15093 - Dwarfs and Giants: Massive Stars in Little Dwarf Galaxies

Cycle: 25, Proposal Category: GO

(UV Initiative)

(Availability Mode: SUPPORTED)

INVESTIGATORS

Name	*Institution*	*E-Mail*
Dr. Jennifer Andrews (PI) (Contact)	**University of Arizona**	**jandrews@as.arizona.edu**
Prof. Daniela Calzetti (CoI)	University of Massachusetts - Amherst	calzetti@astro.umass.edu
Dr. David Cook (CoI)	California Institute of Technology	dcook@astro.caltech.edu
Dr. Daniel Dale (CoI)	University of Wyoming	ddale@uwyo.edu
Dr. Selma E. de Mink (CoI) (ESA Member)	Universiteit van Amsterdam	s.e.demink@uva.nl
Dr. John J. Eldridge (CoI)	The University of Auckland	j.eldridge@auckland.ac.nz
Dr. Mark R. Krumholz (CoI)	Australian National University	mark.krumholz@anu.edu.au
Dr. Linda J. Smith (CoI) (ESA Member)	Space Telescope Science Institute - ESA	lsmith@stsci.edu
Ms. Ylva Gotberg (CoI) (ESA Member)	Universiteit van Amsterdam	y.l.l.gotberg@uva.nl

VISITS

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
01	(1) UGC-9240.A (7) UGC9240-ACQ	STIS/CCD STIS/FUV-MAMA	2	12-Dec-2018 11:00:18.0	yes
02	(1) UGC-9240.A (7) UGC9240-ACQ	STIS/CCD	1	12-Dec-2018 11:00:19.0	yes
03	(5) UGC-9240.B (7) UGC9240-ACQ	STIS/CCD STIS/FUV-MAMA	2	12-Dec-2018 11:00:21.0	yes
04	(5) UGC-9240.B (7) UGC9240-ACQ	STIS/CCD	1	12-Dec-2018 11:00:22.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
05	(2) NGC-3741 (10) NGC3741-ACQ	STIS/CCD STIS/FUV-MAMA	2	12-Dec-2018 11:00:23.0	yes
06	(2) NGC-3741 (10) NGC3741-ACQ	STIS/CCD	1	12-Dec-2018 11:00:24.0	yes
07	(4) UGC-8833 (9) UGC8833-ACQ	STIS/CCD STIS/FUV-MAMA	2	12-Dec-2018 11:00:26.0	yes
08	(4) UGC-8833 (9) UGC8833-ACQ	STIS/CCD	1	12-Dec-2018 11:00:27.0	yes
09	(3) NGC-4163.A (8) NGC4163-ACQ	STIS/CCD STIS/FUV-MAMA	2	12-Dec-2018 11:00:28.0	yes
10	(3) NGC-4163.A (8) NGC4163-ACQ	STIS/CCD	1	12-Dec-2018 11:00:29.0	yes
11	(6) NGC-4163.B (8) NGC4163-ACQ	STIS/CCD STIS/FUV-MAMA	2	12-Dec-2018 11:00:31.0	yes
12	(6) NGC-4163.B (8) NGC4163-ACQ	STIS/CCD	1	12-Dec-2018 11:00:32.0	yes

18 Total Orbits Used

ABSTRACT

Dwarf galaxies are sensitive laboratories for testing theories of star formation and for investigating possible variations of the stellar Initial Mass Function (IMF). Establishing whether the IMF, in particular the upper end of the IMF (uIMF), is invariant or dependent upon the conditions of star formation is key for interpreting the vast majority of observations on galaxy evolution, and for understanding cosmic reionization. Low-metallicity dwarf galaxies are fairly isolated systems that are ideal locales to test the uIMF. We propose to obtain STIS UV/optical spectroscopy of 8 H-alpha bright stellar clusters in 4 dwarf galaxies within 3 Mpc to accurately determine their ages, masses, extinction, metallicity, and stellar content. We will use state of the art stellar synthesis models that include massive star specific evolutionary tracks, massive star rotation, and stochasticity to test whether dwarf galaxies really do have a top-light IMF. The success of this project relies on the spectroscopic UV capability of HST/STIS to isolate young compact star clusters and break the degeneracies between reddening and age.

OBSERVING DESCRIPTION

We plan first-order longslit observations of each cluster with the STIS/G140L grating and MAMA detector as well as the CCD G430M and G750M gratings. In order to mitigate hot pixels and reduce cosmic rays we will dither along the slit between each exposure, instead of implementing a CR-SPLIT. The dithering will be done with shifts of roughly 0.5" per exposure. We use a gain of 1 to reduce read noise, and 1x1 binning to decrease the effects of cosmic rays even at the expense of longer readout times.

We have put the G140L observation into two orbits, and the G430M and G750M observations together into one. Target aquisition is done using a nearby star and the approriate offset to the correct slit position. Because we are using a 0.2" slit-width, no peak-up time is needed. For the optical observations we are implementing the 52x0.2E1 slit to reduce CTE effects. The ORIENTS have been chosen to maximize the science by including as many Halpha regions as possible along the slit. The primary cluster/star of interest is indicated by the Fixed Target list.

Visit

Proposal 15093, UGC9240 Visit 1 MAMA (01), completed Wed Dec 12 16:00:33 GMT 2018

Diagnostic Status: Warning

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

Special Requirements: SCHED 40%; ORIENT 140.65D TO 141.05 D; ORIENT 320.65D TO 321.05 D; ORIENT 145.7D TO 145.7 D; ORIENT 325.7D TO 325.7 D

Diagnostics

(UGC9240 Visit 1 MAMA (01)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

(UGC9240 Visit 1 MAMA (01)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(2)	Pattern Type=STIS-ALONG-SLIT	Coordinate Frame=POS-TARG		(2), (3)
	Purpose=DITHER	Pattern Orientation=90.0		
	Number Of Points=2	Angle Between Sides=		
	Point Spacing=.5	Center Pattern=false		
	Line Spacing=			

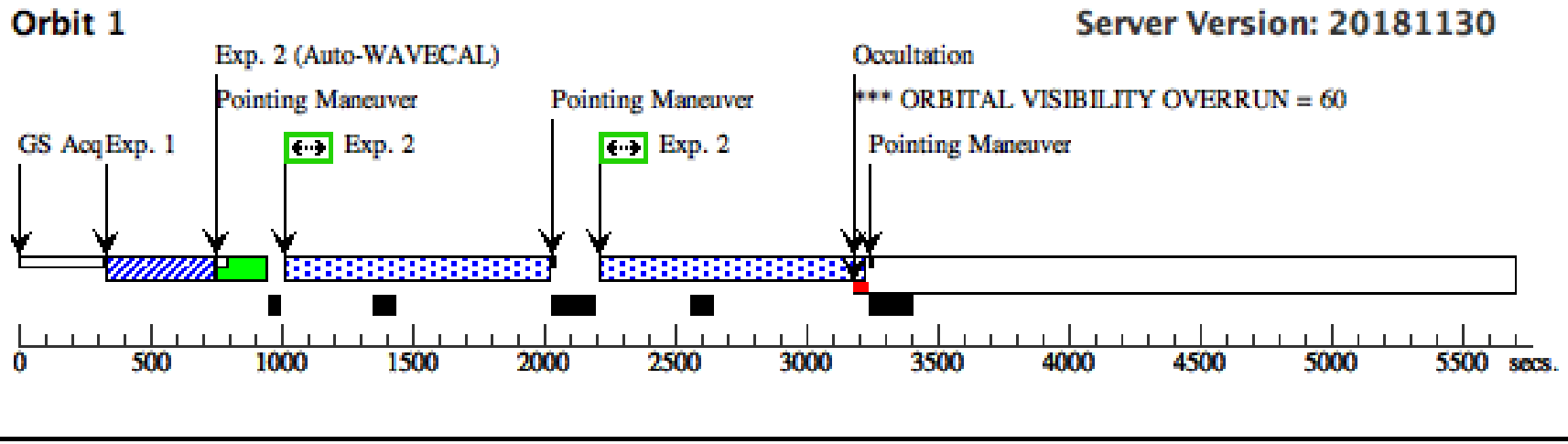
Fixed Targets

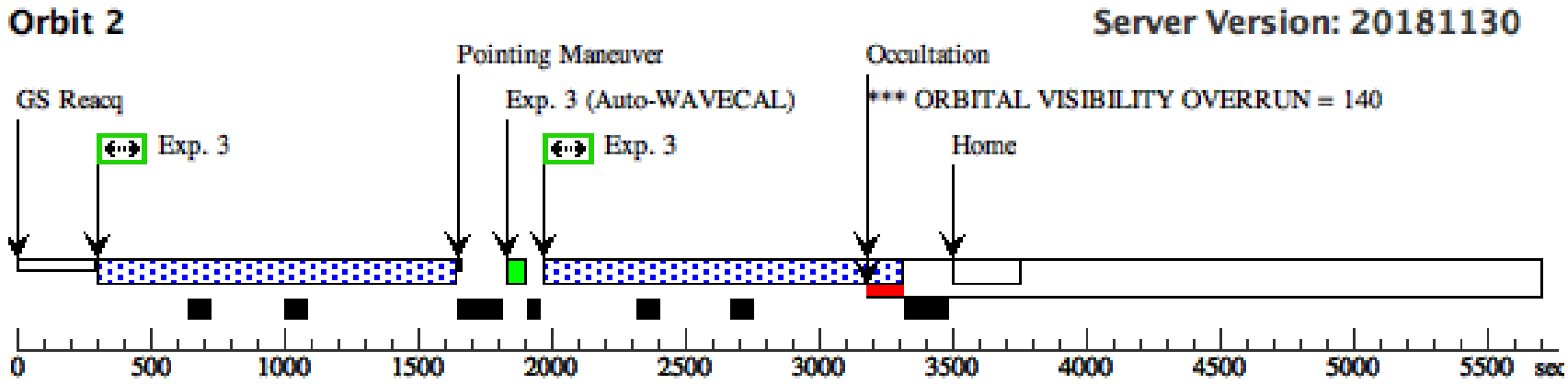
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	UGC-9240.A	Offset from UGC9240-ACQ		V=13.17	Offset Position (UGC-9240.A)
		RA Offset: -5.828870000000279 Secs			
		Dec Offset: -20.335300000056122 Arcsec			
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Category=EXT-CLUSTER* *Description=[OB ASSOCIATION, OPEN CLUSTER, STAR FORMING REGION, YOUNG ASSOCIATION]*					
(7)	UGC9240-ACQ	RA: 14 24 50.1800 (216.2090833d)		V=21.4	Reference Frame: ICRS
		Dec: +44 31 16.80 (44.52133d)		u=25.28,	
		Equinox: J2000		i=18.40	
Comments: *Category=CALIBRATION* *Description=[TARGET ACQUISITION TEST]* *Extended=NO*					

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Target Acquisition (STIS.ta.1174993)	(7) UGC9240-ACQ	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT			45 Secs (45 Secs)	
								[==>]	***[1]***
2	UV1 (STIS.sp.1051203)	(1) UGC-9240.A	STIS/FUV-MAMA, TIME-TAG, 52X0.2	G140L 1425 A	BUFFER-TIME=350		Pattern 2, Exps 2-2 in UGC9240 Visit 1 MAMA (01) (2)	950 Secs (1998 Secs)	
								[==>999.0 Secs (Pattern 1)] *[==>999.0 Secs (Pattern 2)]*	***[1]***
3	UV2 (STIS.sp.1051211)	(1) UGC-9240.A	STIS/FUV-MAMA, TIME-TAG, 52X0.2	G140L 1425 A	BUFFER-TIME=350		Pattern 2, Exps 3-3 in UGC9240 Visit 1 MAMA (01) (2)	1250 Secs (2646 Secs)	
								[==>1323.0 Secs (Pattern 1)] *[==>1323.0 Secs (Pattern 2)]*	***[2]***

Orbit Structure





Visit

Proposal 15093, UGC9240 Visit 1 CCD (02), completed Wed Dec 12 16:00:33 GMT 2018

Diagnostic Status: Warning

Scientific Instruments: STIS/CCD

Special Requirements: SCHED 40%; ORIENT 140.65D TO 141.05 D; ORIENT 320.65D TO 321.05 D; ORIENT 145.7D TO 145.7 D; ORIENT 325.7D TO 325.7 D

Diagnostics

(UGC9240 Visit 1 CCD (02)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Patterns

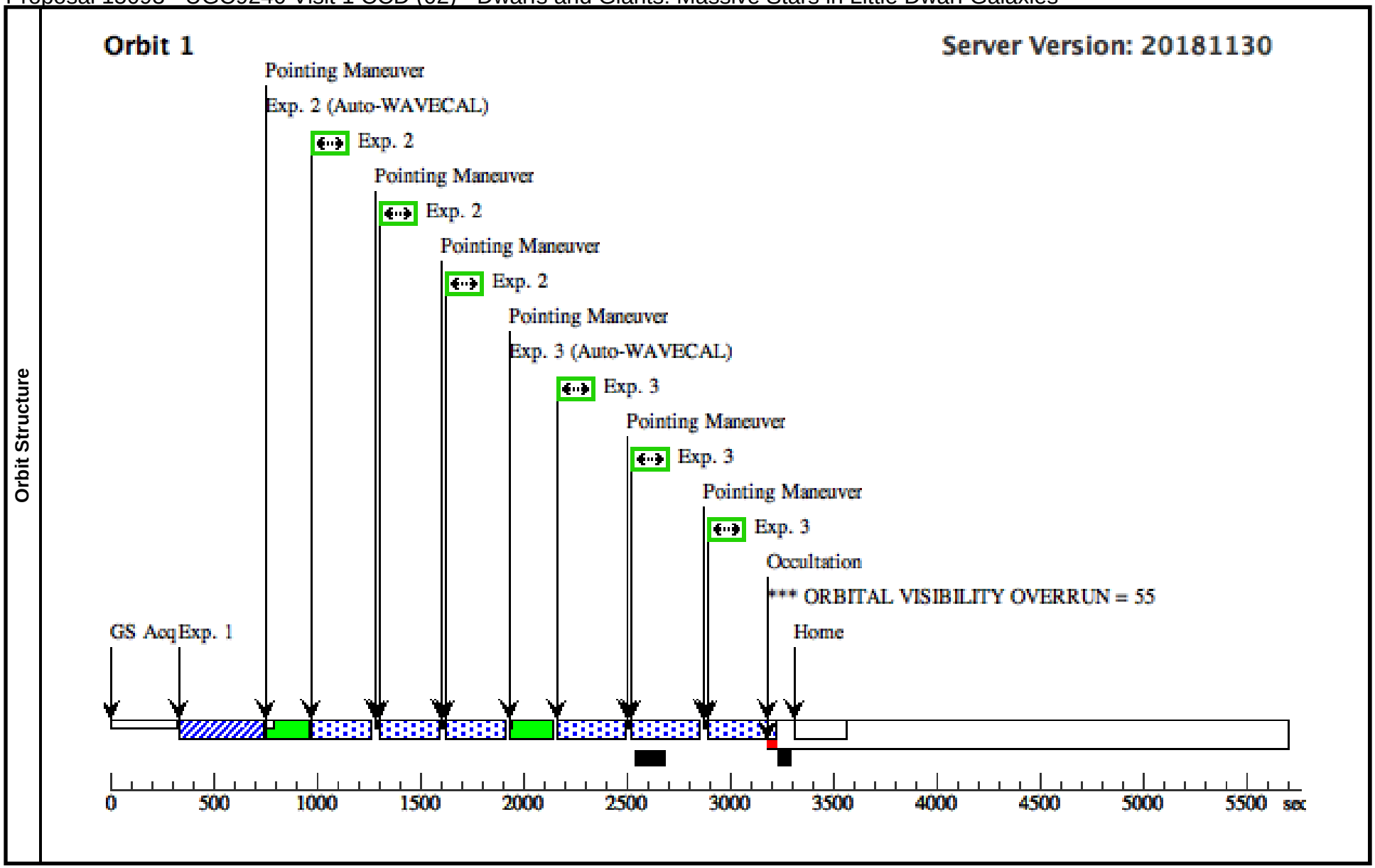
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=STIS-ALONG-SLIT	Coordinate Frame=POS-TARG		(2), (3)
	Purpose=DITHER	Pattern Orientation=90.0		
	Number Of Points=3	Angle Between Sides=		
	Point Spacing=.5	Center Pattern=false		
	Line Spacing=			

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	UGC-9240.A	Offset from UGC9240-ACQ		V=13.17	Offset Position (UGC-9240.A)
		RA Offset: -5.828870000000279 Secs			
		Dec Offset: -20.335300000056122 Arcsec			
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Category=EXT-CLUSTER* *Description=[OB ASSOCIATION, OPEN CLUSTER, STAR FORMING REGION, YOUNG ASSOCIATION]*					
(7)	UGC9240-ACQ	RA: 14 24 50.1800 (216.2090833d)		V=21.4	Reference Frame: ICRS
		Dec: +44 31 16.80 (44.52133d)		u=25.28,	
		Equinox: J2000		i=18.40	
Comments: *Category=CALIBRATION* *Description=[TARGET ACQUISITION TEST]* *Extended=NO*					

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Target Acquisition	(7) UGC9240-ACQ	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT			45 Secs (45 Secs)	
								[==>]	***[1]***
2	Red (STIS.sp.10 09953)	(1) UGC-9240.A	STIS/CCD, ACCUM, 52X0.2E1	G750M 6768 A	CR-SPLIT=NO; GAIN=1; BINAXIS1=1; BINAXIS2=1		Pattern 1, Exps 2-2 in UGC9240 Visit 1 CCD (02) (1)	400 Secs (765 Secs)	
								[==>255.0 Secs (Pattern 1)]	***[1]***
								[==>255.0 Secs (Pattern 2)]	
								[==>255.0 Secs (Pattern 3)]	
3	Blue (STIS.sp.10 09949)	(1) UGC-9240.A	STIS/CCD, ACCUM, 52X0.2E1	G430M 4706 A	CR-SPLIT=NO; GAIN=1; BINAXIS1=1; BINAXIS2=1		Pattern 1, Exps 3-3 in UGC9240 Visit 1 CCD (02) (1)	400 Secs (885 Secs)	
								[==>295.0 Secs (Pattern 1)]	***[1]***
								[==>295.0 Secs (Pattern 2)]	
								[==>295.0 Secs (Pattern 3)]	


Orbit Structure
Orbit 1
Server Version: 20181130
Pointing Maneuver
Exp. 2 (Auto-WAVECAL)
Exp. 2
Pointing Maneuver
Exp. 2
Pointing Maneuver
Exp. 2
Pointing Maneuver
Exp. 3 (Auto-WAVECAL)
Exp. 3
Pointing Maneuver
Exp. 3
Pointing Maneuver
Exp. 3
Occultation
*** ORBITAL VISIBILITY OVERRUN = 55
GS Acq
Exp. 1
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 15093, UGC9240 Visit 2 MAMA (03), implementation Wed Dec 12 16:00:33 GMT 2018

Diagnostic Status: No Diagnostics

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

Special Requirements: ORIENT 338.5D TO 348.1 D

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(2)	Pattern Type=STIS-ALONG-SLIT	Coordinate Frame=POS-TARG		(2), (3)
	Purpose=DITHER	Pattern Orientation=90.0		
	Number Of Points=2	Angle Between Sides=		
	Point Spacing=.5	Center Pattern=false		
	Line Spacing=			

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	UGC-9240.B	RA: 14 24 42.9690 (216.1790375d) Dec: +44 31 42.58 (44.52849d) Equinox: J2000		V=13.17	Reference Frame: ICRS

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=EXT-CLUSTER
Description=[OB ASSOCIATION, OPEN CLUSTER, STAR FORMING REGION, YOUNG ASSOCIATION]

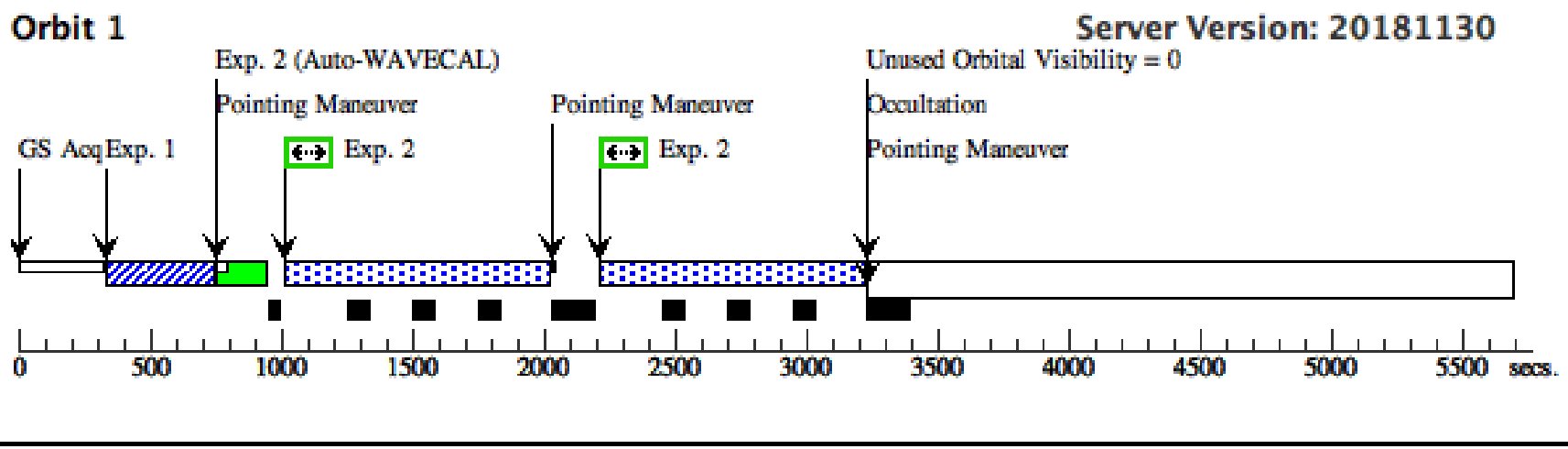
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(7)	UGC9240-ACQ	RA: 14 24 50.1800 (216.2090833d) Dec: +44 31 16.80 (44.52133d) Equinox: J2000		V=21.4 u=25.28, i=18.40	Reference Frame: ICRS

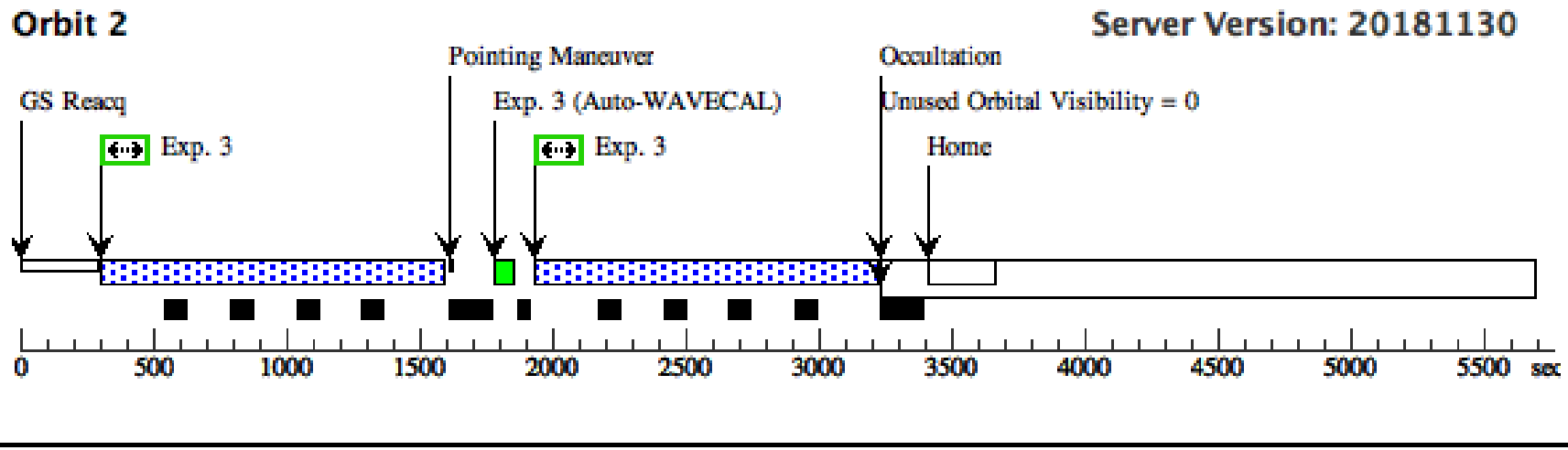
Comments:
Category=CALIBRATION
Description=[TARGET ACQUISITION TEST]
Extended=NO

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Target Acquisition	(7) UGC9240-ACQ	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT	GS ACQ SCENARIO BASE1B3		45 Secs (45 Secs) *[==>]*	***[1]***
2	UV1 (STIS.sp.1009948)	(5) UGC-9240.B	STIS/FUV-MAMA, TIME-TAG, 52X0.2	G140L 1425 A	BUFFER-TIME=246		Pattern 2, Exps 2-2 in UGC9240 Visit 2 MAMA (03) (2)	950 Secs (1992 Secs) *[==>996.0 Secs (Pattern 1)]* *[==>996.0 Secs (Pattern 2)]*	***[1]***
3	UV2 (STIS.sp.1051211)	(5) UGC-9240.B	STIS/FUV-MAMA, TIME-TAG, 52X0.2	G140L 1425 A	BUFFER-TIME=246		Pattern 2, Exps 3-3 in UGC9240 Visit 2 MAMA (03) (2)	1250 Secs (2560 Secs) *[==>1280.0 Secs (Pattern 1)]* *[==>1280.0 Secs (Pattern 2)]*	***[2]***

Orbit Structure





Visit

Proposal 15093, UGC9240 Visit 2 CCD (04), completed Wed Dec 12 16:00:33 GMT 2018

Diagnostic Status: Warning

Scientific Instruments: STIS/CCD

Special Requirements: ORIENT 338.5D TO 348.1 D

Diagnostics

(UGC9240 Visit 2 CCD (04)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Patterns

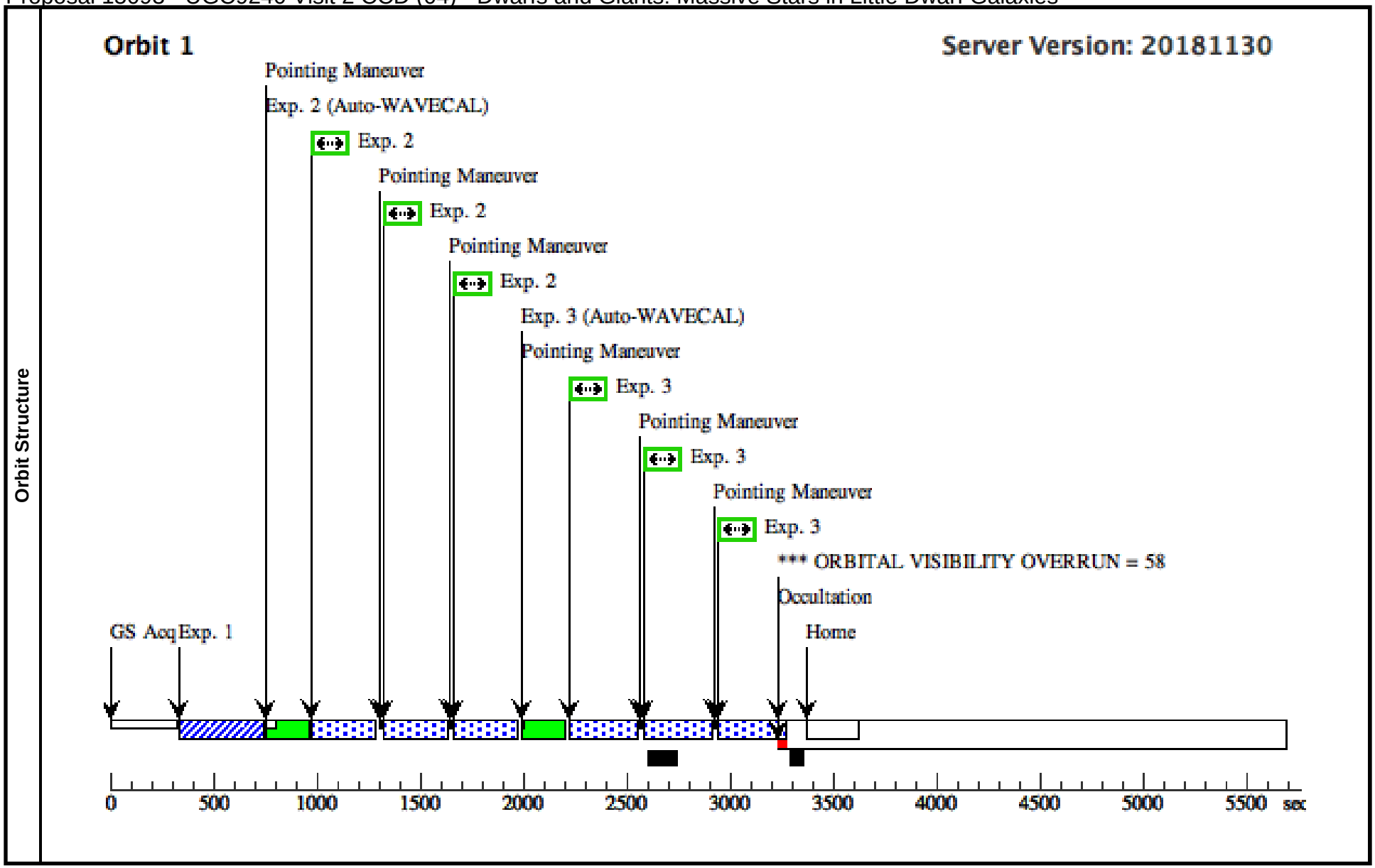
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=STIS-ALONG-SLIT	Coordinate Frame=POS-TARG		(2), (3)
	Purpose=DITHER	Pattern Orientation=90.0		
	Number Of Points=3	Angle Between Sides=		
	Point Spacing=.5	Center Pattern=false		
	Line Spacing=			

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(5)	UGC-9240.B	RA: 14 24 42.9690 (216.1790375d) Dec: +44 31 42.58 (44.52849d) Equinox: J2000		V=13.17	Reference Frame: ICRS
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Category=EXT-CLUSTER* *Description=[OB ASSOCIATION, OPEN CLUSTER, STAR FORMING REGION, YOUNG ASSOCIATION]*					
(7)	UGC9240-ACQ	RA: 14 24 50.1800 (216.2090833d) Dec: +44 31 16.80 (44.52133d) Equinox: J2000		V=21.4 u=25.28, i=18.40	Reference Frame: ICRS
Comments: *Category=CALIBRATION* *Description=[TARGET ACQUISITION TEST]* *Extended=NO*					

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Target Acquisition	(7) UGC9240-ACQ	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT			45 Secs (45 Secs) *[==>]*	*[1]*
2	Red (STIS.sp.10 09953)	(5) UGC-9240.B	STIS/CCD, ACCUM, 52X0.2E1	G750M 6768 A	CR-SPLIT=NO; GAIN=1; BINAXIS1=1; BINAXIS2=1		Pattern 1, Exps 2-2 in UGC9240 Visit 2 CCD (04) (1)	400 Secs (825 Secs) *[==>275.0 Secs (Pattern 1)]* *[==>275.0 Secs (Pattern 2)]* *[==>275.0 Secs (Pattern 3)]*	*[1]*
3	Blue (STIS.sp.10 09949)	(5) UGC-9240.B	STIS/CCD, ACCUM, 52X0.2E1	G430M 4706 A	CR-SPLIT=NO; GAIN=1; BINAXIS1=1; BINAXIS2=1		Pattern 1, Exps 3-3 in UGC9240 Visit 2 CCD (04) (1)	400 Secs (882 Secs) *[==>294.0 Secs (Pattern 1)]* *[==>294.0 Secs (Pattern 2)]* *[==>294.0 Secs (Pattern 3)]*	*[1]*


Orbit 1
Server Version: 20181130
Orbit Structure
Pointing Maneuver
Exp. 2 (Auto-WAVECAL)
Exp. 2
Pointing Maneuver
Exp. 2
Pointing Maneuver
Exp. 2
Exp. 3 (Auto-WAVECAL)
Pointing Maneuver
Exp. 3
Pointing Maneuver
Exp. 3
Pointing Maneuver
Exp. 3
*** ORBITAL VISIBILITY OVERRUN = 58
Occultation
Home
GS Acq
Exp. 1
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 15093, NGC3741 MAMA (05), implementation Wed Dec 12 16:00:33 GMT 2018

Diagnostic Status: No Diagnostics

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

Special Requirements: ORIENT 217.15D TO 217.55 D; ORIENT 37.15D TO 37.55 D; ORIENT 319.5D TO 332.5 D; ORIENT 333.7D TO 338.47 D; ORIENT 313.4D TO 313.6 D

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(2)	Pattern Type=STIS-ALONG-SLIT	Coordinate Frame=POS-TARG		(2), (3)
	Purpose=DITHER	Pattern Orientation=90.0		
	Number Of Points=2	Angle Between Sides=		
	Point Spacing=.5	Center Pattern=false		
	Line Spacing=			

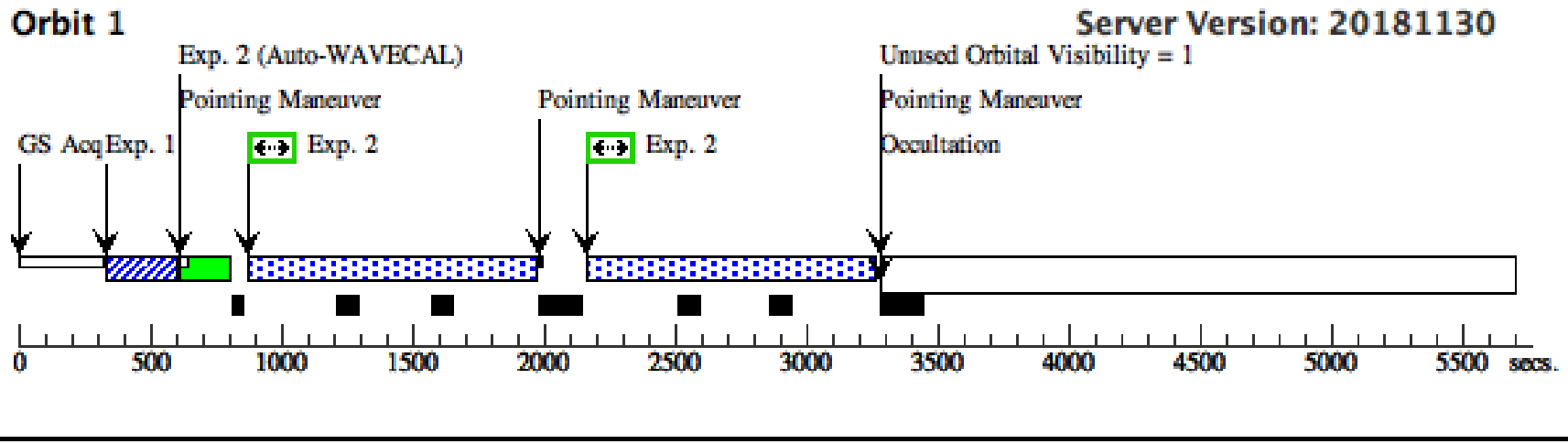
Fixed Targets

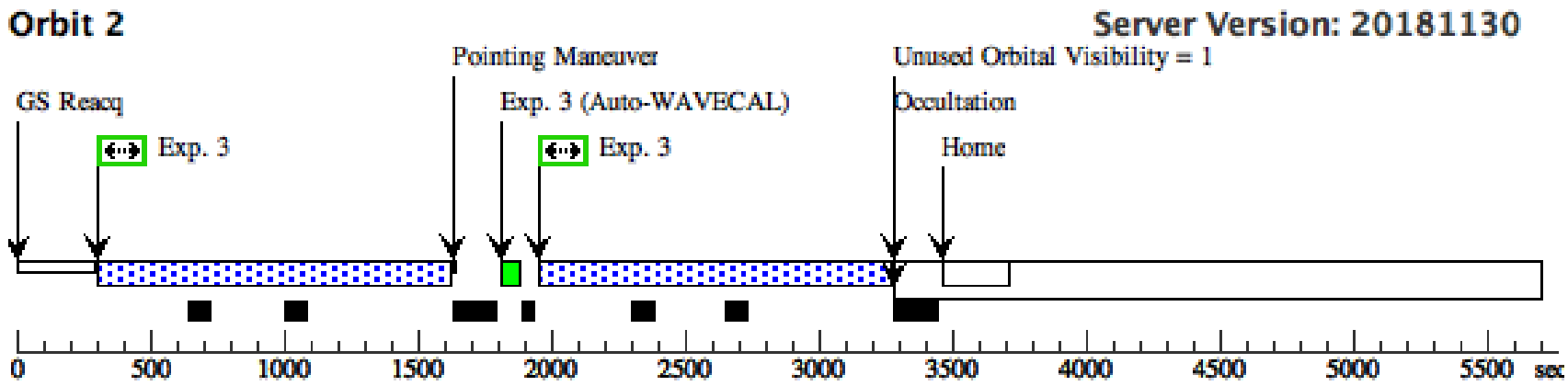
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	NGC-3741	Offset from NGC3741-ACQ RA Offset: -2.8887499999950705 Secs Dec Offset: -14.640000000076725 Arcsec		V=14.23	Offset Position (NGC-3741)
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Category=EXT-CLUSTER* *Description=[OB ASSOCIATION, STAR FORMING REGION, YOUNG ASSOCIATION]*					
(10)	NGC3741-ACQ	RA: 11 36 9.1133 (174.0379721d) Dec: +45 17 13.44 (45.28707d) Equinox: J2000		V=17.56 u=18.52, r=17.30, i=17.19	Reference Frame: ICRS
Comments: *Category=CALIBRATION* *Description=[TARGET ACQUISITION TEST]* *Extended=NO*					

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Target Acquisition (STIS.ta.1174991)	(10) NGC3741-ACQ	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT	GS ACQ SCENARIO BASE1B3		10 Secs (10 Secs) *[==>]*	 ***[1]***
2	UV1 (STIS.sp.1009948)	(2) NGC-3741	STIS/FUV-MAMA, TIME-TAG, 52X0.2	G140L 1425 A	BUFFER-TIME=350		Pattern 2, Exps 2-2 in NGC3741 MAMA (05) (2)	950 Secs (2178 Secs) *[==>1089.0 Secs (Pattern 1)]* *[==>1089.0 Secs (Pattern 2)]*	 ***[1]***
3	UV2 (STIS.sp.1009948)	(2) NGC-3741	STIS/FUV-MAMA, TIME-TAG, 52X0.2	G140L 1425 A	BUFFER-TIME=350		Pattern 2, Exps 3-3 in NGC3741 MAMA (05) (2)	1250 Secs (2606 Secs) *[==>1303.0 Secs (Pattern 1)]* *[==>1303.0 Secs (Pattern 2)]*	 ***[2]***

Orbit Structure





Visit

Proposal 15093, NGC3741 CCD (06), completed Wed Dec 12 16:00:33 GMT 2018

Diagnostic Status: Warning

Scientific Instruments: STIS/CCD

Special Requirements: ORIENT 217.15D TO 217.55 D; ORIENT 37.15D TO 37.55 D; ORIENT 321D TO 332.5 D; ORIENT 333.7D TO 338.47 D; ORIENT 316.8D TO 320 D

Diagnostics

(NGC3741 CCD (06)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Patterns

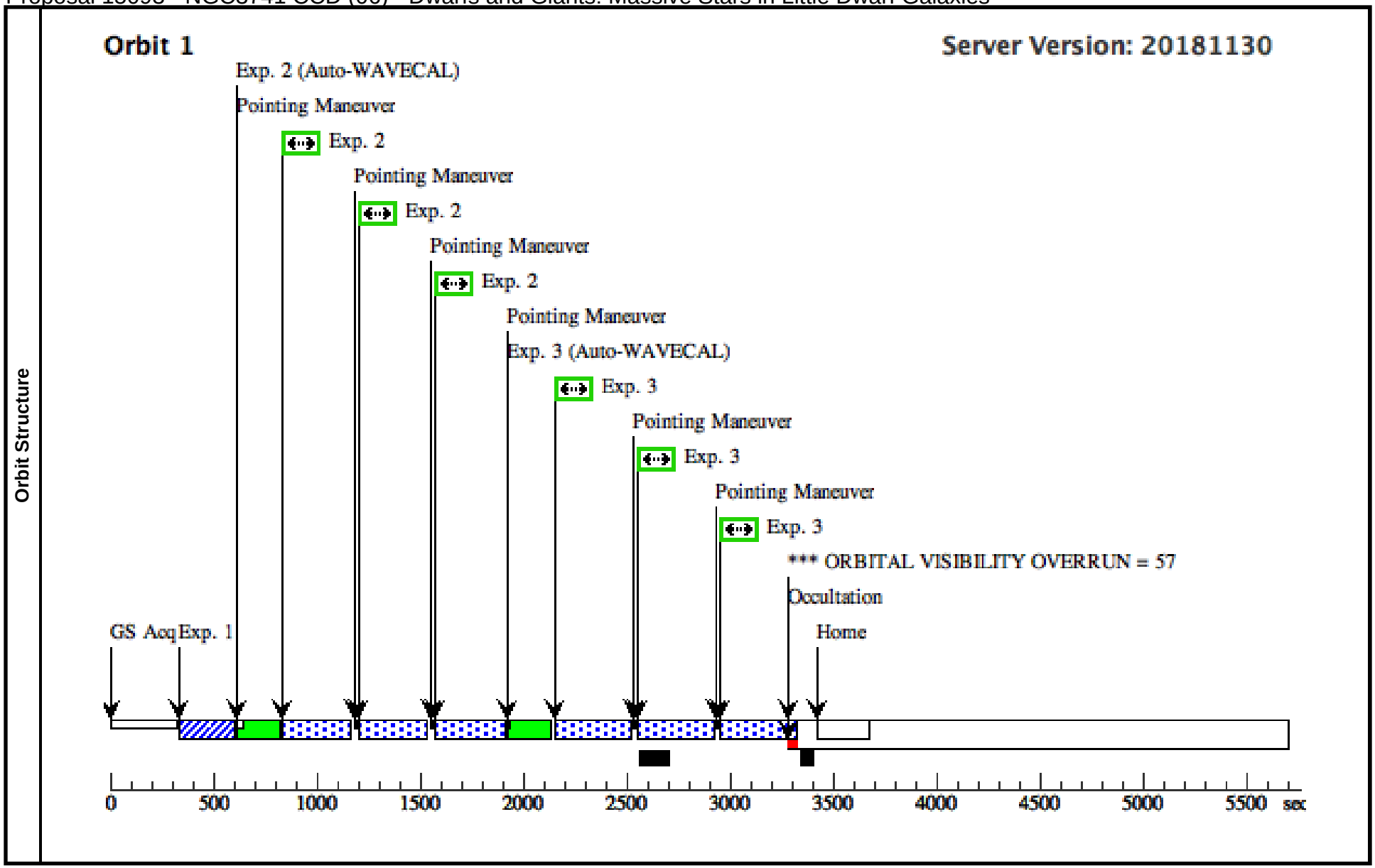
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=STIS-ALONG-SLIT	Coordinate Frame=POS-TARG		(2), (3)
	Purpose=DITHER	Pattern Orientation=90.0		
	Number Of Points=3	Angle Between Sides=		
	Point Spacing=.5	Center Pattern=false		
	Line Spacing=			

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	NGC-3741	Offset from NGC3741-ACQ RA Offset: -2.8887499999950705 Secs Dec Offset: -14.640000000076725 Arcsec		V=14.23	Offset Position (NGC-3741)
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Category=EXT-CLUSTER* *Description=[OB ASSOCIATION, STAR FORMING REGION, YOUNG ASSOCIATION]*					
(10)	NGC3741-ACQ	RA: 11 36 9.1133 (174.0379721d) Dec: +45 17 13.44 (45.28707d) Equinox: J2000		V=17.56 u=18.52, r=17.30, i=17.19	Reference Frame: ICRS
Comments: *Category=CALIBRATION* *Description=[TARGET ACQUISITION TEST]* *Extended=NO*					

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Target Acquisition	(10) NGC3741-ACQ	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT			10 Secs (10 Secs)	
								[==>]	***[1]***
2	Red (STIS.sp.1009953)	(2) NGC-3741	STIS/CCD, ACCUM, 52X0.2E1	G750M 6768 A	CR-SPLIT=NO; GAIN=1; BINAXIS1=1; BINAXIS2=1		Pattern 1, Exps 2-2 in NGC3741 CCD (06) (1)	400 Secs (894 Secs)	
								[==>298.0 Secs (Pattern 1)]	
								[==>298.0 Secs (Pattern 2)]	***[1]***
								[==>298.0 Secs (Pattern 3)]	
3	Blue (STIS.sp.1009949)	(2) NGC-3741	STIS/CCD, ACCUM, 52X0.2E1	G430M 4706 A	CR-SPLIT=NO; GAIN=1; BINAXIS1=1; BINAXIS2=1		Pattern 1, Exps 3-3 in NGC3741 CCD (06) (1)	400 Secs (999 Secs)	
								[==>333.0 Secs (Pattern 1)]	
								[==>333.0 Secs (Pattern 2)]	***[1]***
								[==>333.0 Secs (Pattern 3)]	


Orbit Structure
Orbit 1
Server Version: 20181130
Exp. 2 (Auto-WAVECAL)
Pointing Maneuver
Exp. 2
Pointing Maneuver
Exp. 2
Pointing Maneuver
Exp. 2
Pointing Maneuver
Exp. 3 (Auto-WAVECAL)
Exp. 3
Pointing Maneuver
Exp. 3
Pointing Maneuver
Exp. 3
*** ORBITAL VISIBILITY OVERRUN = 57
Occultation
Home
GS Acq
Exp. 1
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 15093, UGC8833 MAMA (07), implementation Wed Dec 12 16:00:33 GMT 2018

Diagnostic Status: No Diagnostics

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

Special Requirements: ORIENT 198D TO 198.1 D; ORIENT 18D TO 18.1 D

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(2)	Pattern Type=STIS-ALONG-SLIT	Coordinate Frame=POS-TARG		(2), (3)
	Purpose=DITHER	Pattern Orientation=90.0		
	Number Of Points=2	Angle Between Sides=		
	Point Spacing=.5	Center Pattern=false		
	Line Spacing=			

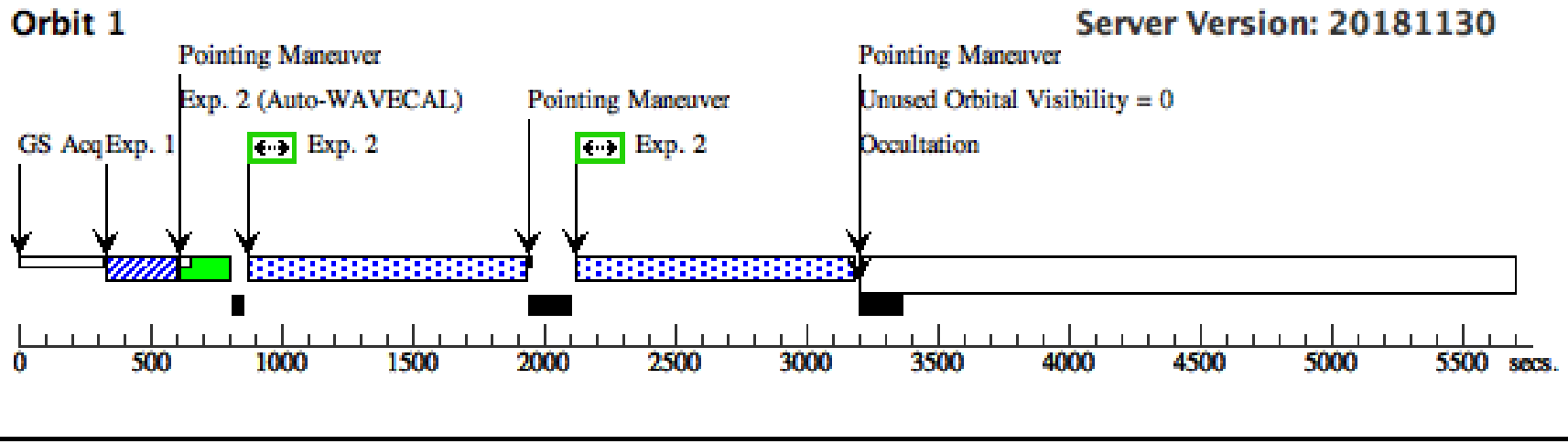
Fixed Targets

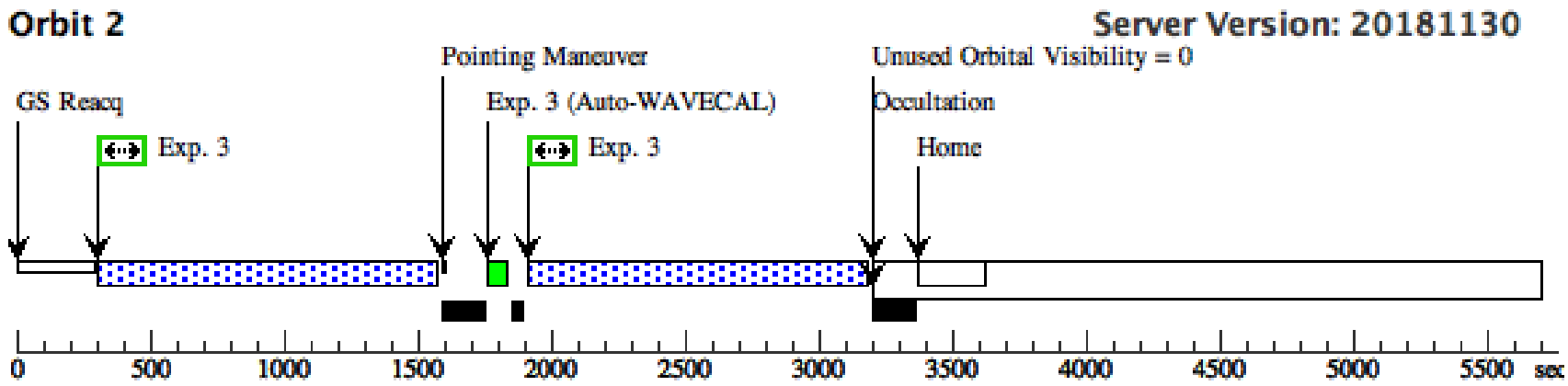
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	UGC-8833	Offset from UGC8833-ACQ RA Offset: 3.7878599999999096 Secs Dec Offset: -49.11999999992531 Arcsec		V=12	Offset Position (UGC-8833)
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Category=EXT-CLUSTER* *Description=[OB ASSOCIATION, OPEN CLUSTER, STAR FORMING REGION, YOUNG ASSOCIATION]*					
(9)	UGC8833-ACQ	RA: 13 54 46.1000 (208.6920833d) Dec: +35 51 5.77 (35.85160d) Equinox: J2000		V=17.54 u=18.55, r=17.13, i=16.99	Reference Frame: ICRS
Comments: *Category=CALIBRATION* *Description=[TARGET ACQUISITION TEST]* *Extended=NO*					

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Target Acquisition (STIS.ta.1174995)	(9) UGC8833-ACQ	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT			10 Secs (10 Secs) *[==>]*	*[1]*
2	UV1 (STIS.sp.1009948)	(4) UGC-8833	STIS/FUV-MAMA, TIME-TAG, 52X0.2	G140L 1425 A	BUFFER-TIME=1218		Pattern 2, Exps 2-2 in UGC8833 MAMA (07) (2)	950 Secs (2094 Secs) *[==>1047.0 Secs (Pattern 1)]* *[==>1047.0 Secs (Pattern 2)]*	*[1]*
3	UV2 (STIS.sp.1009948)	(4) UGC-8833	STIS/FUV-MAMA, TIME-TAG, 52X0.2	G140L 1425 A	BUFFER-TIME=1218		Pattern 2, Exps 3-3 in UGC8833 MAMA (07) (2)	1250 Secs (2522 Secs) *[==>1261.0 Secs (Pattern 1)]* *[==>1261.0 Secs (Pattern 2)]*	*[2]*

Orbit Structure





Visit

Proposal 15093, UGC8833 CCD (08), implementation Wed Dec 12 16:00:33 GMT 2018

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD

Special Requirements: ORIENT 198D TO 198.1 D; ORIENT 18D TO 18.1 D

Patterns

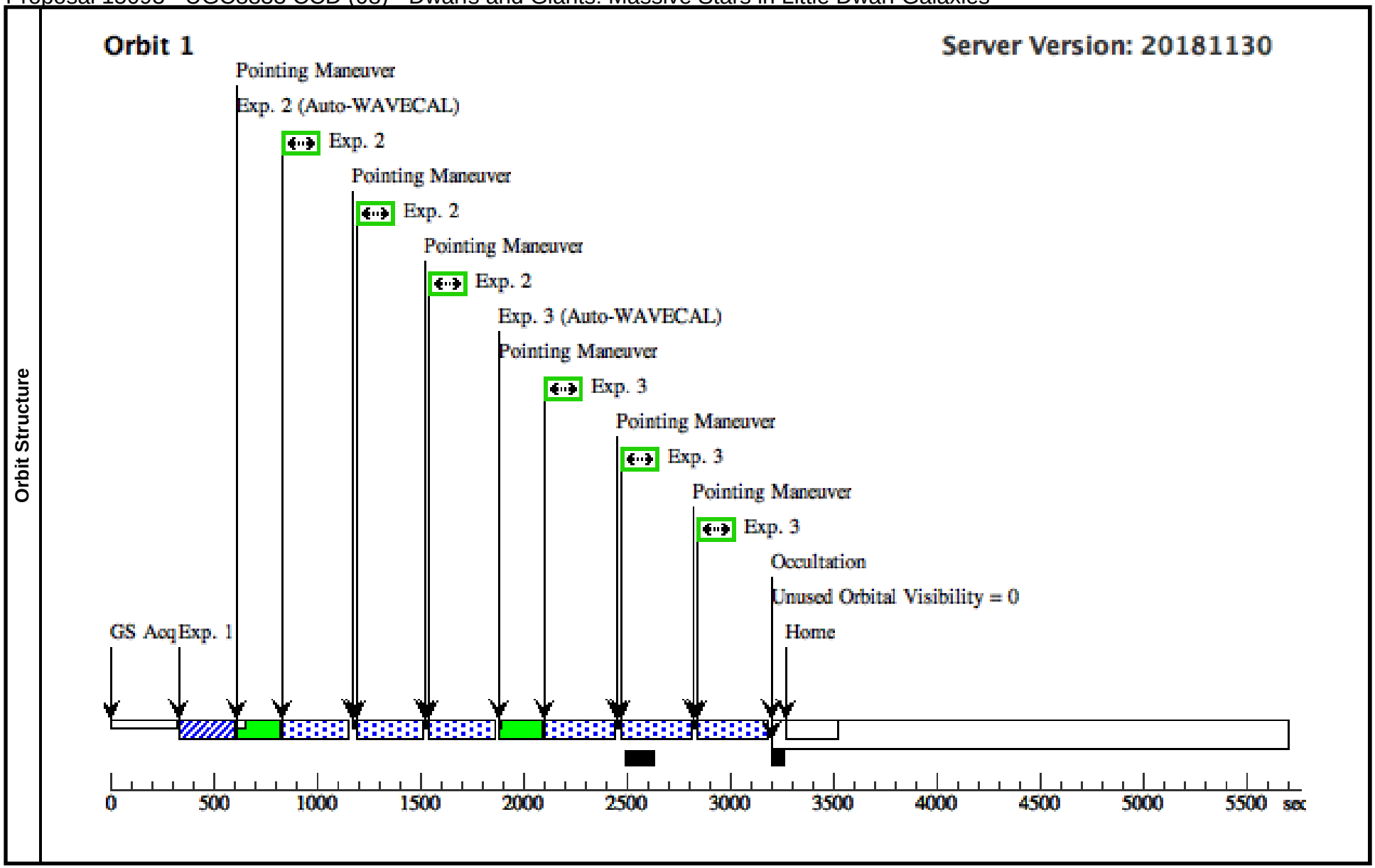
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=STIS-ALONG-SLIT	Coordinate Frame=POS-TARG		(2), (3)
	Purpose=DITHER	Pattern Orientation=90.0		
	Number Of Points=3	Angle Between Sides=		
	Point Spacing=.5	Center Pattern=false		
	Line Spacing=			

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(4)	UGC-8833	Offset from UGC8833-ACQ RA Offset: 3.7878599999999096 Secs Dec Offset: -49.11999999992531 Arcsec		V=12	Offset Position (UGC-8833)
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Category=EXT-CLUSTER* *Description=[OB ASSOCIATION, OPEN CLUSTER, STAR FORMING REGION, YOUNG ASSOCIATION]*					
(9)	UGC8833-ACQ	RA: 13 54 46.1000 (208.6920833d) Dec: +35 51 5.77 (35.85160d) Equinox: J2000		V=17.54 u=18.55, r=17.13, i=16.99	Reference Frame: ICRS
Comments: *Category=CALIBRATION* *Description=[TARGET ACQUISITION TEST]* *Extended=NO*					

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Target Acquisition	(9) UGC8833-ACQ	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT			10 Secs (10 Secs) *[==>]*	*[1]*
2	Red (STIS.sp.1009953)	(4) UGC-8833	STIS/CCD, ACCUM, 52X0.2E1	G750M 6768 A	CR-SPLIT=NO; GAIN=1; BINAXIS1=1; BINAXIS2=1		Pattern 1, Exps 2-2 in UGC8833 CCD (08) (1)	400 Secs (852 Secs) *[==>284.0 Secs (Pattern 1)]* *[==>284.0 Secs (Pattern 2)]* *[==>284.0 Secs (Pattern 3)]*	*[1]*
3	Blue (STIS.sp.1009949)	(4) UGC-8833	STIS/CCD, ACCUM, 52X0.2E1	G430M 4706 A	CR-SPLIT=NO; GAIN=1; BINAXIS1=1; BINAXIS2=1		Pattern 1, Exps 3-3 in UGC8833 CCD (08) (1)	400 Secs (899 Secs) *[==>300.0 Secs (Pattern 1)]* *[==>300.0 Secs (Pattern 2)]* *[==>299.0 Secs (Pattern 3)]*	*[1]*


Orbit Structure
Orbit 1
Server Version: 20181130
Pointing Maneuver
Exp. 2 (Auto-WAVECAL)
Exp. 2
Pointing Maneuver
Exp. 2
Pointing Maneuver
Exp. 2
Exp. 3 (Auto-WAVECAL)
Pointing Maneuver
Exp. 3
Pointing Maneuver
Exp. 3
Pointing Maneuver
Exp. 3
Occultation
Unused Orbital Visibility = 0
Home
GS Acq
Exp. 1
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 15093, NGC4163 Visit 1 MAMA (09), implementation Wed Dec 12 16:00:33 GMT 2018

Diagnostic Status: No Diagnostics

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

Special Requirements: ORIENT 73D TO 83 D; ORIENT 163.3D TO 163.3 D

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(2)	Pattern Type=STIS-ALONG-SLIT	Coordinate Frame=POS-TARG		(2), (3)
	Purpose=DITHER	Pattern Orientation=90.0		
	Number Of Points=2	Angle Between Sides=		
	Point Spacing=.5	Center Pattern=false		
	Line Spacing=			

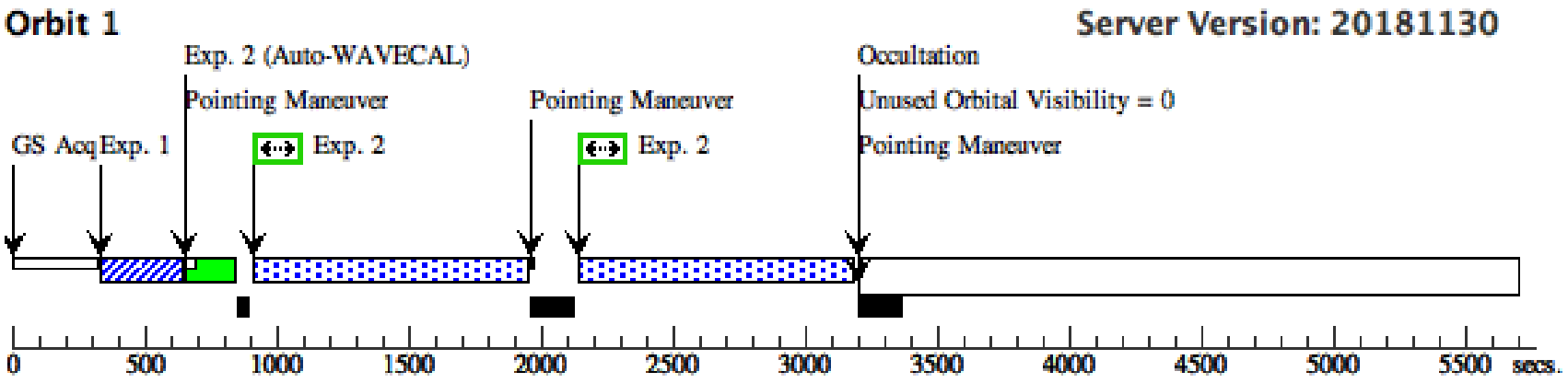
Fixed Targets

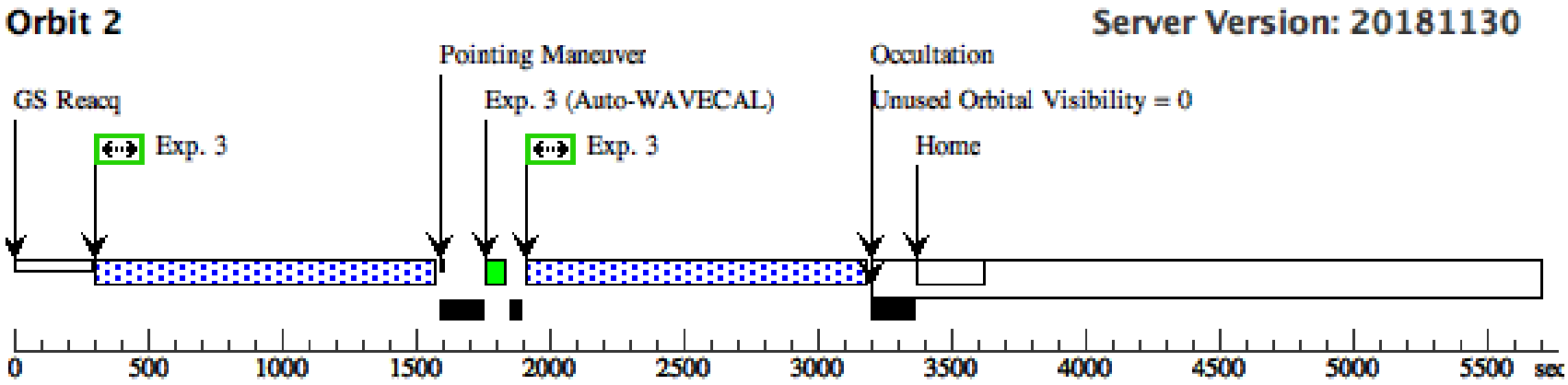
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	NGC-4163.A	Offset from NGC4163-ACQ RA Offset: -0.7120200000031218 Secs Dec Offset: 72.03000000001225 Arcsec		V=13.2	Offset Position (NGC-4163.A)
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Category=EXT-CLUSTER* *Description=[OB ASSOCIATION, OPEN CLUSTER, STAR FORMING REGION]*					
(8)	NGC4163-ACQ	RA: 12 12 9.7074 (183.0404475d) Dec: +36 09 21.76 (36.15604d) Equinox: J2000		V=19.63 u=22.13, r=18.32, i=17.77	Reference Frame: ICRS
Comments: *Category=CALIBRATION* *Description=[TARGET ACQUISITION TEST]* *Extended=NO*					

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Target Acquisition (STIS.ta.1174994)	(8) NGC4163-ACQ	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT	GS ACQ SCENARIO BASE1B3		20 Secs (20 Secs) *[==>]*	 ***[1]***
2	UV1 (STIS.sp.1009948)	(3) NGC-4163.A	STIS/FUV-MAMA, TIME-TAG, 52X0.2	G140L 1425 A	BUFFER-TIME=746		Pattern 2, Exps 2-2 in NGC4163 Visit 1 MAMA (09) (2)	950 Secs (2054 Secs) *[==>1027.0 Secs (Pattern 1)]* *[==>1027.0 Secs (Pattern 2)]*	 ***[1]***
3	UV2 (STIS.sp.1009948)	(3) NGC-4163.A	STIS/FUV-MAMA, TIME-TAG, 52X0.2	G140L 1425 A	BUFFER-TIME=746		Pattern 2, Exps 3-3 in NGC4163 Visit 1 MAMA (09) (2)	1250 Secs (2522 Secs) *[==>1261.0 Secs (Pattern 1)]* *[==>1261.0 Secs (Pattern 2)]*	 ***[2]***

Orbit Structure





Visit

Proposal 15093, NGC4163 Visit 1 CCD (10), implementation Wed Dec 12 16:00:33 GMT 2018

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD

Special Requirements: ORIENT 73D TO 83 D; ORIENT 163.3D TO 163.3 D

Patterns

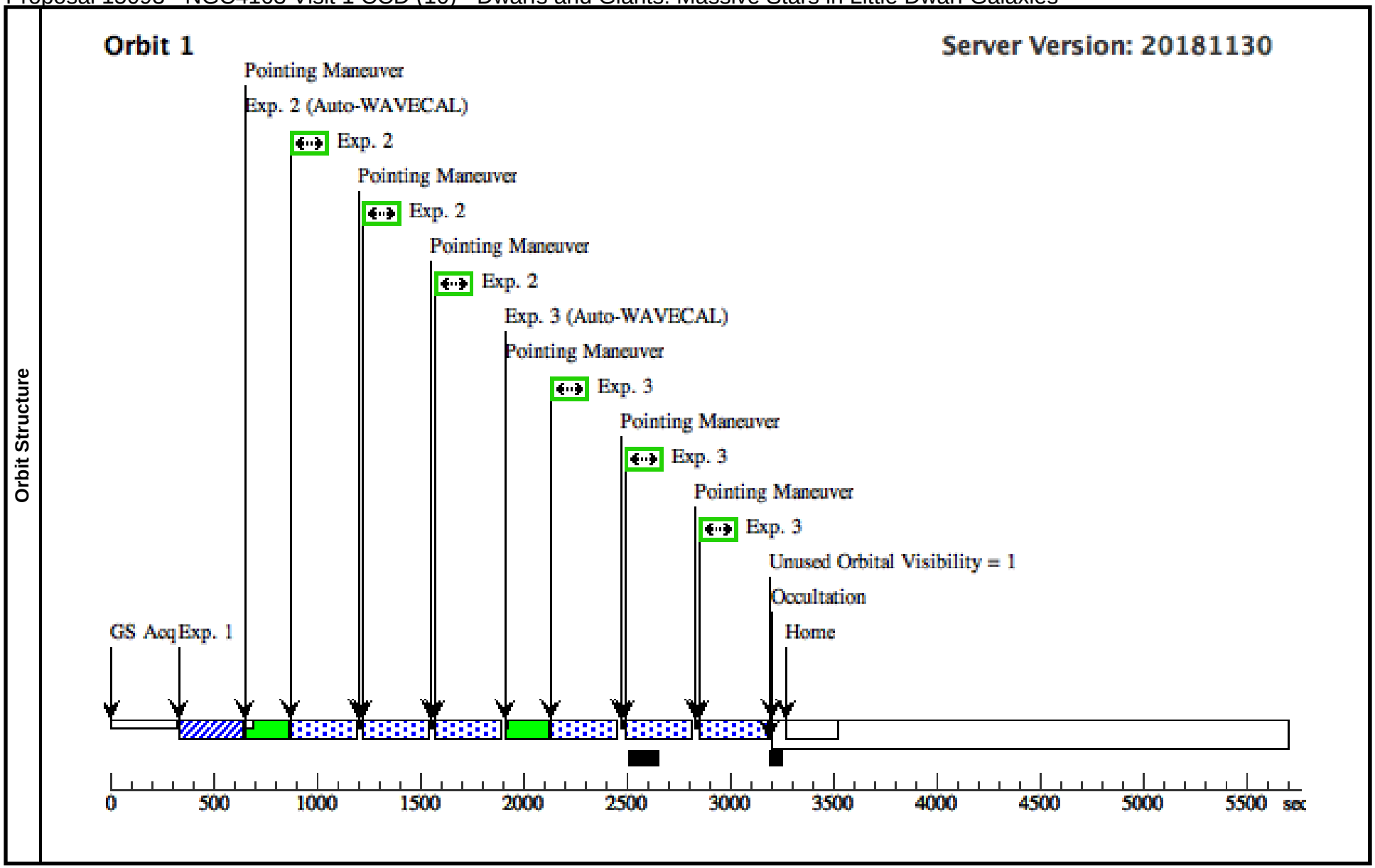
#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=STIS-ALONG-SLIT	Coordinate Frame=POS-TARG		(2), (3)
	Purpose=DITHER	Pattern Orientation=90.0		
	Number Of Points=3	Angle Between Sides=		
	Point Spacing=.5	Center Pattern=false		
	Line Spacing=			

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(3)	NGC-4163.A	Offset from NGC4163-ACQ RA Offset: -0.7120200000031218 Secs Dec Offset: 72.03000000001225 Arcsec		V=13.2	Offset Position (NGC-4163.A)
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Category=EXT-CLUSTER* *Description=[OB ASSOCIATION, OPEN CLUSTER, STAR FORMING REGION]*					
(8)	NGC4163-ACQ	RA: 12 12 9.7074 (183.0404475d) Dec: +36 09 21.76 (36.15604d) Equinox: J2000		V=19.63 u=22.13, r=18.32, i=17.77	Reference Frame: ICRS
Comments: *Category=CALIBRATION* *Description=[TARGET ACQUISITION TEST]* *Extended=NO*					

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Target Acquisition	(8) NGC4163-ACQ	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT	GS ACQ SCENARIO BASE1B3		20 Secs (20 Secs) *[==>]*	***[1]***
2	Red (STIS.sp.1009953)	(3) NGC-4163.A	STIS/CCD, ACCUM, 52X0.2E1	G750M 6768 A	CR-SPLIT=NO; GAIN=1; BINAXIS1=1; BINAXIS2=1		Pattern 1, Exps 2-2 in NGC4163 Visit 1 CCD (10) (1)	400 Secs (843 Secs) *[==>281.0 Secs (Pattern 1)]* *[==>281.0 Secs (Pattern 2)]* *[==>281.0 Secs (Pattern 3)]*	***[1]***
3	Blue (STIS.sp.1009949)	(3) NGC-4163.A	STIS/CCD, ACCUM, 52X0.2E1	G430M 4706 A	CR-SPLIT=NO; GAIN=1; BINAXIS1=1; BINAXIS2=1		Pattern 1, Exps 3-3 in NGC4163 Visit 1 CCD (10) (1)	400 Secs (867 Secs) *[==>289.0 Secs (Pattern 1)]* *[==>289.0 Secs (Pattern 2)]* *[==>289.0 Secs (Pattern 3)]*	***[1]***


Orbit 1
Server Version: 20181130
Orbit Structure
Pointing Maneuver
Exp. 2 (Auto-WAVECAL)
Exp. 2
Pointing Maneuver
Exp. 2
Pointing Maneuver
Exp. 2
Exp. 3 (Auto-WAVECAL)
Pointing Maneuver
Exp. 3
Pointing Maneuver
Exp. 3
Pointing Maneuver
Exp. 3
Unused Orbital Visibility = 1
Occultation
Home
GS Acq
Exp. 1
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 15093, NGC4163 Visit 2 MAMA (11), implementation Wed Dec 12 16:00:33 GMT 2018

Diagnostic Status: No Diagnostics

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

Special Requirements: ORIENT 88.2D TO 88.5 D; ORIENT 268.2D TO 268.5 D; ORIENT 165D TO 165 D

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(2)	Pattern Type=STIS-ALONG-SLIT	Coordinate Frame=POS-TARG		(2), (3)
	Purpose=DITHER	Pattern Orientation=90.0		
	Number Of Points=2	Angle Between Sides=		
	Point Spacing=.5	Center Pattern=false		
	Line Spacing=			

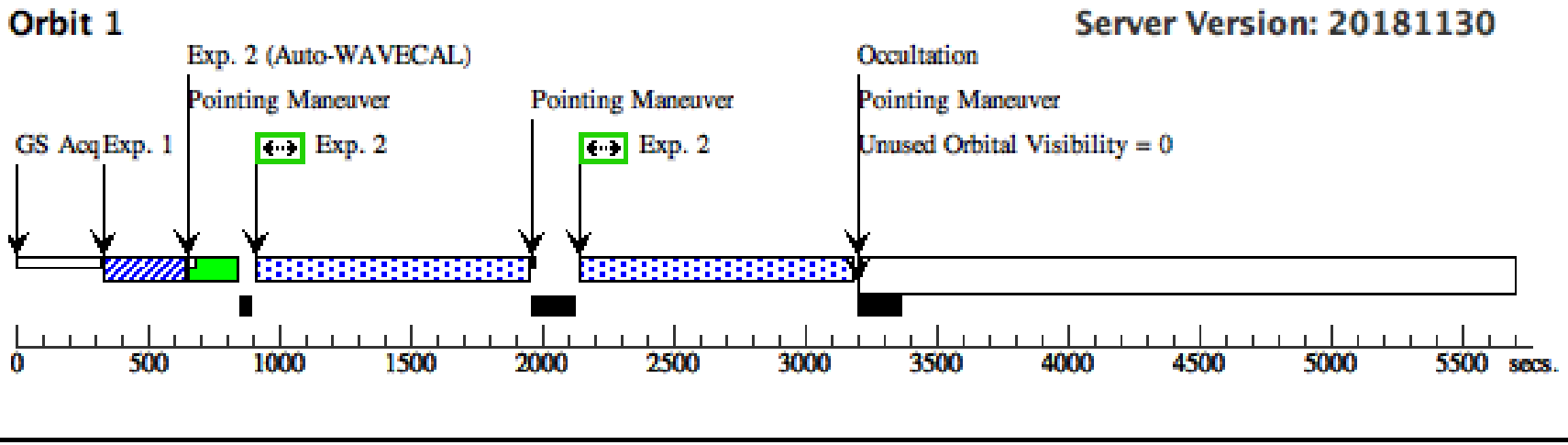
Fixed Targets

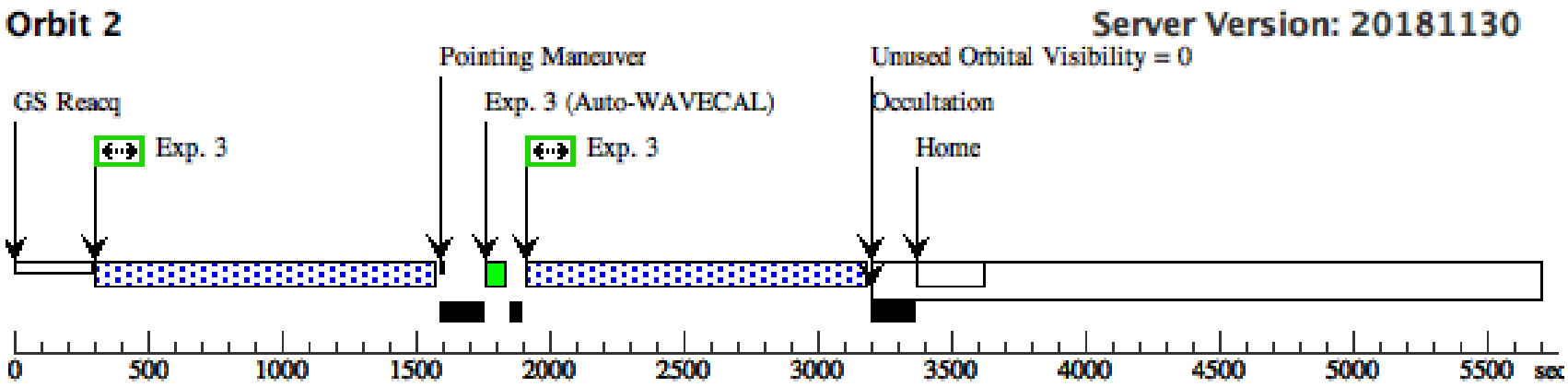
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(6)	NGC-4163.B	Offset from NGC4163-ACQ RA Offset: -0.3278700000009849 Secs Dec Offset: 37.05250000000433 Arcsec		V=13.2	Offset Position (NGC-4163.B)
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Category=EXT-CLUSTER* *Description=[OB ASSOCIATION, OPEN CLUSTER, STAR FORMING REGION]*					
(8)	NGC4163-ACQ	RA: 12 12 9.7074 (183.0404475d) Dec: +36 09 21.76 (36.15604d) Equinox: J2000		V=19.63 u=22.13, r=18.32, i=17.77	Reference Frame: ICRS
Comments: *Category=CALIBRATION* *Description=[TARGET ACQUISITION TEST]* *Extended=NO*					

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Target Acquisition	(8) NGC4163-ACQ	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT	GS ACQ SCENARIO BASE1B3		20 Secs (20 Secs) *[==>]*	 ***[1]***
2	UV1 (STIS.sp.1049584)	(6) NGC-4163.B	STIS/FUV-MAMA, TIME-TAG, 52X0.2	G140L 1425 A	BUFFER-TIME=769		Pattern 2, Exps 2-2 in NGC4163 Visit 2 MAMA (11) (2)	950 Secs (2054 Secs) *[==>1027.0 Secs (Pattern 1)]* *[==>1027.0 Secs (Pattern 2)]*	 ***[1]***
3	UV2 (STIS.sp.1051127)	(6) NGC-4163.B	STIS/FUV-MAMA, TIME-TAG, 52X0.2	G140L 1425 A	BUFFER-TIME=756		Pattern 2, Exps 3-3 in NGC4163 Visit 2 MAMA (11) (2)	1250 Secs (2522 Secs) *[==>1261.0 Secs (Pattern 1)]* *[==>1261.0 Secs (Pattern 2)]*	 ***[2]***

Orbit Structure





Visit

Proposal 15093, NGC4163 Visit 2 CCD (12), implementation Wed Dec 12 16:00:33 GMT 2018

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD

Special Requirements: ORIENT 88.2D TO 88.5 D; ORIENT 268.2D TO 268.5 D; ORIENT 165D TO 165 D

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=STIS-ALONG-SLIT	Coordinate Frame=POS-TARG		(2), (3)
	Purpose=DITHER	Pattern Orientation=90.0		
	Number Of Points=3	Angle Between Sides=		
	Point Spacing=.5	Center Pattern=false		
	Line Spacing=			

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(6)	NGC-4163.B	Offset from NGC4163-ACQ RA Offset: -0.3278700000009849 Secs Dec Offset: 37.05250000000433 Arcsec		V=13.2	Offset Position (NGC-4163.B)
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Category=EXT-CLUSTER* *Description=[OB ASSOCIATION, OPEN CLUSTER, STAR FORMING REGION]*					
(8)	NGC4163-ACQ	RA: 12 12 9.7074 (183.0404475d) Dec: +36 09 21.76 (36.15604d) Equinox: J2000		V=19.63 u=22.13, r=18.32, i=17.77	Reference Frame: ICRS
Comments: *Category=CALIBRATION* *Description=[TARGET ACQUISITION TEST]* *Extended=NO*					

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	Target Acquisition	(8) NGC4163-ACQ	STIS/CCD, ACQ, F28X50LP	MIRROR	ACQTYPE=POINT	GS ACQ SCENARIO BASE1B3		20 Secs (20 Secs) *[==>]*	***[1]***
2	Red (STIS.sp.1009953)	(6) NGC-4163.B	STIS/CCD, ACCUM, 52X0.2E1	G750M 6768 A	CR-SPLIT=NO; GAIN=1; BINAXIS1=1; BINAXIS2=1		Pattern 1, Exps 2-2 in NGC4163 Visit 2 CCD (12) (1)	400 Secs (855 Secs) *[==>285.0 Secs (Pattern 1)]* *[==>285.0 Secs (Pattern 2)]* *[==>285.0 Secs (Pattern 3)]*	***[1]***
3	Blue (STIS.sp.1009949)	(6) NGC-4163.B	STIS/CCD, ACCUM, 52X0.2E1	G430M 4706 A	CR-SPLIT=NO; GAIN=1; BINAXIS1=1; BINAXIS2=1		Pattern 1, Exps 3-3 in NGC4163 Visit 2 CCD (12) (1)	400 Secs (855 Secs) *[==>285.0 Secs (Pattern 1)]* *[==>285.0 Secs (Pattern 2)]* *[==>285.0 Secs (Pattern 3)]*	***[1]***

Orbit Structure