12360 - Cosmology From Cluster-Hosted and z>1 Supernovae Orphaned from the MCT Program

Cycle: 18, 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) MACS1149+2223	WFC3/IR WFC3/UVIS	1	11-Jul-2012 21:01:11.0	yes
F2	(3) MACSJ0744.9+3927-Y1	WFC3/IR WFC3/UVIS	1	11-Jul-2012 21:01:20.0	yes
02	(1) MACS1149+2223	WFC3/IR	1	11-Jul-2012 21:01:28.0	yes
F1	(2) ABELL383-SN1	WFC3/IR	1	11-Jul-2012 21:01:35.0	yes
03	(1) MACS1149+2223	WFC3/IR WFC3/UVIS	1	11-Jul-2012 21:01:41.0	yes
L1	(4) MACSJ1720+3536	WFC3/IR WFC3/UVIS	1	11-Jul-2012 21:01:48.0	yes
L2	(4) MACSJ1720+3536	WFC3/IR WFC3/UVIS	1	11-Jul-2012 21:01:55.0	yes
L3	(5) SN-L1-PANCHA	WFC3/IR	2	11-Jul-2012 21:02:06.0	yes
L4	(5) SN-L1-PANCHA	WFC3/IR	2	11-Jul-2012 21:02:18.0	yes

11 Total Orbits Used

ABSTRACT

With strategically timed followup observations we can enable cosmological studies from SNe Ia that will be found in the forthcoming CLASH multi-cycle treasury (MCT) program (PI: Postman), but otherwise orphaned. This MCT program is structured so that cluster elliptical-hosted SNe Ia can be discovered and followed. These SNe are particularly important as they are relatively free from the systematic uncertainty of host galaxy extinction corrections.

OBSERVING DESCRIPTION

This is a template for a single-orbit TOO follow-up of a z~0.5 cluster-hosted SN or z~1 background SN. The sample target is MACS1149+2223, which is scheduled for a cadenced search starting in December 2010. The final target will be filled in as appropriate.

In the original Phase I proposal, we proposed to use the F606W (R) filter as we require an R-band or r-band exposure near maximum light for

optimal light curve fitting. After the submission of the Phase I proposal the CLASH team added the F625W (r) filter to the filter set for cluster observations. As this is our preferred imaging band, we have therefore replaced F606W with F625W in our basic template ("Visit 01"). In the case when a pre-explosion image is available with the F606W filter and not the F625W filter, we intend to utilize the F606W filter to obviate the need for a post-explosion reference image ("Visit 03").

In the case of a high redshift (z~1) background SN, we will solely utilize WFC3/IR with 3 filters as described in "Visit 02".

Visit

Proposal 12360, Visit 01, implementation Thu Jul 12 01:02:27 GMT 2012

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR, WFC3/UVIS

Special Requirements: (none)

Comments: Template for follow-up of cluster supernova where we have pre-explosion imaging with the F625W (r) filter.

Diagnostics

(Visit 01) Warning (Orbit Planner): VISIBILITY OVERRUN

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-UVIS-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1)
(2)	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false		(2), (3)

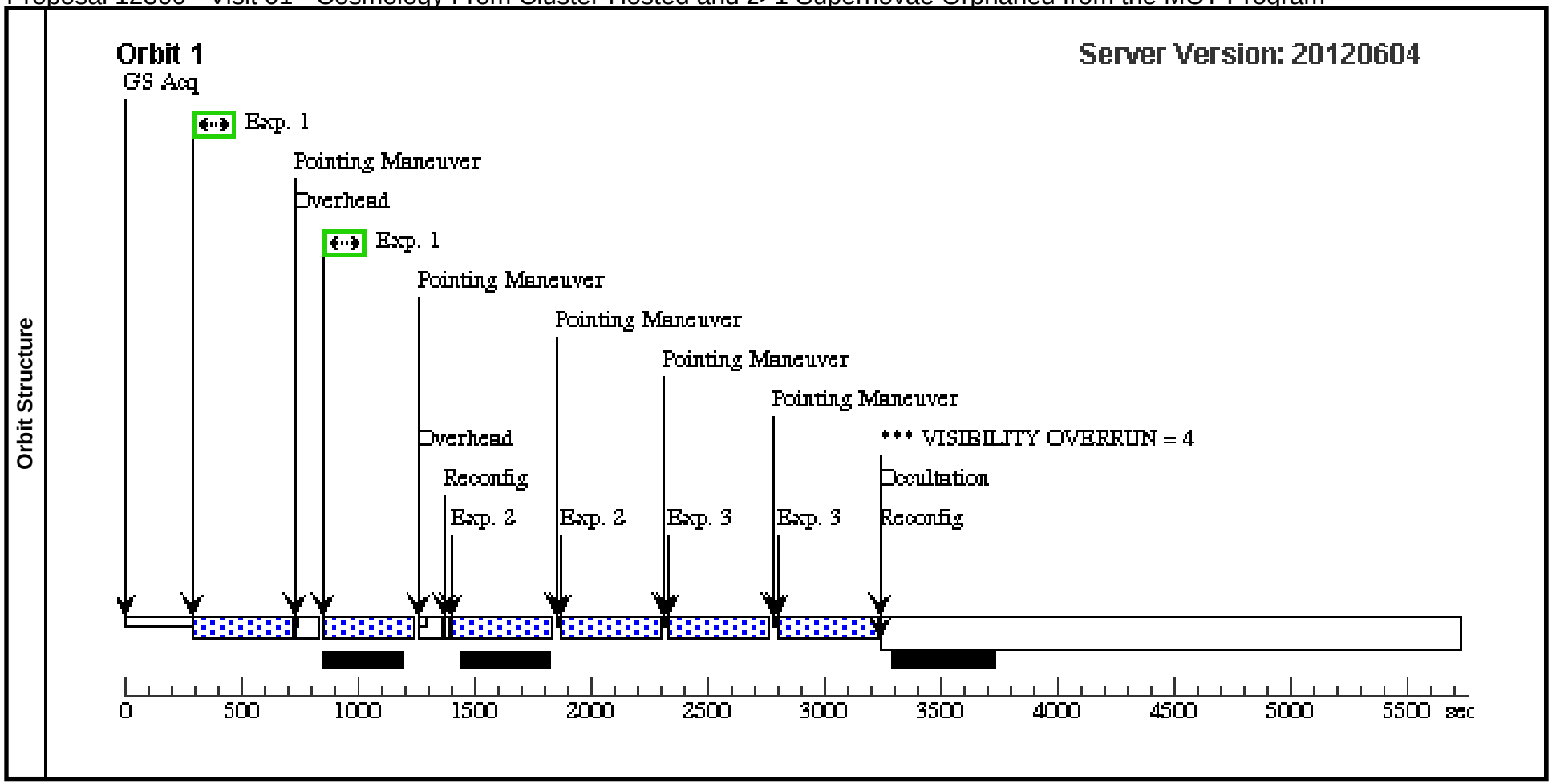
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	MACS1149+2223	RA: 11 49 35.6900 (177.3987083d) Dec: +22 23 54.60 (22.39850d) Equinox: J2000	Redshift: 0.55	V=24	Reference Frame: ICRS

Comments: Template for following up a supernova in a cluster at z~0.5.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(1) MACS1149+2223	WFC3/UVIS, ACCUM, UVIS2	F625W			Pattern 1, Exps 1-1 in Visit 01 (1)	400 Secs *[==>396.0 Secs (Pattern 1)]* *[==>396.0 Secs (Pattern 2)]*	***[1]***
2		(1) MACS1149+2223	WFC3/IR, MULTIACCUM, IR	F105W	NSAMP=5; SAMP-SEQ=SPARS100		Pattern 2, Exps 2-2 in Visit 01 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]*	***[1]***
3		(1) MACS1149+2223	WFC3/IR, MULTIACCUM, IR	F125W	NSAMP=5; SAMP-SEQ=SPARS100		Pattern 2, Exps 3-3 in Visit 01 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20120604
GS Acq
Exp. 1
Pointing Maneuver
Overhead
Exp. 1
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Overhead
*** VISIBILITY OVERRUN = 4
Occultation
Reconfig
Exp. 2
Exp. 2
Exp. 3
Exp. 3
Reconfig
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 12360, Visit F2, completed Thu Jul 12 01:02:29 GMT 2012

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR, WFC3/UVIS

Special Requirements: (none)

Comments: Follow-up for cluster-hosted SN at z=0.69

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-UVIS-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1)
(2)	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false		(2), (3)

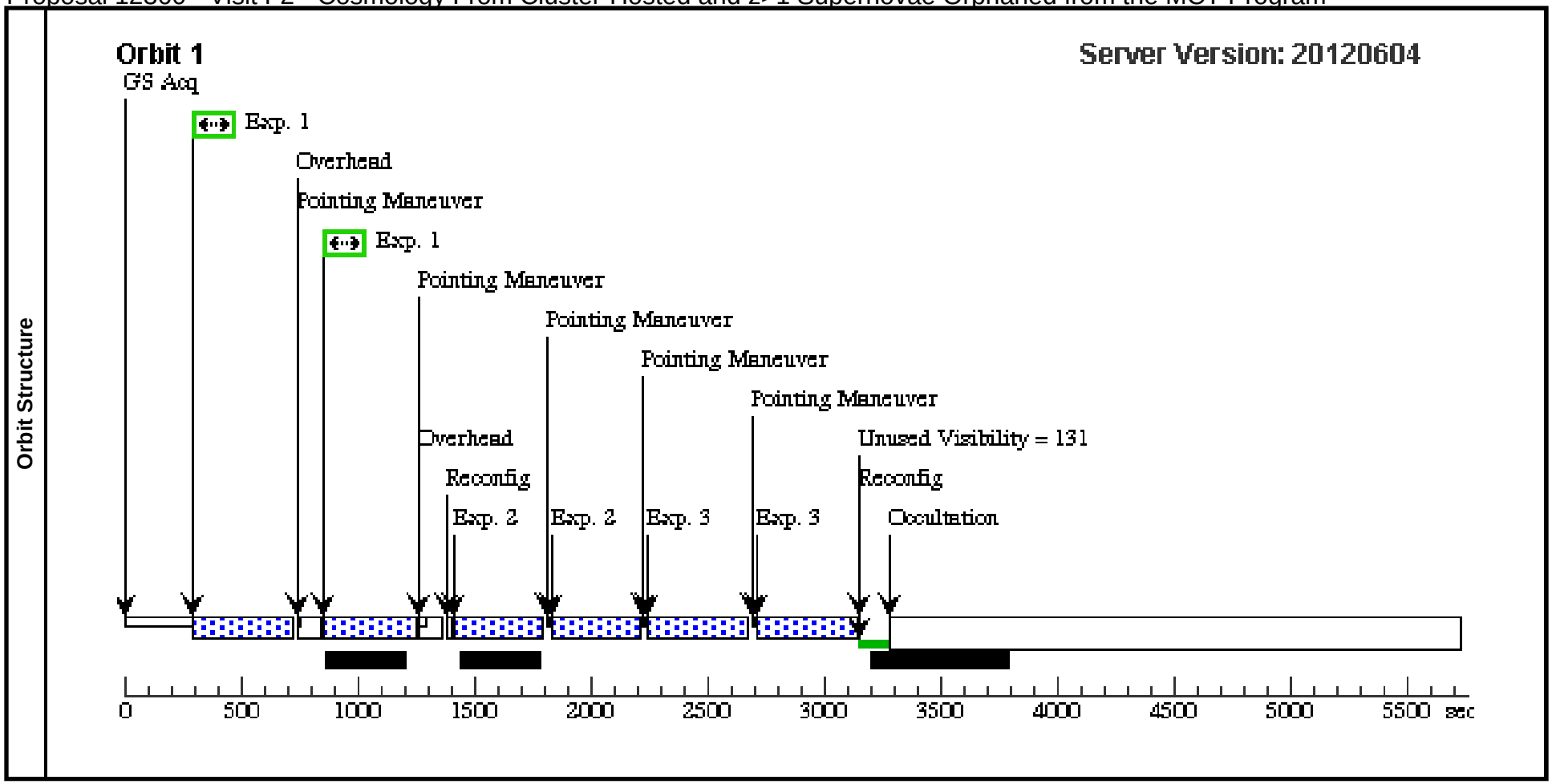
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	MACSJ0744.9+3927-Y1	RA: 07 44 59.0025 (116.2458437d) Dec: +39 27 3.82 (39.45106d) Equinox: J2000	Redshift: 0.69	V=24	Reference Frame: ICRS

Comments: Supernova in a cluster at z=0.69.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(3) MACSJ0744.9+3927-Y1	WFC3/UVIS, ACCUM, UVIS2	F775W			Pattern 1, Exps 1-1 in Visit F2 (1)	400 Secs *[==>(Pattern 1)]* *[==>(Pattern 2)]*	***[1]***
2		(3) MACSJ0744.9+3927-Y1	WFC3/IR, MULTIACCUM, IR	F105W	NSAMP=8; SAMP-SEQ=SPARS50		Pattern 2, Exps 2-2 in Visit F2 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]*	***[1]***
3		(3) MACSJ0744.9+3927-Y1	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=5; SAMP-SEQ=SPARS100		Pattern 2, Exps 3-3 in Visit F2 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20120604
GS Acq
Exp. 1
Overhead
Pointing Maneuver
Exp. 1
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Overhead
Unused Visibility = 131
Reconfig
Reconfig
Exp. 2
Exp. 2
Exp. 3
Exp. 3
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 12360, Visit 02, implementation Thu Jul 12 01:02:32 GMT 2012

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR

Special Requirements: (none)

Comments: Template for follow-up of background supernova (z>1)

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(2)	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false		(1), (2), (3)

Fixed Targets

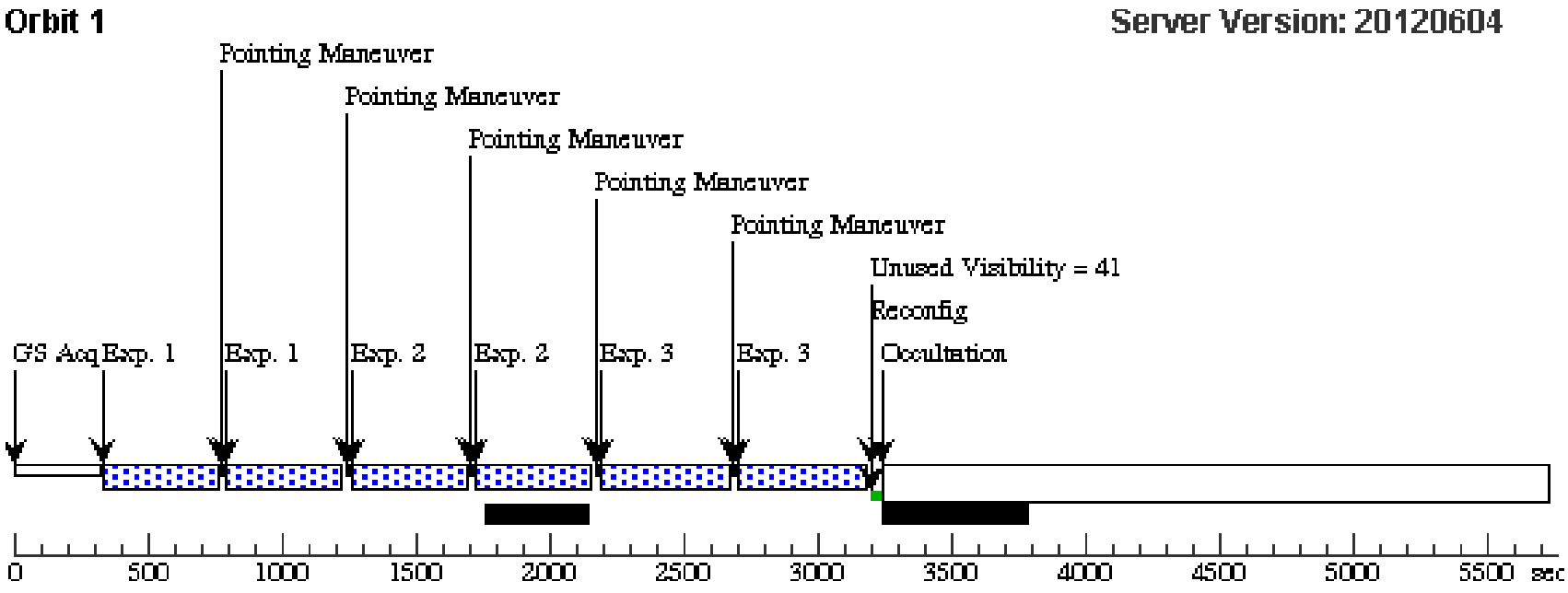
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	MACS1149+2223	RA: 11 49 35.6900 (177.3987083d) Dec: +22 23 54.60 (22.39850d) Equinox: J2000	Redshift: 0.55	V=24	Reference Frame: ICRS

Comments: Template for following up a supernova in a cluster at z~0.5.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(1) MACS1149+2223	WFC3/IR, MULTIACCUM, IR	F105W	NSAMP=5; SAMP-SEQ=SPARS100		Pattern 2, Exps 1-1 in Visit 02 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]*	***[1]***
2		(1) MACS1149+2223	WFC3/IR, MULTIACCUM, IR	F125W	NSAMP=5; SAMP-SEQ=SPARS100		Pattern 2, Exps 2-2 in Visit 02 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]*	***[1]***
3		(1) MACS1149+2223	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=10; SAMP-SEQ=SPARS50		Pattern 2, Exps 3-3 in Visit 02 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]*	***[1]***

Orbit Structure



Visit

Proposal 12360, Visit F1, completed Thu Jul 12 01:02:33 GMT 2012

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR

Special Requirements: (none)

Comments: Follow-up for z=1.1 background SN Ia

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(2)	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false		(1), (2), (3)

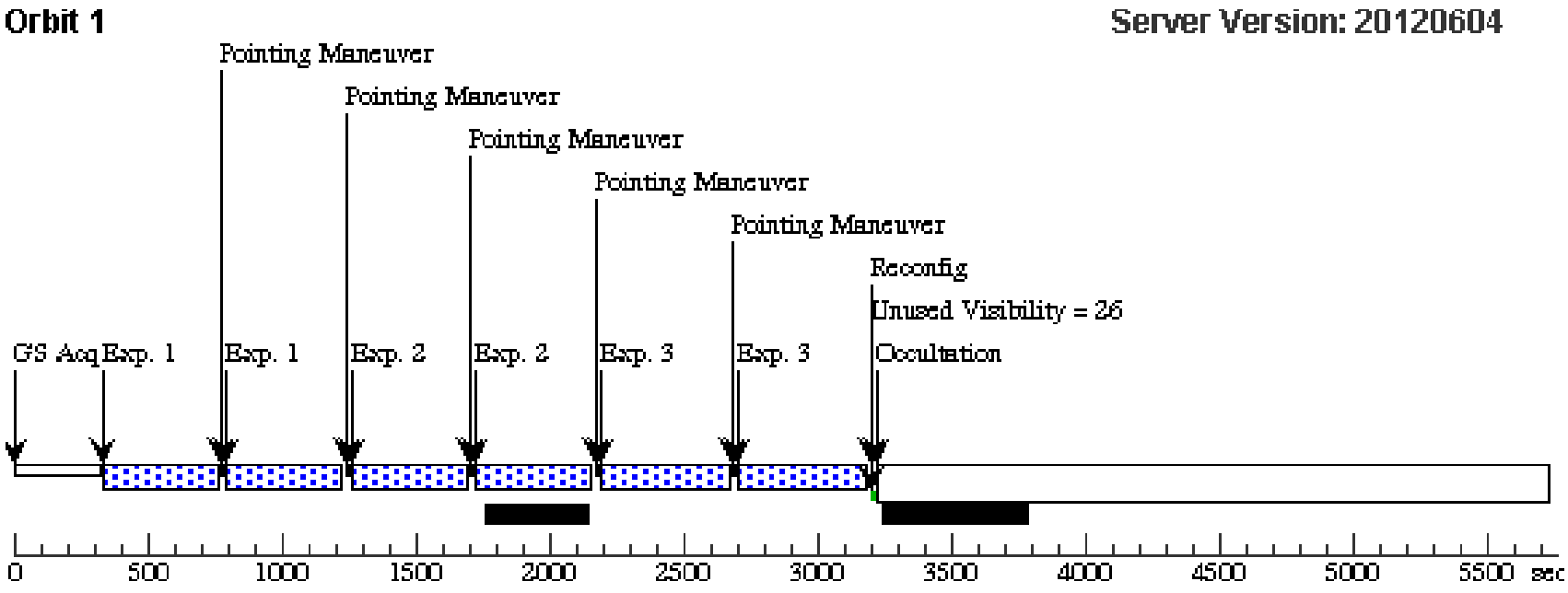
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	ABELL383-SN1	RA: 02 48 1.2755 (42.0053146d) Dec: -03 33 16.91 (-3.55470d) Equinox: J2000		V=22.0+/-1.0	Reference Frame: ICRS

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(2) ABELL383-SN1	WFC3/IR, MULTIACCUM, IR	F105W	NSAMP=5; SAMP-SEQ=SPARS100	GS ACQ SCENARIO BASE1B3	Pattern 2, Exps 1-1 in Visit F1 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]*	***[1]***
2		(2) ABELL383-SN1	WFC3/IR, MULTIACCUM, IR	F125W	NSAMP=5; SAMP-SEQ=SPARS100		Pattern 2, Exps 2-2 in Visit F1 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]*	***[1]***
3		(2) ABELL383-SN1	WFC3/IR, MULTIACCUM, IR	F160W	NSAMP=10; SAMP-SEQ=SPARS50		Pattern 2, Exps 3-3 in Visit F1 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]*	***[1]***

Orbit Structure



Visit

Proposal 12360, Visit 03, implementation Thu Jul 12 01:02:34 GMT 2012

Diagnostic Status: Warning

Scientific Instruments: WFC3/IR, WFC3/UVIS

Special Requirements: (none)

Comments: Template for follow-up of cluster supernova where we have pre-explosion images with the F606W (R) filter but not the F625W (r) filter.

Diagnostics

(Visit 03) Warning (Orbit Planner): VISIBILITY OVERRUN

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=WFC3-UVIS-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.145 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=46.84 Angle Between Sides= Center Pattern=false		(1)
(2)	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false		(2), (3)

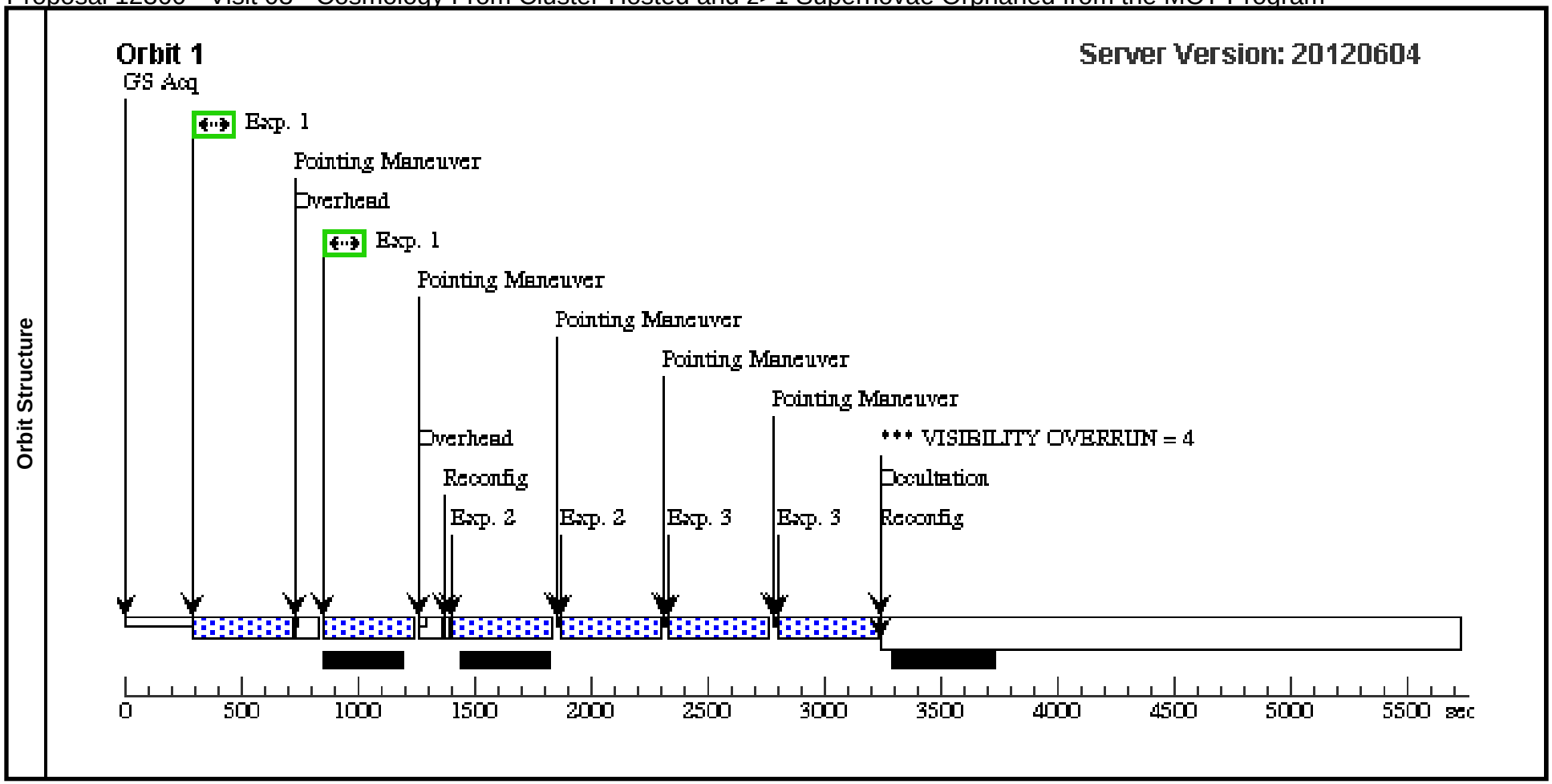
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	MACS1149+2223	RA: 11 49 35.6900 (177.3987083d) Dec: +22 23 54.60 (22.39850d) Equinox: J2000	Redshift: 0.55	V=24	Reference Frame: ICRS

Comments: Template for following up a supernova in a cluster at z~0.5.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(1) MACS1149+2223	WFC3/UVIS, ACCUM, UVIS2	F606W			Pattern 1, Exps 1-1 in Visit 03 (1)	400 Secs *[==>396.0 Secs (Pattern 1)]* *[==>396.0 Secs (Pattern 2)]*	***[1]***
2		(1) MACS1149+2223	WFC3/IR, MULTIACCUM, IR	F105W	NSAMP=5; SAMP-SEQ=SPARS100		Pattern 2, Exps 2-2 in Visit 03 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]*	***[1]***
3		(1) MACS1149+2223	WFC3/IR, MULTIACCUM, IR	F125W	NSAMP=5; SAMP-SEQ=SPARS100		Pattern 2, Exps 3-3 in Visit 03 (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20120604
GS Acq
Exp. 1
Pointing Maneuver
Overhead
Exp. 1
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Overhead
*** VISIBILITY OVERRUN = 4
Occultation
Reconfig
Exp. 2
Exp. 2
Exp. 3
Exp. 3
Reconfig
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 12360, Pancha (L1), completed Thu Jul 12 01:02:36 GMT 2012

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR, WFC3/UVIS

Special Requirements: (none)

Comments: Two SN targets: One cluster SN at (at RA 260.07796 DEC 35.62296), one background SN (RA 260.08758 DEC 35.61133)

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(2)	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false		(2), (4)

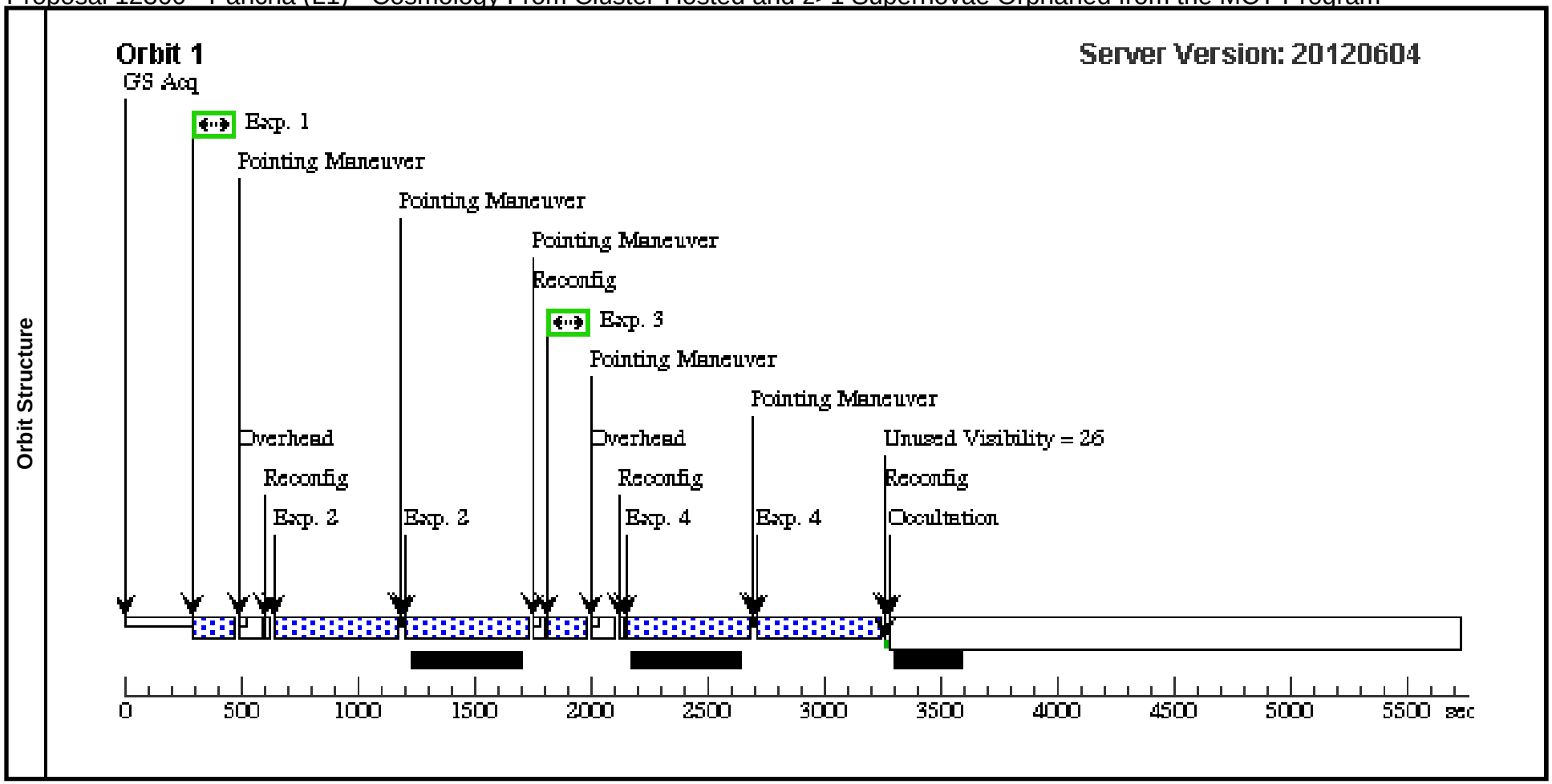
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	MACSJ1720+3536	RA: 17 20 19.6800 (260.0820000d) Dec: +35 36 57.60 (35.61600d) Equinox: J2000	Redshift: 1.5	V=24	Reference Frame: ICRS

Comments: Supernova: One in cluster (z 0.4), one behind (z 1.5).
Cluster SN at RA 260.07796 DEC 35.62296.
Background SN at RA 260.08758 DEC 35.61133.
We wish to target both SNe, the coordinates given above are for a position between these.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(4) MACSJ1720+3536	WFC3/UVIS, ACCUM, UVIS2	F606W				120 Secs *[==>150.0 Secs]*	 ***[1]***
2		(4) MACSJ1720+3536	WFC3/IR, MULTIACCUM, IR	F105W	NSAMP=6; SAMP-SEQ=SPARS100		Pattern 2, Exps 2-2 in Pancha (L1) (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]*	***[1]***
3		(4) MACSJ1720+3536	WFC3/UVIS, ACCUM, UVIS2	F814W				120 Secs *[==>150.0 Secs]*	 ***[1]***
4		(4) MACSJ1720+3536	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=6; SAMP-SEQ=SPARS100		Pattern 2, Exps 4-4 in Pancha (L1) (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]*	***[1]***


Orbit Structure
Orbit 1
Server Version: 20120604
GS Acq
Exp. 1
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Reconfig
Exp. 3
Pointing Maneuver
Pointing Maneuver
Overhead
Reconfig
Exp. 2
Exp. 2
Overhead
Reconfig
Exp. 4
Exp. 4
Unused Visibility = 26
Reconfig
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 12360, Pancha (II) (L2), scheduled Thu Jul 12 01:02:37 GMT 2012

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR, WFC3/UVIS

Special Requirements: (none)

Comments: Two SN targets: One cluster SN at (at RA 260.07796 DEC 35.62296), one background SN (RA 260.08758 DEC 35.61133)

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(2)	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false		(2), (3)

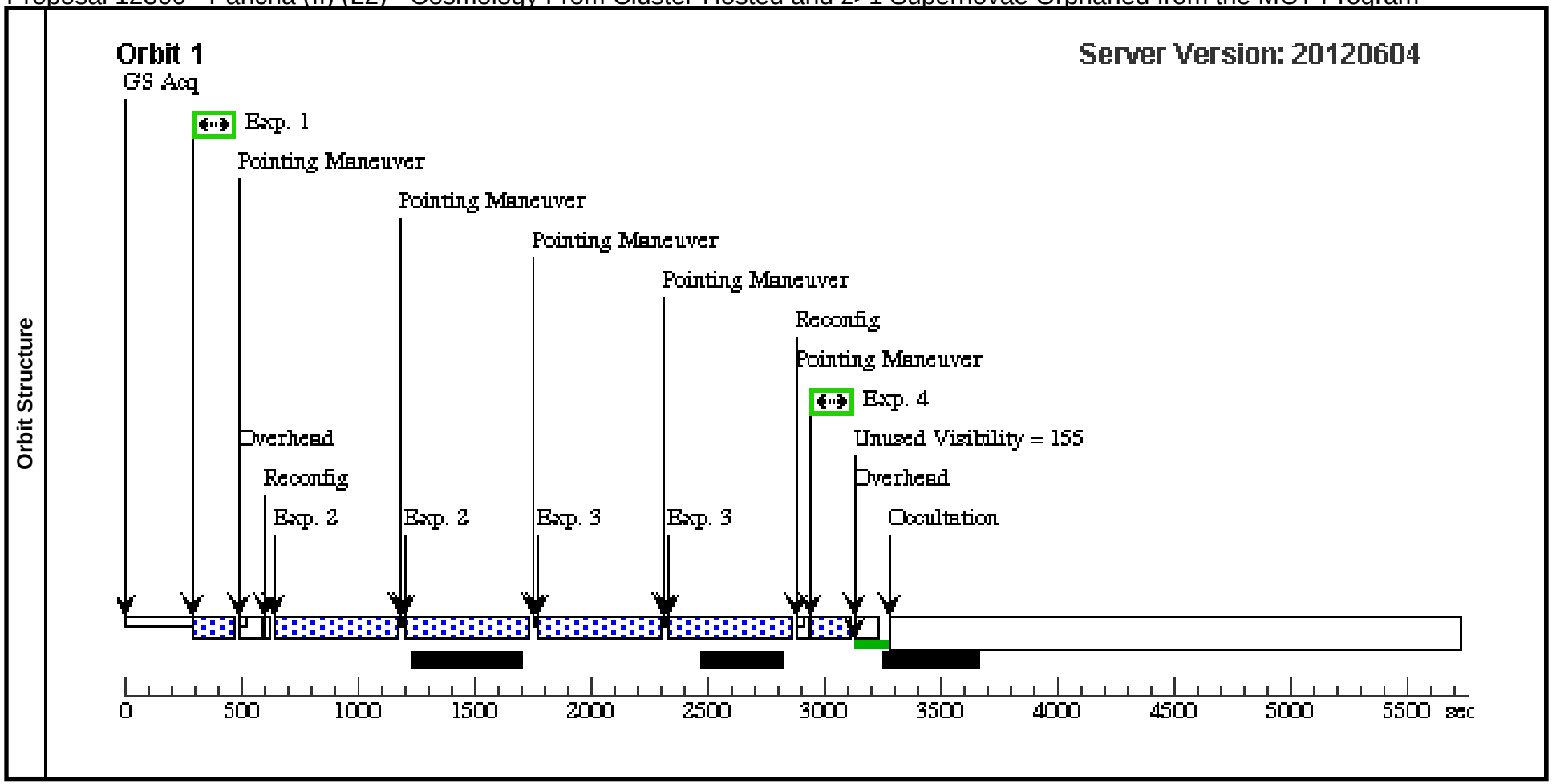
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	MACSJ1720+3536	RA: 17 20 19.6800 (260.0820000d) Dec: +35 36 57.60 (35.61600d) Equinox: J2000	Redshift: 1.5	V=24	Reference Frame: ICRS

Comments: Supernova: One in cluster (z 0.4), one behind (z 1.5).
Cluster SN at RA 260.07796 DEC 35.62296.
Background SN at RA 260.08758 DEC 35.61133.
We wish to target both SNe, the coordinates given above are for a position between these.

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(4) MACSJ1720+3536	WFC3/UVIS, ACCUM, UVIS2	F606W				120 Secs *[==>150.0 Secs]*	 ***[1]***
2		(4) MACSJ1720+3536	WFC3/IR, MULTIACCUM, IR	F105W	NSAMP=6; SAMP-SEQ=SPARS100		Pattern 2, Exps 2-2 in Pancha (II) (L2) (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]*	***[1]***
3		(4) MACSJ1720+3536	WFC3/IR, MULTIACCUM, IR	F140W	NSAMP=6; SAMP-SEQ=SPARS100		Pattern 2, Exps 3-3 in Pancha (II) (L2) (2)	*[==>(Pattern 1)]* *[==>(Pattern 2)]*	***[1]***
4		(4) MACSJ1720+3536	WFC3/UVIS, ACCUM, UVIS2	F814W				120 Secs *[==>150.0 Secs]*	 ***[1]***


Orbit Structure
Orbit 1
Server Version: 20120604
GS Acq
Exp. 1
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Reconfig
Pointing Maneuver
Exp. 4
Unused Visibility = 155
Overhead
Occultation
Overhead
Reconfig
Exp. 2
Exp. 2
Exp. 3
Exp. 3
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 12360, SN-L-grism-I (L3), implementation Thu Jul 12 01:02:38 GMT 2012

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR

Special Requirements: ORIENT 128D TO 128 D

Comments: First set of two orbits with IR grism observations. Each set contains of one orbit of the red and one with the blue grism. Each orbit is split into one direct image and four dithers.

If possible we would wish to have a small change in angle (5 degrees) between this visit and Visit L4 (with both in the Visit Orientation Requirements given below)

Fixed Targets

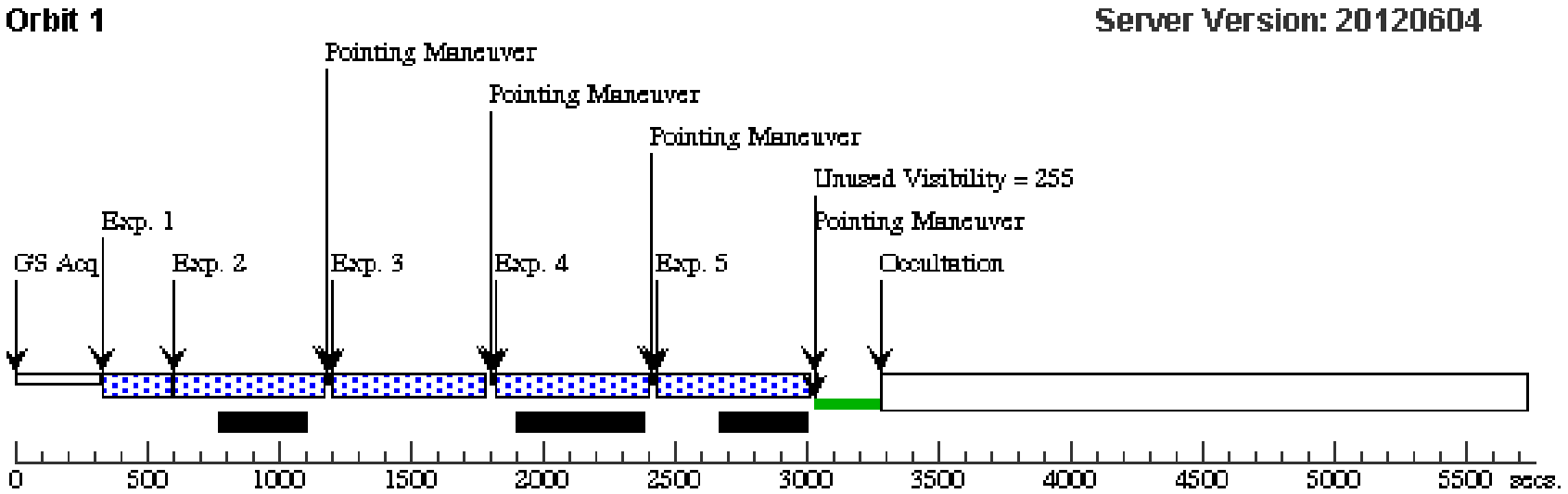
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	SN-L1-PANCHA	RA: 17 20 21.0192 (260.0875800d) Dec: +35 36 40.79 (35.61133d) Equinox: J2000	Redshift: 0.55	V=24	Reference Frame: ICRS

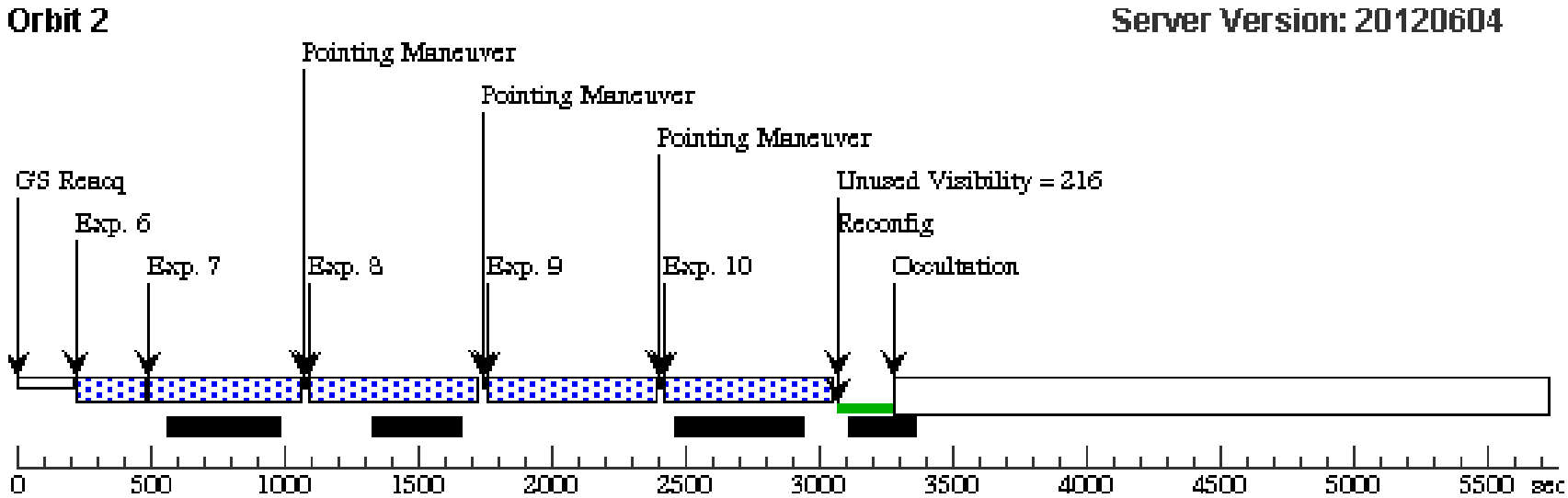
Comments: SN

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(5) SN-L1-PANCHA	WFC3/IR, MULTIACCUM, GRISM1024	F105W	NSAMP=10; SAMP-SEQ=SPARS25			*[==>]*	***[1]***
2		(5) SN-L1-PANCHA	WFC3/IR, MULTIACCUM, GRISM1024	G102	NSAMP=12; SAMP-SEQ=SPARS50	POS TARG 0,null		*[==>]*	***[1]***
3		(5) SN-L1-PANCHA	WFC3/IR, MULTIACCUM, GRISM1024	G102	NSAMP=12; SAMP-SEQ=SPARS50	POS TARG 1.355,0.424		*[==>]*	***[1]***
4		(5) SN-L1-PANCHA	WFC3/IR, MULTIACCUM, GRISM1024	G102	NSAMP=12; SAMP-SEQ=SPARS50	POS TARG 0.881,1.212		*[==>]*	***[1]***
5		(5) SN-L1-PANCHA	WFC3/IR, MULTIACCUM, GRISM1024	G102	NSAMP=12; SAMP-SEQ=SPARS50	POS TARG -0.474,0.788		*[==>]*	***[1]***
6		(5) SN-L1-PANCHA	WFC3/IR, MULTIACCUM, GRISM1024	F160W	NSAMP=10; SAMP-SEQ=SPARS25			*[==>]*	***[2]***
7		(5) SN-L1-PANCHA	WFC3/IR, MULTIACCUM, GRISM1024	G141	NSAMP=12; SAMP-SEQ=SPARS50	POS TARG 0,null		*[==>]*	***[2]***
8		(5) SN-L1-PANCHA	WFC3/IR, MULTIACCUM, GRISM1024	G141	NSAMP=13; SAMP-SEQ=SPARS50	POS TARG 1.355,0.424		*[==>]*	***[2]***
9		(5) SN-L1-PANCHA	WFC3/IR, MULTIACCUM, GRISM1024	G141	NSAMP=13; SAMP-SEQ=SPARS50	POS TARG 0.881,1.212		*[==>]*	***[2]***
10		(5) SN-L1-PANCHA	WFC3/IR, MULTIACCUM, GRISM1024	G141	NSAMP=13; SAMP-SEQ=SPARS50	POS TARG -0.474,0.788		*[==>]*	***[2]***

Orbit Structure





Visit

Proposal 12360, SN-L-grism-II (L4), implementation Thu Jul 12 01:02:39 GMT 2012

Diagnostic Status: No Diagnostics

Scientific Instruments: WFC3/IR

Special Requirements: ORIENT 133D TO 133 D

Comments: Second set of two orbits with IR grism observations. Each set contains of one orbit of the red and one with the blue grism. Each orbit is split into one direct image and four dithers.

If possible we would wish to have a small change in angle (5 degrees) between this visit and the previous Visit L3 (with both in the Visit Orientation Requirements given below)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	SN-L1-PANCHA	RA: 17 20 21.0192 (260.0875800d) Dec: +35 36 40.79 (35.61133d) Equinox: J2000	Redshift: 0.55	V=24	Reference Frame: ICRS

Comments: SN

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(5) SN-L1-PANCHA	WFC3/IR, MULTIACCUM, GRISM1024	F105W	NSAMP=10; SAMP-SEQ=SPARS25			*[==>]*	***[1]***
2		(5) SN-L1-PANCHA	WFC3/IR, MULTIACCUM, GRISM1024	G102	NSAMP=12; SAMP-SEQ=SPARS50	POS TARG 0,null		*[==>]*	***[1]***
3		(5) SN-L1-PANCHA	WFC3/IR, MULTIACCUM, GRISM1024	G102	NSAMP=12; SAMP-SEQ=SPARS50	POS TARG 1.355,0.424		*[==>]*	***[1]***
4		(5) SN-L1-PANCHA	WFC3/IR, MULTIACCUM, GRISM1024	G102	NSAMP=12; SAMP-SEQ=SPARS50	POS TARG 0.881,1.212		*[==>]*	***[1]***
5		(5) SN-L1-PANCHA	WFC3/IR, MULTIACCUM, GRISM1024	G102	NSAMP=12; SAMP-SEQ=SPARS50	POS TARG -0.474,0.788		*[==>]*	***[1]***
6		(5) SN-L1-PANCHA	WFC3/IR, MULTIACCUM, GRISM1024	F160W	NSAMP=10; SAMP-SEQ=SPARS25			*[==>]*	***[2]***
7		(5) SN-L1-PANCHA	WFC3/IR, MULTIACCUM, GRISM1024	G141	NSAMP=12; SAMP-SEQ=SPARS50	POS TARG 0,null		*[==>]*	***[2]***
8		(5) SN-L1-PANCHA	WFC3/IR, MULTIACCUM, GRISM1024	G141	NSAMP=13; SAMP-SEQ=SPARS50	POS TARG 1.355,0.424		*[==>]*	***[2]***
9		(5) SN-L1-PANCHA	WFC3/IR, MULTIACCUM, GRISM1024	G141	NSAMP=13; SAMP-SEQ=SPARS50	POS TARG 0.881,1.212		*[==>]*	***[2]***
10		(5) SN-L1-PANCHA	WFC3/IR, MULTIACCUM, GRISM1024	G141	NSAMP=13; SAMP-SEQ=SPARS50	POS TARG -0.474,0.788		*[==>]*	***[2]***

Orbit Structure