



14783 - Detecting Isolated Black Holes through Astrometric Microlensing

Cycle: 24, Proposal Category: GO

(Availability Mode: SUPPORTED)

INVESTIGATORS

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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	(3) OGLE-2011-BLG-462	WFC3/UVIS	1	16-Aug-2017 20:00:21.0	yes
02	(2) OGLE-2011-BLG-310	WFC3/UVIS	1	16-Aug-2017 20:00:22.0	yes
03	(2) OGLE-2011-BLG-310	WFC3/UVIS	1	16-Aug-2017 20:00:23.0	yes
04	(1) OGLE-2011-BLG-0037	WFC3/UVIS	1	16-Aug-2017 20:00:25.0	yes
05	(1) OGLE-2011-BLG-0037	WFC3/UVIS	1	16-Aug-2017 20:00:26.0	yes
51	(3) OGLE-2011-BLG-462	WFC3/UVIS	1	16-Aug-2017 20:00:27.0	yes

6 Total Orbits Used

ABSTRACT

A significant fraction of the mass of an old stellar population should be in the form of non-luminous, isolated black holes (BHs). Yet there has never been an unambiguous detection of a solitary BH--not surprisingly, since they emit essentially no radiation.

The only technique available to detect such isolated BHs is astrometric microlensing---the relativistic deflection of light from background stars. HST is the only instrument currently capable of detecting such tiny deflections. We have underway a multi-year program of HST high-precision astrometry of long-duration microlensing events in the Galactic bulge, using the WFC3 camera. Our aim is the first detection of stellar-mass black holes, by monitoring five optimally selected events.

Our program has met with success, with clear detections of the deflections, indicative of non-luminous massive lenses in 3 cases. However, for these long-duration ($T_E > 100$ days) events, the deflection due to microlensing is present at all our observed epochs, which causes some degeneracy between the proper motion (PM) and the deflection, making the mass estimate uncertain. The deflection due to microlensing is now negligible, so observations at this stage can unambiguously determine the PM, and remove this degeneracy. For 2 of our targets, we need 2 observations spaced by about one year to unambiguously determine the PM. The other target is a high-amplification event for which the deflection at the peak was negligible, so only one more observation will provide an unambiguous measurement of the PM. We thus need 5 orbits, which will lead to a robust determination of the lens masses, thus completing the original objectives of the program.

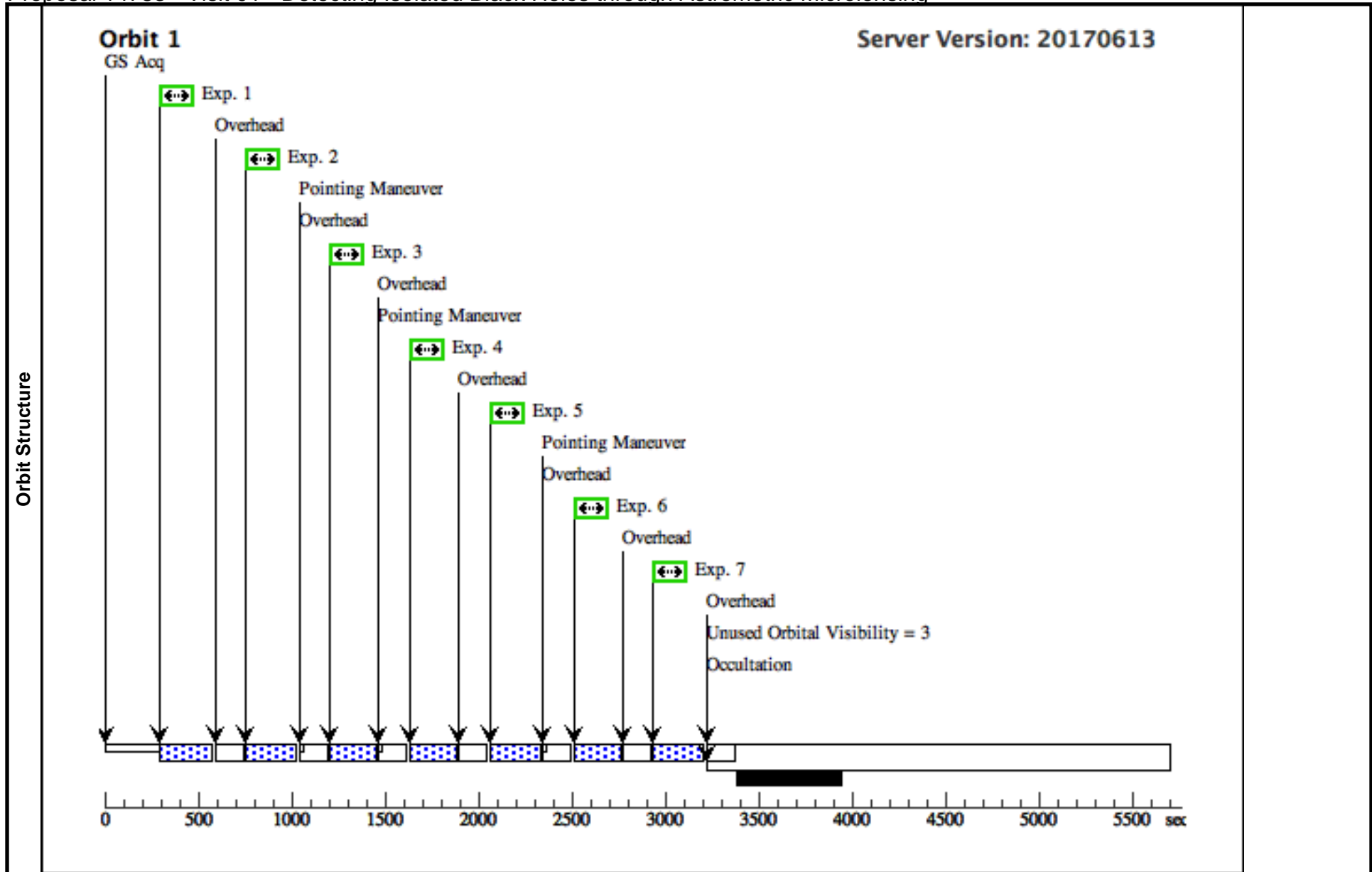
OBSERVING DESCRIPTION

We will employ the same observational strategy we have followed earlier. Basically, we will image each field using WFC3, primarily with the F814W filter, but also with F606W. As before, we will employ a 6-point dithering pattern, where we will observe the target star and the reference stars at a variety of pixel phases, thereby allowing us to construct an exquisite model of the PSF, and also randomize any remaining (small) systematic errors related to pixelization. Our dithers will also involve offsets of 100 pixels, so that we will observe the target star at different places on the detector, so that any remaining distortion errors will average out. We expect such errors to be small (< 0.01 pixel), but randomizing them will be worthwhile. The procedure described here does not require the observations at different epochs to be taken in the same ORIENT, which makes the scheduling easier.

Proposal 14783 - Visit 01 - Detecting Isolated Black Holes through Astrometric Microlensing

Thu Aug 17 00:00:29 GMT 2017

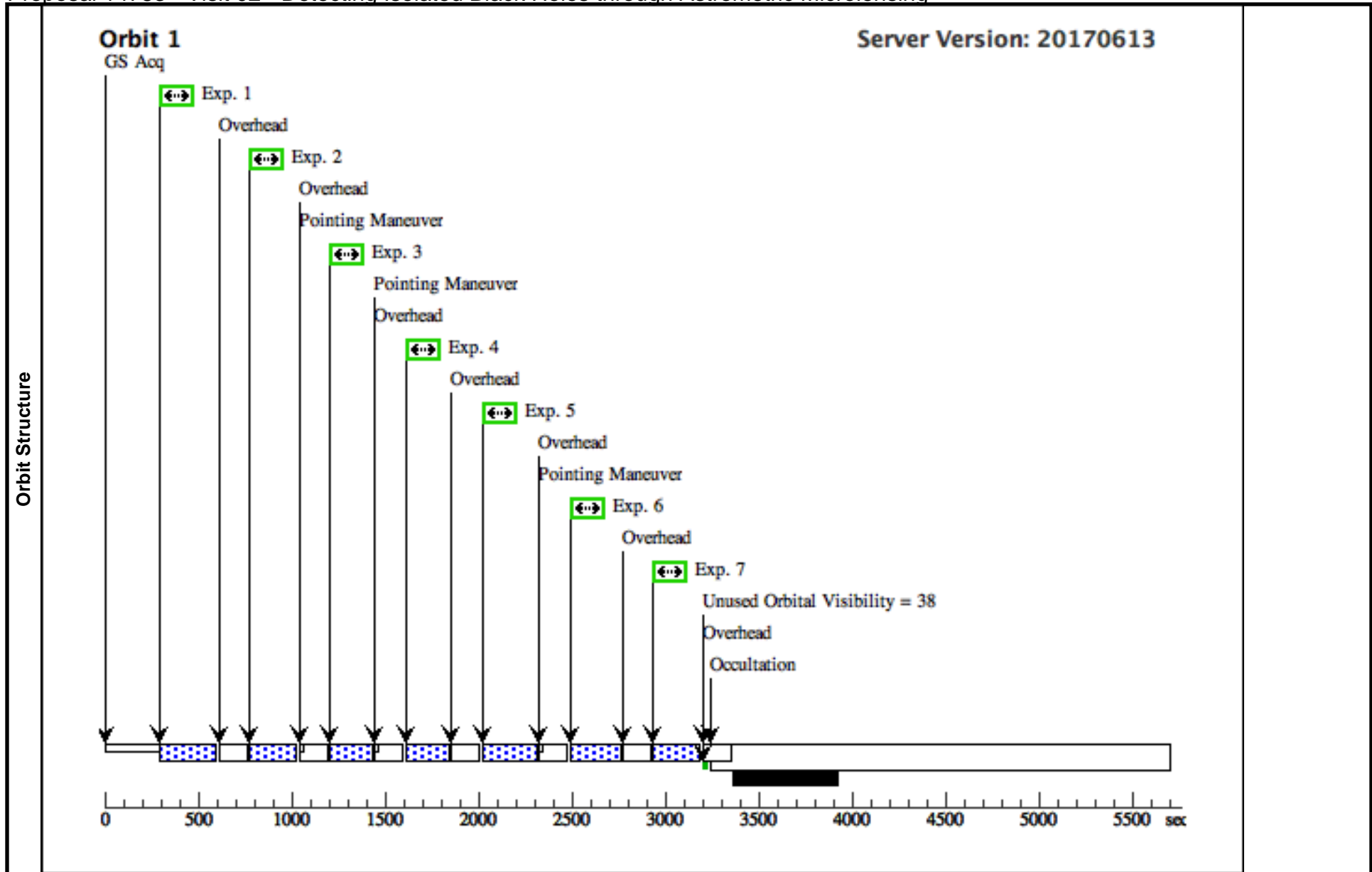
Visit	Proposal 14783, Visit 01, completed Diagnostic Status: Warning Scientific Instruments: WFC3/UVIS Special Requirements: BETWEEN 08-AUG-2017:00:00:00 AND 23-AUG-2017:00:00:00										
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Fixed Targets		#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
		(3)	OGLE-2011-BLG-462	RA: 17 51 40.1900 (267.9174583d) Dec: -29 53 26.30 (-29.89064d) Equinox: J2000		V=19.5+/-0.1	Reference Frame: ICRS				
Exposures		#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
		1	(3) OGLE-2011-BL G-462	(3) OGLE-2011-BL G-462	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W	CR-SPLIT=NO	POS TARG 22.25,9		250 Secs (250 Secs) [==>]	[1]
		2	(3) OGLE-2011-BL G-462	(3) OGLE-2011-BL G-462	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	CR-SPLIT=NO	SAME POS AS 1		250 Secs (250 Secs) [==>]	[1]
		3	(3) OGLE-2011-BL G-462	(3) OGLE-2011-BL G-462	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	CR-SPLIT=NO	POS TARG 10.37,20 .85		250 Secs (250 Secs) [==>]	[1]
	4	(3) OGLE-2011-BL G-462	(3) OGLE-2011-BL G-462	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	CR-SPLIT=NO	POS TARG -1.45,8.95		250 Secs (250 Secs) [==>]	[1]	
	5	(3) OGLE-2011-BL G-462	(3) OGLE-2011-BL G-462	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W	CR-SPLIT=NO	POS TARG -1.45,8.95		250 Secs (250 Secs) [==>]	[1]	
	6	(3) OGLE-2011-BL G-462	(3) OGLE-2011-BL G-462	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W	CR-SPLIT=NO	POS TARG 10.48,-2 .85		250 Secs (250 Secs) [==>]	[1]	
	7	(3) OGLE-2011-BL G-462	(3) OGLE-2011-BL G-462	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	CR-SPLIT=NO	SAME POS AS 6		250 Secs (250 Secs) [==>]	[1]	



Proposal 14783 - Visit 02 - Detecting Isolated Black Holes through Astrometric Microlensing

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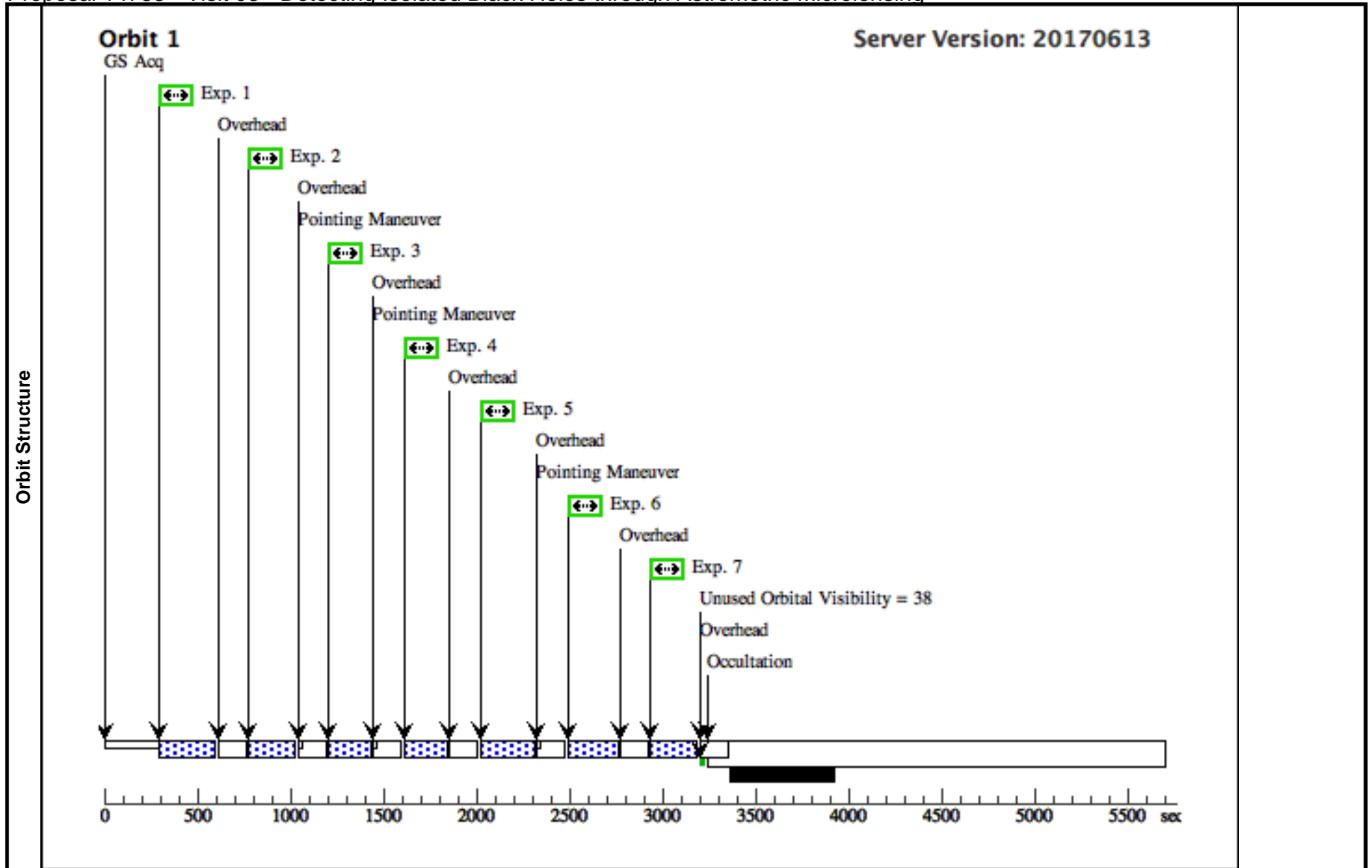
Visit	Proposal 14783, Visit 02, completed Diagnostic Status: Warning Scientific Instruments: WFC3/UVIS Special Requirements: (none)									
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Diagnosics										
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(2)	OGLE-2011-BLG-310	RA: 17 51 25.3900 (267.8557917d) Dec: -30 24 35.00 (-30.40972d) Equinox: J2000		V=18+/-0.1	Reference Frame: ICRS				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(2) OGLE-2011-BL G-310	(2) OGLE-2011-BL G-310	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W	CR-SPLIT=NO	POS TARG 22.25,9		270 Secs (270 Secs) [==>]	[1]
	2	(2) OGLE-2011-BL G-310	(2) OGLE-2011-BL G-310	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	CR-SPLIT=NO	SAME POS AS 1		230 Secs (230 Secs) [==>]	[1]
	3	(2) OGLE-2011-BL G-310	(2) OGLE-2011-BL G-310	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	CR-SPLIT=NO	POS TARG 10.37,20 .85		230 Secs (230 Secs) [==>]	[1]
	4	(2) OGLE-2011-BL G-310	(2) OGLE-2011-BL G-310	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	CR-SPLIT=NO	POS TARG -1.45,8.95		230 Secs (230 Secs) [==>]	[1]
	5	(2) OGLE-2011-BL G-310	(2) OGLE-2011-BL G-310	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W	CR-SPLIT=NO	POS TARG -1.45,8.95		270 Secs (270 Secs) [==>]	[1]
	6	(2) OGLE-2011-BL G-310	(2) OGLE-2011-BL G-310	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W	CR-SPLIT=NO	POS TARG 10.48,-2 .85		270 Secs (270 Secs) [==>]	[1]
	7	(2) OGLE-2011-BL G-310	(2) OGLE-2011-BL G-310	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	CR-SPLIT=NO	SAME POS AS 6		230 Secs (230 Secs) [==>]	[1]



Proposal 14783 - Visit 03 - Detecting Isolated Black Holes through Astrometric Microlensing

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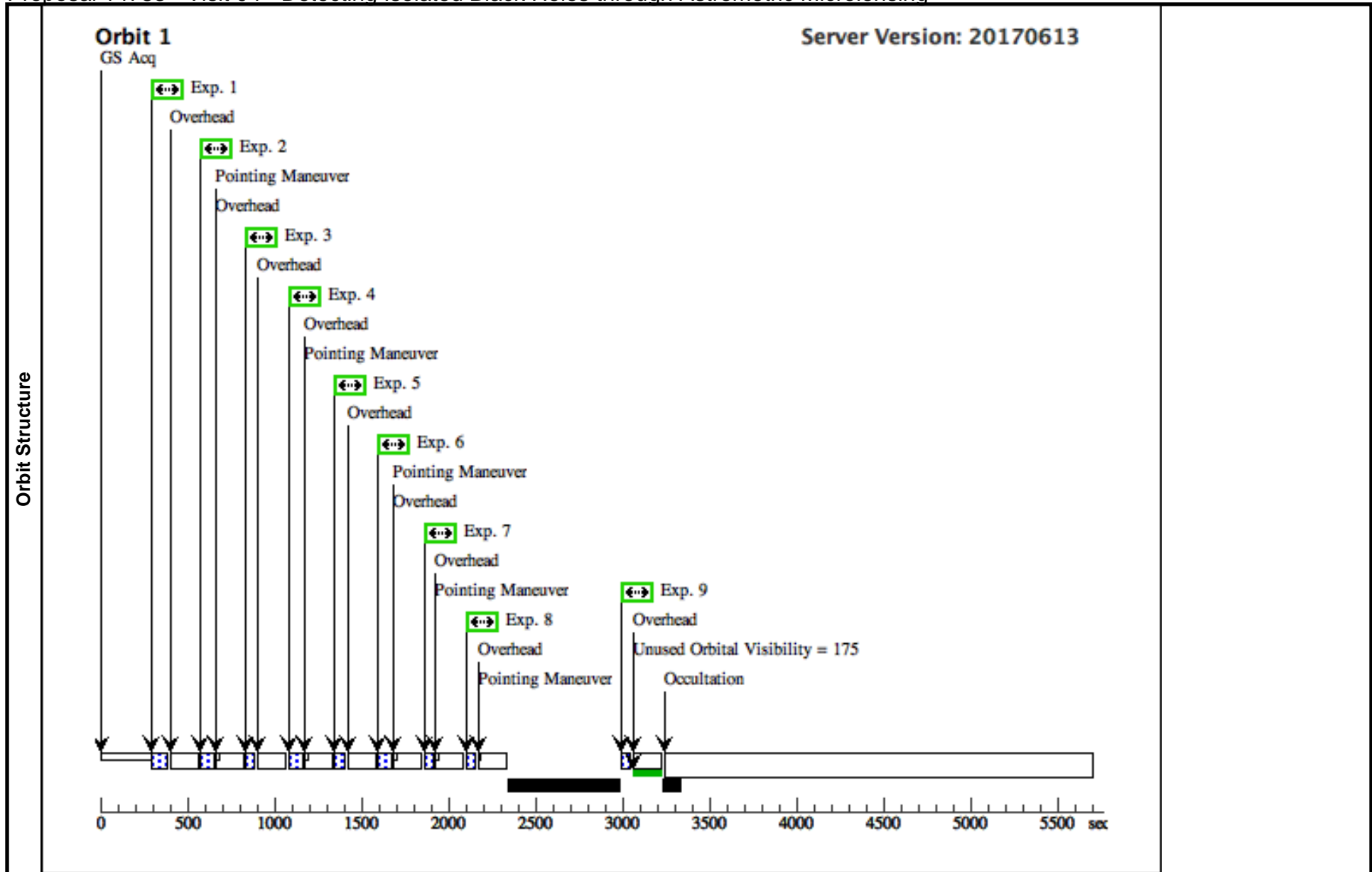
Visit	Proposal 14783, Visit 03, scheduling Diagnostic Status: Warning Scientific Instruments: WFC3/UVIS Special Requirements: AFTER 02 BY 170 D TO 190 D																																																																																									
Diagnostics	(Exposure 1 (Visit 03)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser (Exposure 2 (Visit 03)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser (Exposure 3 (Visit 03)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser (Exposure 4 (Visit 03)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser (Exposure 5 (Visit 03)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser (Exposure 6 (Visit 03)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser (Exposure 7 (Visit 03)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser																																																																																									
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>(2)</td> <td>OGLE-2011-BLG-310</td> <td>RA: 17 51 25.3900 (267.8557917d) Dec: -30 24 35.00 (-30.40972d) Equinox: J2000</td> <td></td> <td>V=18+/-0.1</td> <td>Reference Frame: ICRS</td> </tr> </tbody> </table>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(2)	OGLE-2011-BLG-310	RA: 17 51 25.3900 (267.8557917d) Dec: -30 24 35.00 (-30.40972d) Equinox: J2000		V=18+/-0.1	Reference Frame: ICRS																																																																													
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#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit																																																																																	
1	(2) OGLE-2011-BL G-310	(2) OGLE-2011-BL G-310	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W	CR-SPLIT=NO	POS TARG 22.25,9		270 Secs (270 Secs) [==>]	[1]																																																																																	
2	(2) OGLE-2011-BL G-310	(2) OGLE-2011-BL G-310	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	CR-SPLIT=NO	SAME POS AS 1		230 Secs (230 Secs) [==>]	[1]																																																																																	
3	(2) OGLE-2011-BL G-310	(2) OGLE-2011-BL G-310	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	CR-SPLIT=NO	POS TARG 10.37,20 .85		230 Secs (230 Secs) [==>]	[1]																																																																																	
4	(2) OGLE-2011-BL G-310	(2) OGLE-2011-BL G-310	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	CR-SPLIT=NO	POS TARG -1.45,8.95		230 Secs (230 Secs) [==>]	[1]																																																																																	
5	(2) OGLE-2011-BL G-310	(2) OGLE-2011-BL G-310	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W	CR-SPLIT=NO	POS TARG -1.45,8.95		270 Secs (270 Secs) [==>]	[1]																																																																																	
6	(2) OGLE-2011-BL G-310	(2) OGLE-2011-BL G-310	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W	CR-SPLIT=NO	POS TARG 10.48,-2 .85		270 Secs (270 Secs) [==>]	[1]																																																																																	
7	(2) OGLE-2011-BL G-310	(2) OGLE-2011-BL G-310	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	CR-SPLIT=NO	SAME POS AS 6		230 Secs (230 Secs) [==>]	[1]																																																																																	



Proposal 14783 - Visit 04 - Detecting Isolated Black Holes through Astrometric Microlensing

Thu Aug 17 00:00:29 GMT 2017

Visit	Proposal 14783, Visit 04, completed Diagnostic Status: Warning Scientific Instruments: WFC3/UVIS Special Requirements: (none)									
	(Exposure 1 (Visit 04)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser (Exposure 2 (Visit 04)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser (Exposure 3 (Visit 04)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser (Exposure 4 (Visit 04)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser (Exposure 5 (Visit 04)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser (Exposure 6 (Visit 04)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser (Exposure 7 (Visit 04)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser (Exposure 8 (Visit 04)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser (Exposure 9 (Visit 04)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser									
Diagnosics										
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(1)	OGLE-2011-BLG-0037	RA: 17 55 55.8300 (268.9826250d) Dec: -30 33 39.70 (-30.56103d) Equinox: J2000		V=17.5+/-0.1	Reference Frame: ICRS				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(1) OGLE-2011-BL G-0037	(1) OGLE-2011-BL G-0037	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W	FLASH=7	POS TARG 10.4,9.0		60 Secs (60 Secs) [==>]	[1]
	2	(1) OGLE-2011-BL G-0037	(1) OGLE-2011-BL G-0037	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	FLASH=9	SAME POS AS 1		55 Secs (55 Secs) [==>]	[1]
	3	(1) OGLE-2011-BL G-0037	(1) OGLE-2011-BL G-0037	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	FLASH=9	POS TARG 22.25,9.0		55 Secs (55 Secs) [==>]	[1]
	4	(1) OGLE-2011-BL G-0037	(1) OGLE-2011-BL G-0037	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W	FLASH=7	SAME POS AS 3		60 Secs (60 Secs) [==>]	[1]
	5	(1) OGLE-2011-BL G-0037	(1) OGLE-2011-BL G-0037	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W	FLASH=7	POS TARG 16.31,19.27		60 Secs (60 Secs) [==>]	[1]
	6	(1) OGLE-2011-BL G-0037	(1) OGLE-2011-BL G-0037	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	FLASH=9	SAME POS AS 5		55 Secs (55 Secs) [==>]	[1]
	7	(1) OGLE-2011-BL G-0037	(1) OGLE-2011-BL G-0037	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	FLASH=9	POS TARG 4.45,19.25		55 Secs (55 Secs) [==>]	[1]
	8	(1) OGLE-2011-BL G-0037	(1) OGLE-2011-BL G-0037	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	FLASH=9	POS TARG -1.45,8.95		55 Secs (55 Secs) [==>]	[1]
	9	(1) OGLE-2011-BL G-0037	(1) OGLE-2011-BL G-0037	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	FLASH=9	POS TARG -1.45,5		55 Secs (55 Secs) [==>]	[1]



Proposal 14783 - Visit 05 - Detecting Isolated Black Holes through Astrometric Microlensing

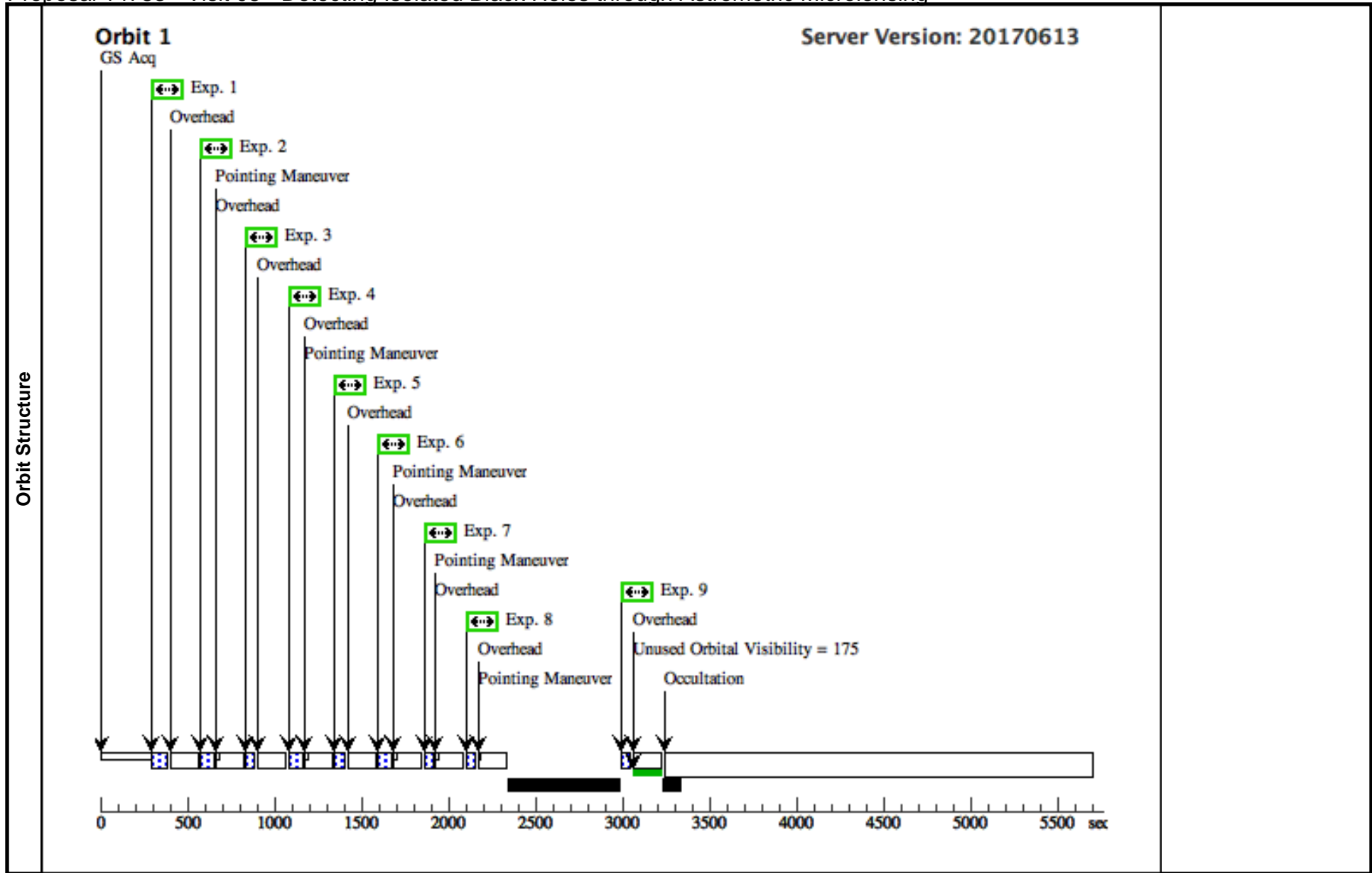
Thu Aug 17 00:00:29 GMT 2017

Visit	Proposal 14783, Visit 05, scheduling				
	Diagnostic Status: Warning				
	Scientific Instruments: WFC3/UVIS				
	Special Requirements: AFTER 04 BY 170 D TO 190 D				

Diagnostics	(Exposure 1 (Visit 05)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser				
	(Exposure 2 (Visit 05)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser				
	(Exposure 3 (Visit 05)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser				
	(Exposure 4 (Visit 05)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser				
	(Exposure 5 (Visit 05)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser				
	(Exposure 6 (Visit 05)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser				
	(Exposure 7 (Visit 05)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser				
	(Exposure 8 (Visit 05)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser				
	(Exposure 9 (Visit 05)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser				

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	OGLE-2011-BLG-0037	RA: 17 55 55.8300 (268.9826250d) Dec: -30 33 39.70 (-30.56103d) Equinox: J2000		V=17.5+/-0.1	Reference Frame: ICRS

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) OGLE-2011-BL G-0037	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W	FLASH=7	POS TARG 10.4,9.0		60 Secs (60 Secs) [==>]	[1]
	2		(1) OGLE-2011-BL G-0037	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	FLASH=9	SAME POS AS 1		55 Secs (55 Secs) [==>]	[1]
	3		(1) OGLE-2011-BL G-0037	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	FLASH=9	POS TARG 22.25,9.0		55 Secs (55 Secs) [==>]	[1]
	4		(1) OGLE-2011-BL G-0037	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W	FLASH=7	SAME POS AS 3		60 Secs (60 Secs) [==>]	[1]
	5		(1) OGLE-2011-BL G-0037	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W	FLASH=7	POS TARG 16.31,19.27		60 Secs (60 Secs) [==>]	[1]
	6		(1) OGLE-2011-BL G-0037	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	FLASH=9	SAME POS AS 5		55 Secs (55 Secs) [==>]	[1]
	7		(1) OGLE-2011-BL G-0037	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	FLASH=9	POS TARG 4.45,19.25		55 Secs (55 Secs) [==>]	[1]
	8		(1) OGLE-2011-BL G-0037	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	FLASH=9	POS TARG -1.45,8.95		55 Secs (55 Secs) [==>]	[1]
9		(1) OGLE-2011-BL G-0037	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	FLASH=9	POS TARG -1.45,5		55 Secs (55 Secs) [==>]	[1]	



Proposal 14783 - Visit 51 - Detecting Isolated Black Holes through Astrometric Microlensing

Thu Aug 17 00:00:29 GMT 2017

Visit	Proposal 14783, Visit 51 Diagnostic Status: Warning Scientific Instruments: WFC3/UVIS Special Requirements: BETWEEN 08-AUG-2017:00:00:00 AND 23-NOV-2017:00:00:00									
	(Exposure 1 (Visit 51)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser (Exposure 2 (Visit 51)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser (Exposure 3 (Visit 51)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser (Exposure 4 (Visit 51)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser (Exposure 5 (Visit 51)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser (Exposure 6 (Visit 51)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser (Exposure 7 (Visit 51)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser									
Diagnosics										
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(3)	OGLE-2011-BLG-462	RA: 17 51 40.1900 (267.9174583d) Dec: -29 53 26.30 (-29.89064d) Equinox: J2000		V=19.5+/-0.1	Reference Frame: ICRS				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(3) OGLE-2011-BL G-462	(3) OGLE-2011-BL G-462	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W	CR-SPLIT=NO	POS TARG 22.25,9		250 Secs (250 Secs) [==>]	[1]
	2	(3) OGLE-2011-BL G-462	(3) OGLE-2011-BL G-462	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	CR-SPLIT=NO	SAME POS AS 1		250 Secs (250 Secs) [==>]	[1]
	3	(3) OGLE-2011-BL G-462	(3) OGLE-2011-BL G-462	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	CR-SPLIT=NO	POS TARG 10.37,20 .85		250 Secs (250 Secs) [==>]	[1]
	4	(3) OGLE-2011-BL G-462	(3) OGLE-2011-BL G-462	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	CR-SPLIT=NO	POS TARG -1.45,8.95		250 Secs (250 Secs) [==>]	[1]
	5	(3) OGLE-2011-BL G-462	(3) OGLE-2011-BL G-462	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W	CR-SPLIT=NO	POS TARG -1.45,8.95		250 Secs (250 Secs) [==>]	[1]
	6	(3) OGLE-2011-BL G-462	(3) OGLE-2011-BL G-462	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W	CR-SPLIT=NO	POS TARG 10.48,-2 .85		250 Secs (250 Secs) [==>]	[1]
	7	(3) OGLE-2011-BL G-462	(3) OGLE-2011-BL G-462	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	CR-SPLIT=NO	SAME POS AS 6		250 Secs (250 Secs) [==>]	[1]

