14516 - UV Spectroscopy of the Superluminous Supernova Gaia16apd

Cycle: 23, Proposal Category: GO/DD

(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) GAIA16APD	COS/FUV COS/NUV	2	29-Jul-2016 13:39:47.0	yes
02	(1) GAIA16APD	STIS/CCD STIS/NUV-MAMA	1	29-Jul-2016 13:39:48.0	yes
03	(1) GAIA16APD	STIS/CCD STIS/NUV-MAMA	1	29-Jul-2016 13:39:49.0	yes
04	(1) GAIA16APD	STIS/CCD STIS/NUV-MAMA	1	29-Jul-2016 13:39:50.0	yes
14	(1) GAIA16APD	STIS/CCD STIS/NUV-MAMA	1	29-Jul-2016 13:39:51.0	yes

6 Total Orbits Used

ABSTRACT

Optical transient searches have yielded a diverse sample of supernovae with peak luminosities 10-100 times greater than common. These superluminous supernovae have been shown to be especially UV bright, which make these objects ripe for discovery at high redshifts. However, there is a dearth of rest-frame, far-UV (FUV; lambda < 1700A) spectra of superluminous supernovae available to enable classification of these high redshift discoveries. Here we request COS and STIS UV spectroscopy of the recently discovered Gaia16bpd. These data will set a local reference point to compare against high redshift SLSN candidates, and it will open a new window on the physical nature of SLSN, which remains a source of debate.

OBSERVING DESCRIPTION

We request three observations of Gaia16apd. For the first visit, we request two COS orbits followed by one STIS orbit. If possible, these should be three consecutive orbits, however this is not strictly required. Next we request one STIS orbit to take place about 10 days after the initial observation, and one last STIS orbit to take palce about 20 days after the initial observation.

Visit

Proposal 14516, COS spectrum (01), completed Fri Jul 29 17:39:51 GMT 2016

Diagnostic Status: Warning

Scientific Instruments: COS/FUV, COS/NUV

Special Requirements: BEFORE 03-JUN-2016:00:00:00

Diagnostics

(COS spectrum (01)) Warning (Orbit Planner): INEFFICIENT ORDERING OF FP-POS POSITIONS

Fixed Targets

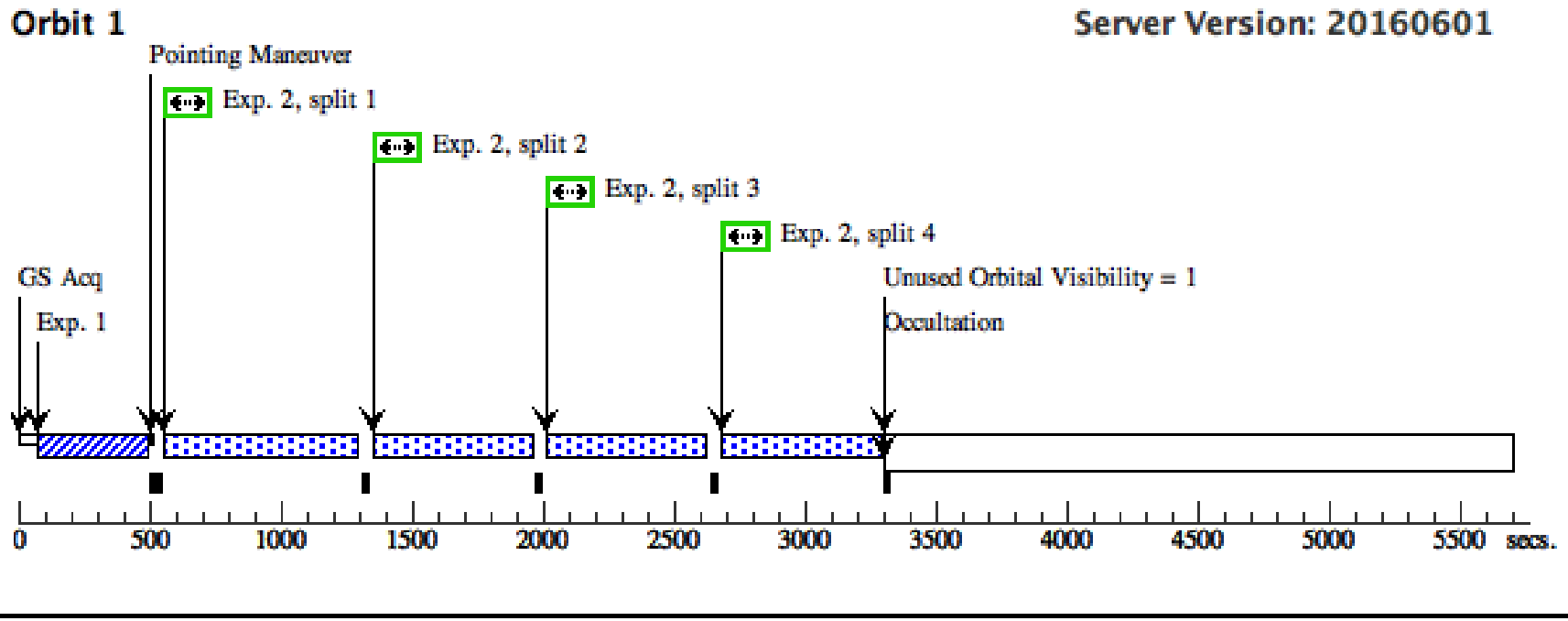
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	GAIA16APD	RA: 12 02 51.7041 (180.7154337d) Dec: +44 15 27.38 (44.25761d) Equinox: J2000		V=17.35	Reference Frame: ICRS

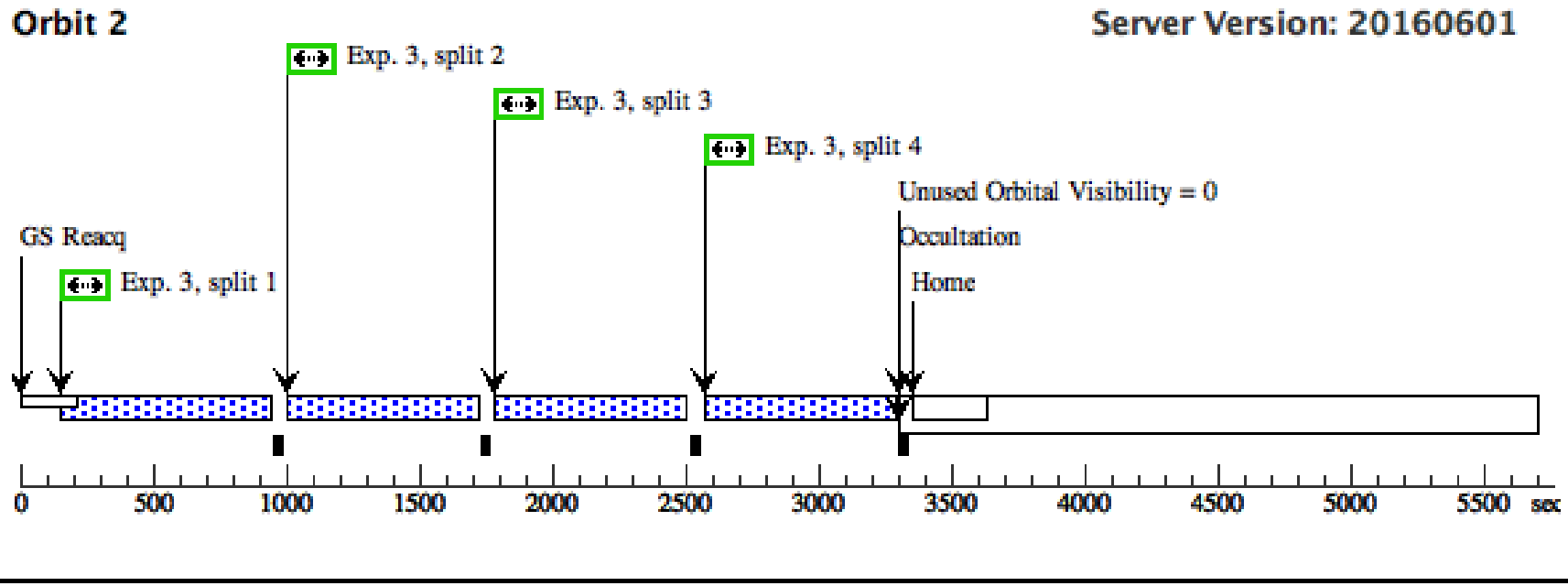
Comments: Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	acquisition (COS.ta.816707)	(1) GAIA16APD	COS/NUV, ACQ/IMAGE, PSA	MIRRORB				48 Secs (48 Secs) *[==>]*	***[1]***
2	COS spectra of Gaia16apd (COS.sp.816746)	(1) GAIA16APD	COS/FUV, TIME-TAG, PSA	G140L 1105 A	FLASH=YES; BUFFER-TIME=6000; FP-POS=ALL			500 Secs (2236 Secs) *[==>559.0 Secs (Split 1)]* *[==>559.0 Secs (Split 2)]* *[==>559.0 Secs (Split 3)]* *[==>559.0 Secs (Split 4)]*	***[1]***
3	COS spectra of Gaia16apd (COS.sp.816746)	(1) GAIA16APD	COS/FUV, TIME-TAG, PSA	G140L 1105 A	FLASH=YES; BUFFER-TIME=6000; FP-POS=ALL			500 Secs (2676 Secs) *[==>669.0 Secs (Split 1)]* *[==>669.0 Secs (Split 2)]* *[==>669.0 Secs (Split 3)]* *[==>669.0 Secs (Split 4)]*	***[2]***

Orbit Structure





Visit

Proposal 14516, STIS spectrum (02), completed Fri Jul 29 17:39:51 GMT 2016

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/NUV-MAMA, STIS/CCD

Special Requirements: AFTER_01 BY 0 D TO 2 D

Fixed Targets

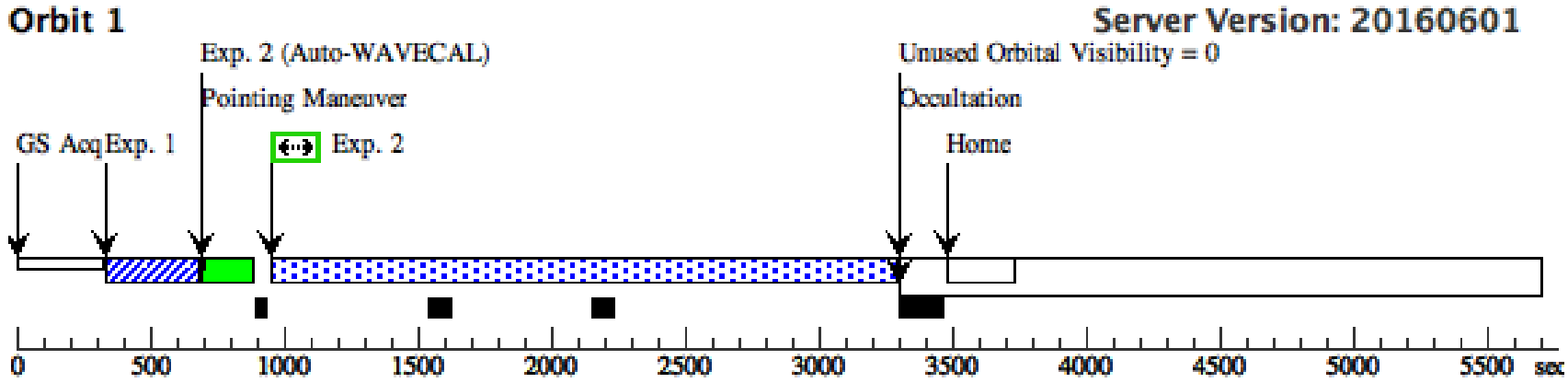
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	GAIA16APD	RA: 12 02 51.7041 (180.7154337d) Dec: +44 15 27.38 (44.25761d) Equinox: J2000		V=17.35	Reference Frame: ICRS

Comments: Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	acquisition (STIS.ta.816747)	(1) GAIA16APD	STIS/CCD, ACQ, F28X50LP	MIRROR				30 Secs (30 Secs) *[==>]*	*[1]*
2	STIS spectrum (STIS.sp.816748)	(1) GAIA16APD	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=600			500 Secs (2327 Secs) *[==>2327.0 Secs]*	*[1]*

Orbit Structure



Visit

Proposal 14516, STIS spectrum (03), completed Fri Jul 29 17:39:51 GMT 2016

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/NUV-MAMA, STIS/CCD

Special Requirements: AFTER 01 BY 7 D TO 13 D

Fixed Targets

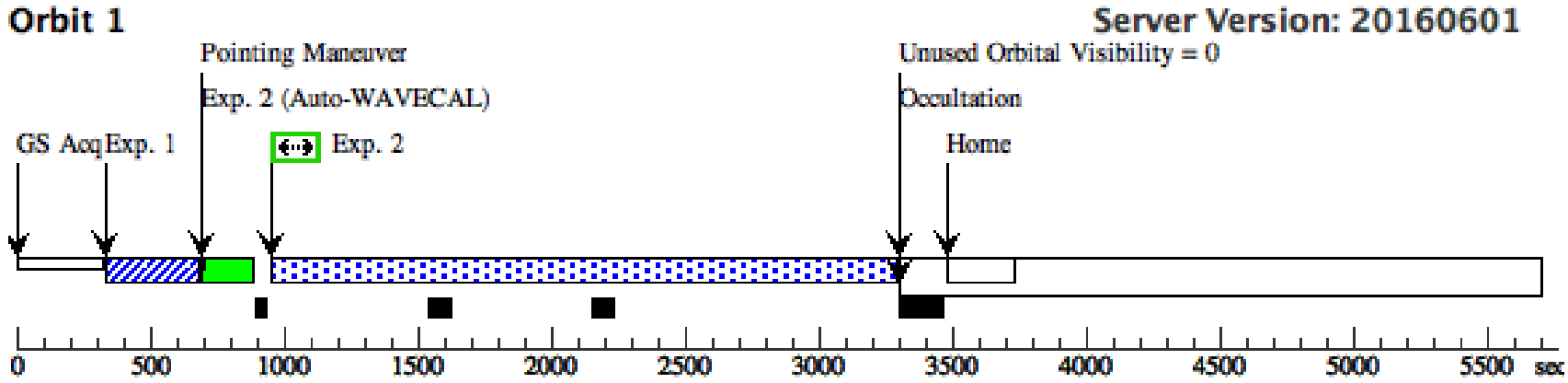
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	GAIA16APD	RA: 12 02 51.7041 (180.7154337d) Dec: +44 15 27.38 (44.25761d) Equinox: J2000		V=17.35	Reference Frame: ICRS

Comments: Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	acquisition (STIS.ta.816747)	(1) GAIA16APD	STIS/CCD, ACQ, F28X50LP	MIRROR				30 Secs (30 Secs) *[==>]*	*[1]*
2	STIS spectrum (STIS.sp.816748)	(1) GAIA16APD	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=600			500 Secs (2327 Secs) *[==>2327.0 Secs]*	*[1]*

Orbit Structure



Visit

Proposal 14516, STIS spectrum (04), scheduled Fri Jul 29 17:39:52 GMT 2016

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/NUV-MAMA, STIS/CCD

Special Requirements: AFTER 01 BY 17 D TO 30 D

Fixed Targets

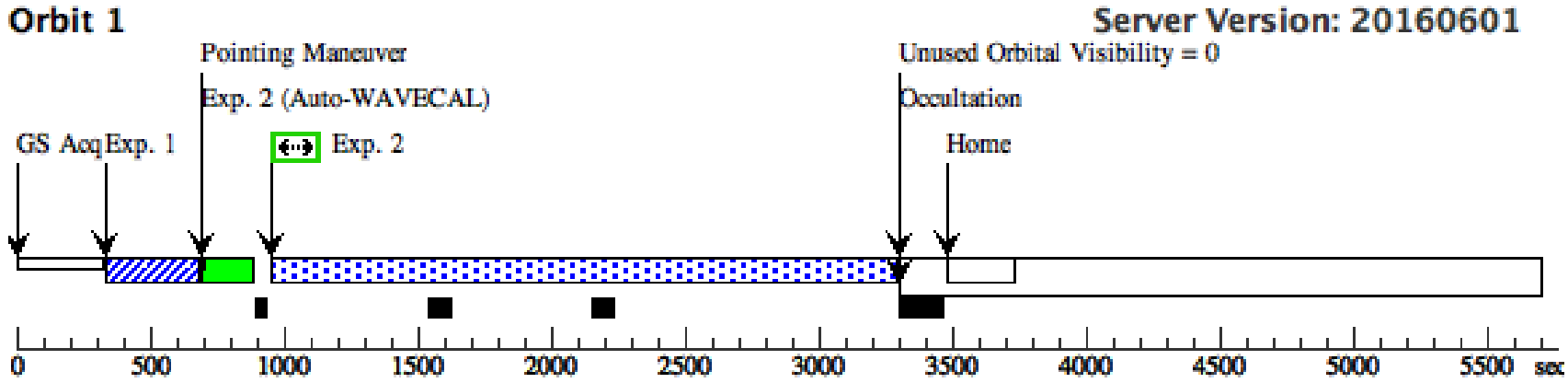
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	GAIA16APD	RA: 12 02 51.7041 (180.7154337d) Dec: +44 15 27.38 (44.25761d) Equinox: J2000		V=17.35	Reference Frame: ICRS

Comments: Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	acquisition (STIS.ta.816747)	(1) GAIA16APD	STIS/CCD, ACQ, F28X50LP	MIRROR				30 Secs (30 Secs) *[==>]*	*[1]*
2	STIS spectrum (STIS.sp.816748)	(1) GAIA16APD	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=600			500 Secs (2327 Secs) *[==>2327.0 Secs]*	*[1]*

Orbit Structure



Visit

Proposal 14516, STIS spectrum (14) Fri Jul 29 17:39:52 GMT 2016

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/NUV-MAMA, STIS/CCD

Special Requirements: AFTER 01 BY 17 D TO 30 D

Comments: Copy of visit 04 which failed due to a STIS safing.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	GAIA16APD	RA: 12 02 51.7041 (180.7154337d) Dec: +44 15 27.38 (44.25761d) Equinox: J2000		V=17.35	Reference Frame: ICRS

Comments: Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	acquisition (STIS.ta.816747)	(1) GAIA16APD	STIS/CCD, ACQ, F28X50LP	MIRROR				30 Secs (30 Secs) *[==>]*	*[1]*
2	STIS spectrum (STIS.sp.816748)	(1) GAIA16APD	STIS/NUV-MAMA, TIME-TAG, 52X0.2	G230L 2376 A	BUFFER-TIME=600			500 Secs (2327 Secs) *[==>2327.0 Secs]*	*[1]*

Orbit Structure