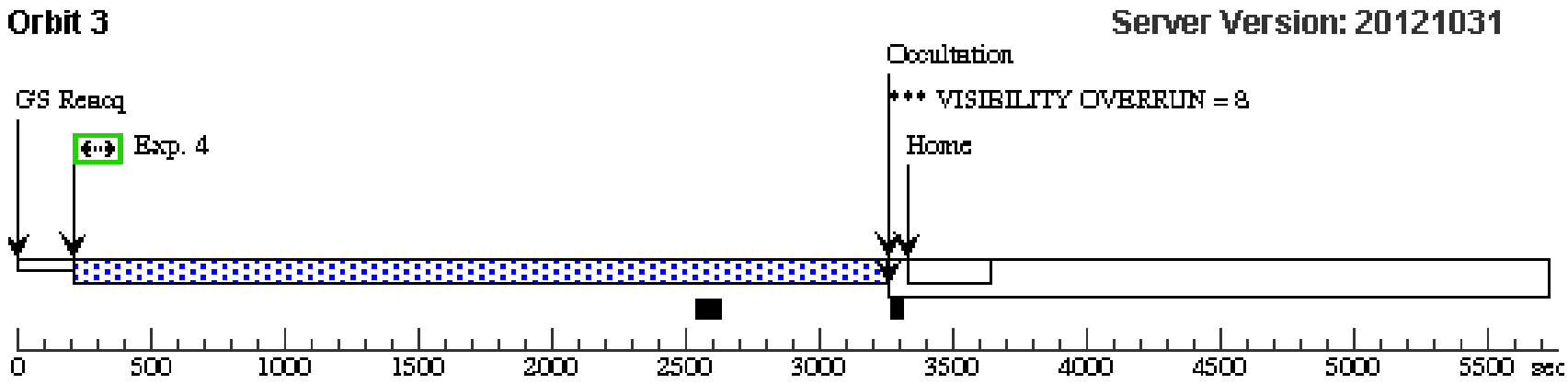
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	ACQ (181872)	(1) SDSSJ095109.12 +330745.8	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				196 Secs *[==>]*	*[1]*
	Comments: Exposure time assumes NUV flux (GALEX NUV =18.51) is half that measured by GALEX, to account for possible variations in QSO flux. QSO shines through galaxy, so background may be higher than normal. QSO is, howver, brightest target in field.								
2	1291, FP-POS=1 (181882)	(1) SDSSJ095109.12 +330745.8	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=1; BUFFER-TIME=1890			2000. Secs *[==>2213.0 Secs]*	*[1]*
	Comments: BUFFER-TIME = EXPOSURE TIME; expecting wavelength range = 1139-1279 A and 1296-1436 A.								
3	1291, FP-POS=2 (181883)	(1) SDSSJ095109.12 +330745.8	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=2; BUFFER-TIME=2290			2400 Secs *[==>2989.0 Secs]*	*[2]*
	Comments: BUFFER-TIME = EXPOSURE TIME; expecting wavelength range = 1136.5-1276.5 A and 1293.5-1433.5 A								
4	1291, FP-POS=3 (181883)	(1) SDSSJ095109.12 +330745.8	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=3; BUFFER-TIME=2290			2400 Secs *[==>2989.0 Secs]*	*[3]*
	Comments: BUFFER-TIME = EXPOSURE TIME; expecting wavelength range = 1134-1274 A and 1291-1431 A.								

Orbit Structure







Visit

Proposal 12486, Visit 15, completed Tue Feb 26 02:02:39 GMT 2013

Diagnostic Status: Warning

Scientific Instruments: COS/NUV, COS/FUV

Special Requirements: (none)

Comments: Second visit to target 1, J095109.12+330745.8, Now with G130M at second position of 1327A. Intervening galaxy is cz=1557 km/s.

Diagnostics

(Visit 15) 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 15) Warning (Orbit Planner): VISIBILITY OVERRUN

(Visit 15) Warning (Orbit Planner): VISIBILITY OVERRUN

(Visit 15) Warning (Orbit Planner): VISIBILITY OVERRUN

Fixed Targets

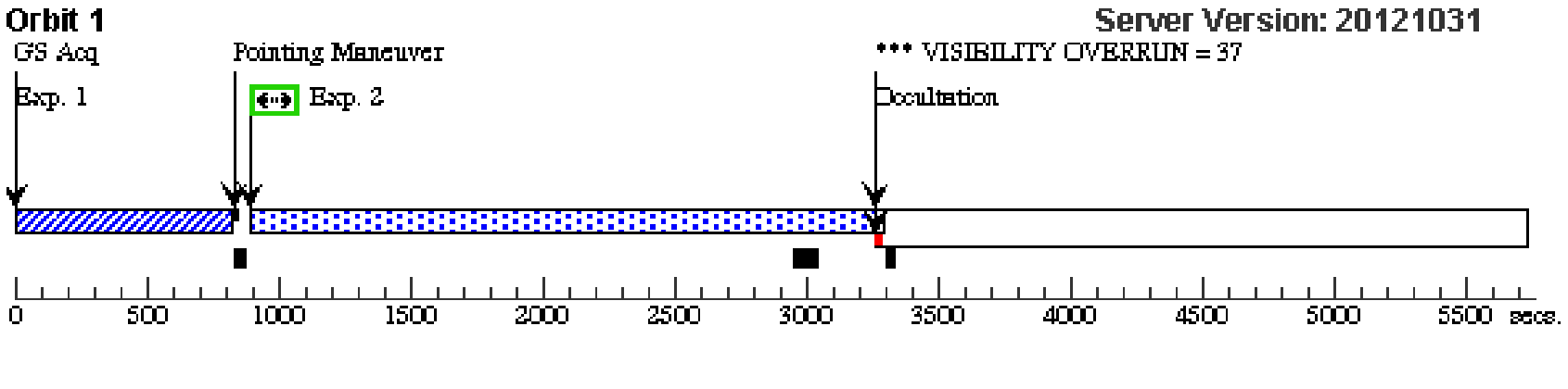
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	SDSSJ095109.12+330745.8 Alt Name1: UGC5282-QSO	RA: 09 51 9.1243 (147.7880179d) Dec: +33 07 45.80 (33.12939d) Equinox: J2000	Redshift: 0.645	V=19.1+/-0.05 GALEX FUV: 18.9 mag, 104 micro-Jy, or F(1530)=1.3e-15; GALEX N UV: 17.76, 286 micro-Jy, or F(2270)=1.7e-15	Reference Frame: ICRS

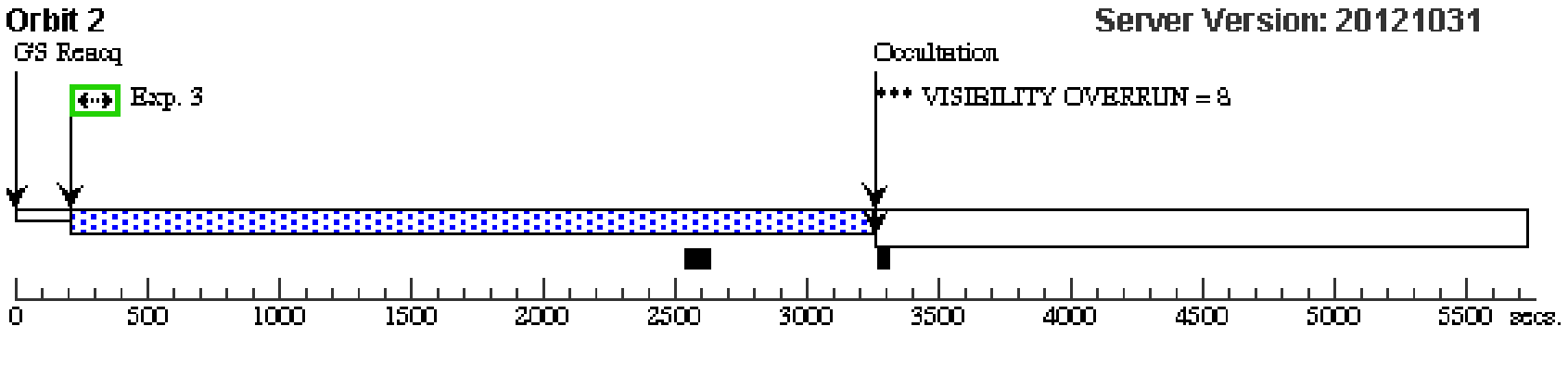
Comments: Coords and error from DR7 of SDSS (PhotoObj)

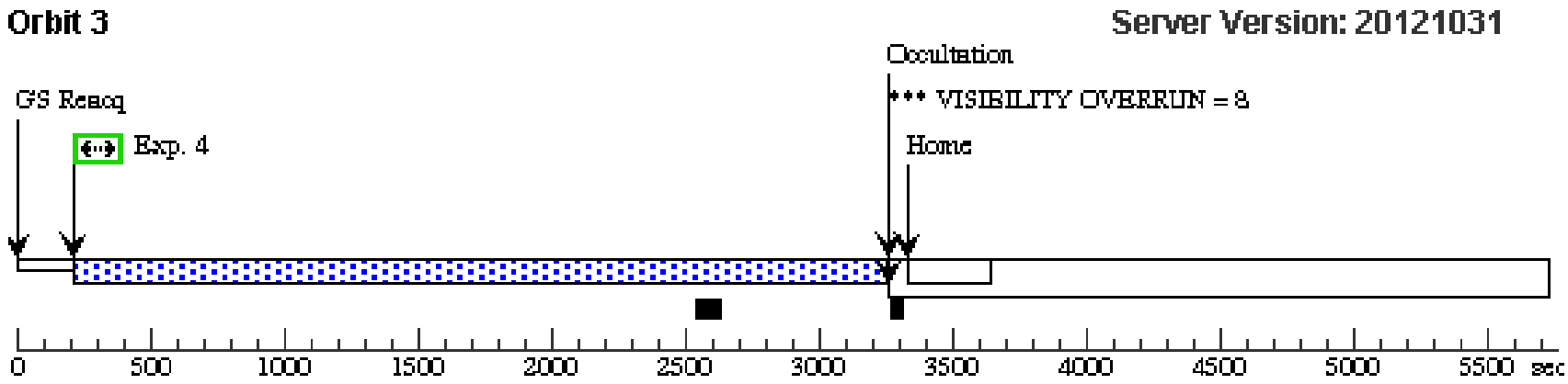
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	ACQ (181872)	(1) SDSSJ095109.12+330745.8	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				196 Secs *[==>]*	*[1]*
Comments: Exposure time assumes NUV flux (GALEX NUV =18.51) is half that measured by GALEX, to account for possible variations in QSO flux.									
2	1327, FP-POS=1 (181884)	(1) SDSSJ095109.12+330745.8	COS/FUV, TIME-TAG, PSA	G130M 1327 A	FP-POS=1; BUFFER-TIME=1890			2000. Secs *[==>2213.0 Secs]*	*[1]*
Comments: BUFFER-TIME = EXPOSURE TIME; expecting wavelength range = 1177-1318 A and 1333-1474 A.									
3	1327, FP-POS=2 (181885)	(1) SDSSJ095109.12+330745.8	COS/FUV, TIME-TAG, PSA	G130M 1327 A	FP-POS=2; BUFFER-TIME=2290			2400 Secs *[==>2989.0 Secs]*	*[2]*
Comments: BUFFER-TIME = EXPOSURE TIME; expecting wavelength range = 1174.5-1315.5 A and 1330.5-1471.5 A.									
4	1327, FP-POS=3 (181885)	(1) SDSSJ095109.12+330745.8	COS/FUV, TIME-TAG, PSA	G130M 1327 A	FP-POS=3; BUFFER-TIME=2290			2400 Secs *[==>2989.0 Secs]*	*[3]*
Comments: BUFFER-TIME = EXPOSURE TIME; expecting wavelength range = 1172-1313 A and 1328-1469 A.									

Orbit Structure







Proposal 12486 - Visit 20 - QSO Absorption Line Systems from Dwarf Galaxies

Visit

Proposal 12486, Visit 20, completed Tue Feb 26 02:02:42 GMT 2013

Diagnostic Status: Warning

Scientific Instruments: COS/NUV, COS/FUV

Special Requirements: (none)

Comments: Only visit to second target J122106.87+454852.1; cz of intervening galaxy is 462 km/s. Only 3 orbits.

Diagnostics

(Visit 20) 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 20) Warning (Orbit Planner): VISIBILITY OVERRUN

(Visit 20) Warning (Orbit Planner): VISIBILITY OVERRUN

(Visit 20) Warning (Orbit Planner): VISIBILITY OVERRUN

Fixed Targets

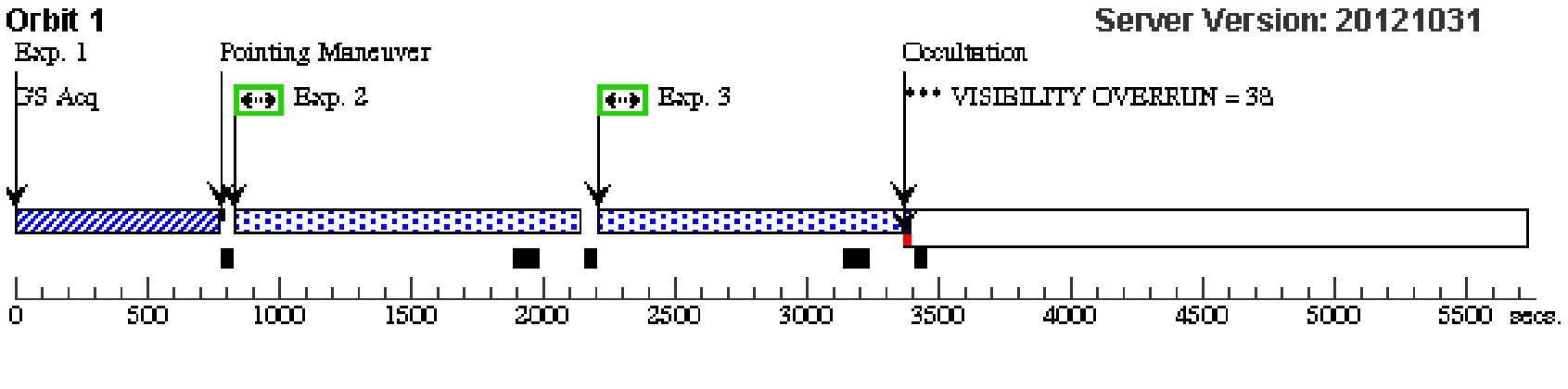
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	SDSSJ122106.87+454852.1 Alt Name1: UGC7408-QSO	RA: 12 21 6.8711 (185.2786296d) Dec: +45 48 52.11 (45.81447d) Equinox: J2000	Redshift: 0.525	V=17.1+/-0.05 GALEX FUV: 18.1 mag, 219 micro-Jy, or F(1530)=2.7e-15; GALEX N UV: 17.59 mag, 335 micro-Jy or F(2270)=1.9e-15	Reference Frame: ICRS

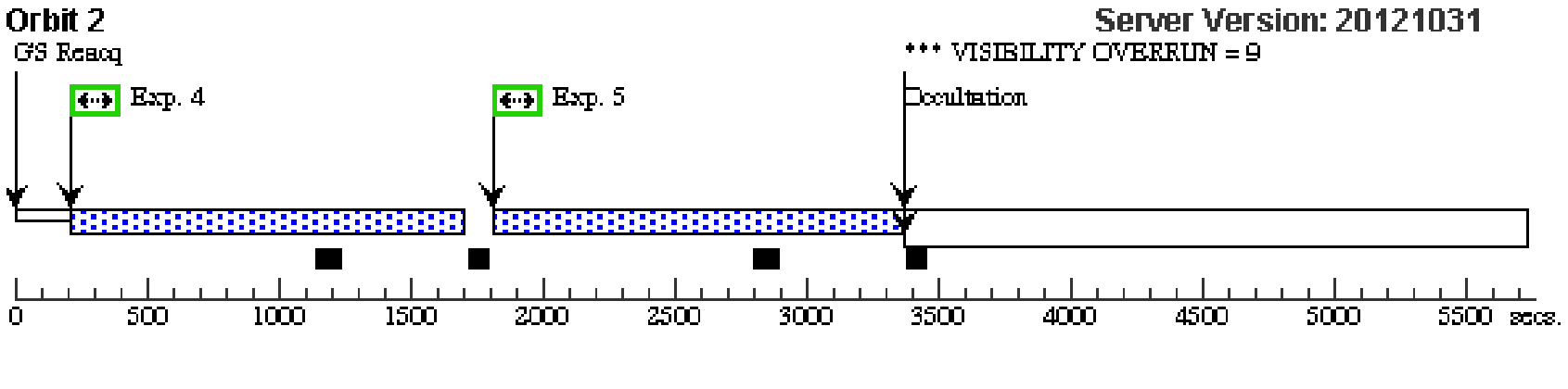
Comments: Co-ords and errors from DR7 of SDSS (PhotoObj).

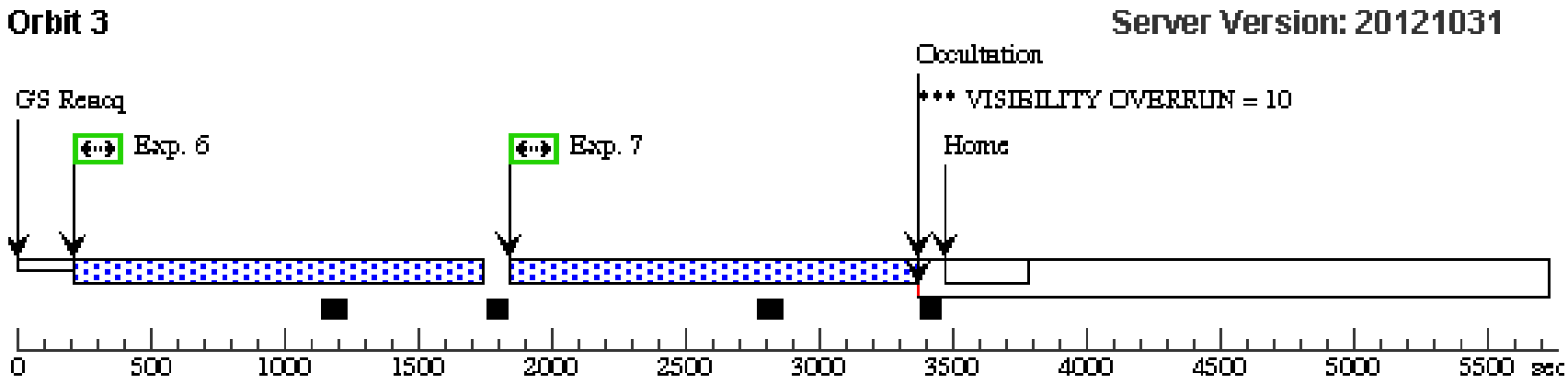
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	ACQ (181873)	(2) SDSSJ122106.87 +454852.1	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				167 Secs *[==>]*	***[1]***
Comments: Exposure time assumes NUV flux (GALEX NUV =18.34) is half that measured by GALEX, to account for possible variations in QSO flux.									
2	1291, FP-POS=1 (181886)	(2) SDSSJ122106.87 +454852.1	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=1; BUFFER-TIME=890			1000 Secs *[==>1129.0 Secs]*	***[1]***
Comments: BUFFER-TIME = EXPOSURE TIME; expecting wavelength range = 1139-1279 A and 1296-1436 A.									
3	1291, FP-POS=2 (181886)	(2) SDSSJ122106.87 +454852.1	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=2; BUFFER-TIME=890			1000 Secs *[==>1129.0 Secs]*	***[1]***
Comments: BUFFER-TIME = EXPOSURE TIME; expecting wavelength range = 1136.5-1276.5 A and 1293.5-1433.5 A.									
4	1291, FP-POS=3 (181887)	(2) SDSSJ122106.87 +454852.1	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=3; BUFFER-TIME=890			1000 Secs *[==>1439.0 Secs]*	***[2]***
Comments: BUFFER-TIME = EXPOSURE TIME; expecting wavelength range = 1134-1274 A and 1291-1431 A.									
5	1327, FP-POS=1 (181887)	(2) SDSSJ122106.87 +454852.1	COS/FUV, TIME-TAG, PSA	G130M 1327 A	FP-POS=1; BUFFER-TIME=890			1000 Secs *[==>1439.0 Secs]*	***[2]***
Comments: BUFFER-TIME = EXPOSURE TIME; expecting wavelength range = 1177-1318 A and 1333-1474 A.									
6	1327, FP-POS=2 (181889)	(2) SDSSJ122106.87 +454852.1	COS/FUV, TIME-TAG, PSA	G130M 1327 A	FP-POS=2; BUFFER-TIME=890			1000 Secs *[==>1474.0 Secs]*	***[3]***
Comments: BUFFER-TIME = EXPOSURE TIME; expecting wavelength range = 1174.5-1315.5 A and 1330.5-1471.5 A.									
7	1327, FP-POS=3 (181889)	(2) SDSSJ122106.87 +454852.1	COS/FUV, TIME-TAG, PSA	G130M 1327 A	FP-POS=3; BUFFER-TIME=890			1000 Secs *[==>1474.0 Secs]*	***[3]***
Comments: BUFFER-TIME = EXPOSURE TIME; expecting wavelength range = 1172-1313 A and 1328-1469 A.									

Orbit Structure







Visit

Proposal 12486, Visit 30, completed Tue Feb 26 02:02:44 GMT 2013

Diagnostic Status: Warning

Scientific Instruments: COS/NUV, COS/FUV

Special Requirements: (none)

Comments: First visit to object 3, J140732.25+550725.6, 4 orbits (of 8) with G130M centered at 1291. cz of intevening galaxy is 1318 km/s. All FP-POS positions used in this visit.

Diagnostics

(Visit 30) Warning (Orbit Planner): VISIBILITY OVERRUN

(Visit 30) Warning (Orbit Planner): VISIBILITY OVERRUN

(Visit 30) Warning (Orbit Planner): VISIBILITY OVERRUN

(Visit 30) Warning (Orbit Planner): VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	SDSSJ140732.25+550725.6 Alt Name1: NGC5486-QSO	RA: 14 07 32.2552 (211.8843967d) Dec: +55 07 25.43 (55.12373d) Equinox: J2000	Redshift: 1.027	V=18.2+/-0.1 GALEX FUV: 19.1 mag, 81 micro-Jy or F(1530)=1.1e-15; GALEX NUV: 18.4 mag, 155 micro-Jy or F(2270)=0.9e-15	Reference Frame: ICRS

Comments: Coords and errors from DR7 of SDSS (PhotoObj)

Exposures

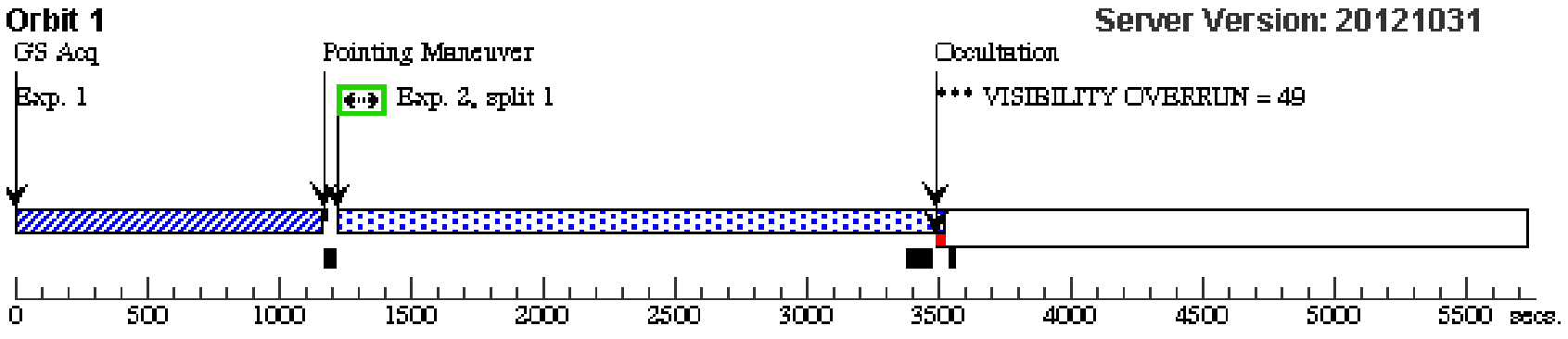
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	ACQ (181874)	(3) SDSSJ140732.25+550725.6	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				362 Secs	
								[==>]	***[1]***

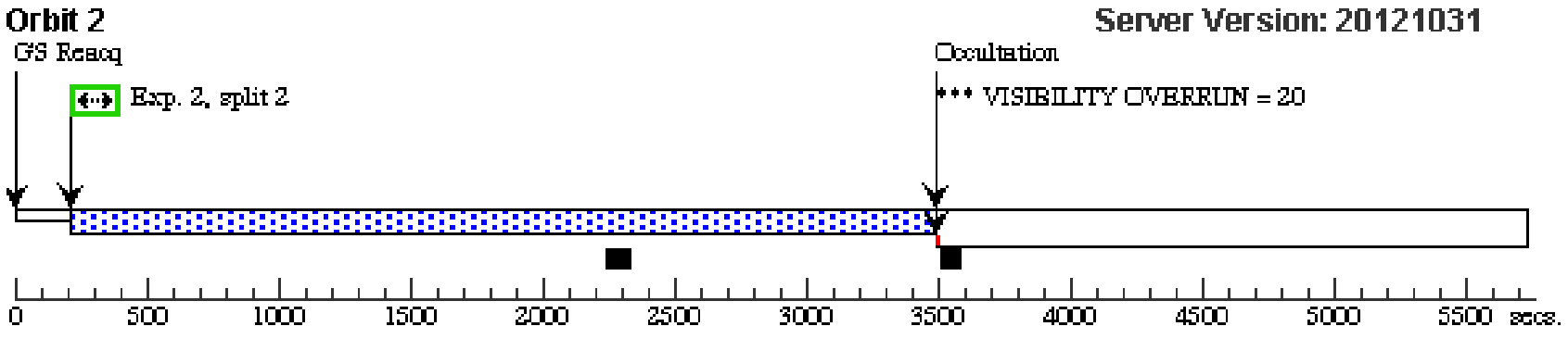
Comments: Exposure time assumes NUV flux (GALEX NUV =19.17) is half that measured by GALEX, to account for possible variations in QSO flux.

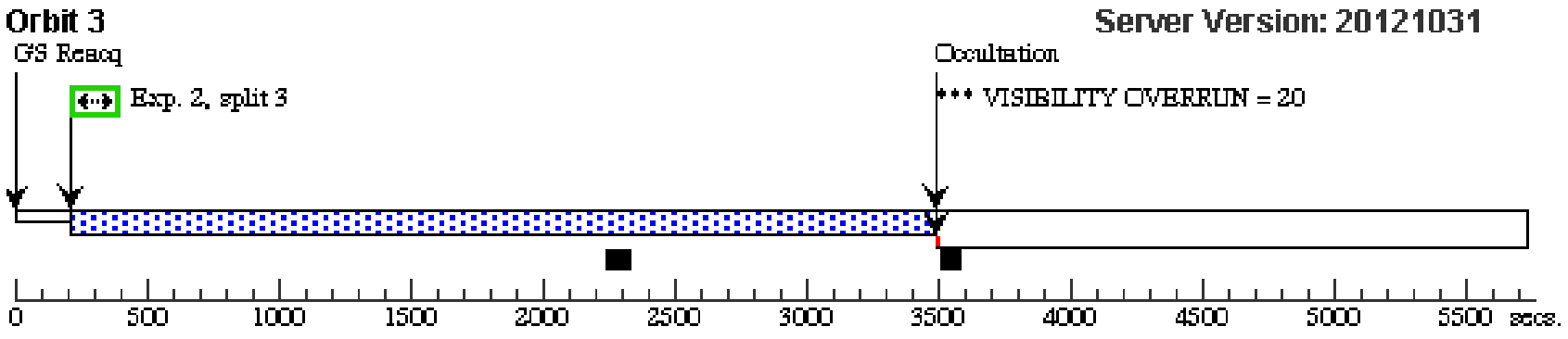
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
2	1291, ALL FP-POS (181890)	(3) SDSSJ140732.25+550725.6	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=ALL; BUFFER-TIME=1990			2100 Secs	
								[==>2117.0 Secs (Split 1)]	***[1]***
								[==>3225.0 Secs (Split 2)]	***[2]***
								[==>3225.0 Secs (Split 3)]	***[3]***
								[==>3225.0 Secs (Split 4)]	***[4]***

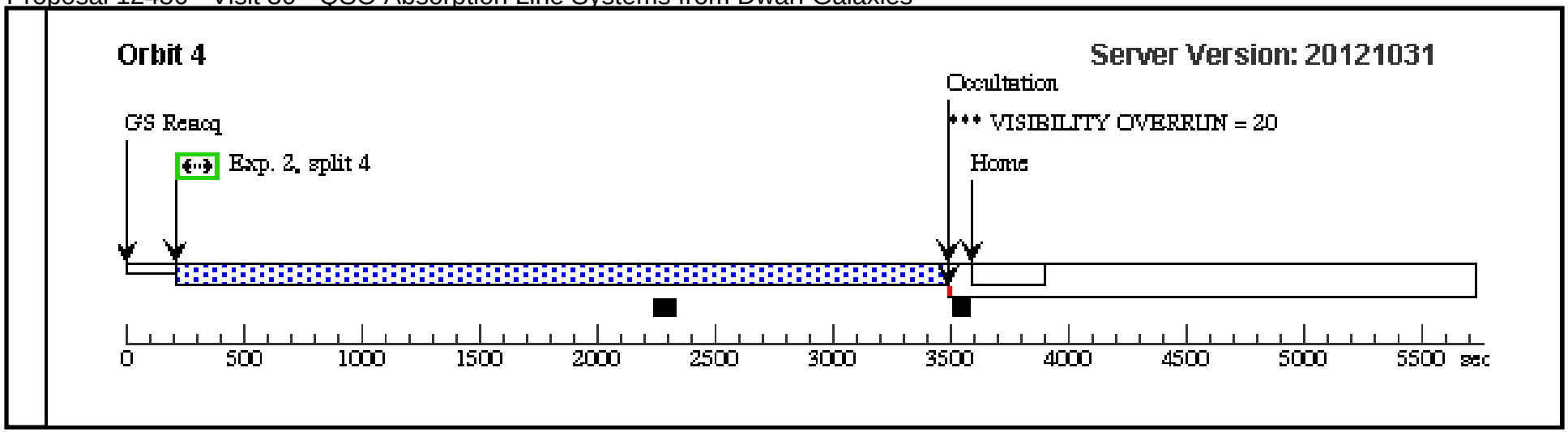
Comments: BUFFER-TIME = EXPOSURE TIME

Orbit Structure








Orbit 4
Server Version: 20121031
Occultation
*** VISIBILITY OVERRUN = 20
GS Reacq
Exp. 2, split 4
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 12486, Visit 35, completed Tue Feb 26 02:02:48 GMT 2013

Diagnostic Status: Warning

Scientific Instruments: COS/NUV, COS/FUV

Special Requirements: (none)

Comments: Second visit to object 3, J140732.25+550725.6, 4 orbits (of 8) with G130M centered at 1327. cz of intevening galaxy is 1318 km/s. All FP-POS positions used in this visit.

Diagnostics

(Visit 35) Warning (Orbit Planner): VISIBILITY OVERRUN

(Visit 35) Warning (Orbit Planner): VISIBILITY OVERRUN

(Visit 35) Warning (Orbit Planner): VISIBILITY OVERRUN

(Visit 35) Warning (Orbit Planner): VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	SDSSJ140732.25+550725.6 Alt Name1: NGC5486-QSO	RA: 14 07 32.2552 (211.8843967d) Dec: +55 07 25.43 (55.12373d) Equinox: J2000	Redshift: 1.027	V=18.2+/-0.1 GALEX FUV: 19.1 mag, 81 micro-Jy or F(1530)=1.1e-15; GALEX NUV: 18.4 mag, 155 micro-Jy or F(2270)=0.9e-15	Reference Frame: ICRS

Comments: Coords and errors from DR7 of SDSS (PhotoObj)

Exposures

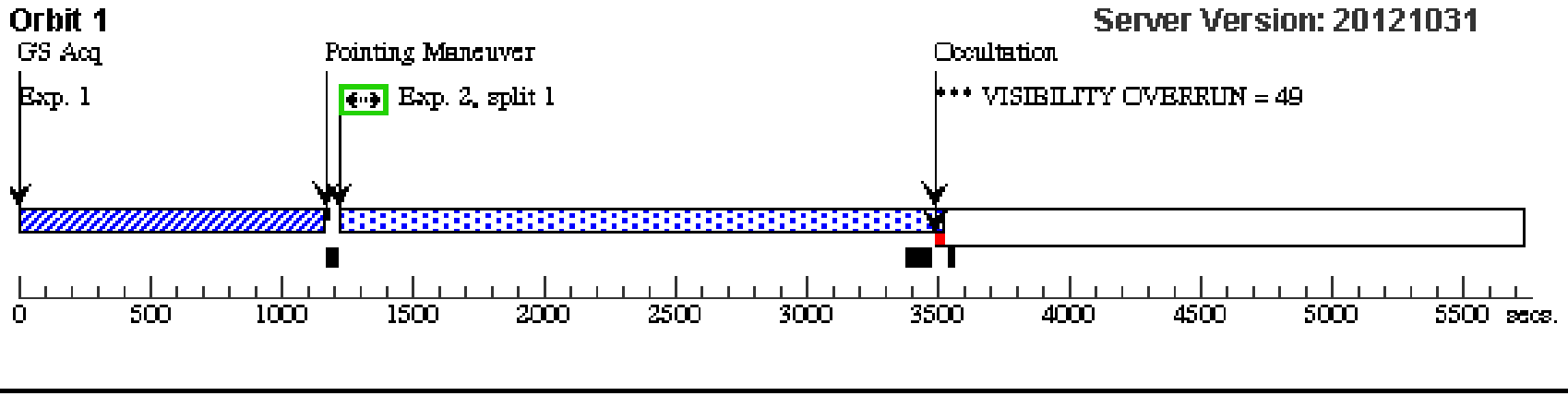
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	ACQ (181874)	(3) SDSSJ140732.25+550725.6	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				362 Secs	
								[==>]	***[1]***

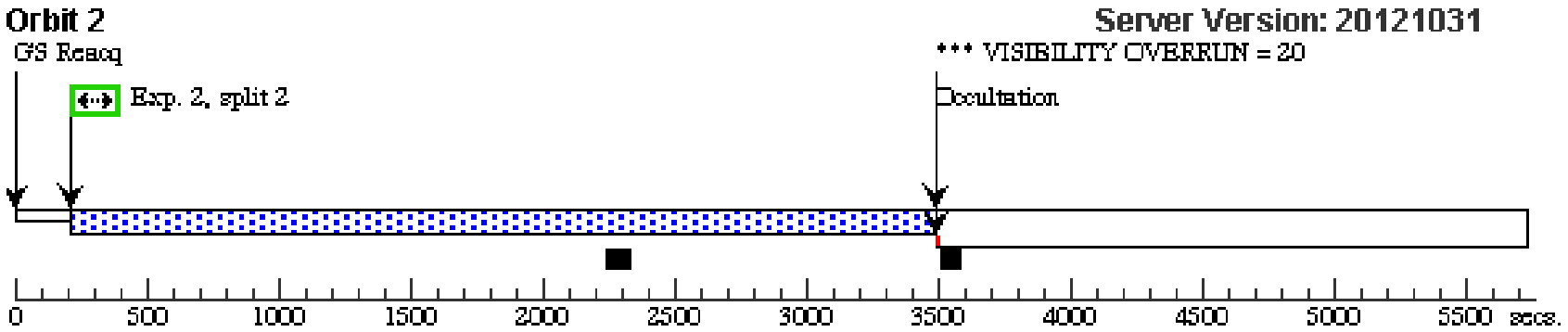
Comments: Exposure time assumes NUV flux (GALEX NUV =19.17) is half that measured by GALEX, to account for possible variations in QSO flux.

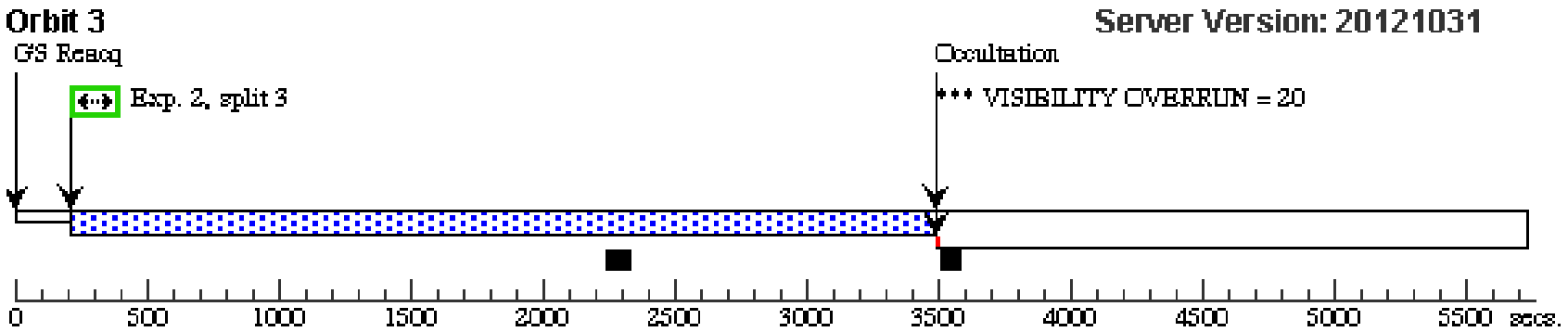
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
2	1327, ALL FP-POS (181893)	(3) SDSSJ140732.25+550725.6	COS/FUV, TIME-TAG, PSA	G130M 1327 A	FP-POS=ALL; BUFFER-TIME=1990			2100 Secs	
								[==>2117.0 Secs (Split 1)]	***[1]***
								[==>3225.0 Secs (Split 2)]	***[2]***
								[==>3225.0 Secs (Split 3)]	***[3]***
								[==>3225.0 Secs (Split 4)]	***[4]***

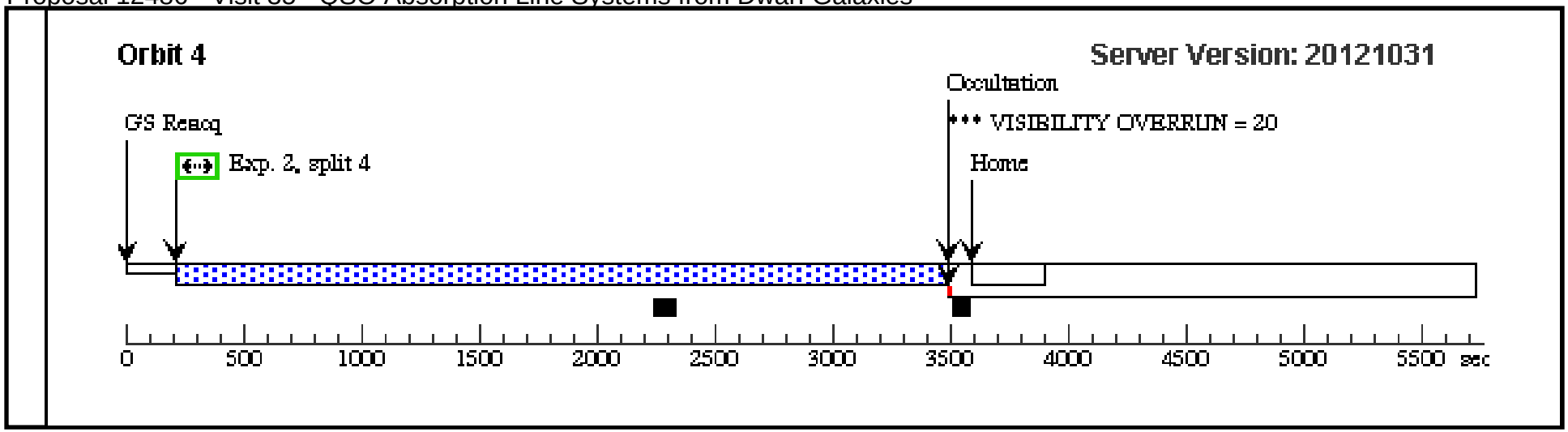
Comments: BUFFER-TIME = EXPOSURE TIME

Orbit Structure








Orbit 4
Server Version: 20121031
Occultation
GS Reacq
*** VISIBILITY OVERRUN = 20
Exp. 2, split 4
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 12486, Visit 40, completed Tue Feb 26 02:02:51 GMT 2013

Diagnostic Status: Warning

Scientific Instruments: COS/NUV, COS/FUV

Special Requirements: (none)

Comments: First visit to object 4, J145907.58+714019.9, 3 orbits (of 6) centered at 1291A; cz of intervening galaxy is 450 km/s.

Diagnostics

(Visit 40) Warning (Orbit Planner): VISIBILITY OVERRUN

(Visit 40) Warning (Orbit Planner): VISIBILITY OVERRUN

(Visit 40) 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 40) Warning (Orbit Planner): VISIBILITY OVERRUN

Fixed Targets

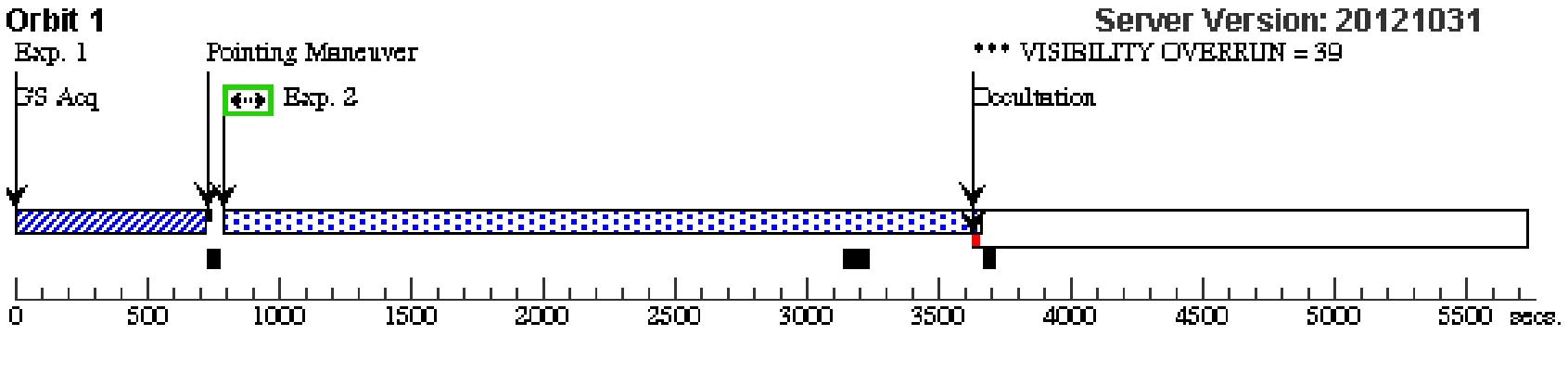
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	SDSSJ145907.58+714019.9 Alt Name1: NGC5832-QSO	RA: 14 59 7.5806 (224.7815858d) Dec: +71 40 19.85 (71.67218d) Equinox: J2000	Redshift: 0.905	V=16.4+/-0.1 GALEX FUV: 18.8 mags, 115 micro-Jy or F(1530)=1.4e-15; GALEX NUV: 17.4 mags, 388 micro-Jy or F(2270)=2.3e-15	Reference Frame: ICRS

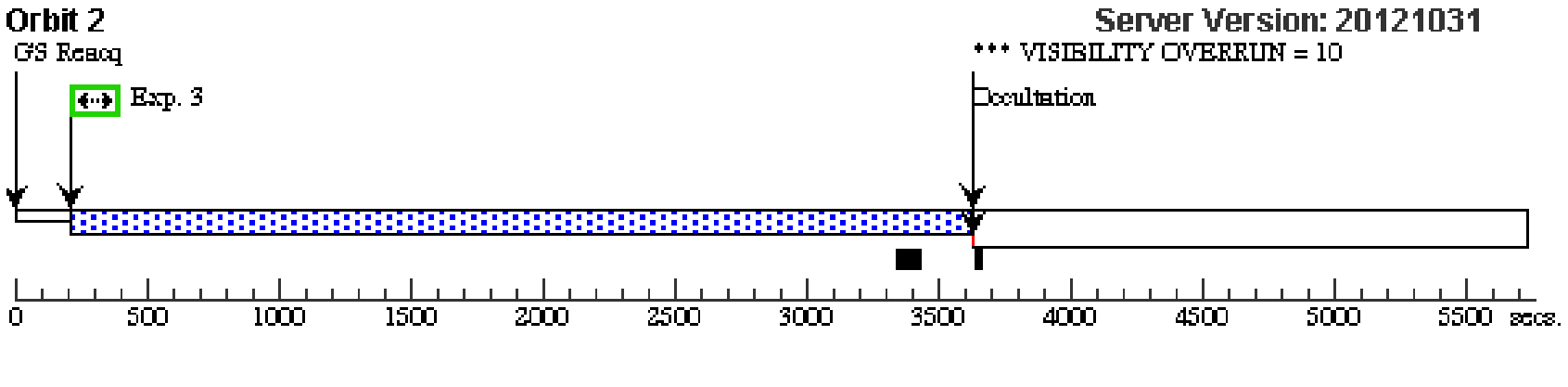
Comments: Coords from GSC2.3.3, HST ID = N4OZ003889

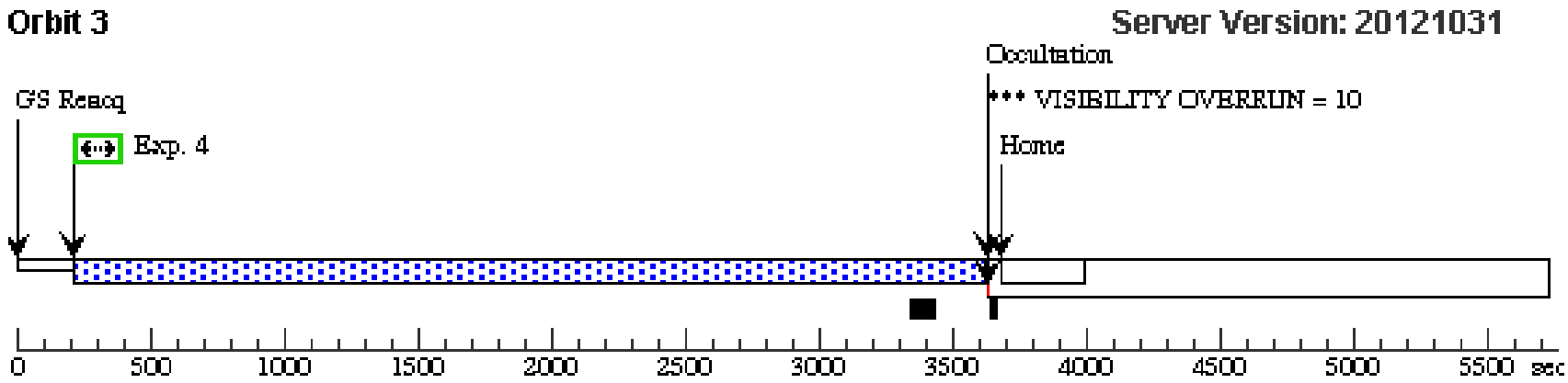
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	ACQ (181875)	(4) SDSSJ145907.58 +714019.9	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				144 Secs *[==>]*	*[1]*
Comments: Exposure time assumes NUV flux (GALEX NUV =18.18) is half that measured by GALEX, to account for possible variations in QSO flux.									
2	1291, FP-POS=1 (181895)	(4) SDSSJ145907.58 +714019.9	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=1; BUFFER-TIME=2190			2300 Secs *[==>2687.0 Secs]*	*[1]*
Comments: BUFFER-TIME = EXPOSURE TIME; expecting wavelength range = 1139-1279 A and 1296-1436 A.									
3	1291, FP-POS=2 (181896)	(4) SDSSJ145907.58 +714019.9	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=2; BUFFER-TIME=3090			3200 Secs *[==>3359.0 Secs]*	*[2]*
Comments: BUFFER-TIME = EXPOSURE TIME; expecting wavelength range = 1136.5-1276.5 A and 1293.5-1433.5 A.									
4	1291, FP-POS=3 (181896)	(4) SDSSJ145907.58 +714019.9	COS/FUV, TIME-TAG, PSA	G130M 1291 A	FP-POS=3; BUFFER-TIME=3090			3200 Secs *[==>3359.0 Secs]*	*[3]*
Comments: BUFFER-TIME = EXPOSURE TIME; expecting wavelength range = 1134-1274 A and 1291-1431 A.									

Orbit Structure







Visit

Proposal 12486, Visit 45, completed Tue Feb 26 02:02:53 GMT 2013

Diagnostic Status: Warning

Scientific Instruments: COS/NUV, COS/FUV

Special Requirements: (none)

Comments: Second visit to object 4, J145907.58+714019.9, 3 orbits (of 6) centered at 1327A; cz of intervening galaxy is 450 km/s.

Diagnostics

(Visit 45) Warning (Orbit Planner): VISIBILITY OVERRUN

(Visit 45) 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 45) Warning (Orbit Planner): VISIBILITY OVERRUN

(Visit 45) Warning (Orbit Planner): VISIBILITY OVERRUN

Fixed Targets

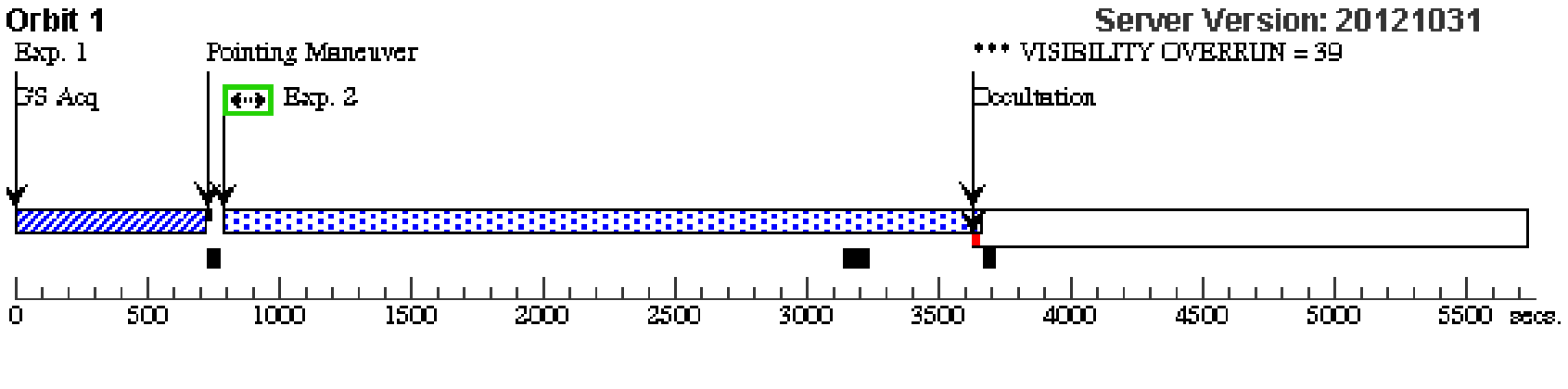
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	SDSSJ145907.58+714019.9 Alt Name1: NGC5832-QSO	RA: 14 59 7.5806 (224.7815858d) Dec: +71 40 19.85 (71.67218d) Equinox: J2000	Redshift: 0.905	V=16.4+/-0.1 GALEX FUV: 18.8 mags, 115 micro-Jy or F(1530)=1.4e-15; GALEX NUV: 17.4 mags, 388 micro-Jy or F(2270)=2.3e-15	Reference Frame: ICRS

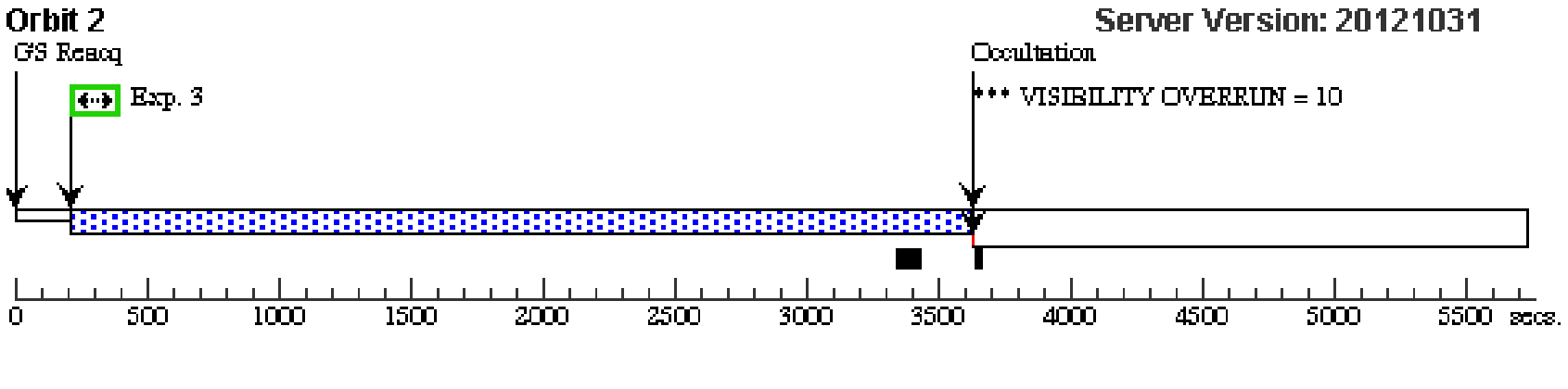
Comments: Coords from GSC2.3.3, HST ID = N4OZ003889

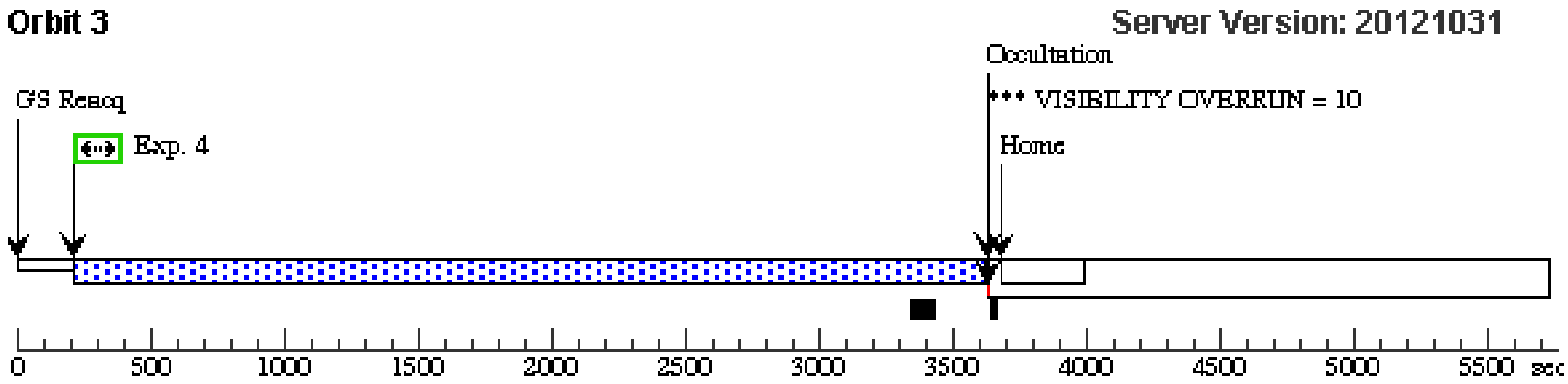
Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	ACQ (181875)	(4) SDSSJ145907.58 +714019.9	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				144 Secs *[==>]*	*[1]*
Comments: Exposure time assumes NUV flux (GALEX NUV =18.18) is half that measured by GALEX, to account for possible variations in QSO flux.									
2	1327, FP-POS=1 (181898)	(4) SDSSJ145907.58 +714019.9	COS/FUV, TIME-TAG, PSA	G130M 1327 A	FP-POS=1; BUFFER-TIME=2190			2300 Secs *[==>2687.0 Secs]*	*[1]*
Comments: BUFFER-TIME = EXPOSURE TIME; expecting wavelength range = 1177-1318 A and 1333-1474 A.									
3	1327, FP-POS=2 (181897)	(4) SDSSJ145907.58 +714019.9	COS/FUV, TIME-TAG, PSA	G130M 1327 A	FP-POS=2; BUFFER-TIME=3090			3200 Secs *[==>3359.0 Secs]*	*[2]*
Comments: BUFFER-TIME = EXPOSURE TIME; expecting wavelength range = 1174.5-1315.5 A and 1330.5-1471.5 A.									
4	1327, FP-POS=3 (181897)	(4) SDSSJ145907.58 +714019.9	COS/FUV, TIME-TAG, PSA	G130M 1327 A	FP-POS=3; BUFFER-TIME=3090			3200 Secs *[==>3359.0 Secs]*	*[3]*
Comments: BUFFER-TIME = EXPOSURE TIME; expecting wavelength range = 1172-1313 A and 1328-1469 A.									

Orbit Structure







Visit

Proposal 12486, Visit 50, completed Tue Feb 26 02:02:55 GMT 2013

Diagnostic Status: Warning

Scientific Instruments: COS/NUV, COS/FUV

Special Requirements: (none)

Comments: Single visit of 2 orbits to object 5, J123304.05-003134.1, two centers at 1291 and 1327A; cz of intervening galaxy is 3280 km/s. This is the revised number of orbits for this target.

Diagnostics

(Visit 50) Warning (Orbit Planner): VISIBILITY OVERRUN

(Visit 50) Warning (Orbit Planner): VISIBILITY OVERRUN

(Visit 50) 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.

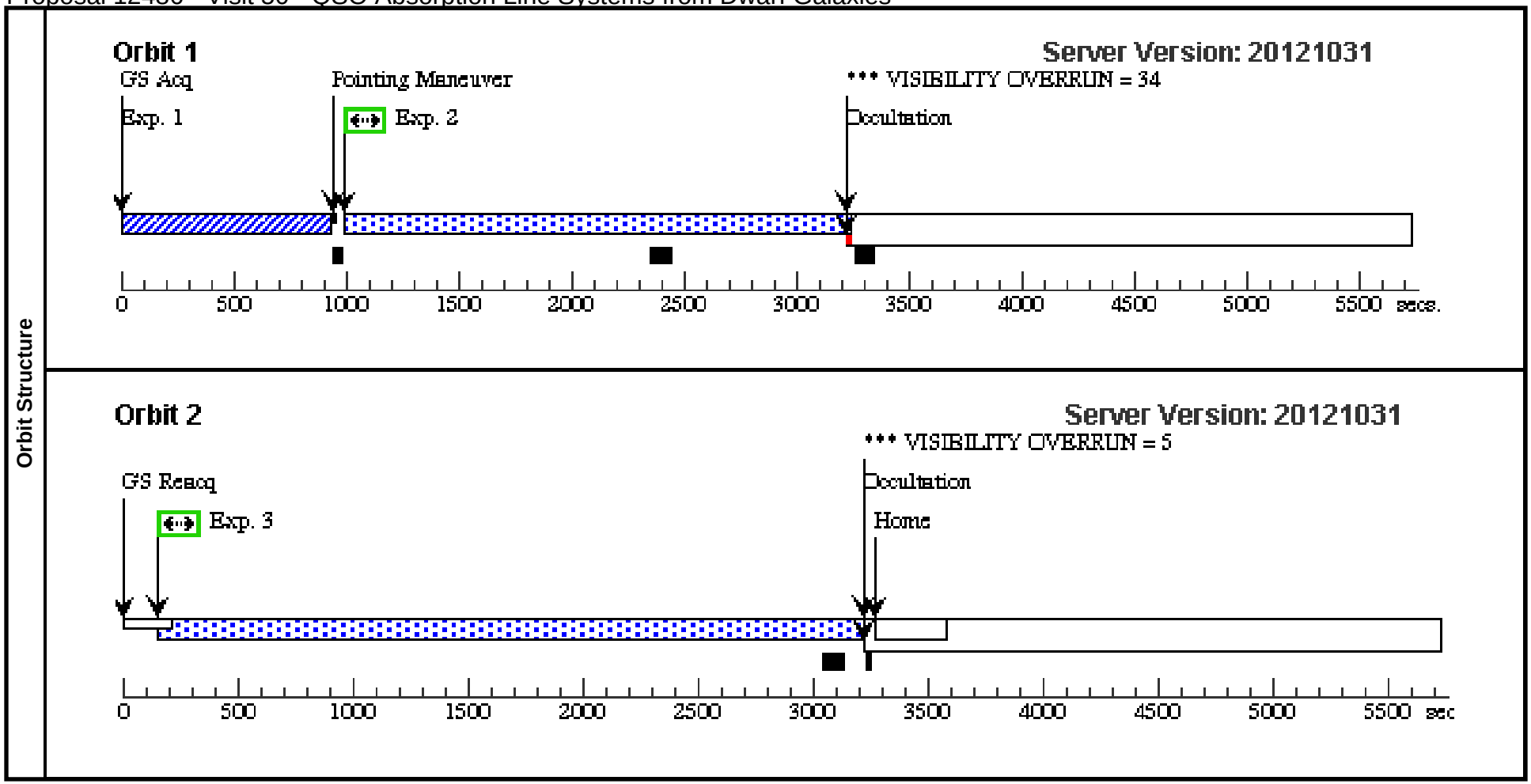
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	SDSSJ123304.05-003134.1 Alt Name1: UGCA285-QSO	RA: 12 33 4.0515 (188.2668812d) Dec: -00 31 34.17 (-.52616d) Equinox: J2000	Redshift: 0.471	V=17.7+/-0.05 GALEX FUV: 18.3 mags, 171 micro-Jy or F(1530)=2.3e-15; GALEX NUV: 18.0 mag, 227 micro-Jy or F(2270)=1.3e-15	Reference Frame: ICRS

Comments: Coords and errors from DR7 SDSS (PhotoObj)

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	ACQ (181876)	(5) SDSSJ123304.05-003134.1	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				247 Secs *[==>]*	*[1]*
Comments: Exposure time assumes NUV flux (GALEX NUV =18.76) is half that measured by GALEX, to account for possible variations in QSO flux.									
2	1300, FP-POS=1 (181899)	(5) SDSSJ123304.05-003134.1	COS/FUV, TIME-TAG, PSA	G130M 1300 A	FP-POS=1; BUFFER-TIME=1190			1300 Secs *[==>2070.0 Secs]*	*[1]*
Comments: BUFFER-TIME = EXPOSURE TIME; expecting wavelength range = 1149-1288 A and 1305-1446 A.									
3	1309, FP-POS=1 (181901)	(5) SDSSJ123304.05-003134.1	COS/FUV, TIME-TAG, PSA	G130M 1309 A	FP-POS=1; BUFFER-TIME=2790			2900 Secs *[==>2948.0 Secs]*	*[2]*
Comments: BUFFER-TIME = EXPOSURE TIME; expecting wavelength range = 1159-1299 A and 1314-1455 A.									


Orbit Structure
Orbit 1
Server Version: 20121031
GS Acq
Pointing Maneuver
*** VISIBILITY OVERRUN = 34
Exp. 1
Exp. 2
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
secs.
Orbit 2
Server Version: 20121031
*** VISIBILITY OVERRUN = 5
GS Reacq
Occultation
Exp. 3
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Proposal 12486 - Visit 60 - QSO Absorption Line Systems from Dwarf Galaxies

Visit

Proposal 12486, Visit 60, implementation Tue Feb 26 02:02:57 GMT 2013

Diagnostic Status: No Diagnostics

Scientific Instruments: COS/NUV, COS/FUV

Special Requirements: (none)

Comments: First visit to object 6, J141542.90+163413.8, 4 orbits (of 7) centered at 1300A ; cz of intervening galaxy is 2270 km/s. All FP-POS positions used in this visit.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(6)	SDSSJ141542.90+163413.8 Alt Name1: UGC9126-QSO	RA: 14 15 42.9063 (213.9287762d) Dec: +16 34 13.77 (16.57049d) Equinox: J2000		V=17.8+/-0.05 GALEX FUV: 19.0 mag, 92 micro-Jy or F(1530)=1.2e-15; GALEX NUV: 18.2 mag, 198 micro-Jy or F(2270)=1.1e-15	Reference Frame: ICRS

Comments: Coords and errors from DR7 of SDSS (PhotoObj)

Exposures

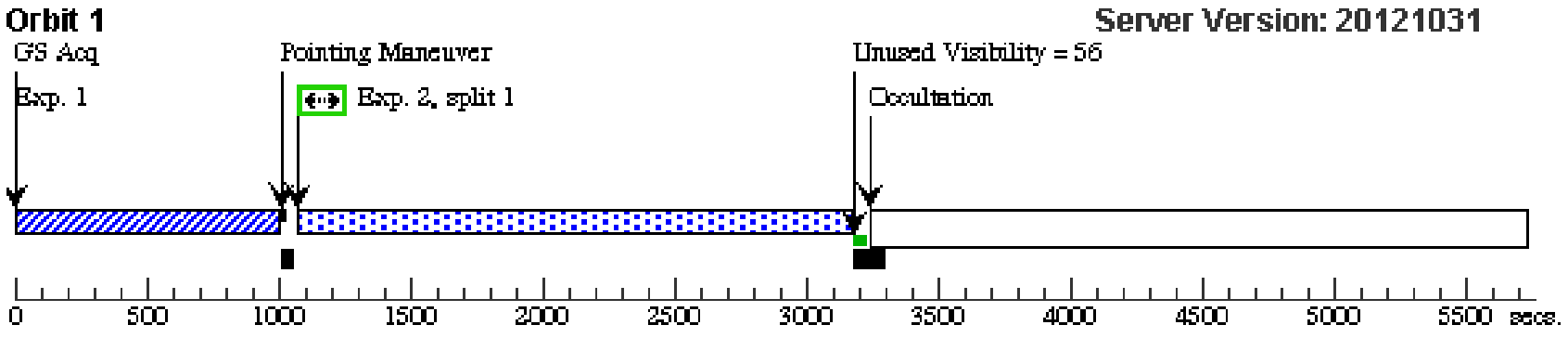
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	ACQ (181877)	(6) SDSSJ141542.90 +163413.8	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				284 Secs	
								[==>]	***[1]***

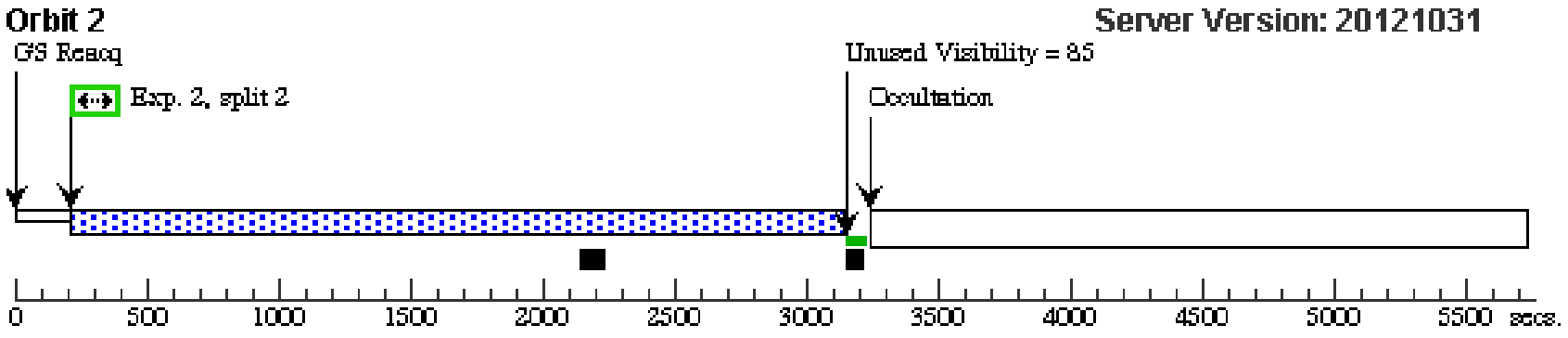
Comments: Exposure time assumes NUV flux (GALEX NUV =18.91) is half that measured by GALEX, to account for possible variations in QSO flux.

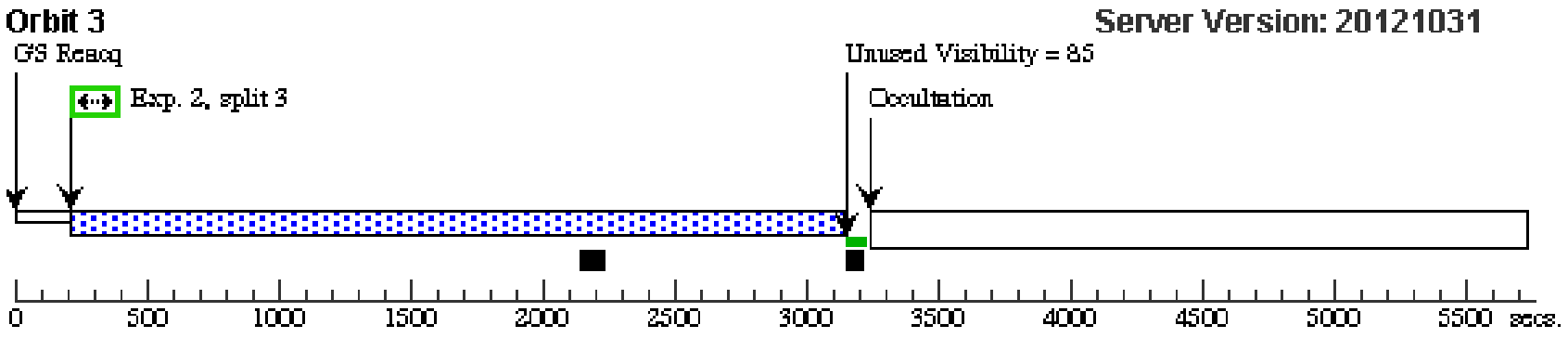
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
2	1300, ALL FP-POS (181902)	(6) SDSSJ141542.90 +163413.8	COS/FUV, TIME-TAG, PSA	G130M 1300 A	FP-POS=ALL; BUFFER-TIME=1890			2000 Secs	
								[==>1921.0 Secs (Split 1)]	***[1]***
								[==>2873.0 Secs (Split 2)]	***[2]***
								[==>2873.0 Secs (Split 3)]	***[3]***
								[==>2873.0 Secs (Split 4)]	***[4]***

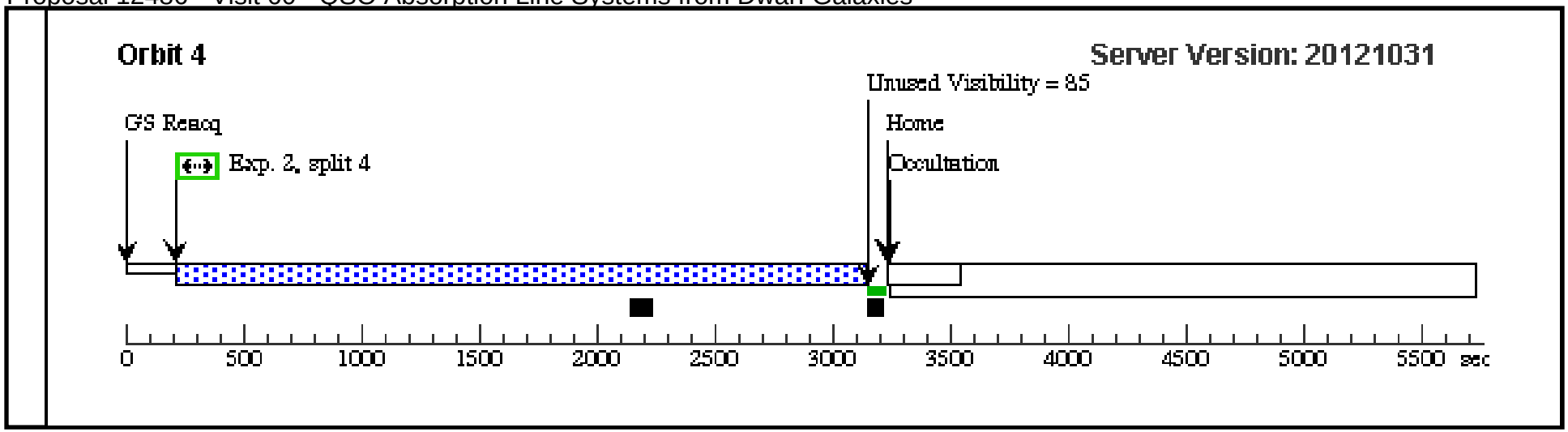
Comments: BUFFER-TIME = EXPOSURE TIME

Orbit Structure








Orbit 4
Server Version: 20121031
Unused Visibility = 85
GS Reacq
Exp. 2, split 4
Home
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Proposal 12486 - Visit 65 - QSO Absorption Line Systems from Dwarf Galaxies

Visit

Proposal 12486, Visit 65, completed Tue Feb 26 02:03:00 GMT 2013

Diagnostic Status: Warning

Scientific Instruments: COS/NUV, COS/FUV

Special Requirements: (none)

Comments: Second visit to object 6, J141542.90+163413.8, 3 orbits (of 7) centered at 1309A ; cz of intervening galaxy is 2270 km/s.

Diagnostics

(Visit 65) Warning (Orbit Planner): VISIBILITY OVERRUN

(Visit 65) Warning (Orbit Planner): VISIBILITY OVERRUN

(Visit 65) 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 65) Warning (Orbit Planner): VISIBILITY OVERRUN

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(6)	SDSSJ141542.90+163413.8 Alt Name1: UGC9126-QSO	RA: 14 15 42.9063 (213.9287762d) Dec: +16 34 13.77 (16.57049d) Equinox: J2000		V=17.8+/-0.05 GALEX FUV: 19.0 mag, 92 micro-Jy or F(1530)=1.2e-15; GALEX NUV: 18.2 mag, 198 micro-Jy or F(2270)=1.1e-15	Reference Frame: ICRS

Comments: Coords and errors from DR7 of SDSS (PhotoObj)

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1	ACQ (181877)	(6) SDSSJ141542.90+163413.8	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				284 Secs *[==>]*	 ***[1]***
Comments: Exposure time assumes NUV flux (GALEX NUV =18.91) is half that measured by GALEX, to account for possible variations in QSO flux.									
2	1309, FP-POS=2 (181903)	(6) SDSSJ141542.90+163413.8	COS/FUV, TIME-TAG, PSA	G130M 1309 A	FP-POS=2; BUFFER-TIME=1790			1900 Secs *[==>2011.0 Secs]*	 ***[1]***
Comments: BUFFER-TIME = EXPOSURE TIME; expecting wavelength range = 1156.5-1296.5 A and 1311.5-1452.5 A.									
3	1309, FP-POS=3 (181903)	(6) SDSSJ141542.90+163413.8	COS/FUV, TIME-TAG, PSA	G130M 1309 A	FP-POS=3; BUFFER-TIME=2790			2900 Secs *[==>2963.0 Secs]*	 ***[2]***
Comments: BUFFER-TIME = EXPOSURE TIME; expecting wavelength range = 1154-1294 A and 1309-1450 A									
4	1309, FP-POS=4 (181903)	(6) SDSSJ141542.90+163413.8	COS/FUV, TIME-TAG, PSA	G130M 1309 A	FP-POS=4; BUFFER-TIME=2790			2900 Secs *[==>2963.0 Secs]*	 ***[3]***
Comments: BUFFER-TIME = EXPOSURE TIME; expecting wavelength range = 1151.5-1291.5 A and 1306.5-1447.5 A.									

Orbit Structure