



## 12986 - Detecting Isolated Black Holes through Astrometric Microlensing

Cycle: 20, 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	(2) OGLE-2011-BLG-0037	WFC3/UVIS	1	30-Apr-2013 21:09:15.0	yes
07	(2) OGLE-2011-BLG-0037	WFC3/UVIS	1	30-Apr-2013 21:09:28.0	yes
02	(3) OGLE-2011-BLG-310	WFC3/UVIS	1	30-Apr-2013 21:09:36.0	yes
03	(4) OGLE-2011-BLG-462	WFC3/UVIS	1	30-Apr-2013 21:09:43.0	yes
04	(5) MOA-2010-BLG-364	WFC3/UVIS	1	30-Apr-2013 21:09:54.0	yes
08	(5) MOA-2010-BLG-364	WFC3/UVIS	1	30-Apr-2013 21:10:06.0	yes
05	(6) MOA-2009-BLG-260	WFC3/UVIS	1	30-Apr-2013 21:10:15.0	yes
06	(4) OGLE-2011-BLG-462	WFC3/UVIS	1	30-Apr-2013 21:10:22.0	yes

8 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 the expected accretion rate from the ISM is extremely low, and thus 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 in two events, indicative of non-luminous massive lenses. However, the 25 orbits allocated to this project for Cycles 17, 18, and 19 have proven to be insufficient to complete the program. We had to abandon 3 of our initial targets part way through the monitoring, due to problems with the associated ground-based photometry. We selected instead three other high-priority targets, which we are monitoring. However, we will need 6 more orbits in Cycle 20 to complete the original objectives of the program.

## **OBSERVING DESCRIPTION**

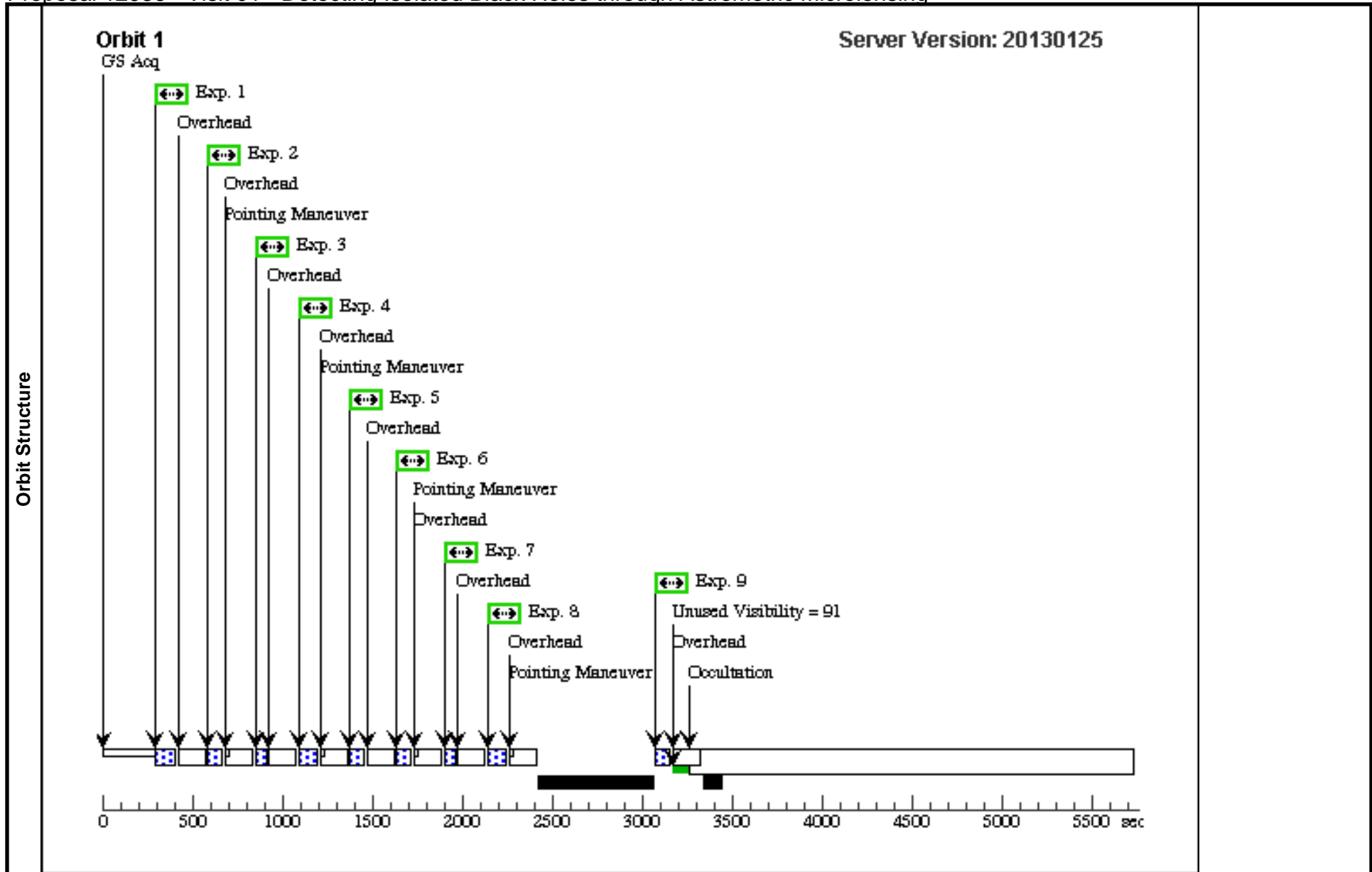
We will continue our observations of long-duration events which do not show any light contribution from the lens (continuation of 11707/12322/12670). We will take most images in a single filter, but also take a small number of images in a different filter to check the color dependency, if any, of the astrometric shift.

We will try to take as many images as possible in a single ORIENT for better astrometry accuracy. However, maintaining a single ORIENT may not be possible for all the observations. Since almost all of our targets are close to the ecliptic, we plan to use the same orient for nearly half of the year, and then flip it by 180 deg.

Proposal 12986 - Visit 01 - Detecting Isolated Black Holes through Astrometric Microlensing

Wed May 01 01:10:30 GMT 2013

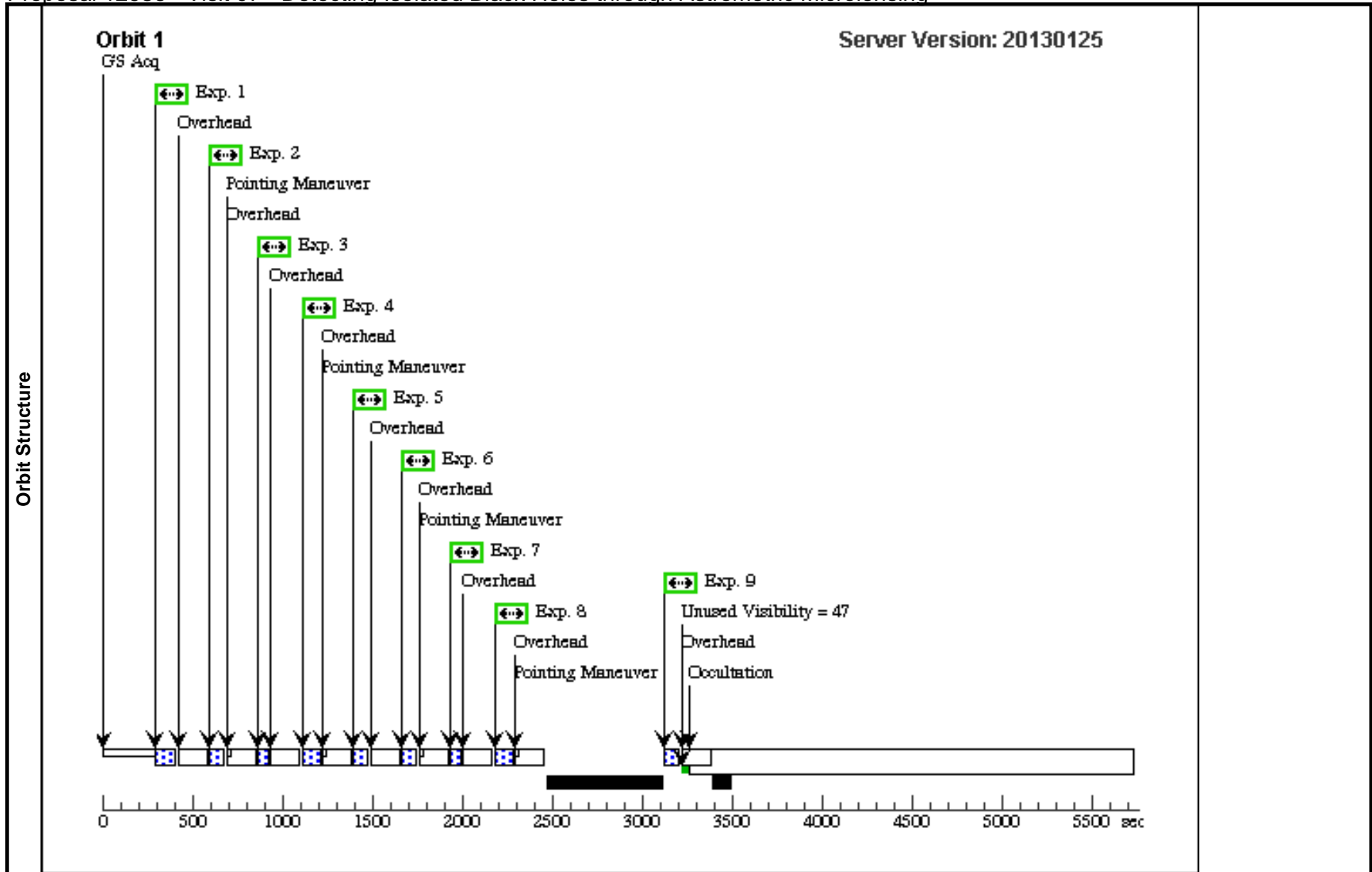
Fixed Targets	Fixed Targets					Exposures										
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	<b>Proposal 12986, Visit 01, withdrawn</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/UVIS Special Requirements: BETWEEN 01-AUG-2012 AND 25-OCT-2012															
	(2)	OGLE-2011-BLG-0037	RA: 17 55 55.8300 (268.9826250d) Dec: -30 33 39.70 (-30.56103d) Equinox: J2000		V=17.5	Reference Frame: ICRS										
	1	(2) OGLE-2011-BL G-0037	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W		POS TARG 10.4,9.0	80 Secs							[==>]	[1]	
	2	(2) OGLE-2011-BL G-0037	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W		SAME POS AS 1	60 Secs							[==>]	[1]	
	3	(2) OGLE-2011-BL G-0037	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W		POS TARG 22.25,9.0	60 Secs							[==>]	[1]	
	4	(2) OGLE-2011-BL G-0037	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W		SAME POS AS 3	80 Secs							[==>]	[1]	
	5	(2) OGLE-2011-BL G-0037	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W		POS TARG 16.31,19.27	80 Secs							[==>]	[1]	
	6	(2) OGLE-2011-BL G-0037	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W		SAME POS AS 5	60 Secs							[==>]	[1]	
	7	(2) OGLE-2011-BL G-0037	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W		POS TARG 4.45,19.25	60 Secs							[==>]	[1]	
	8	(2) OGLE-2011-BL G-0037	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W		SAME POS AS 7	80 Secs							[==>]	[1]	
	9	(2) OGLE-2011-BL G-0037	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W		POS TARG -1.45,8.95	60 Secs							[==>]	[1]	



Proposal 12986 - Visit 07 - Detecting Isolated Black Holes through Astrometric Microlensing

Wed May 01 01:10:33 GMT 2013

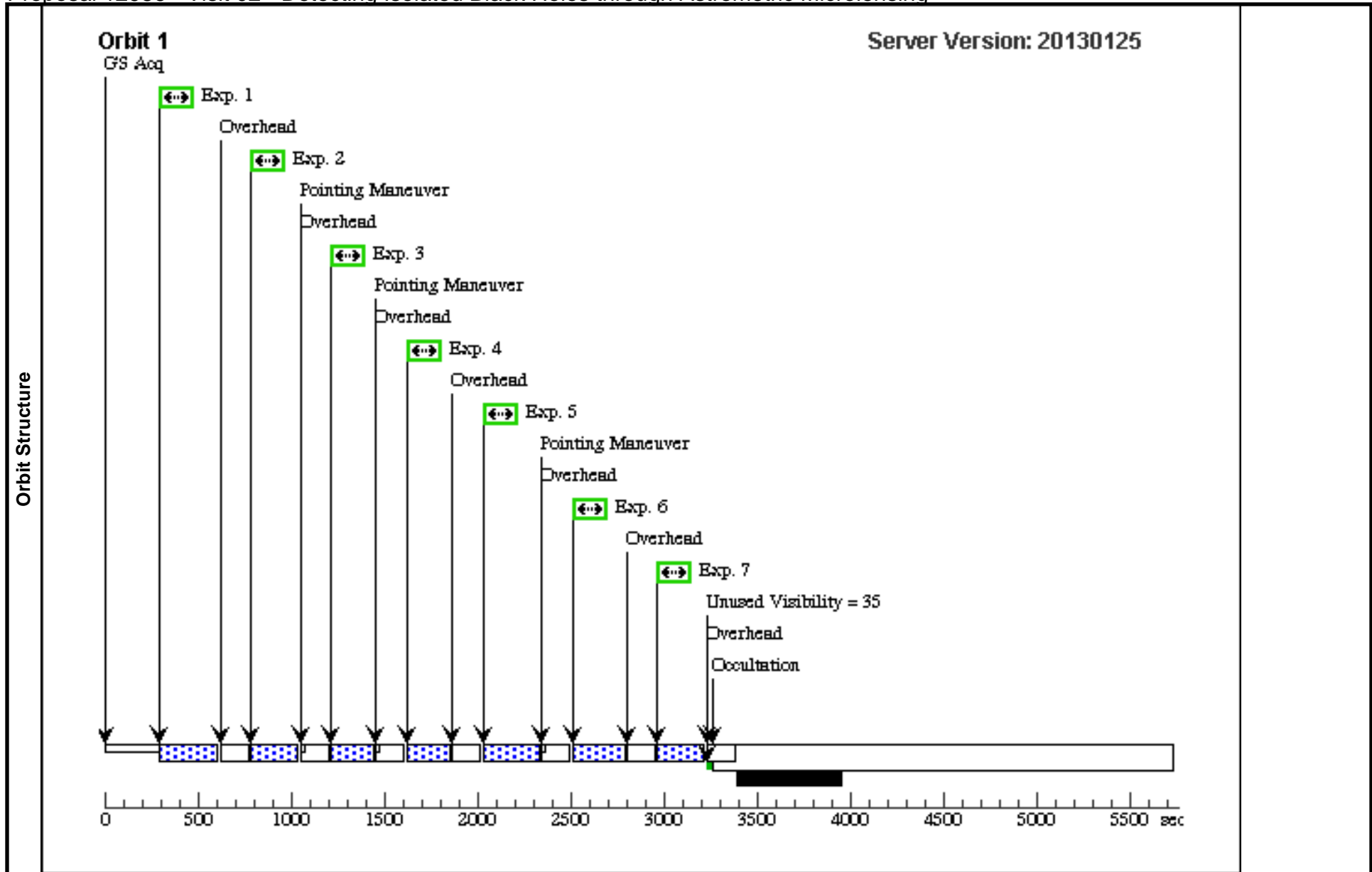
Fixed Targets	Visit									
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	Proposal 12986, Visit 07, completed Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: BETWEEN 01-AUG-2012 AND 25-OCT-2012									
	(2)	OGLE-2011-BLG-0037	RA: 17 55 55.8300 (268.9826250d) Dec: -30 33 39.70 (-30.56103d) Equinox: J2000		V=17.5	Reference Frame: ICRS				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(2) OGLE-2011-BL G-0037	(2) OGLE-2011-BL G-0037	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W	FLASH=6	POS TARG 10.4,9.0		80 Secs [==>]	[1]
	2	(2) OGLE-2011-BL G-0037	(2) OGLE-2011-BL G-0037	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	FLASH=8	SAME POS AS 1		60 Secs [==>]	[1]
	3	(2) OGLE-2011-BL G-0037	(2) OGLE-2011-BL G-0037	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	FLASH=8	POS TARG 22.25,9.0		60 Secs [==>]	[1]
	4	(2) OGLE-2011-BL G-0037	(2) OGLE-2011-BL G-0037	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W	FLASH=6	SAME POS AS 3		80 Secs [==>]	[1]
	5	(2) OGLE-2011-BL G-0037	(2) OGLE-2011-BL G-0037	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W	FLASH=6	POS TARG 16.31,19.27		80 Secs [==>]	[1]
	6	(2) OGLE-2011-BL G-0037	(2) OGLE-2011-BL G-0037	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	FLASH=8	SAME POS AS 5		60 Secs [==>]	[1]
	7	(2) OGLE-2011-BL G-0037	(2) OGLE-2011-BL G-0037	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	FLASH=8	POS TARG 4.45,19.25		60 Secs [==>]	[1]
	8	(2) OGLE-2011-BL G-0037	(2) OGLE-2011-BL G-0037	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W	FLASH=6	SAME POS AS 7		80 Secs [==>]	[1]
	9	(2) OGLE-2011-BL G-0037	(2) OGLE-2011-BL G-0037	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	FLASH=8	POS TARG -1.45,8.95		60 Secs [==>]	[1]



Proposal 12986 - Visit 02 - Detecting Isolated Black Holes through Astrometric Microlensing

Wed May 01 01:10:36 GMT 2013

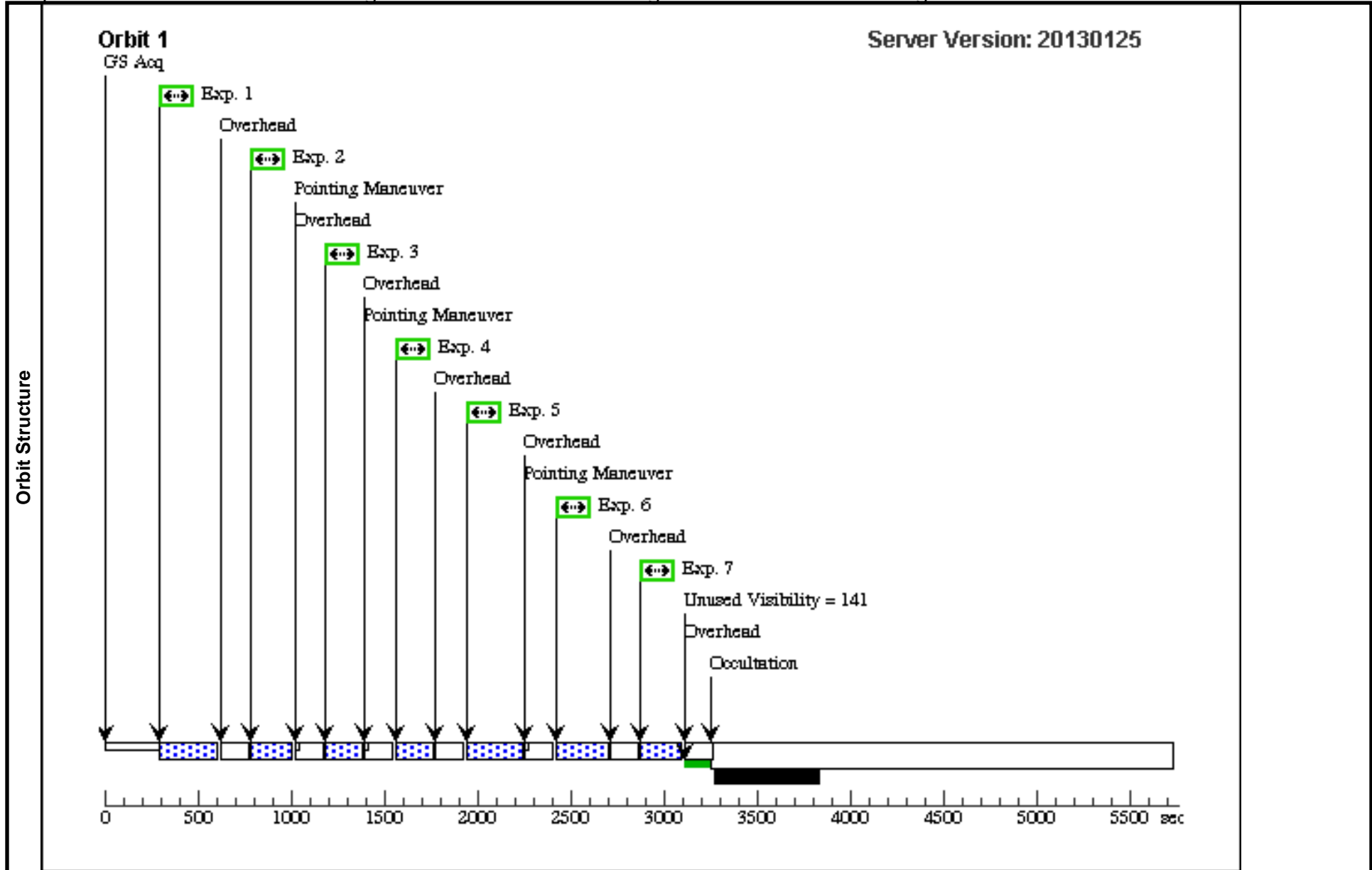
Fixed Targets	Visit									
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	Proposal 12986, Visit 02, completed Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: BETWEEN 15-APR-2012:00:00:00 AND 25-OCT-2012:00:00:00									
	(3)	OGLE-2011-BLG-310	RA: 17 51 25.3900 (267.8557917d) Dec: -30 24 35.00 (-30.40972d) Equinox: J2000		V=18	Reference Frame: ICRS				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(3) OGLE-2011-BL G-310	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W	CR-SPLIT=NO	POS TARG 22.25,9		280 Secs [==>]	[1]
	2		(3) OGLE-2011-BL G-310	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	CR-SPLIT=NO	SAME POS AS 1		230 Secs [==>]	[1]
	3		(3) OGLE-2011-BL G-310	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	CR-SPLIT=NO	POS TARG 10.37,20 .85		230 Secs [==>]	[1]
	4		(3) OGLE-2011-BL G-310	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	CR-SPLIT=NO	POS TARG -1.45,8.95		230 Secs [==>]	[1]
	5		(3) OGLE-2011-BL G-310	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W	CR-SPLIT=NO	POS TARG -1.45,8.95		280 Secs [==>]	[1]
	6		(3) OGLE-2011-BL G-310	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W	CR-SPLIT=NO	POS TARG 10.48,-2 .85		280 Secs [==>]	[1]
	7		(3) OGLE-2011-BL G-310	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	CR-SPLIT=NO	SAME POS AS 6		230 Secs [==>]	[1]



Proposal 12986 - Visit 03 - Detecting Isolated Black Holes through Astrometric Microlensing

Wed May 01 01:10:37 GMT 2013

Fixed Targets	Visit									
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	Proposal 12986, Visit 03, completed Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: BETWEEN 01-SEP-2012:00:00:00 AND 25-OCT-2012									
	(4)	OGLE-2011-BLG-462	RA: 17 51 40.1900 (267.9174583d) Dec: -29 53 26.30 (-29.89064d) Equinox: J2000		V=20.25	Reference Frame: ICRS				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1		(4) OGLE-2011-BL G-462	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W	CR-SPLIT=NO	POS TARG 22.25,9		280 Secs [==>]	[1]
	2		(4) OGLE-2011-BL G-462	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	CR-SPLIT=NO	SAME POS AS 1		200 Secs [==>]	[1]
	3		(4) OGLE-2011-BL G-462	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	CR-SPLIT=NO	POS TARG 10.37,20 .85		200 Secs [==>]	[1]
	4		(4) OGLE-2011-BL G-462	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	CR-SPLIT=NO	POS TARG -1.45,8.95		200 Secs [==>]	[1]
	5		(4) OGLE-2011-BL G-462	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W	CR-SPLIT=NO	POS TARG -1.45,8.95		280 Secs [==>]	[1]
	6		(4) OGLE-2011-BL G-462	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W	CR-SPLIT=NO	POS TARG 10.48,-2 .85		280 Secs [==>]	[1]
	7		(4) OGLE-2011-BL G-462	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	CR-SPLIT=NO	SAME POS AS 6		200 Secs [==>]	[1]



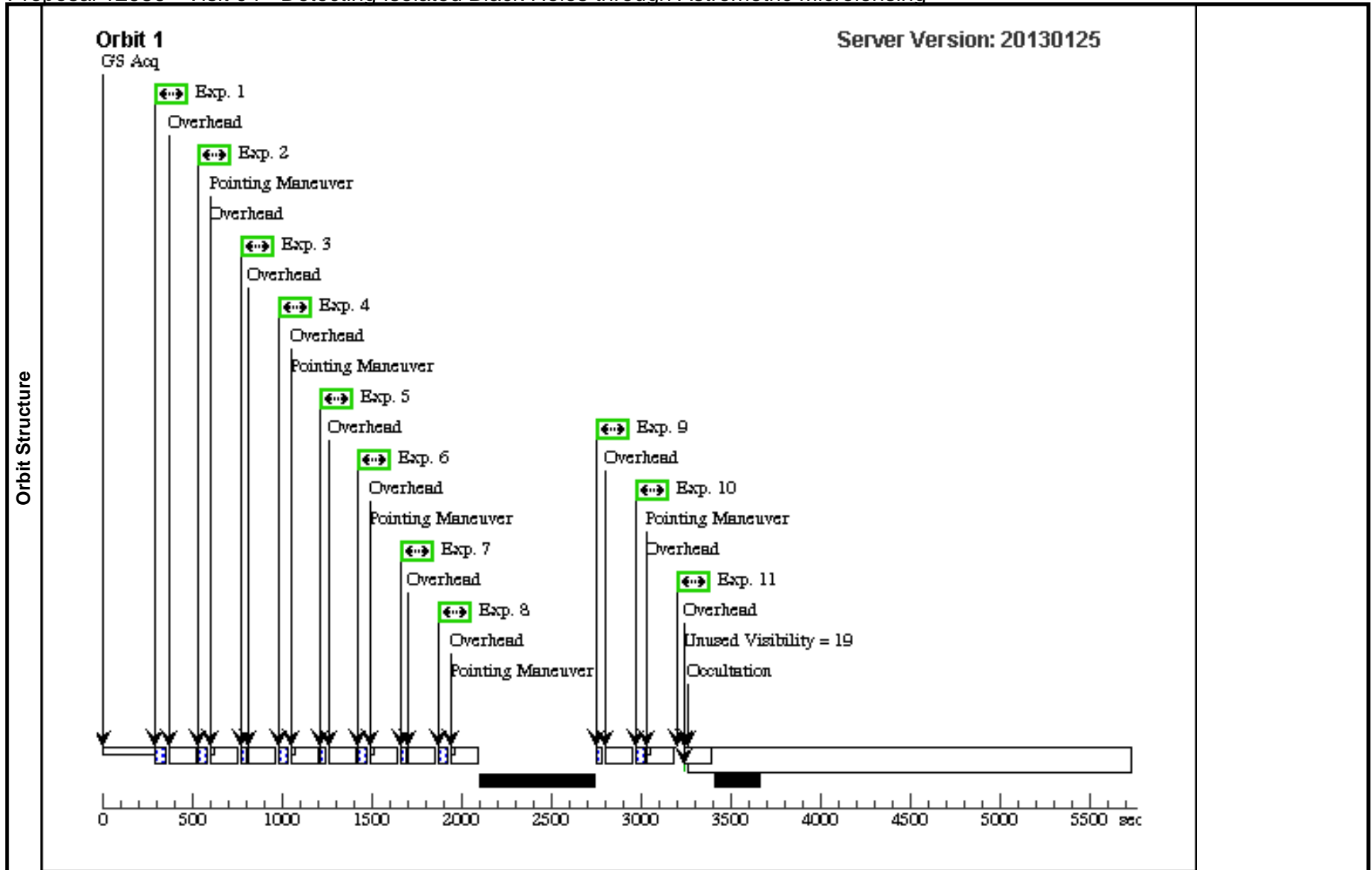
Proposal 12986 - Visit 04 - Detecting Isolated Black Holes through Astrometric Microlensing

Wed May 01 01:10:39 GMT 2013

Fixed Targets	Visit				
	Proposal 12986, Visit 04, withdrawn Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: BETWEEN 05-SEP-2012 AND 01-NOV-2012				
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	MOA-2010-BLG-364	RA: 17 57 5.4000 (269.2725000d) Dec: -34 27 5.00 (-34.45139d) Equinox: J2000		V=16.75+/-1.5	Reference Frame: ICRS

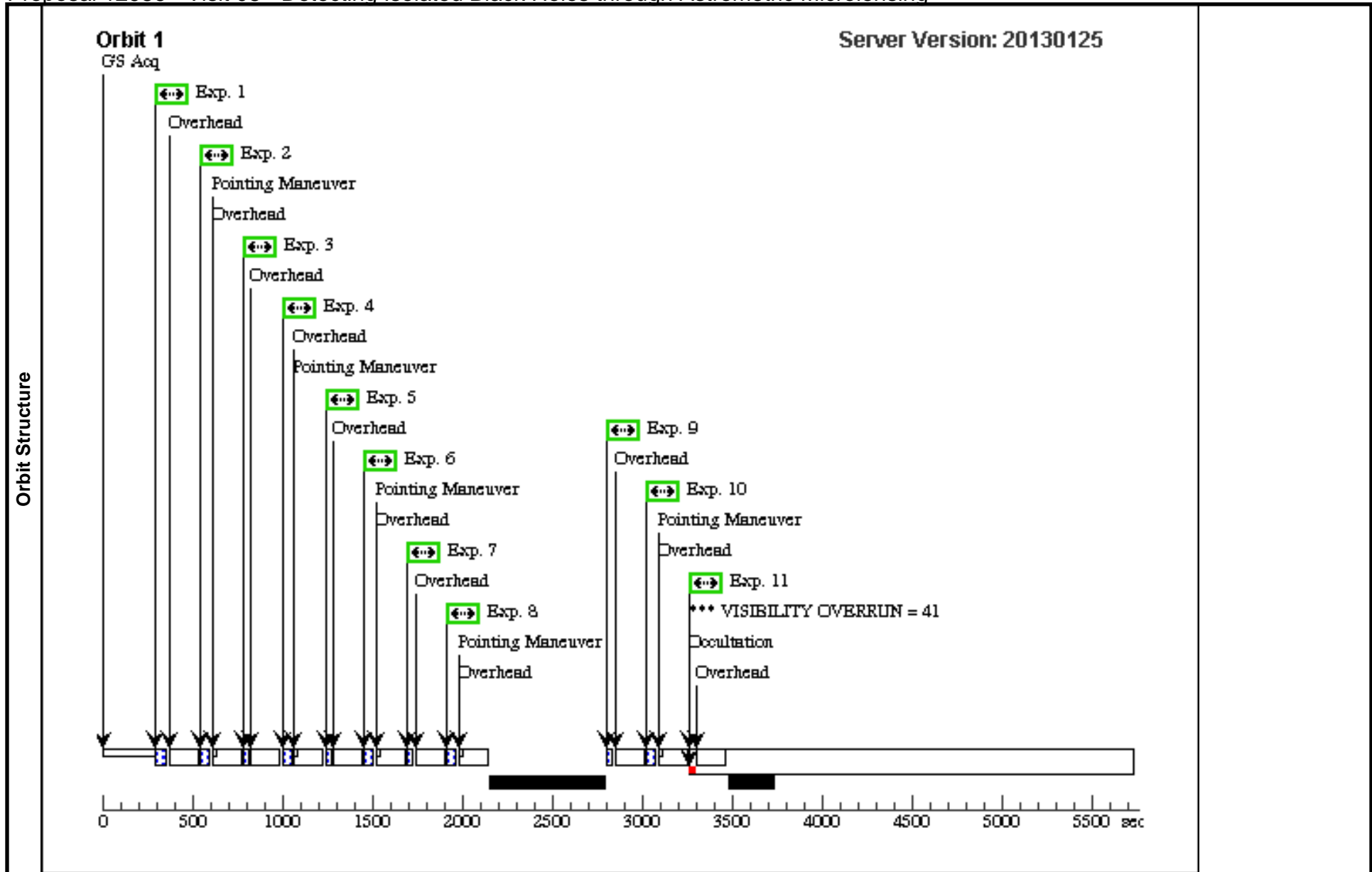
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(5) MOA-2010-BLG-364	(5) MOA-2010-BLG-364	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W		POS TARG 10.4,9.0		30 Secs [==>]	[1]
	2	(5) MOA-2010-BLG-364	(5) MOA-2010-BLG-364	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W		SAME POS AS 1		30 Secs [==>]	[1]
	3	(5) MOA-2010-BLG-364	(5) MOA-2010-BLG-364	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W		POS TARG 22.25,9.0		30 Secs [==>]	[1]
	4	(5) MOA-2010-BLG-364	(5) MOA-2010-BLG-364	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W		SAME POS AS 3		30 Secs [==>]	[1]
	5	(5) MOA-2010-BLG-364	(5) MOA-2010-BLG-364	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W		POS TARG 16.31,19.27		30 Secs [==>]	[1]
	6	(5) MOA-2010-BLG-364	(5) MOA-2010-BLG-364	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W		SAME POS AS 5		30 Secs [==>]	[1]
	7	(5) MOA-2010-BLG-364	(5) MOA-2010-BLG-364	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W		POS TARG 4.45,19.25		30 Secs [==>]	[1]
	8	(5) MOA-2010-BLG-364	(5) MOA-2010-BLG-364	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W		SAME POS AS 7		30 Secs [==>]	[1]
	9	(5) MOA-2010-BLG-364	(5) MOA-2010-BLG-364	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W		POS TARG -1.45,8.95		30 Secs [==>]	[1]
	10	(5) MOA-2010-BLG-364	(5) MOA-2010-BLG-364	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W		SAME POS AS 9		30 Secs [==>]	[1]
	11	(5) MOA-2010-BLG-364	(5) MOA-2010-BLG-364	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W		POS TARG 4.53,-1.30		30 Secs [==>]	[1]



Proposal 12986 - Visit 08 - Detecting Isolated Black Holes through Astrometric Microlensing

Wed May 01 01:10:40 GMT 2013

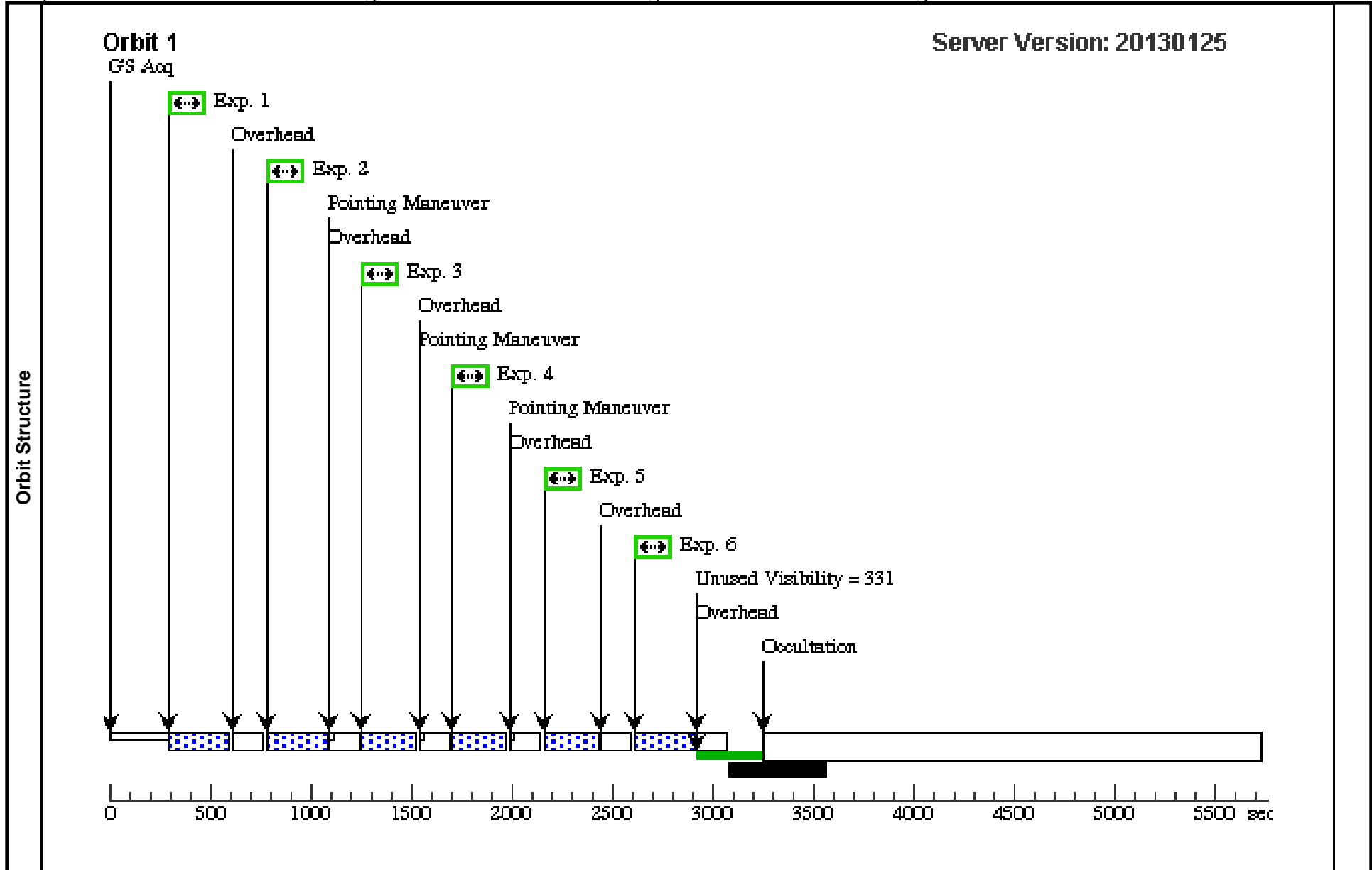
<b>Visit</b>	Proposal 12986, Visit 08, completed Diagnostic Status: Warning Scientific Instruments: WFC3/UVIS Special Requirements: BETWEEN 05-SEP-2012 AND 01-NOV-2012									
	(Visit 08) Warning (Orbit Planner): VISIBILITY OVERRUN									
<b>Diagnosics</b>										
<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(5)	MOA-2010-BLG-364	RA: 17 57 5.4000 (269.2725000d) Dec: -34 27 5.00 (-34.45139d) Equinox: J2000		V=16.75+/-1.5	Reference Frame: ICRS				
<b>Exposures</b>	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(5) MOA-2010-BLG-364	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W	FLASH=10	POS TARG 10.4,9.0			30 Secs [==>]	[1]
	2	(5) MOA-2010-BLG-364	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	FLASH=10	SAME POS AS 1			30 Secs [==>]	[1]
	3	(5) MOA-2010-BLG-364	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	FLASH=10	POS TARG 22.25,9.0			30 Secs [==>]	[1]
	4	(5) MOA-2010-BLG-364	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W	FLASH=10	SAME POS AS 3			30 Secs [==>]	[1]
	5	(5) MOA-2010-BLG-364	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W	FLASH=10	POS TARG 16.31,19.27			30 Secs [==>]	[1]
	6	(5) MOA-2010-BLG-364	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	FLASH=10	SAME POS AS 5			30 Secs [==>]	[1]
	7	(5) MOA-2010-BLG-364	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	FLASH=10	POS TARG 4.45,19.25			30 Secs [==>]	[1]
	8	(5) MOA-2010-BLG-364	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W	FLASH=10	SAME POS AS 7			30 Secs [==>]	[1]
	9	(5) MOA-2010-BLG-364	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W	FLASH=10	POS TARG -1.45,8.95			30 Secs [==>]	[1]
	10	(5) MOA-2010-BLG-364	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	FLASH=10	SAME POS AS 9			30 Secs [==>]	[1]
	11	(5) MOA-2010-BLG-364	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	FLASH=10	POS TARG 4.53,-1.30			30 Secs [==>]	[1]



Proposal 12986 - Visit 05 - Detecting Isolated Black Holes through Astrometric Microlensing

Wed May 01 01:10:41 GMT 2013

Fixed Targets	Visit									
	Proposal 12986, Visit 05, completed Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/UVIS Special Requirements: ORIENT 90.0D TO 90.0 D; BETWEEN 01-SEP-2012 AND 30-OCT-2012									
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous					
(6)	MOA-2009-BLG-260	RA: 17 58 28.5700 (269.6190417d) Dec: -26 50 21.09 (-26.83919d) Equinox: J2000		V=16.61+/-1.5	Reference Frame: ICRS					
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(6) MOA-2009-BLG-260	(6) MOA-2009-BLG-260	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W	CR-SPLIT=NO	POS TARG 22.25,9		275 Secs [==>]	[1]
	2	(6) MOA-2009-BLG-260	(6) MOA-2009-BLG-260	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	CR-SPLIT=NO	SAME POS AS 1		275 Secs [==>]	[1]
	3	(6) MOA-2009-BLG-260	(6) MOA-2009-BLG-260	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	CR-SPLIT=NO	POS TARG 10.37,20.85		275 Secs [==>]	[1]
	4	(6) MOA-2009-BLG-260	(6) MOA-2009-BLG-260	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	CR-SPLIT=NO	POS TARG -1.45,8.95		275 Secs [==>]	[1]
	5	(6) MOA-2009-BLG-260	(6) MOA-2009-BLG-260	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	CR-SPLIT=NO	POS TARG 10.48,-2.85		275 Secs [==>]	[1]
	6	(6) MOA-2009-BLG-260	(6) MOA-2009-BLG-260	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W	CR-SPLIT=NO	SAME POS AS 5		275 Secs [==>]	[1]



Proposal 12986 - Visit 06 - Detecting Isolated Black Holes through Astrometric Microlensing

Wed May 01 01:10:42 GMT 2013

Visit	<b>Proposal 12986, Visit 06, implementation</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/UVIS Special Requirements: BETWEEN 01-FEB-2013:00:00:00 AND 17-MAY-2013; ON HOLD <i>On Hold Comments: The prior data need to be looked at before activating this visit.</i>									
	Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(4)	OGLE-2011-BLG-462	RA: 17 51 40.1900 (267.9174583d) Dec: -29 53 26.30 (-29.89064d) Equinox: J2000		V=20.25	Reference Frame: ICRS				
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	1	(4) OGLE-2011-BL G-462	(4) OGLE-2011-BL G-462	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W	CR-SPLIT=NO	POS TARG 22.25,9		280 Secs [==>]	[1]
	2	(4) OGLE-2011-BL G-462	(4) OGLE-2011-BL G-462	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	CR-SPLIT=NO	SAME POS AS 1		200 Secs [==>]	[1]
	3	(4) OGLE-2011-BL G-462	(4) OGLE-2011-BL G-462	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	CR-SPLIT=NO	POS TARG 10.37,20 .85		200 Secs [==>]	[1]
	4	(4) OGLE-2011-BL G-462	(4) OGLE-2011-BL G-462	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	CR-SPLIT=NO	POS TARG -1.45,8.95		200 Secs [==>]	[1]
	5	(4) OGLE-2011-BL G-462	(4) OGLE-2011-BL G-462	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W	CR-SPLIT=NO	POS TARG -1.45,8.95		280 Secs [==>]	[1]
	6	(4) OGLE-2011-BL G-462	(4) OGLE-2011-BL G-462	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F606W	CR-SPLIT=NO	POS TARG 10.48,-2 .85		280 Secs [==>]	[1]
	7	(4) OGLE-2011-BL G-462	(4) OGLE-2011-BL G-462	WFC3/UVIS, ACCUM, UVIS2-2K2C-SUB	F814W	CR-SPLIT=NO	SAME POS AS 6		200 Secs [==>]	[1]

