



12465 - A Massive Star Census of the Starburst Cluster R136

Cycle: 19, Proposal Category: GO

(Availability Mode: SUPPORTED)

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VISITS

Proposal 12465 (STScI Edit Number: 2, Created: Wednesday, November 9, 2011 9:24:21 PM EST) - Overview

<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) R136-SE9 (4) R136-SE8 (5) R136-SE7 (6) R136-SE6 (7) R136-SE5 (8) R136-SE4 (9) R136-SE3 (10) R136-SE2 (11) R136-SE1 (12) R136-NW1 (22) MELNICK34	STIS/CCD	4	09-Nov-2011 21:21:47.0	yes
07	(13) R136-NW2 (14) R136-NW3 (15) R136-NW4 (16) R136-NW5 (17) R136-NW6 (18) R136-NW7 (19) R136-NW8 (22) MELNICK34	STIS/CCD	3	09-Nov-2011 21:22:04.0	yes
02	(2) R136-SE9 (4) R136-SE8 (5) R136-SE7 (6) R136-SE6 (7) R136-SE5 (8) R136-SE4 (9) R136-SE3 (10) R136-SE2 (11) R136-SE1 (12) R136-NW1 (22) MELNICK34	STIS/CCD	4	09-Nov-2011 21:22:22.0	yes

Proposal 12465 (STScI Edit Number: 2, Created: Wednesday, November 9, 2011 9:24:21 PM EST) - Overview

<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>
08	(13) R136-NW2 (14) R136-NW3 (15) R136-NW4 (16) R136-NW5 (17) R136-NW6 (18) R136-NW7 (19) R136-NW8 (22) MELNICK34	STIS/CCD	3	09-Nov-2011 21:22:36.0	yes
03	(2) R136-SE9 (4) R136-SE8 (5) R136-SE7 (6) R136-SE6 (7) R136-SE5 (8) R136-SE4 (9) R136-SE3 (10) R136-SE2 (11) R136-SE1 (12) R136-NW1 (22) MELNICK34	STIS/CCD	4	09-Nov-2011 21:22:53.0	yes
09	(13) R136-NW2 (14) R136-NW3 (15) R136-NW4 (16) R136-NW5 (17) R136-NW6 (18) R136-NW7 (19) R136-NW8 (22) MELNICK34	STIS/CCD	3	09-Nov-2011 21:23:07.0	yes

Proposal 12465 (STScI Edit Number: 2, Created: Wednesday, November 9, 2011 9:24:21 PM EST) - Overview

<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>
04	(2) R136-SE9 (4) R136-SE8 (5) R136-SE7 (6) R136-SE6 (7) R136-SE5 (8) R136-SE4 (9) R136-SE3 (10) R136-SE2 (11) R136-SE1 (12) R136-NW1 (13) R136-NW2 (14) R136-NW3 (22) MELNICK34	STIS/CCD STIS/FUV-MAMA	4	09-Nov-2011 21:23:29.0	yes
05	(15) R136-NW4 (16) R136-NW5 (17) R136-NW6 (18) R136-NW7 (19) R136-NW8 (22) MELNICK34	STIS/CCD STIS/FUV-MAMA	2	09-Nov-2011 21:23:45.0	yes

<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>
06	(2) R136-SE9 (4) R136-SE8 (5) R136-SE7 (6) R136-SE6 (7) R136-SE5 (8) R136-SE4 (9) R136-SE3 (10) R136-SE2 (11) R136-SE1 (12) R136-NW1 (13) R136-NW2 (14) R136-NW3 (15) R136-NW4 (16) R136-NW5 (17) R136-NW6 (18) R136-NW7 (19) R136-NW8 (22) MELNICK34	STIS/CCD	5	09-Nov-2011 21:24:11.0	yes

32 Total Orbits Used

ABSTRACT

We propose to carry out a comprehensive census of the most massive stars in the central parsec (4") of the starburst cluster, R136, which powers the Tarantula Nebula in the LMC. R136 is both sufficiently massive that the upper mass function is richly populated and young enough that its most massive stars have yet to explode as supernovae. The identification of very massive stars in R136, up to 300 solar masses, raises general questions of star formation, binarity and feedback in young massive clusters. The proposed STIS spectral survey of ~36 stars more massive than ~50 solar masses within R136 is ground-breaking, of legacy value, and is specifically tailored to a) yield physical properties; b) detect the majority of binaries by splitting observations between Cycles 19 and 20; c) measure rotational velocities, relevant for predictions of rotational mixing; d) quantify mass-loss properties for very massive stars; e) determine surface compositions; f) measure radial velocities, relevant for runaway stars and cluster dynamics; g) quantify radiative and mechanical feedback. This census will enable the mass function of very massive stars to be measured for the first time, as a result of incomplete and inadequate spectroscopy to date. It will also perfectly complement our Tarantula Survey, a ground-based VLT Large

Programme, by including the most massive stars that are inaccessible to ground-based visual spectroscopy due to severe crowding. These surveys, together with existing integrated UV and optical studies will enable 30 Doradus to serve as a bona-fide template for unresolved extragalactic starburst regions.

OBSERVING DESCRIPTION

Complete UV 25x0.2/optical 52x0.2 slit scan across LMC star cluster R136 from SE to NW. Due to severe crowding in cluster core, initial acquisition (+ pickup) is of an isolated bright star Melnick 34. Offset positions and position angle 64 degrees (E of N) are selected to ensure that both R136a1 and a2 are included in NW1 slit (offset: -1.863 sec in RA and +2.97 arcsec in Dec with respect to Melnick 34).

REAL TIME JUSTIFICATION

7/Nov/2011 Update: corrected OFFSET (PA + 45.35) included, leading to revised visibility constraints.

9/Nov/2011 Update: 7 orbit G430M visits split into 4+3 orbits, such that maximum visit is 5 orbits.

Visits 1-3, 7-9 (G430M) should be spaced out as much as possible over the Apr 2012 visibility window to search for radial velocity variations from potential short period binaries. Incorporating our Cycle 20 G430M setup (7 orbits, two visits) this will provide a 6+ month baseline to search for radial velocity variations due to potential long period binary companions. Ideally, Visit 6 (G750M setup) should be separated from Visits 1-3, 7-9 to help radial velocity searches for intermediate period binaries (i.e. ideally obtained during Oct 2012 window).

There are no scheduling issues for Visits 4-5 (G140L) as a result of low spectral resolution, although a single ORIENT is selected for these Visits due to the asymmetry in MAMA GL slit resulting from the repeller wire offset.

ADDITIONAL COMMENTS

ICRS coordinates for Melnick 34 are obtained from 2MASS. F555W photometry of brightest source in each slit is obtained from WFC3 images (De Marchi et al. 2011).

Since R136a1 and a2 are blended in previous HST UV spectroscopy, we have used a previous R136a3 HST/FOS ultraviolet observation in the ETC (STIS.sp.179441) and find 2 counts/s/pix from the source, well below the 75 counts/s/pix limit, plus 2,300 counts/s (count rate entire detector), well below the 30,000 counts/s limit. R136a3 is the brightest source in the SE1 offset position, while both R136a1+a2 are located within the NW1 offset

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position, each circa a factor of two times brighter than R136a3, so the maximum UV count rate is approx 8 counts/s/pix or 9,200 counts/s. Note also that the core of R136 has previously been observed with STIS/G140L using a wider (0.5 arcsec) slit (GO 8629), so this source will not pose any BOT problems. Beyond the immediate core, Melnick 42 is UV bright (factor of ~two brighter than R136a1), though is located 7.8 arcsec to the north of the NW1 offset position.

Proposal 12465 - Visit 01 - A Massive Star Census of the Starburst Cluster R136

Thu Nov 10 02:24:22 GMT 2011

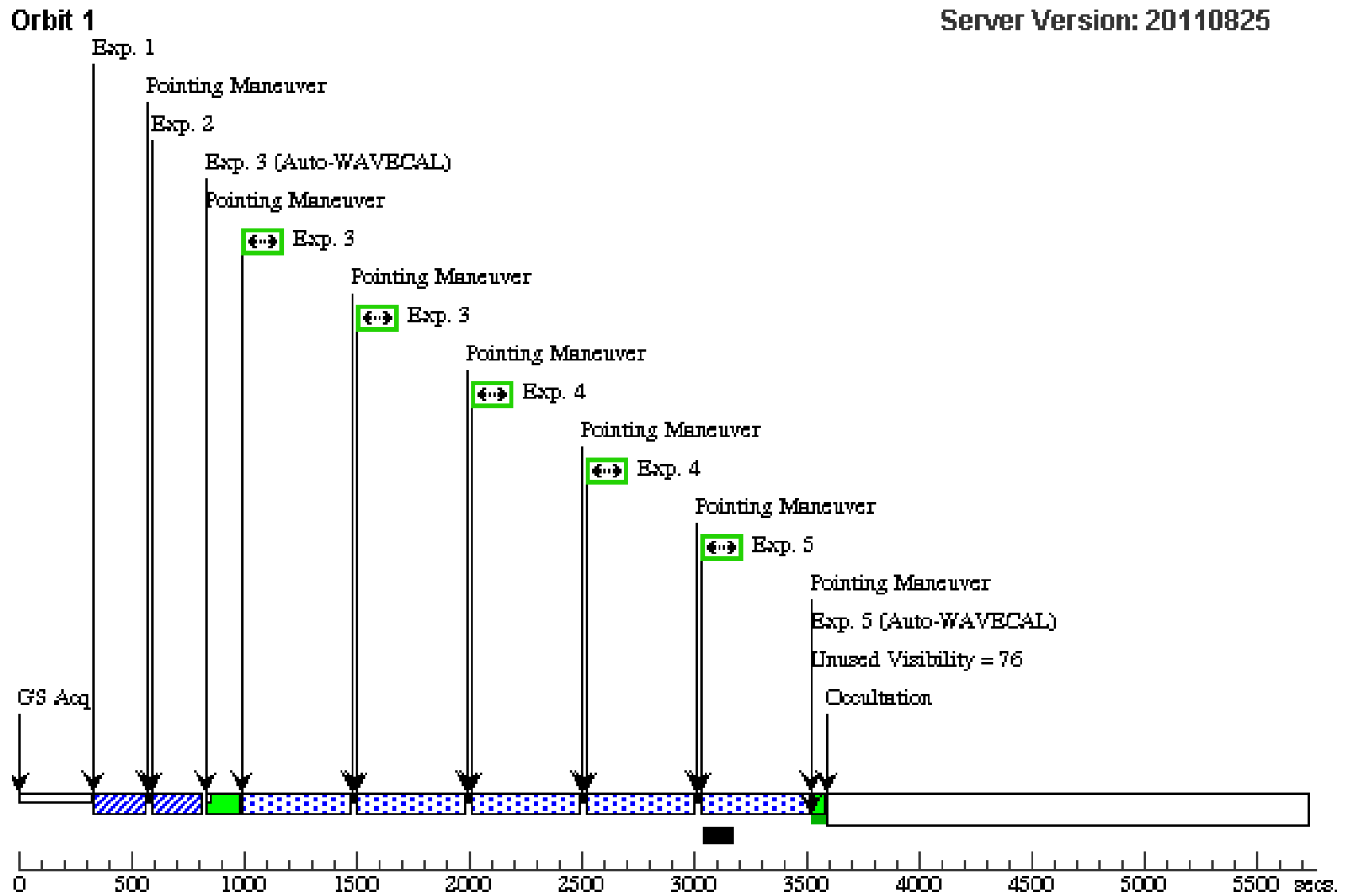
Visit	Proposal 12465, Visit 01, implementation Diagnostic Status: No Diagnostics Scientific Instruments: STIS/CCD Special Requirements: ORIENT 109D TO 109 D; ORIENT 289D TO 289 D <i>Comments: STIS G430M/3936 slit scan (52x0.2 arcsec) across R136 at 18 adjoining positions (PA=64 degrees).</i> <i>Update: 7/Nov/2011: ORIENT = PA+45 or PA+180+45 = 109 or 289</i>								
	Patterns	<table border="1"> <thead> <tr> <th>#</th> <th>Primary Pattern</th> <th>Secondary Pattern</th> <th>Exposures</th> </tr> </thead> <tbody> <tr> <td>(4)</td> <td> Pattern Type=STIS-ALONG-SLIT Coordinate Frame=POS-TARG Purpose=DITHER Pattern Orientation=90.0 Number Of Points=2 Angle Between Sides= Point Spacing=0.35546 Center Pattern=false Line Spacing= </td> <td></td> <td>(3), (4), (5), (6), (7), (8), (9), (10), (11), (12)</td> </tr> </tbody> </table>	#	Primary Pattern	Secondary Pattern	Exposures	(4)	Pattern Type=STIS-ALONG-SLIT Coordinate Frame=POS-TARG Purpose=DITHER Pattern Orientation=90.0 Number Of Points=2 Angle Between Sides= Point Spacing=0.35546 Center Pattern=false Line Spacing=	
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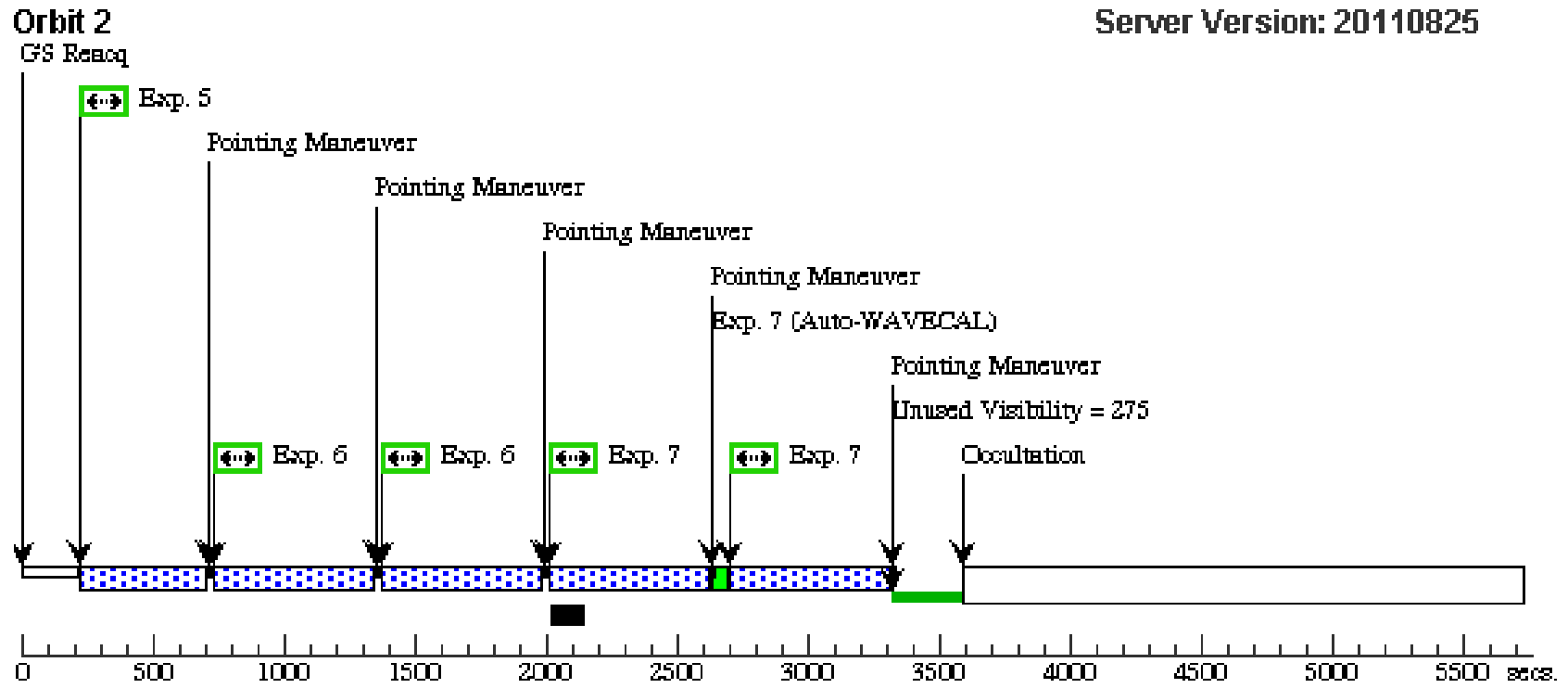
Proposal 12465 - Visit 01 - A Massive Star Census of the Starburst Cluster R136

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	R136-SE9	Offset from MELNICK34 by RA Offset: -1.715 Secs Dec Offset: 1.35 Arcsec		V=14.74	Offset Position (R136-SE9) Reference Frame: ICRS
<i>Comments: -9.176 arcsec RA, 1.350 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit Hunter 55 (VEGA V = 14.74)</i>					
(4)	R136-SE8	Offset from MELNICK34 by RA Offset: -1.731 Secs Dec Offset: 1.53 Arcsec		V=13.24	Offset Position (R136-SE8) Reference Frame: ICRS
<i>Comments: -9.264 arcsec RA, +1.530 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - R136B (VEGA V = 13.24)</i>					
(5)	R136-SE7	Offset from MELNICK34 by RA Offset: -1.748 Secs Dec Offset: 1.71 Arcsec		V=14.65	Offset Position (R136-SE7) Reference Frame: ICRS
<i>Comments: -9.352 arcsec RA, +1.710 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 45 (VEGA V = 14.65)</i>					
(6)	R136-SE6	Offset from MELNICK34 by RA Offset: -1.764 Secs Dec Offset: 1.89 Arcsec		V=15.79	Offset Position (R136-SE6) Reference Frame: ICRS
<i>Comments: -9.439 arcsec RA, +1.890 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 116 (VEGA V = 15.788)</i>					
(7)	R136-SE5	Offset from MELNICK34 by RA Offset: -1.78 Secs Dec Offset: 2.07 Arcsec		V=15.1	Offset Position (R136-SE5) Reference Frame: ICRS
<i>Comments: -9.527 arcsec RA, +2.070 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter69 (VEGA B = 15.1)</i>					
(8)	R136-SE4	Offset from MELNICK34 by RA Offset: -1.797 Secs Dec Offset: 2.25 Arcsec		V=15.13	Offset Position (R136-SE4) Reference Frame: ICRS
<i>Comments: -9.615 arcsec RA, +2.250 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 73 (VEGA V = 15.13)</i>					
(9)	R136-SE3	Offset from MELNICK34 by RA Offset: -1.813 Secs Dec Offset: 2.43 Arcsec		V=14.41	Offset Position (R136-SE3) Reference Frame: ICRS
<i>Comments: -9.703 arcsec RA, +2.430 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 3 (VEGA V = 14.41)</i>					
(10)	R136-SE2	Offset from MELNICK34 by RA Offset: -1.83 Secs Dec Offset: 2.61 Arcsec		V=14.65	Offset Position (R136-SE2) Reference Frame: ICRS
<i>Comments: -9.790 arcsec RA, +2.610 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 50 (VEGA V = 14.65)</i>					
(11)	R136-SE1	Offset from MELNICK34 by RA Offset: -1.846 Secs Dec Offset: 2.79 Arcsec		V=12.97	Offset Position (R136-SE1) Reference Frame: ICRS
<i>Comments: -9.878 arcsec RA, +2.790 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit R136a3 (VEGA V = 12.97)</i>					
(12)	R136-NW1	Offset from MELNICK34 by RA Offset: -1.863 Secs Dec Offset: 2.97 Arcsec		V=12.28	Offset Position (R136-NW1) Reference Frame: ICRS
<i>Comments: -9.966 arcsec RA, +2.970 arcsec Dec offset (R136a1/a2) from Mk34 in WFC3 V555W image. Brightest cluster star in slit R136a1 (VEGA V = 12.28)</i>					

Fixed Targets

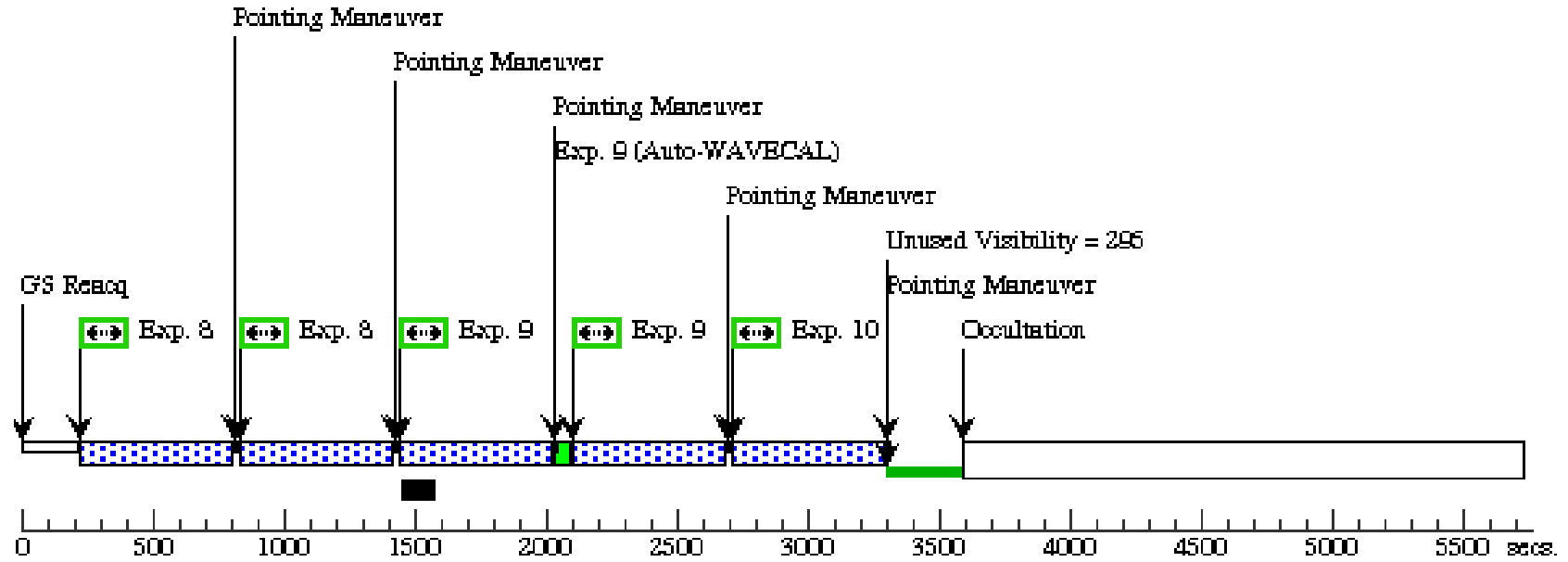
Orbit Structure

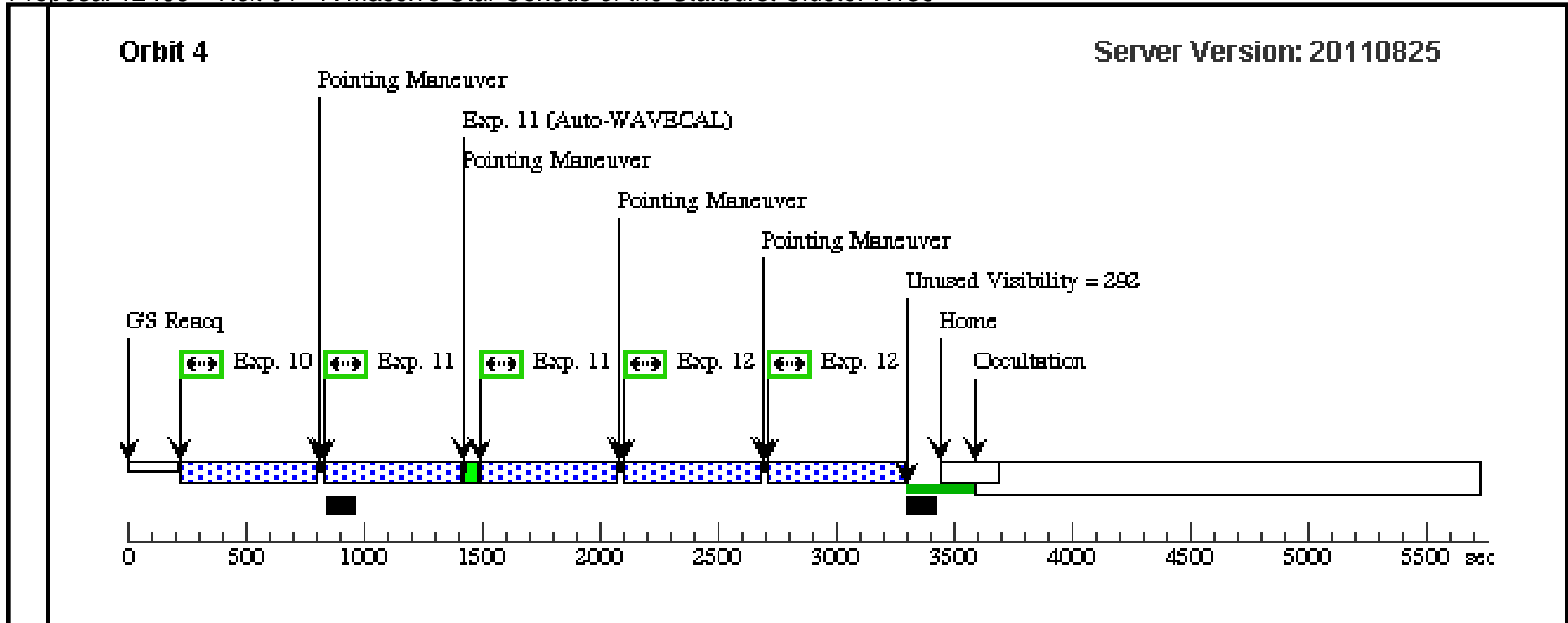




Orbit 3

Server Version: 20110825





Proposal 12465 - Visit 07 - A Massive Star Census of the Starburst Cluster R136

Thu Nov 10 02:24:24 GMT 2011

Visit	Proposal 12465, Visit 07 Diagnostic Status: No Diagnostics Scientific Instruments: STIS/CCD Special Requirements: ORIENT 109D TO 109 D; ORIENT 289D TO 289 D Comments: STIS G430M/3936 slit scan (52x0.2 arcsec) across R136 at 18 adjoining positions (PA=64 degrees). Update: 7/Nov/2011: ORIENT = PA+45 or PA+180+45 = 109 or 289								
	Patterns	<table border="1"> <thead> <tr> <th>#</th> <th>Primary Pattern</th> <th>Secondary Pattern</th> <th>Exposures</th> </tr> </thead> <tbody> <tr> <td>(4)</td> <td> Pattern Type=STIS-ALONG-SLIT Coordinate Frame=POS-TARG Purpose=DITHER Pattern Orientation=90.0 Number Of Points=2 Angle Between Sides= Point Spacing=0.35546 Center Pattern=false Line Spacing= </td> <td></td> <td>(3), (4), (5), (6), (7), (8), (9)</td> </tr> </tbody> </table>	#	Primary Pattern	Secondary Pattern	Exposures	(4)	Pattern Type=STIS-ALONG-SLIT Coordinate Frame=POS-TARG Purpose=DITHER Pattern Orientation=90.0 Number Of Points=2 Angle Between Sides= Point Spacing=0.35546 Center Pattern=false Line Spacing=	
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Proposal 12465 - Visit 07 - A Massive Star Census of the Starburst Cluster R136

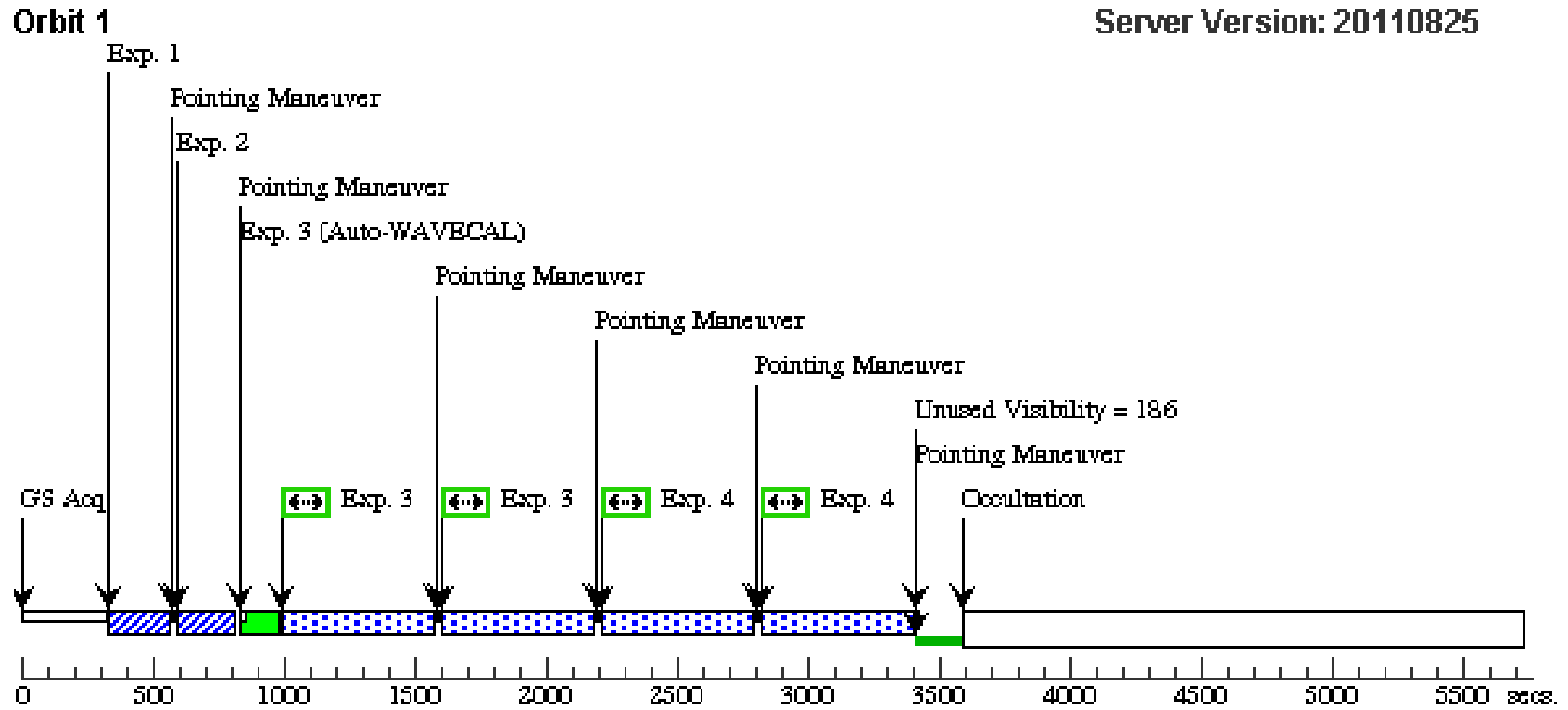
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(13)	R136-NW2	Offset from MELNICK34 by RA Offset: -1.879 Secs Dec Offset: 3.15 Arcsec		V=13.97	Offset Position (R136-NW2) Reference Frame: ICRS
<i>Comments: -10.054 arcsec RA, +3.150 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - R136a7 (VEGA V = 13.97)</i>					
(14)	R136-NW3	Offset from MELNICK34 by RA Offset: -1.895 Secs Dec Offset: 3.33 Arcsec		V=13.41	Offset Position (R136-NW3) Reference Frame: ICRS
<i>Comments: -10.142 arcsec RA, +3.330 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - R136a4+a8 (VEGA V = 13.41)</i>					
(15)	R136-NW4	Offset from MELNICK34 by RA Offset: -1.912 Secs Dec Offset: 3.51 Arcsec		V=14.21	Offset Position (R136-NW4) Reference Frame: ICRS
<i>Comments: -10.229 arcsec RA, +3.510 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 30 (VEGA V = 14.21)</i>					
(16)	R136-NW5	Offset from MELNICK34 by RA Offset: -1.928 Secs Dec Offset: 3.69 Arcsec		V=14.43	Offset Position (R136-NW5) Reference Frame: ICRS
<i>Comments: -10.317 arcsec RA, 3.690 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 35 (VEGA V = 14.43)</i>					
(17)	R136-NW6	Offset from MELNICK34 by RA Offset: -1.945 Secs Dec Offset: 3.87 Arcsec		V=15.46	Offset Position (R136-NW6) Reference Frame: ICRS
<i>Comments: -10.405 arcsec RA, +3.870 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 92 (VEGA V = 15.46)</i>					
(18)	R136-NW7	Offset from MELNICK34 by RA Offset: -1.961 Secs Dec Offset: 4.05 Arcsec		V=15.03	Offset Position (R136-NW7) Reference Frame: ICRS
<i>Comments: -10.493 arcsec RA, +4.050 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 64 (VEGA V = 15.03)</i>					
(19)	R136-NW8	Offset from MELNICK34 by RA Offset: -1.977 Secs Dec Offset: 4.23 Arcsec		V=14.56	Offset Position (R136-NW8) Reference Frame: ICRS
<i>Comments: -10.580 arcsec RA, +4.230 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 40 (VEGA V = 14.56)</i>					
(22)	MELNICK34	RA: 05 38 44.2460 (84.6843583d) Dec: -69 06 5.85 (-69.10163d) Equinox: J2000		V=13.09+/-0.01 B-V = 0.25	Reference Frame: ICRS
<i>Comments: VEGAMAG Photometry from WFC3 F555W Early Release Observation IB6WD6050 (De Marchi et al. 2011). ICRS astrometry of Melnick 34 (2MASS 05384424-6906058). Used for acquisition due to severe crowding within R136 itself.</i>					

Fixed Targets

Proposal 12465 - Visit 07 - A Massive Star Census of the Starburst Cluster R136

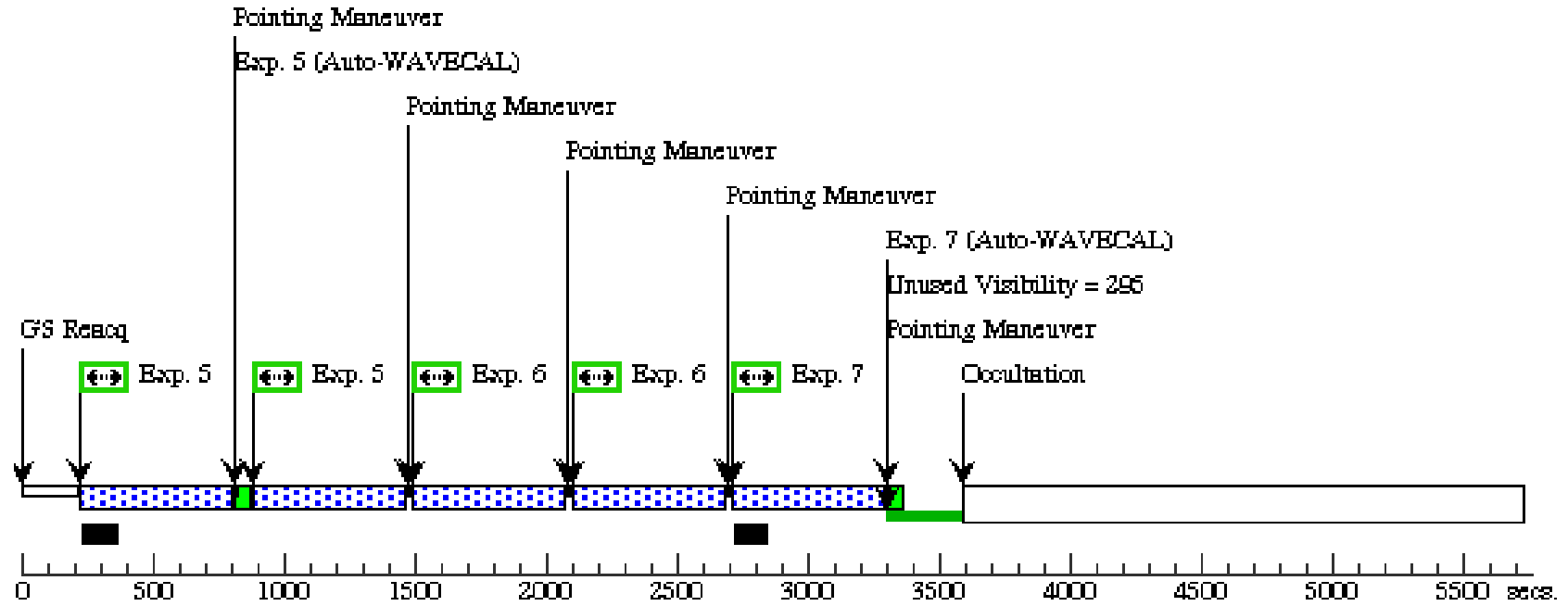
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit	
	1	(197926)	(22) MELNICK34	STIS/CCD, ACQ, F28X50LP	MIRROR				1 Secs [==>]	[1]	
	<i>Comments: ETC predicts S/N=174 for 1 sec exposure through F28X50LP aperture for Melnick 34 (V=13.09).</i>										
	2	(198019)	(22) MELNICK34	STIS/CCD, ACQ/PEAK, 52X0.1	MIRROR				0.5 Secs [==>]	[1]	
	<i>Comments: Peakup on Melnick 34 for accurate positioning prior to offset. ETC predicts 58,000 e- from source in 0.5 sec exposure through 52x0.1 aperture for Melnick 34 (V=13.09), order of magnitude below saturation level.</i>										
	3		(13) R136-NW2	STIS/CCD, ACCUM, 52X0.2	G430M 3936 A	CR-SPLIT=NO		Pattern 4, Exps 3-3 in Visit 07 (4)	540 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]	
	4		(14) R136-NW3	STIS/CCD, ACCUM, 52X0.2	G430M 3936 A	CR-SPLIT=NO		Pattern 4, Exps 4-4 in Visit 07 (4)	540 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]	
	5		(15) R136-NW4	STIS/CCD, ACCUM, 52X0.2	G430M 3936 A	CR-SPLIT=NO		Pattern 4, Exps 5-5 in Visit 07 (4)	540 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[2]	
	6		(16) R136-NW5	STIS/CCD, ACCUM, 52X0.2	G430M 3936 A	CR-SPLIT=NO		Pattern 4, Exps 6-6 in Visit 07 (4)	540 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[2]	
	7		(17) R136-NW6	STIS/CCD, ACCUM, 52X0.2	G430M 3936 A	CR-SPLIT=NO		Pattern 4, Exps 7-7 in Visit 07 (4)	540 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[2] [3]	
8		(18) R136-NW7	STIS/CCD, ACCUM, 52X0.2	G430M 3936 A	CR-SPLIT=NO		Pattern 4, Exps 8-8 in Visit 07 (4)	540 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[3]		
9		(19) R136-NW8	STIS/CCD, ACCUM, 52X0.2	G430M 3936 A	CR-SPLIT=NO		Pattern 4, Exps 9-9 in Visit 07 (4)	540 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[3]		

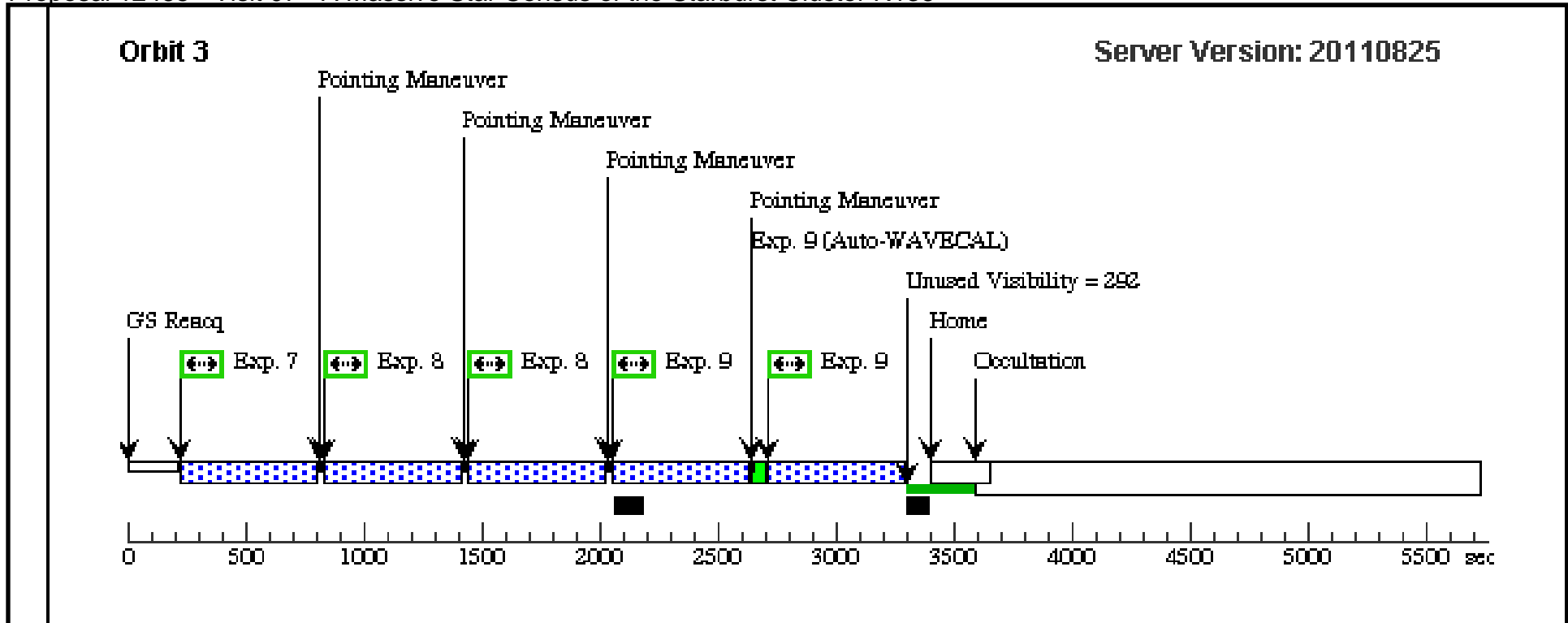
Orbit Structure



Orbit 2

Server Version: 20110825





Proposal 12465 - Visit 02 - A Massive Star Census of the Starburst Cluster R136

Thu Nov 10 02:24:25 GMT 2011

Visit	Proposal 12465, Visit 02, implementation Diagnostic Status: No Diagnostics Scientific Instruments: STIS/CCD Special Requirements: ORIENT 109D TO 109 D; ORIENT 289D TO 289 D <i>Comments: STIS G430M/4451 slit scan (52x0.2 arcsec) across R136 at 18 adjoining positions (PA=64 degrees).</i> <i>Update: 7/Nov/2011: ORIENT = PA+45 or PA+180+45 = 109 or 289</i>								
	Patterns	<table border="1"> <thead> <tr> <th>#</th> <th>Primary Pattern</th> <th>Secondary Pattern</th> <th>Exposures</th> </tr> </thead> <tbody> <tr> <td>(4)</td> <td> Pattern Type=STIS-ALONG-SLIT Coordinate Frame=POS-TARG Purpose=DITHER Pattern Orientation=90.0 Number Of Points=2 Angle Between Sides= Point Spacing=0.35546 Center Pattern=false Line Spacing= </td> <td></td> <td>(3), (4), (5), (6), (7), (8), (9), (10), (11), (12)</td> </tr> </tbody> </table>	#	Primary Pattern	Secondary Pattern	Exposures	(4)	Pattern Type=STIS-ALONG-SLIT Coordinate Frame=POS-TARG Purpose=DITHER Pattern Orientation=90.0 Number Of Points=2 Angle Between Sides= Point Spacing=0.35546 Center Pattern=false Line Spacing=	
#	Primary Pattern	Secondary Pattern	Exposures						
(4)	Pattern Type=STIS-ALONG-SLIT Coordinate Frame=POS-TARG Purpose=DITHER Pattern Orientation=90.0 Number Of Points=2 Angle Between Sides= Point Spacing=0.35546 Center Pattern=false Line Spacing=		(3), (4), (5), (6), (7), (8), (9), (10), (11), (12)						

Proposal 12465 - Visit 02 - A Massive Star Census of the Starburst Cluster R136

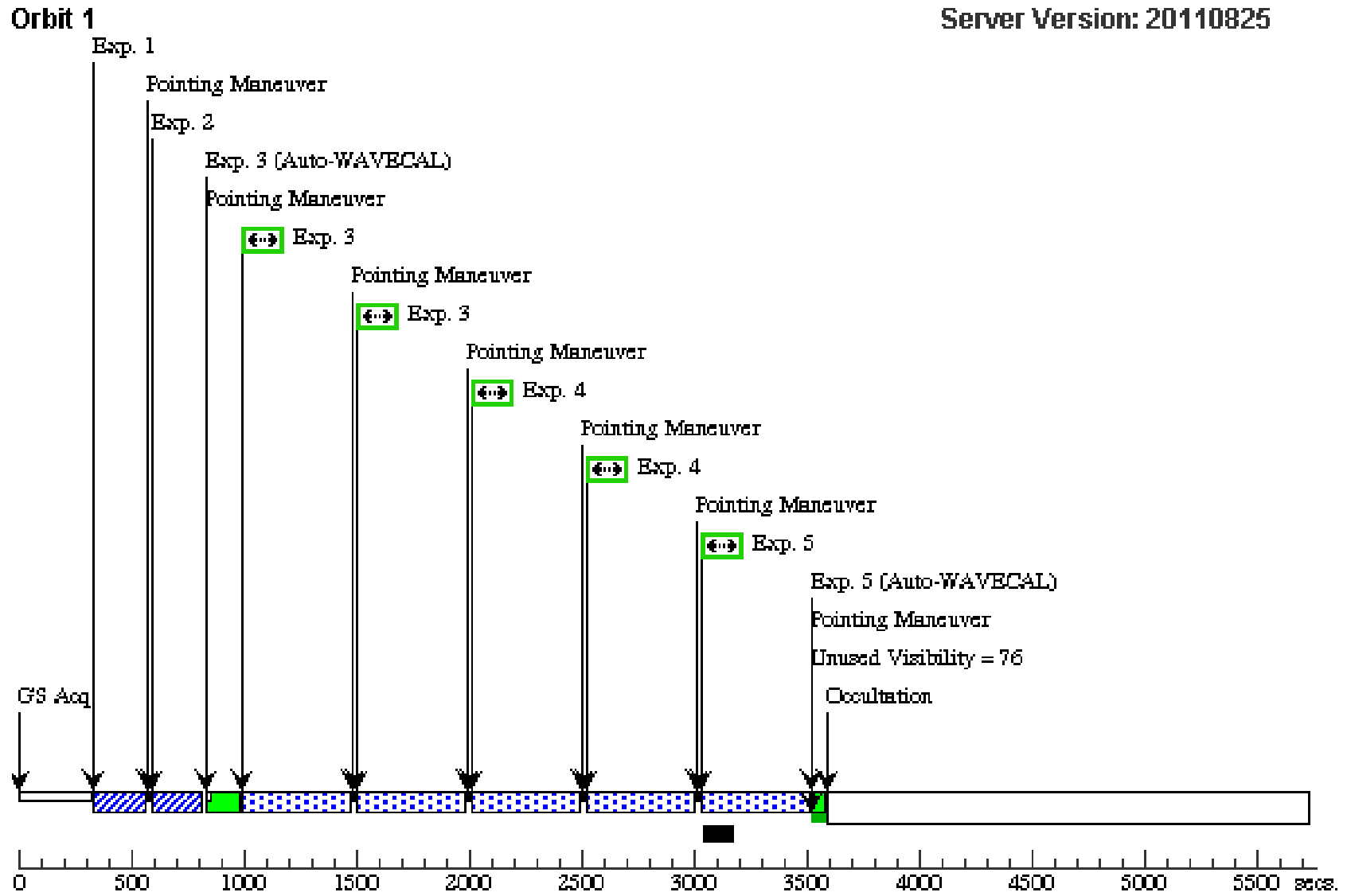
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	R136-SE9	Offset from MELNICK34 by RA Offset: -1.715 Secs Dec Offset: 1.35 Arcsec		V=14.74	Offset Position (R136-SE9) Reference Frame: ICRS
<i>Comments: -9.176 arcsec RA, 1.350 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit Hunter 55 (VEGA V = 14.74)</i>					
(4)	R136-SE8	Offset from MELNICK34 by RA Offset: -1.731 Secs Dec Offset: 1.53 Arcsec		V=13.24	Offset Position (R136-SE8) Reference Frame: ICRS
<i>Comments: -9.264 arcsec RA, +1.530 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - R136B (VEGA V = 13.24)</i>					
(5)	R136-SE7	Offset from MELNICK34 by RA Offset: -1.748 Secs Dec Offset: 1.71 Arcsec		V=14.65	Offset Position (R136-SE7) Reference Frame: ICRS
<i>Comments: -9.352 arcsec RA, +1.710 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 45 (VEGA V = 14.65)</i>					
(6)	R136-SE6	Offset from MELNICK34 by RA Offset: -1.764 Secs Dec Offset: 1.89 Arcsec		V=15.79	Offset Position (R136-SE6) Reference Frame: ICRS
<i>Comments: -9.439 arcsec RA, +1.890 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 116 (VEGA V = 15.788)</i>					
(7)	R136-SE5	Offset from MELNICK34 by RA Offset: -1.78 Secs Dec Offset: 2.07 Arcsec		V=15.1	Offset Position (R136-SE5) Reference Frame: ICRS
<i>Comments: -9.527 arcsec RA, +2.070 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter69 (VEGA B = 15.1)</i>					
(8)	R136-SE4	Offset from MELNICK34 by RA Offset: -1.797 Secs Dec Offset: 2.25 Arcsec		V=15.13	Offset Position (R136-SE4) Reference Frame: ICRS
<i>Comments: -9.615 arcsec RA, +2.250 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 73 (VEGA V = 15.13)</i>					
(9)	R136-SE3	Offset from MELNICK34 by RA Offset: -1.813 Secs Dec Offset: 2.43 Arcsec		V=14.41	Offset Position (R136-SE3) Reference Frame: ICRS
<i>Comments: -9.703 arcsec RA, +2.430 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 3 (VEGA V = 14.41)</i>					
(10)	R136-SE2	Offset from MELNICK34 by RA Offset: -1.83 Secs Dec Offset: 2.61 Arcsec		V=14.65	Offset Position (R136-SE2) Reference Frame: ICRS
<i>Comments: -9.790 arcsec RA, +2.610 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 50 (VEGA V = 14.65)</i>					
(11)	R136-SE1	Offset from MELNICK34 by RA Offset: -1.846 Secs Dec Offset: 2.79 Arcsec		V=12.97	Offset Position (R136-SE1) Reference Frame: ICRS
<i>Comments: -9.878 arcsec RA, +2.790 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit R136a3 (VEGA V = 12.97)</i>					
(12)	R136-NW1	Offset from MELNICK34 by RA Offset: -1.863 Secs Dec Offset: 2.97 Arcsec		V=12.28	Offset Position (R136-NW1) Reference Frame: ICRS
<i>Comments: -9.966 arcsec RA, +2.970 arcsec Dec offset (R136a1/a2) from Mk34 in WFC3 V555W image. Brightest cluster star in slit R136a1 (VEGA V = 12.28)</i>					

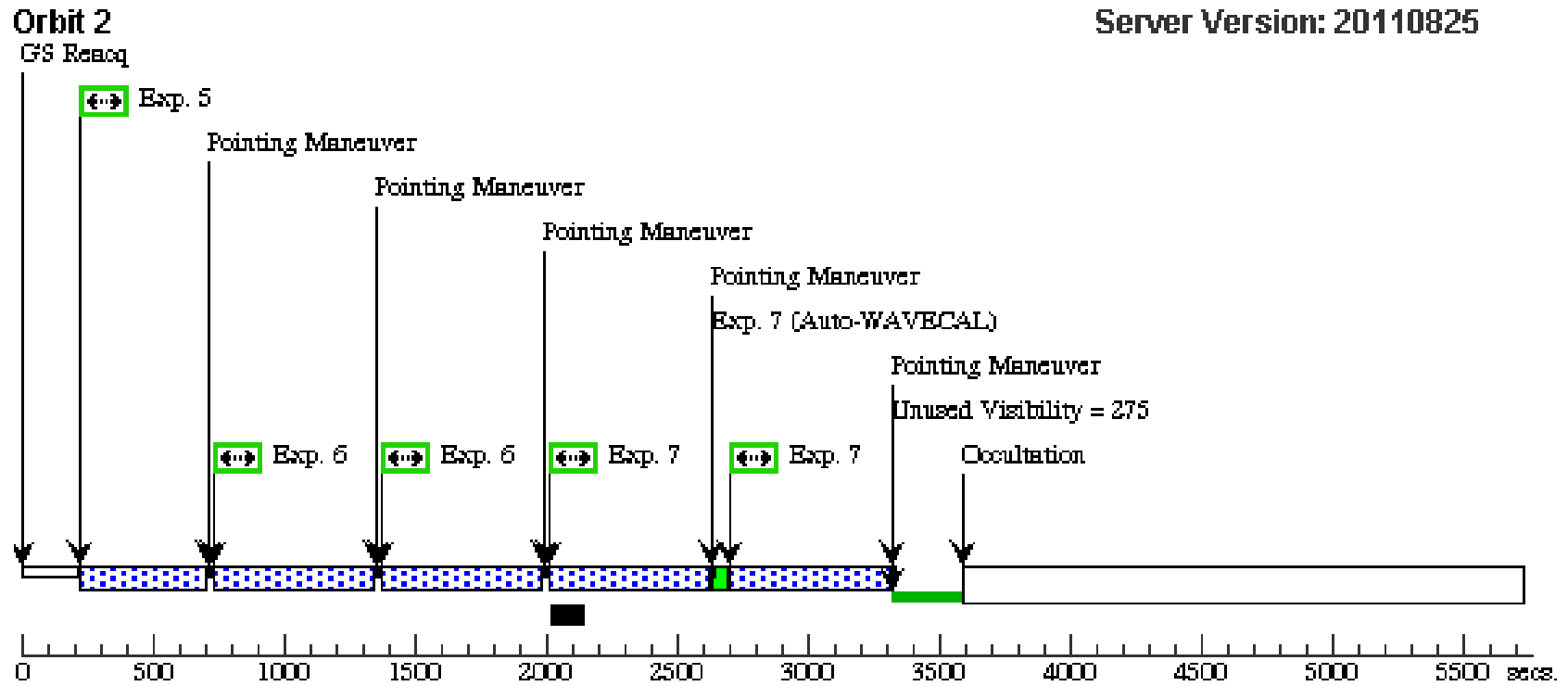
Fixed Targets

Proposal 12465 - Visit 02 - A Massive Star Census of the Starburst Cluster R136

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
(22) MELNICK34 RA: 05 38 44.2460 (84.6843583d) V=13.09+/-0.01 Reference Frame: ICRS Dec: -69 06 5.85 (-69.10163d) B-V = 0.25 Equinox: J2000 <i>Comments: VEGAMAG Photometry from WFC3 F555W Early Release Observation IB6WD6050 (De Marchi et al. 2011). ICRS astrometry of Melnick 34 (2MASS 05384424-6906058). Used for acquisition due to severe crowding within R136 itself.</i>									
1	(197926)	(22) MELNICK34	STIS/CCD, ACQ, F28X50LP	MIRROR				1 Secs [==>]	[1]
<i>Comments: ETC predicts S/N=174 for 1 sec exposure through F28X50LP aperture for Melnick 34 (V=13.09).</i>									
2	(198019)	(22) MELNICK34	STIS/CCD, ACQ/PEAK, 52X0.1	MIRROR				0.5 Secs [==>]	[1]
<i>Comments: Peakup on Melnick 34 for accurate positioning prior to offset. ETC predicts 58,000 e- from source in 0.5 sec exposure through 52x0.1 aperture for Melnick 34 (V=13.09), order of magnitude below saturation level.</i>									
Exposures	3	(2) R136-SE9	STIS/CCD, ACCUM, 52X0.2	G430M 4451 A	CR-SPLIT=NO		Pattern 4, Exps 3-3 in Visit 02 (4)	440 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	4	(4) R136-SE8	STIS/CCD, ACCUM, 52X0.2	G430M 4451 A	CR-SPLIT=NO		Pattern 4, Exps 4-4 in Visit 02 (4)	440 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	5	(5) R136-SE7	STIS/CCD, ACCUM, 52X0.2	G430M 4451 A	CR-SPLIT=NO		Pattern 4, Exps 5-5 in Visit 02 (4)	440 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1] [2]
	6	(6) R136-SE6	STIS/CCD, ACCUM, 52X0.2	G430M 4451 A	CR-SPLIT=NO		Pattern 4, Exps 6-6 in Visit 02 (4)	570 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[2]
	7	(7) R136-SE5	STIS/CCD, ACCUM, 52X0.2	G430M 4451 A	CR-SPLIT=NO		Pattern 4, Exps 7-7 in Visit 02 (4)	570 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[2]
	8	(8) R136-SE4	STIS/CCD, ACCUM, 52X0.2	G430M 4451 A	CR-SPLIT=NO		Pattern 4, Exps 8-8 in Visit 02 (4)	540 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[3]
	9	(9) R136-SE3	STIS/CCD, ACCUM, 52X0.2	G430M 4451 A	CR-SPLIT=NO		Pattern 4, Exps 9-9 in Visit 02 (4)	540 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[3]
	10	(10) R136-SE2	STIS/CCD, ACCUM, 52X0.2	G430M 4451 A	CR-SPLIT=NO		Pattern 4, Exps 10-10 in Visit 02 (4)	540 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[3] [4]
	11	(11) R136-SE1	STIS/CCD, ACCUM, 52X0.2	G430M 4451 A	CR-SPLIT=NO		Pattern 4, Exps 11-11 in Visit 02 (4)	540 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[4]
	12	(12) R136-NW1	STIS/CCD, ACCUM, 52X0.2	G430M 4451 A	CR-SPLIT=NO		Pattern 4, Exps 12-12 in Visit 02 (4)	540 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[4]

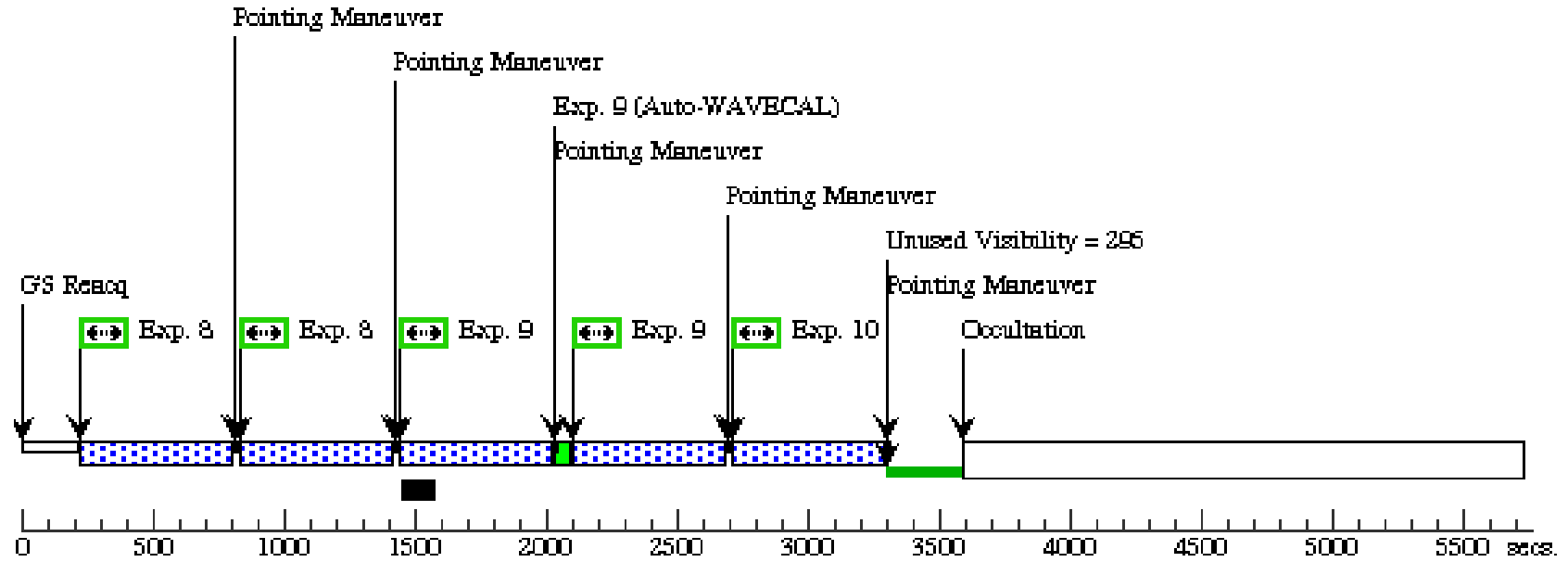
Orbit Structure

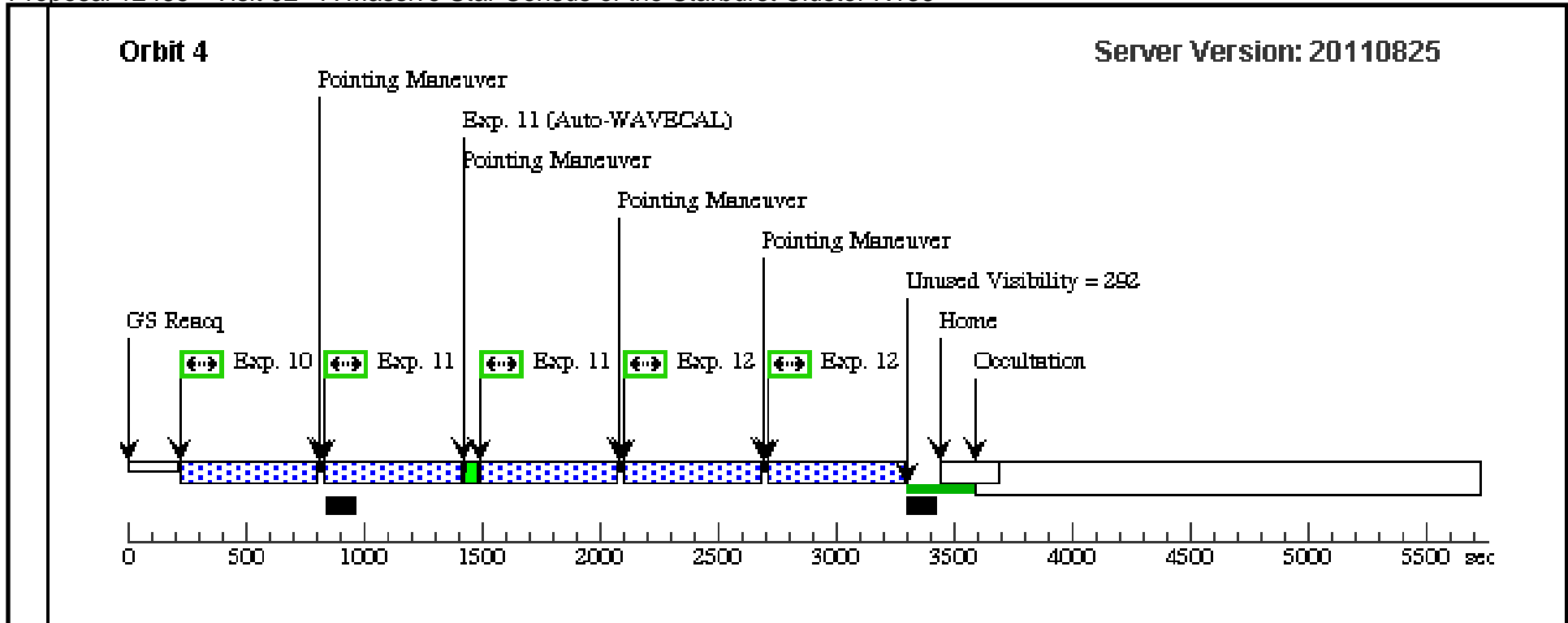




Orbit 3

Server Version: 20110825





Proposal 12465 - Visit 08 - A Massive Star Census of the Starburst Cluster R136

Thu Nov 10 02:24:26 GMT 2011

Visit	Proposal 12465, Visit 08 Diagnostic Status: No Diagnostics Scientific Instruments: STIS/CCD Special Requirements: ORIENT 109D TO 109 D; ORIENT 289D TO 289 D Comments: STIS G430M/4451 slit scan (52x0.2 arcsec) across R136 at 18 adjoining positions (PA=64 degrees). Update: 7/Nov/2011: ORIENT = PA+45 or PA+180+45 = 109 or 289								
	Patterns	<table border="1"> <thead> <tr> <th>#</th> <th>Primary Pattern</th> <th>Secondary Pattern</th> <th>Exposures</th> </tr> </thead> <tbody> <tr> <td>(4)</td> <td> Pattern Type=STIS-ALONG-SLIT Coordinate Frame=POS-TARG Purpose=DITHER Pattern Orientation=90.0 Number Of Points=2 Angle Between Sides= Point Spacing=0.35546 Center Pattern=false Line Spacing= </td> <td></td> <td>(3), (4), (5), (6), (7), (8), (9)</td> </tr> </tbody> </table>	#	Primary Pattern	Secondary Pattern	Exposures	(4)	Pattern Type=STIS-ALONG-SLIT Coordinate Frame=POS-TARG Purpose=DITHER Pattern Orientation=90.0 Number Of Points=2 Angle Between Sides= Point Spacing=0.35546 Center Pattern=false Line Spacing=	
#	Primary Pattern	Secondary Pattern	Exposures						
(4)	Pattern Type=STIS-ALONG-SLIT Coordinate Frame=POS-TARG Purpose=DITHER Pattern Orientation=90.0 Number Of Points=2 Angle Between Sides= Point Spacing=0.35546 Center Pattern=false Line Spacing=		(3), (4), (5), (6), (7), (8), (9)						

Proposal 12465 - Visit 08 - A Massive Star Census of the Starburst Cluster R136

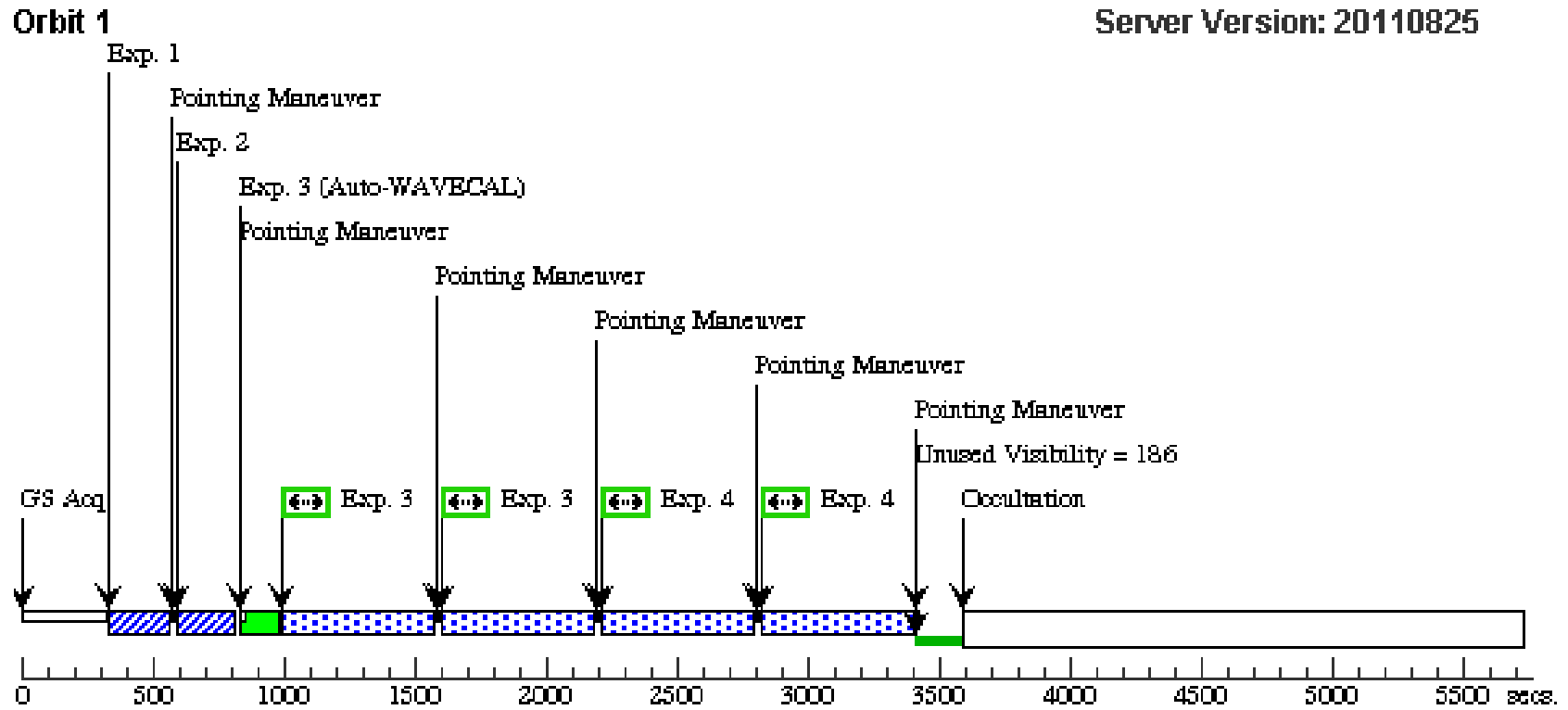
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(13)	R136-NW2	Offset from MELNICK34 by RA Offset: -1.879 Secs Dec Offset: 3.15 Arcsec		V=13.97	Offset Position (R136-NW2) Reference Frame: ICRS
<i>Comments: -10.054 arcsec RA, +3.150 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - R136a7 (VEGA V = 13.97)</i>					
(14)	R136-NW3	Offset from MELNICK34 by RA Offset: -1.895 Secs Dec Offset: 3.33 Arcsec		V=13.41	Offset Position (R136-NW3) Reference Frame: ICRS
<i>Comments: -10.142 arcsec RA, +3.330 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - R136a4+a8 (VEGA V = 13.41)</i>					
(15)	R136-NW4	Offset from MELNICK34 by RA Offset: -1.912 Secs Dec Offset: 3.51 Arcsec		V=14.21	Offset Position (R136-NW4) Reference Frame: ICRS
<i>Comments: -10.229 arcsec RA, +3.510 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 30 (VEGA V = 14.21)</i>					
(16)	R136-NW5	Offset from MELNICK34 by RA Offset: -1.928 Secs Dec Offset: 3.69 Arcsec		V=14.43	Offset Position (R136-NW5) Reference Frame: ICRS
<i>Comments: -10.317 arcsec RA, 3.690 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 35 (VEGA V = 14.43)</i>					
(17)	R136-NW6	Offset from MELNICK34 by RA Offset: -1.945 Secs Dec Offset: 3.87 Arcsec		V=15.46	Offset Position (R136-NW6) Reference Frame: ICRS
<i>Comments: -10.405 arcsec RA, +3.870 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 92 (VEGA V = 15.46)</i>					
(18)	R136-NW7	Offset from MELNICK34 by RA Offset: -1.961 Secs Dec Offset: 4.05 Arcsec		V=15.03	Offset Position (R136-NW7) Reference Frame: ICRS
<i>Comments: -10.493 arcsec RA, +4.050 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 64 (VEGA V = 15.03)</i>					
(19)	R136-NW8	Offset from MELNICK34 by RA Offset: -1.977 Secs Dec Offset: 4.23 Arcsec		V=14.56	Offset Position (R136-NW8) Reference Frame: ICRS
<i>Comments: -10.580 arcsec RA, +4.230 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 40 (VEGA V = 14.56)</i>					
(22)	MELNICK34	RA: 05 38 44.2460 (84.6843583d) Dec: -69 06 5.85 (-69.10163d) Equinox: J2000		V=13.09+/-0.01 B-V = 0.25	Reference Frame: ICRS
<i>Comments: VEGAMAG Photometry from WFC3 F555W Early Release Observation IB6WD6050 (De Marchi et al. 2011). ICRS astrometry of Melnick 34 (2MASS 05384424-6906058). Used for acquisition due to severe crowding within R136 itself.</i>					

Fixed Targets

Proposal 12465 - Visit 08 - A Massive Star Census of the Starburst Cluster R136

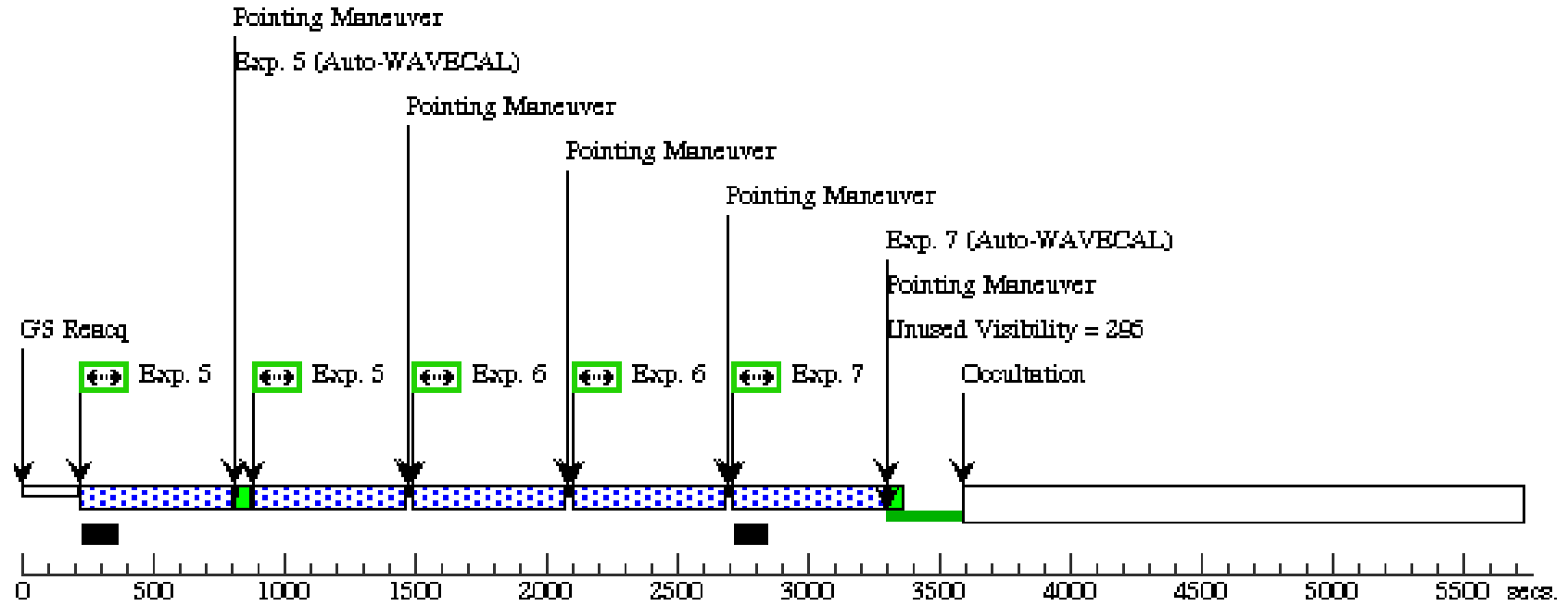
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit	
	1	(197926)	(22) MELNICK34	STIS/CCD, ACQ, F28X50LP	MIRROR				1 Secs [==>]	[1]	
	<i>Comments: ETC predicts S/N=174 for 1 sec exposure through F28X50LP aperture for Melnick 34 (V=13.09).</i>										
	2	(198019)	(22) MELNICK34	STIS/CCD, ACQ/PEAK, 52X0.1	MIRROR				0.5 Secs [==>]	[1]	
	<i>Comments: Peakup on Melnick 34 for accurate positioning prior to offset. ETC predicts 58,000 e- from source in 0.5 sec exposure through 52x0.1 aperture for Melnick 34 (V=13.09), order of magnitude below saturation level.</i>										
	3		(13) R136-NW2	STIS/CCD, ACCUM, 52X0.2	G430M 4451 A	CR-SPLIT=NO		Pattern 4, Exps 3-3 in Visit 08 (4)	540 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]	
	4		(14) R136-NW3	STIS/CCD, ACCUM, 52X0.2	G430M 4451 A	CR-SPLIT=NO		Pattern 4, Exps 4-4 in Visit 08 (4)	540 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]	
	5		(15) R136-NW4	STIS/CCD, ACCUM, 52X0.2	G430M 4451 A	CR-SPLIT=NO		Pattern 4, Exps 5-5 in Visit 08 (4)	540 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[2]	
	6		(16) R136-NW5	STIS/CCD, ACCUM, 52X0.2	G430M 4451 A	CR-SPLIT=NO		Pattern 4, Exps 6-6 in Visit 08 (4)	540 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[2]	
	7		(17) R136-NW6	STIS/CCD, ACCUM, 52X0.2	G430M 4451 A	CR-SPLIT=NO		Pattern 4, Exps 7-7 in Visit 08 (4)	540 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[2] [3]	
8		(18) R136-NW7	STIS/CCD, ACCUM, 52X0.2	G430M 4451 A	CR-SPLIT=NO		Pattern 4, Exps 8-8 in Visit 08 (4)	540 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[3]		
9		(19) R136-NW8	STIS/CCD, ACCUM, 52X0.2	G430M 4451 A	CR-SPLIT=NO		Pattern 4, Exps 9-9 in Visit 08 (4)	540 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[3]		

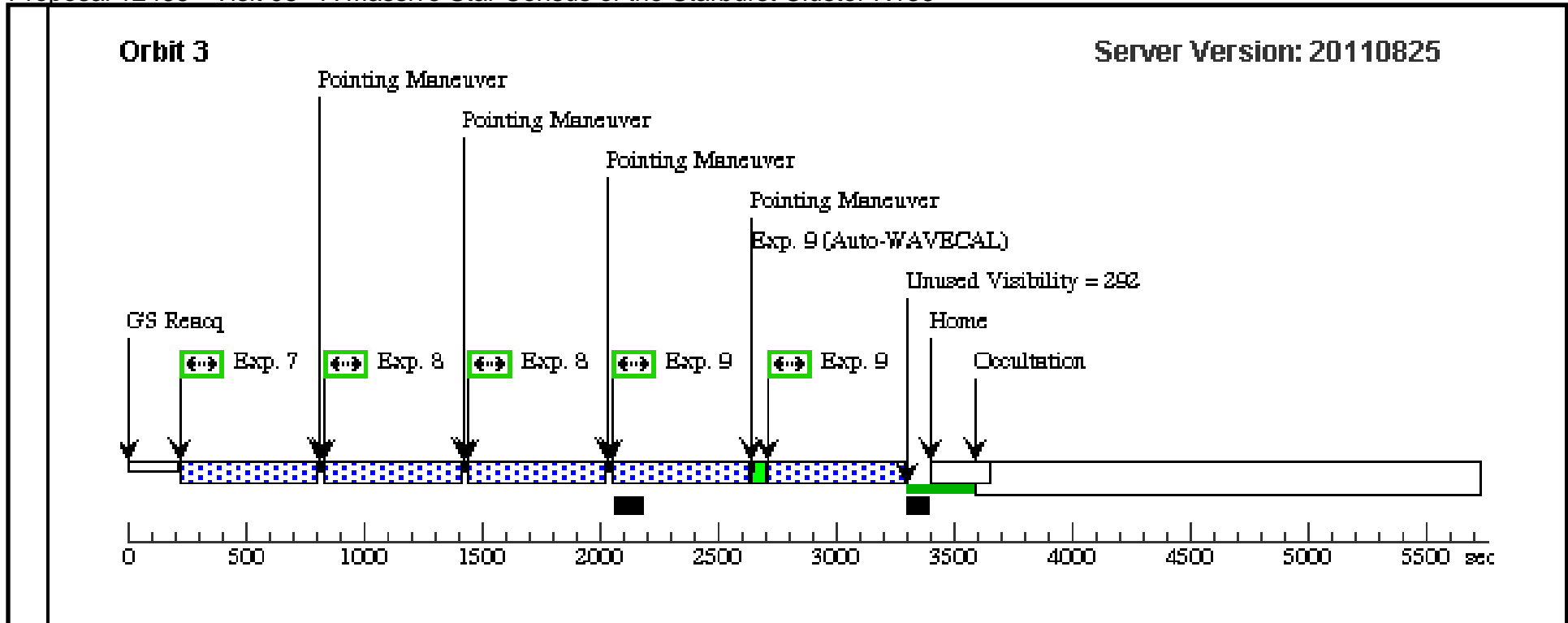
Orbit Structure



Orbit 2

Server Version: 20110825





Proposal 12465 - Visit 03 - A Massive Star Census of the Starburst Cluster R136

Thu Nov 10 02:24:26 GMT 2011

Visit	Proposal 12465, Visit 03, implementation Diagnostic Status: No Diagnostics Scientific Instruments: STIS/CCD Special Requirements: ORIENT 109D TO 109 D; ORIENT 289D TO 289 D Comments: STIS G430M/4706 slit scan (52x0.2 arcsec) across R136 at 18 adjoining positions (PA=64 degrees). Update: 7/Nov/2011: ORIENT = PA+45 or PA+180+45 = 109 or 289								
	Patterns	<table border="1"> <thead> <tr> <th>#</th> <th>Primary Pattern</th> <th>Secondary Pattern</th> <th>Exposures</th> </tr> </thead> <tbody> <tr> <td>(4)</td> <td> Pattern Type=STIS-ALONG-SLIT Coordinate Frame=POS-TARG Purpose=DITHER Pattern Orientation=90.0 Number Of Points=2 Angle Between Sides= Point Spacing=0.35546 Center Pattern=false Line Spacing= </td> <td></td> <td>(3), (4), (5), (6), (7), (8), (9), (10), (11), (12)</td> </tr> </tbody> </table>	#	Primary Pattern	Secondary Pattern	Exposures	(4)	Pattern Type=STIS-ALONG-SLIT Coordinate Frame=POS-TARG Purpose=DITHER Pattern Orientation=90.0 Number Of Points=2 Angle Between Sides= Point Spacing=0.35546 Center Pattern=false Line Spacing=	
#	Primary Pattern	Secondary Pattern	Exposures						
(4)	Pattern Type=STIS-ALONG-SLIT Coordinate Frame=POS-TARG Purpose=DITHER Pattern Orientation=90.0 Number Of Points=2 Angle Between Sides= Point Spacing=0.35546 Center Pattern=false Line Spacing=		(3), (4), (5), (6), (7), (8), (9), (10), (11), (12)						

Proposal 12465 - Visit 03 - A Massive Star Census of the Starburst Cluster R136

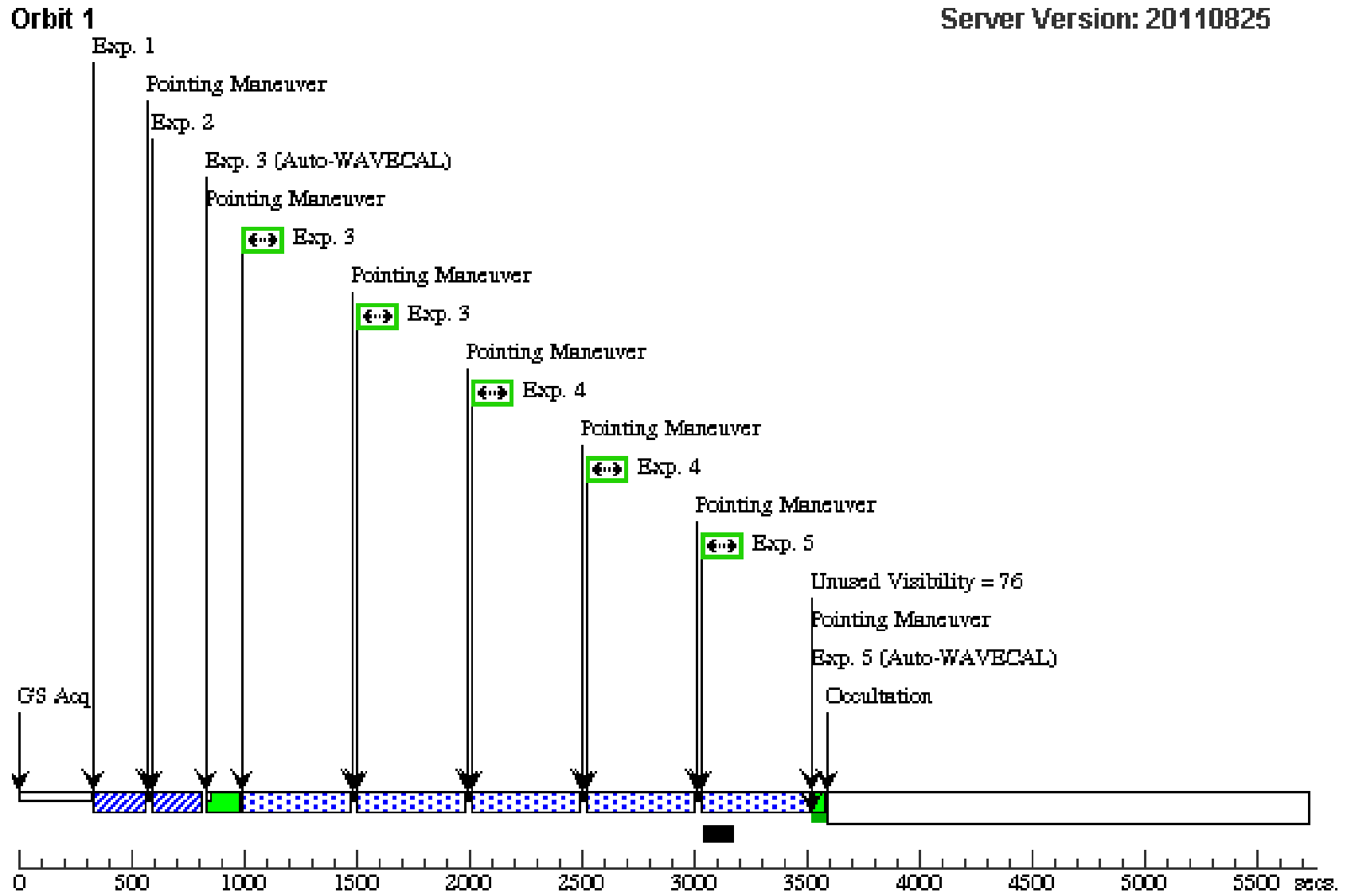
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	R136-SE9	Offset from MELNICK34 by RA Offset: -1.715 Secs Dec Offset: 1.35 Arcsec		V=14.74	Offset Position (R136-SE9) Reference Frame: ICRS
<i>Comments: -9.176 arcsec RA, 1.350 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit Hunter 55 (VEGA V = 14.74)</i>					
(4)	R136-SE8	Offset from MELNICK34 by RA Offset: -1.731 Secs Dec Offset: 1.53 Arcsec		V=13.24	Offset Position (R136-SE8) Reference Frame: ICRS
<i>Comments: -9.264 arcsec RA, +1.530 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - R136B (VEGA V = 13.24)</i>					
(5)	R136-SE7	Offset from MELNICK34 by RA Offset: -1.748 Secs Dec Offset: 1.71 Arcsec		V=14.65	Offset Position (R136-SE7) Reference Frame: ICRS
<i>Comments: -9.352 arcsec RA, +1.710 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 45 (VEGA V = 14.65)</i>					
(6)	R136-SE6	Offset from MELNICK34 by RA Offset: -1.764 Secs Dec Offset: 1.89 Arcsec		V=15.79	Offset Position (R136-SE6) Reference Frame: ICRS
<i>Comments: -9.439 arcsec RA, +1.890 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 116 (VEGA V = 15.788)</i>					
(7)	R136-SE5	Offset from MELNICK34 by RA Offset: -1.78 Secs Dec Offset: 2.07 Arcsec		V=15.1	Offset Position (R136-SE5) Reference Frame: ICRS
<i>Comments: -9.527 arcsec RA, +2.070 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter69 (VEGA B = 15.1)</i>					
(8)	R136-SE4	Offset from MELNICK34 by RA Offset: -1.797 Secs Dec Offset: 2.25 Arcsec		V=15.13	Offset Position (R136-SE4) Reference Frame: ICRS
<i>Comments: -9.615 arcsec RA, +2.250 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 73 (VEGA V = 15.13)</i>					
(9)	R136-SE3	Offset from MELNICK34 by RA Offset: -1.813 Secs Dec Offset: 2.43 Arcsec		V=14.41	Offset Position (R136-SE3) Reference Frame: ICRS
<i>Comments: -9.703 arcsec RA, +2.430 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 3 (VEGA V = 14.41)</i>					
(10)	R136-SE2	Offset from MELNICK34 by RA Offset: -1.83 Secs Dec Offset: 2.61 Arcsec		V=14.65	Offset Position (R136-SE2) Reference Frame: ICRS
<i>Comments: -9.790 arcsec RA, +2.610 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 50 (VEGA V = 14.65)</i>					
(11)	R136-SE1	Offset from MELNICK34 by RA Offset: -1.846 Secs Dec Offset: 2.79 Arcsec		V=12.97	Offset Position (R136-SE1) Reference Frame: ICRS
<i>Comments: -9.878 arcsec RA, +2.790 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit R136a3 (VEGA V = 12.97)</i>					
(12)	R136-NW1	Offset from MELNICK34 by RA Offset: -1.863 Secs Dec Offset: 2.97 Arcsec		V=12.28	Offset Position (R136-NW1) Reference Frame: ICRS
<i>Comments: -9.966 arcsec RA, +2.970 arcsec Dec offset (R136a1/a2) from Mk34 in WFC3 V555W image. Brightest cluster star in slit R136a1 (VEGA V = 12.28)</i>					

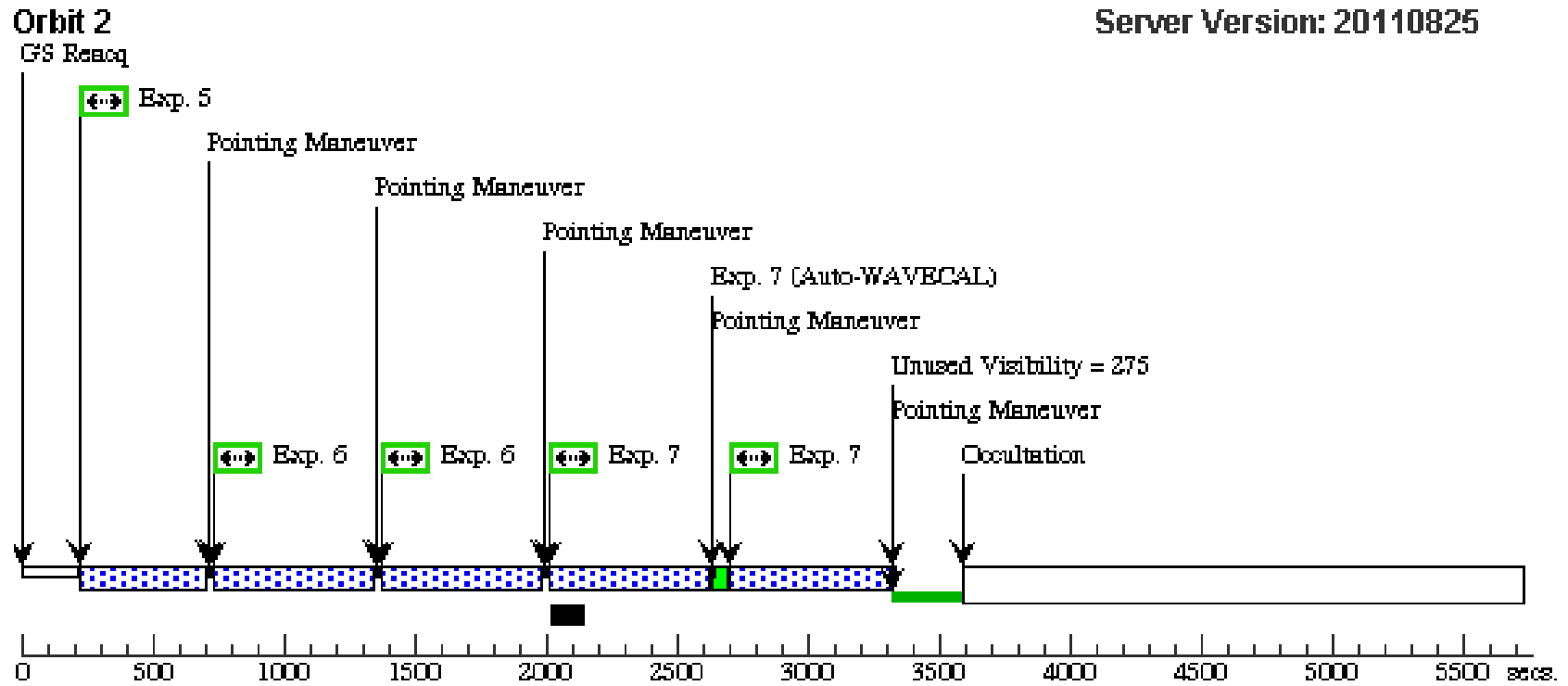
Fixed Targets

Proposal 12465 - Visit 03 - A Massive Star Census of the Starburst Cluster R136

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
(22) MELNICK34 RA: 05 38 44.2460 (84.6843583d) V=13.09+/-0.01 Reference Frame: ICRS Dec: -69 06 5.85 (-69.10163d) B-V = 0.25 Equinox: J2000 <i>Comments: VEGAMAG Photometry from WFC3 F555W Early Release Observation IB6WD6050 (De Marchi et al. 2011). ICRS astrometry of Melnick 34 (2MASS 05384424-6906058). Used for acquisition due to severe crowding within R136 itself.</i>									
1	(186001)	(22) MELNICK34	STIS/CCD, ACQ, F28X50LP	MIRROR				1 Secs [==>]	[1]
<i>Comments: ETC predicts S/N=174 for 1 sec exposure through F28X50LP aperture for Melnick 34 (V=13.09).</i>									
2	(198019)	(22) MELNICK34	STIS/CCD, ACQ/PEAK, 52X0.1	MIRROR				0.5 Secs [==>]	[1]
<i>Comments: Peakup on Melnick 34 for accurate positioning prior to offset. ETC predicts 58,000 e- from source in 0.5 sec exposure through 52x0.1 aperture for Melnick 34 (V=13.09), order of magnitude below saturation level.</i>									
Exposures	3	(2) R136-SE9	STIS/CCD, ACCUM, 52X0.2	G430M 4706 A	CR-SPLIT=NO		Pattern 4, Exps 3-3 in Visit 03 (4)	440 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	4	(4) R136-SE8	STIS/CCD, ACCUM, 52X0.2	G430M 4706 A	CR-SPLIT=NO		Pattern 4, Exps 4-4 in Visit 03 (4)	440 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	5	(5) R136-SE7	STIS/CCD, ACCUM, 52X0.2	G430M 4706 A	CR-SPLIT=NO		Pattern 4, Exps 5-5 in Visit 03 (4)	440 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1] [2]
	6	(6) R136-SE6	STIS/CCD, ACCUM, 52X0.2	G430M 4706 A	CR-SPLIT=NO		Pattern 4, Exps 6-6 in Visit 03 (4)	570 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[2]
	7	(7) R136-SE5	STIS/CCD, ACCUM, 52X0.2	G430M 4706 A	CR-SPLIT=NO		Pattern 4, Exps 7-7 in Visit 03 (4)	570 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[2]
	8	(8) R136-SE4	STIS/CCD, ACCUM, 52X0.2	G430M 4706 A	CR-SPLIT=NO		Pattern 4, Exps 8-8 in Visit 03 (4)	540 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[3]
	9	(9) R136-SE3	STIS/CCD, ACCUM, 52X0.2	G430M 4706 A	CR-SPLIT=NO		Pattern 4, Exps 9-9 in Visit 03 (4)	540 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[3]
	10	(10) R136-SE2	STIS/CCD, ACCUM, 52X0.2	G430M 4706 A	CR-SPLIT=NO		Pattern 4, Exps 10-10 in Visit 03 (4)	540 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[3] [4]
	11	(11) R136-SE1	STIS/CCD, ACCUM, 52X0.2	G430M 4706 A	CR-SPLIT=NO		Pattern 4, Exps 11-11 in Visit 03 (4)	540 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[4]
	12	(12) R136-NW1	STIS/CCD, ACCUM, 52X0.2	G430M 4706 A	CR-SPLIT=NO		Pattern 4, Exps 12-12 in Visit 03 (4)	540 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[4]

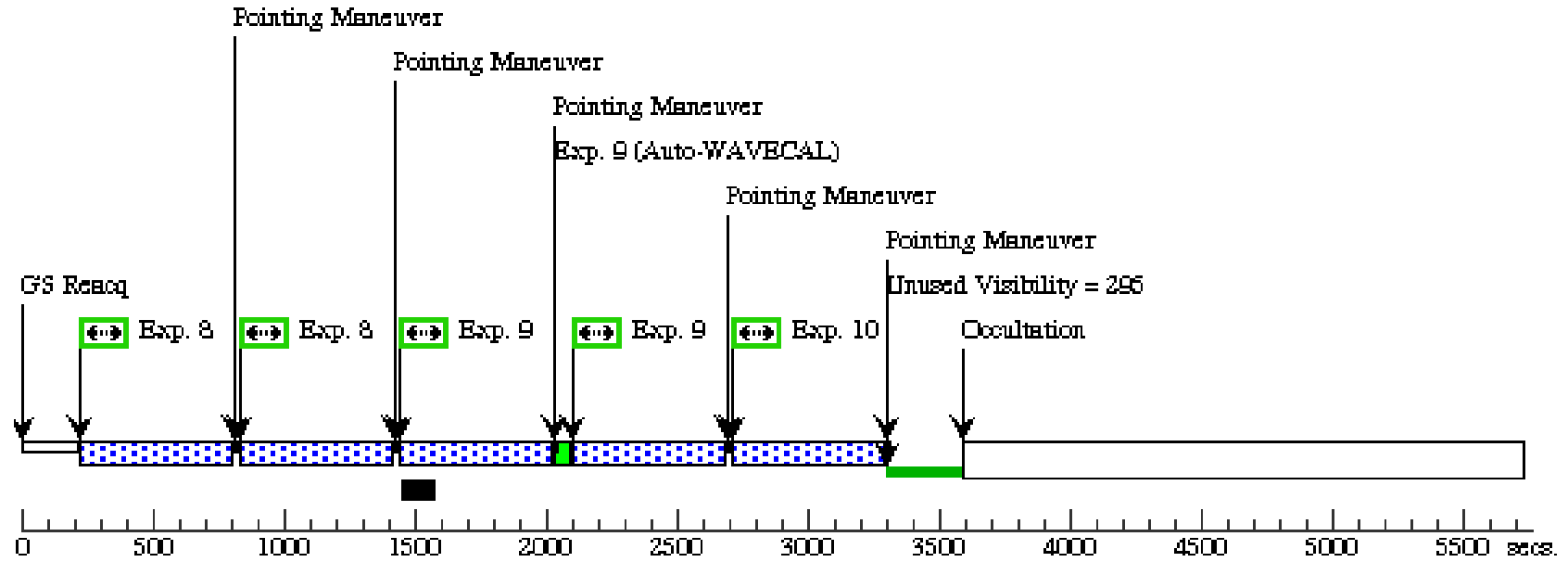
Orbit Structure

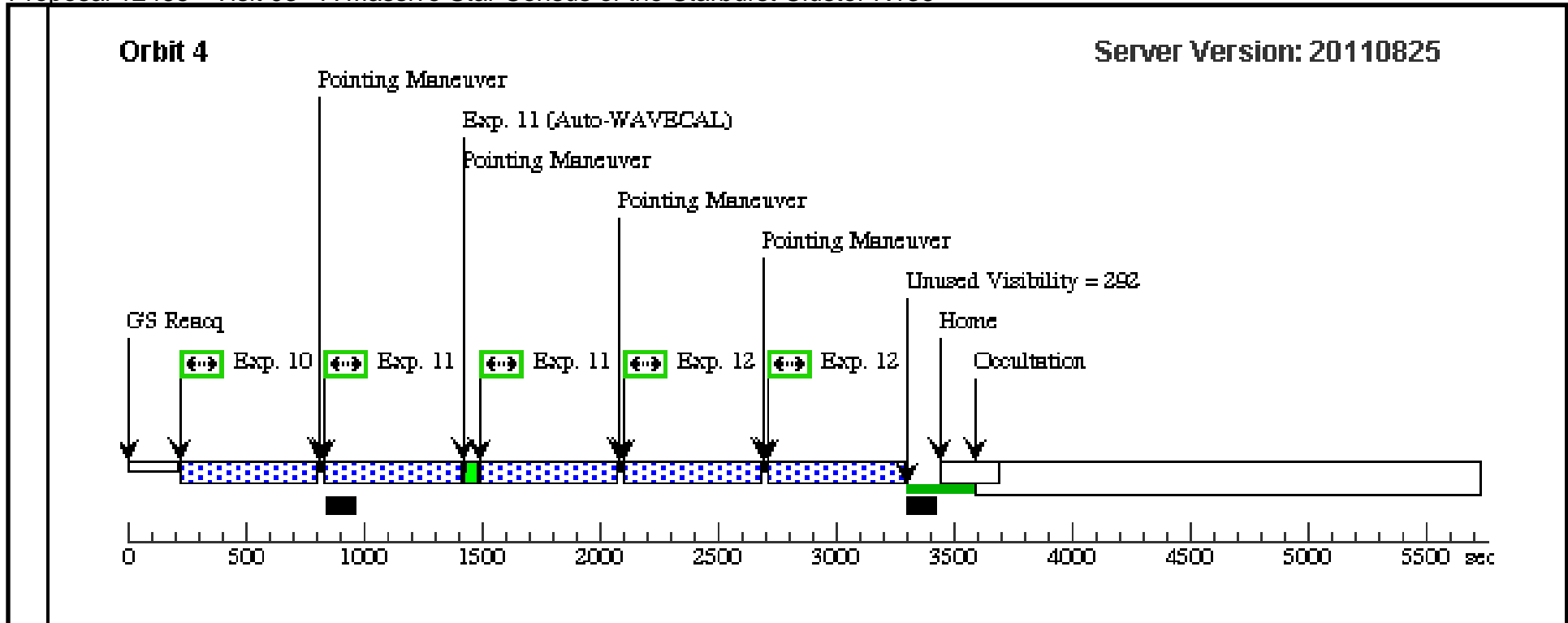




Orbit 3

Server Version: 20110825





Proposal 12465 - Visit 09 - A Massive Star Census of the Starburst Cluster R136

Thu Nov 10 02:24:27 GMT 2011

Visit	Proposal 12465, Visit 09 Diagnostic Status: No Diagnostics Scientific Instruments: STIS/CCD Special Requirements: ORIENT 109D TO 109 D; ORIENT 289D TO 289 D <i>Comments: STIS G430M/4706 slit scan (52x0.2 arcsec) across R136 at 18 adjoining positions (PA=64 degrees).</i> <i>Update: 7/Nov/2011: ORIENT = PA+45 or PA+180+45 = 109 or 289</i>								
	Patterns	<table border="1"> <thead> <tr> <th>#</th> <th>Primary Pattern</th> <th>Secondary Pattern</th> <th>Exposures</th> </tr> </thead> <tbody> <tr> <td>(4)</td> <td> Pattern Type=STIS-ALONG-SLIT Coordinate Frame=POS-TARG Purpose=DITHER Pattern Orientation=90.0 Number Of Points=2 Angle Between Sides= Point Spacing=0.35546 Center Pattern=false Line Spacing= </td> <td></td> <td>(3), (4), (5), (6), (7), (8), (9)</td> </tr> </tbody> </table>	#	Primary Pattern	Secondary Pattern	Exposures	(4)	Pattern Type=STIS-ALONG-SLIT Coordinate Frame=POS-TARG Purpose=DITHER Pattern Orientation=90.0 Number Of Points=2 Angle Between Sides= Point Spacing=0.35546 Center Pattern=false Line Spacing=	
#	Primary Pattern	Secondary Pattern	Exposures						
(4)	Pattern Type=STIS-ALONG-SLIT Coordinate Frame=POS-TARG Purpose=DITHER Pattern Orientation=90.0 Number Of Points=2 Angle Between Sides= Point Spacing=0.35546 Center Pattern=false Line Spacing=		(3), (4), (5), (6), (7), (8), (9)						

Proposal 12465 - Visit 09 - A Massive Star Census of the Starburst Cluster R136

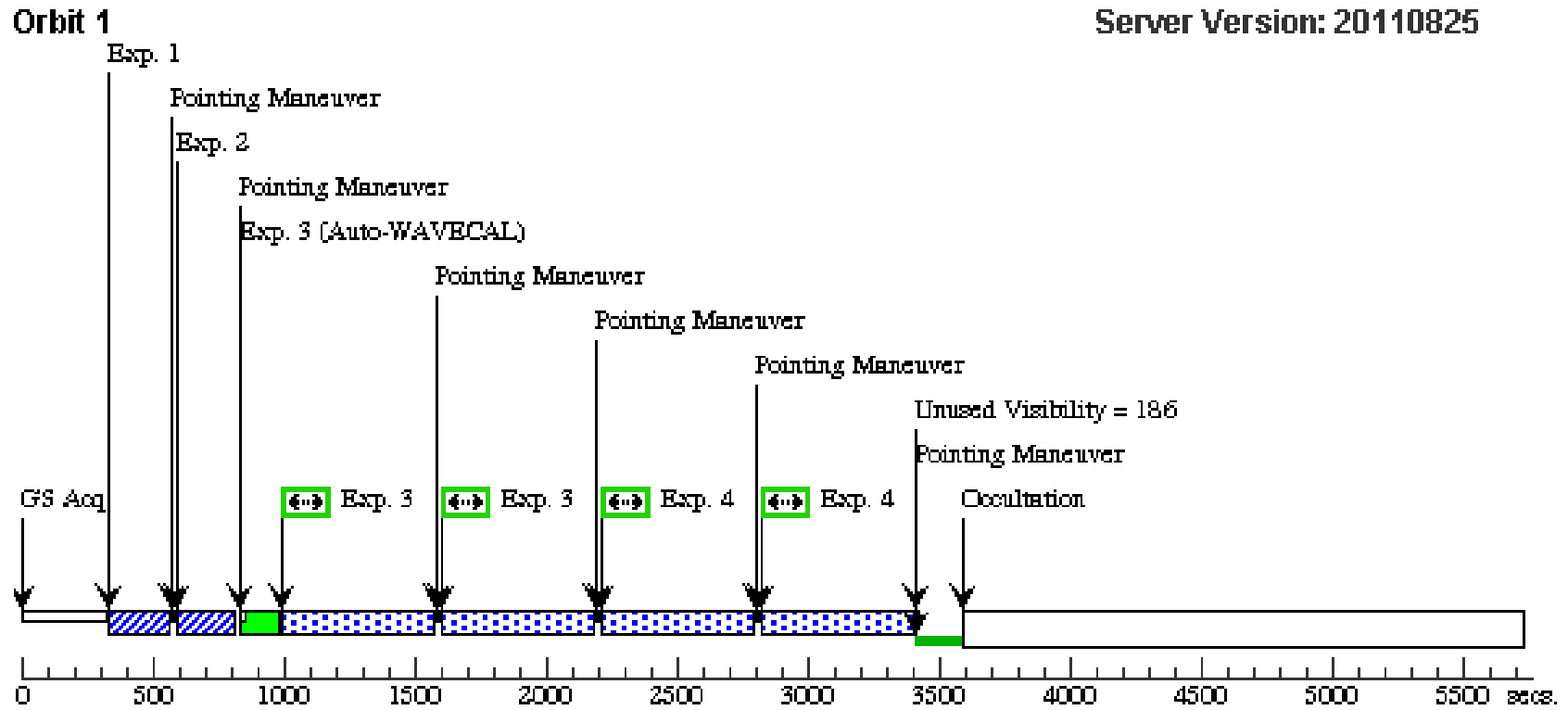
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(13)	R136-NW2	Offset from MELNICK34 by RA Offset: -1.879 Secs Dec Offset: 3.15 Arcsec		V=13.97	Offset Position (R136-NW2) Reference Frame: ICRS
<i>Comments: -10.054 arcsec RA, +3.150 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - R136a7 (VEGA V = 13.97)</i>					
(14)	R136-NW3	Offset from MELNICK34 by RA Offset: -1.895 Secs Dec Offset: 3.33 Arcsec		V=13.41	Offset Position (R136-NW3) Reference Frame: ICRS
<i>Comments: -10.142 arcsec RA, +3.330 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - R136a4+a8 (VEGA V = 13.41)</i>					
(15)	R136-NW4	Offset from MELNICK34 by RA Offset: -1.912 Secs Dec Offset: 3.51 Arcsec		V=14.21	Offset Position (R136-NW4) Reference Frame: ICRS
<i>Comments: -10.229 arcsec RA, +3.510 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 30 (VEGA V = 14.21)</i>					
(16)	R136-NW5	Offset from MELNICK34 by RA Offset: -1.928 Secs Dec Offset: 3.69 Arcsec		V=14.43	Offset Position (R136-NW5) Reference Frame: ICRS
<i>Comments: -10.317 arcsec RA, 3.690 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 35 (VEGA V = 14.43)</i>					
(17)	R136-NW6	Offset from MELNICK34 by RA Offset: -1.945 Secs Dec Offset: 3.87 Arcsec		V=15.46	Offset Position (R136-NW6) Reference Frame: ICRS
<i>Comments: -10.405 arcsec RA, +3.870 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 92 (VEGA V = 15.46)</i>					
(18)	R136-NW7	Offset from MELNICK34 by RA Offset: -1.961 Secs Dec Offset: 4.05 Arcsec		V=15.03	Offset Position (R136-NW7) Reference Frame: ICRS
<i>Comments: -10.493 arcsec RA, +4.050 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 64 (VEGA V = 15.03)</i>					
(19)	R136-NW8	Offset from MELNICK34 by RA Offset: -1.977 Secs Dec Offset: 4.23 Arcsec		V=14.56	Offset Position (R136-NW8) Reference Frame: ICRS
<i>Comments: -10.580 arcsec RA, +4.230 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 40 (VEGA V = 14.56)</i>					
(22)	MELNICK34	RA: 05 38 44.2460 (84.6843583d) Dec: -69 06 5.85 (-69.10163d) Equinox: J2000		V=13.09+/-0.01 B-V = 0.25	Reference Frame: ICRS
<i>Comments: VEGAMAG Photometry from WFC3 F555W Early Release Observation IB6WD6050 (De Marchi et al. 2011). ICRS astrometry of Melnick 34 (2MASS 05384424-6906058). Used for acquisition due to severe crowding within R136 itself.</i>					

Fixed Targets

Proposal 12465 - Visit 09 - A Massive Star Census of the Starburst Cluster R136

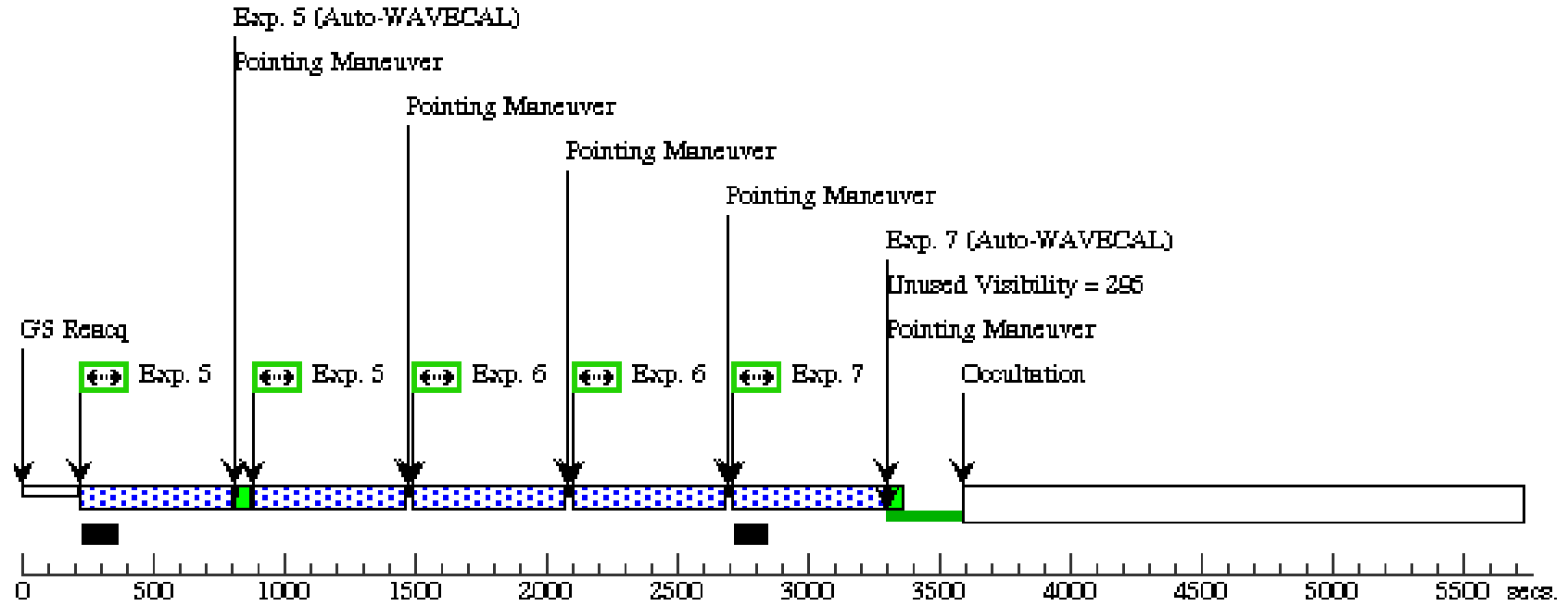
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit	
	1	(186001)	(22) MELNICK34	STIS/CCD, ACQ, F28X50LP	MIRROR				1 Secs [==>]	[1]	
	<i>Comments: ETC predicts S/N=174 for 1 sec exposure through F28X50LP aperture for Melnick 34 (V=13.09).</i>										
	2	(198019)	(22) MELNICK34	STIS/CCD, ACQ/PEAK, 52X0.1	MIRROR				0.5 Secs [==>]	[1]	
	<i>Comments: Peakup on Melnick 34 for accurate positioning prior to offset. ETC predicts 58,000 e- from source in 0.5 sec exposure through 52x0.1 aperture for Melnick 34 (V=13.09), order of magnitude below saturation level.</i>										
	3		(13) R136-NW2	STIS/CCD, ACCUM, 52X0.2	G430M 4706 A	CR-SPLIT=NO		Pattern 4, Exps 3-3 in Visit 09 (4)	540 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]	
	4		(14) R136-NW3	STIS/CCD, ACCUM, 52X0.2	G430M 4706 A	CR-SPLIT=NO		Pattern 4, Exps 4-4 in Visit 09 (4)	540 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]	
	5		(15) R136-NW4	STIS/CCD, ACCUM, 52X0.2	G430M 4706 A	CR-SPLIT=NO		Pattern 4, Exps 5-5 in Visit 09 (4)	540 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[2]	
	6		(16) R136-NW5	STIS/CCD, ACCUM, 52X0.2	G430M 4706 A	CR-SPLIT=NO		Pattern 4, Exps 6-6 in Visit 09 (4)	540 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[2]	
	7		(17) R136-NW6	STIS/CCD, ACCUM, 52X0.2	G430M 4706 A	CR-SPLIT=NO		Pattern 4, Exps 7-7 in Visit 09 (4)	540 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[2] [3]	
8		(18) R136-NW7	STIS/CCD, ACCUM, 52X0.2	G430M 4706 A	CR-SPLIT=NO		Pattern 4, Exps 8-8 in Visit 09 (4)	540 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[3]		
9		(19) R136-NW8	STIS/CCD, ACCUM, 52X0.2	G430M 4706 A	CR-SPLIT=NO		Pattern 4, Exps 9-9 in Visit 09 (4)	540 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[3]		

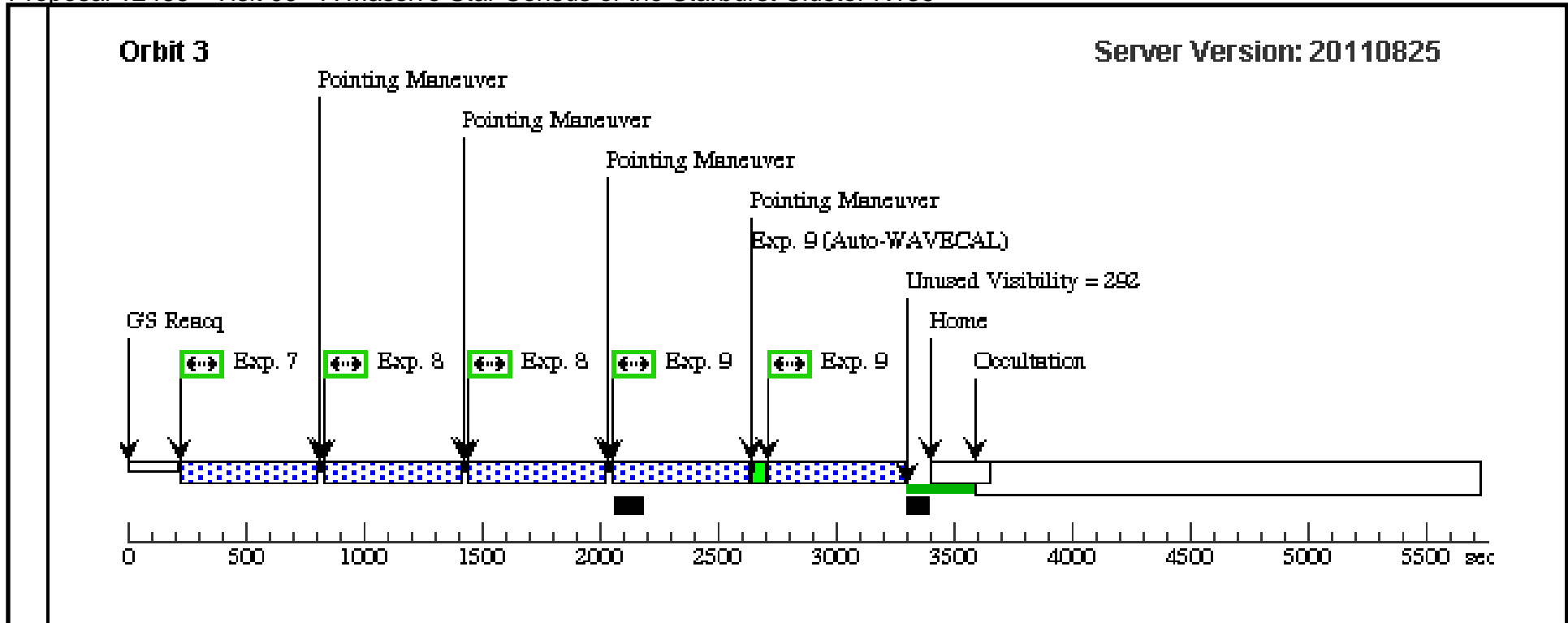
Orbit Structure



Orbit 2

Server Version: 20110825





Proposal 12465 - Visit 04 - A Massive Star Census of the Starburst Cluster R136

Thu Nov 10 02:24:28 GMT 2011

Visit	Proposal 12465, Visit 04, implementation Diagnostic Status: No Diagnostics Scientific Instruments: STIS/CCD, STIS/FUV-MAMA Special Requirements: ORIENT 109D TO 109 D Comments: STIS G140L slit scan (25x0.2 arcsec) across R136 at 9 adjoining positions (PA=64 degrees). Update: 7/Nov/2011: ORIENT = PA+45 = 109 (single ORIENT for MAMA due to repeller-wire offset)								
	Patterns	<table border="1"> <thead> <tr> <th>#</th> <th>Primary Pattern</th> <th>Secondary Pattern</th> <th>Exposures</th> </tr> </thead> <tbody> <tr> <td>(3)</td> <td> Pattern Type=STIS-ALONG-SLIT Coordinate Frame=POS-TARG Purpose=DITHER Pattern Orientation=90.0 Number Of Points=2 Angle Between Sides= Point Spacing=0.2706 Center Pattern=false Line Spacing= </td> <td></td> <td>(3), (4), (5), (6), (7), (8), (9), (10), (11), (12), (13), (14)</td> </tr> </tbody> </table>	#	Primary Pattern	Secondary Pattern	Exposures	(3)	Pattern Type=STIS-ALONG-SLIT Coordinate Frame=POS-TARG Purpose=DITHER Pattern Orientation=90.0 Number Of Points=2 Angle Between Sides= Point Spacing=0.2706 Center Pattern=false Line Spacing=	
#	Primary Pattern	Secondary Pattern	Exposures						
(3)	Pattern Type=STIS-ALONG-SLIT Coordinate Frame=POS-TARG Purpose=DITHER Pattern Orientation=90.0 Number Of Points=2 Angle Between Sides= Point Spacing=0.2706 Center Pattern=false Line Spacing=		(3), (4), (5), (6), (7), (8), (9), (10), (11), (12), (13), (14)						

Proposal 12465 - Visit 04 - A Massive Star Census of the Starburst Cluster R136

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	R136-SE9	Offset from MELNICK34 by RA Offset: -1.715 Secs Dec Offset: 1.35 Arcsec		V=14.74	Offset Position (R136-SE9) Reference Frame: ICRS
<i>Comments: -9.176 arcsec RA, 1.350 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit Hunter 55 (VEGA V = 14.74)</i>					
(4)	R136-SE8	Offset from MELNICK34 by RA Offset: -1.731 Secs Dec Offset: 1.53 Arcsec		V=13.24	Offset Position (R136-SE8) Reference Frame: ICRS
<i>Comments: -9.264 arcsec RA, +1.530 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - R136B (VEGA V = 13.24)</i>					
(5)	R136-SE7	Offset from MELNICK34 by RA Offset: -1.748 Secs Dec Offset: 1.71 Arcsec		V=14.65	Offset Position (R136-SE7) Reference Frame: ICRS
<i>Comments: -9.352 arcsec RA, +1.710 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 45 (VEGA V = 14.65)</i>					
(6)	R136-SE6	Offset from MELNICK34 by RA Offset: -1.764 Secs Dec Offset: 1.89 Arcsec		V=15.79	Offset Position (R136-SE6) Reference Frame: ICRS
<i>Comments: -9.439 arcsec RA, +1.890 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 116 (VEGA V = 15.788)</i>					
(7)	R136-SE5	Offset from MELNICK34 by RA Offset: -1.78 Secs Dec Offset: 2.07 Arcsec		V=15.1	Offset Position (R136-SE5) Reference Frame: ICRS
<i>Comments: -9.527 arcsec RA, +2.070 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter69 (VEGA B = 15.1)</i>					
(8)	R136-SE4	Offset from MELNICK34 by RA Offset: -1.797 Secs Dec Offset: 2.25 Arcsec		V=15.13	Offset Position (R136-SE4) Reference Frame: ICRS
<i>Comments: -9.615 arcsec RA, +2.250 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 73 (VEGA V = 15.13)</i>					
(9)	R136-SE3	Offset from MELNICK34 by RA Offset: -1.813 Secs Dec Offset: 2.43 Arcsec		V=14.41	Offset Position (R136-SE3) Reference Frame: ICRS
<i>Comments: -9.703 arcsec RA, +2.430 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 3 (VEGA V = 14.41)</i>					
(10)	R136-SE2	Offset from MELNICK34 by RA Offset: -1.83 Secs Dec Offset: 2.61 Arcsec		V=14.65	Offset Position (R136-SE2) Reference Frame: ICRS
<i>Comments: -9.790 arcsec RA, +2.610 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 50 (VEGA V = 14.65)</i>					
(11)	R136-SE1	Offset from MELNICK34 by RA Offset: -1.846 Secs Dec Offset: 2.79 Arcsec		V=12.97	Offset Position (R136-SE1) Reference Frame: ICRS
<i>Comments: -9.878 arcsec RA, +2.790 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit R136a3 (VEGA V = 12.97)</i>					
(12)	R136-NW1	Offset from MELNICK34 by RA Offset: -1.863 Secs Dec Offset: 2.97 Arcsec		V=12.28	Offset Position (R136-NW1) Reference Frame: ICRS
<i>Comments: -9.966 arcsec RA, +2.970 arcsec Dec offset (R136a1/a2) from Mk34 in WFC3 V555W image. Brightest cluster star in slit R136a1 (VEGA V = 12.28)</i>					
(13)	R136-NW2	Offset from MELNICK34 by RA Offset: -1.879 Secs Dec Offset: 3.15 Arcsec		V=13.97	Offset Position (R136-NW2) Reference Frame: ICRS
<i>Comments: -10.054 arcsec RA, +3.150 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - R136a7 (VEGA V = 13.97)</i>					

Fixed Targets

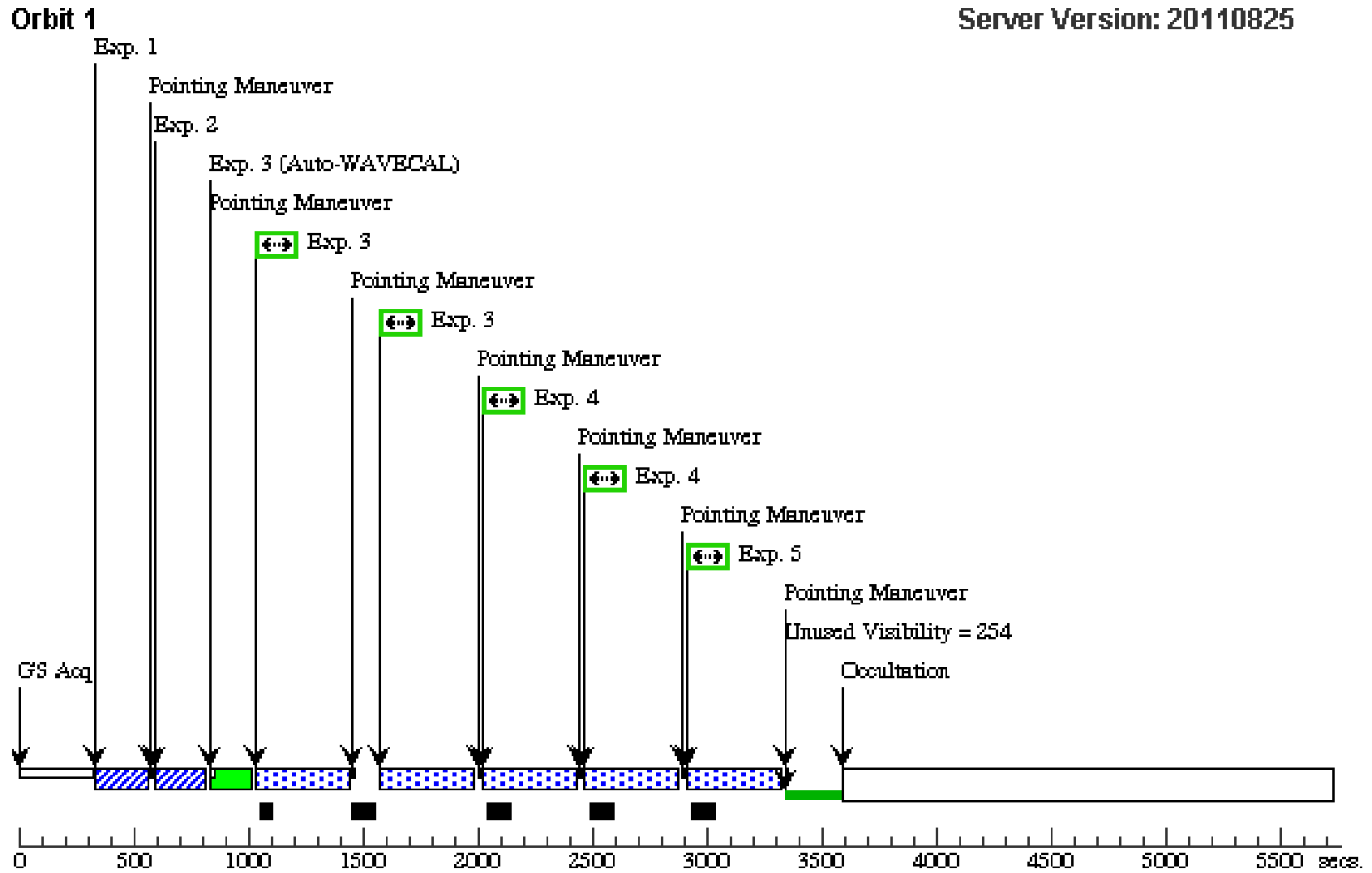
Proposal 12465 - Visit 04 - A Massive Star Census of the Starburst Cluster R136

(14)	R136-NW3	Offset from MELNICK34 by RA Offset: -1.895 Secs Dec Offset: 3.33 Arcsec	V=13.41	Offset Position (R136-NW3) Reference Frame: ICRS
<i>Comments: -10.142 arcsec RA, +3.330 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - R136a4+a8 (VEGA V = 13.41)</i>				
(22)	MELNICK34	RA: 05 38 44.2460 (84.6843583d) Dec: -69 06 5.85 (-69.10163d) Equinox: J2000	V=13.09+/-0.01 B-V = 0.25	Reference Frame: ICRS
<i>Comments: VEGAMAG Photometry from WFC3 F555W Early Release Observation IB6WD6050 (De Marchi et al. 2011). ICRS astrometry of Melnick 34 (2MASS 05384424-6906058). Used for acquisition due to severe crowding within R136 itself.</i>				

Proposal 12465 - Visit 04 - A Massive Star Census of the Starburst Cluster R136

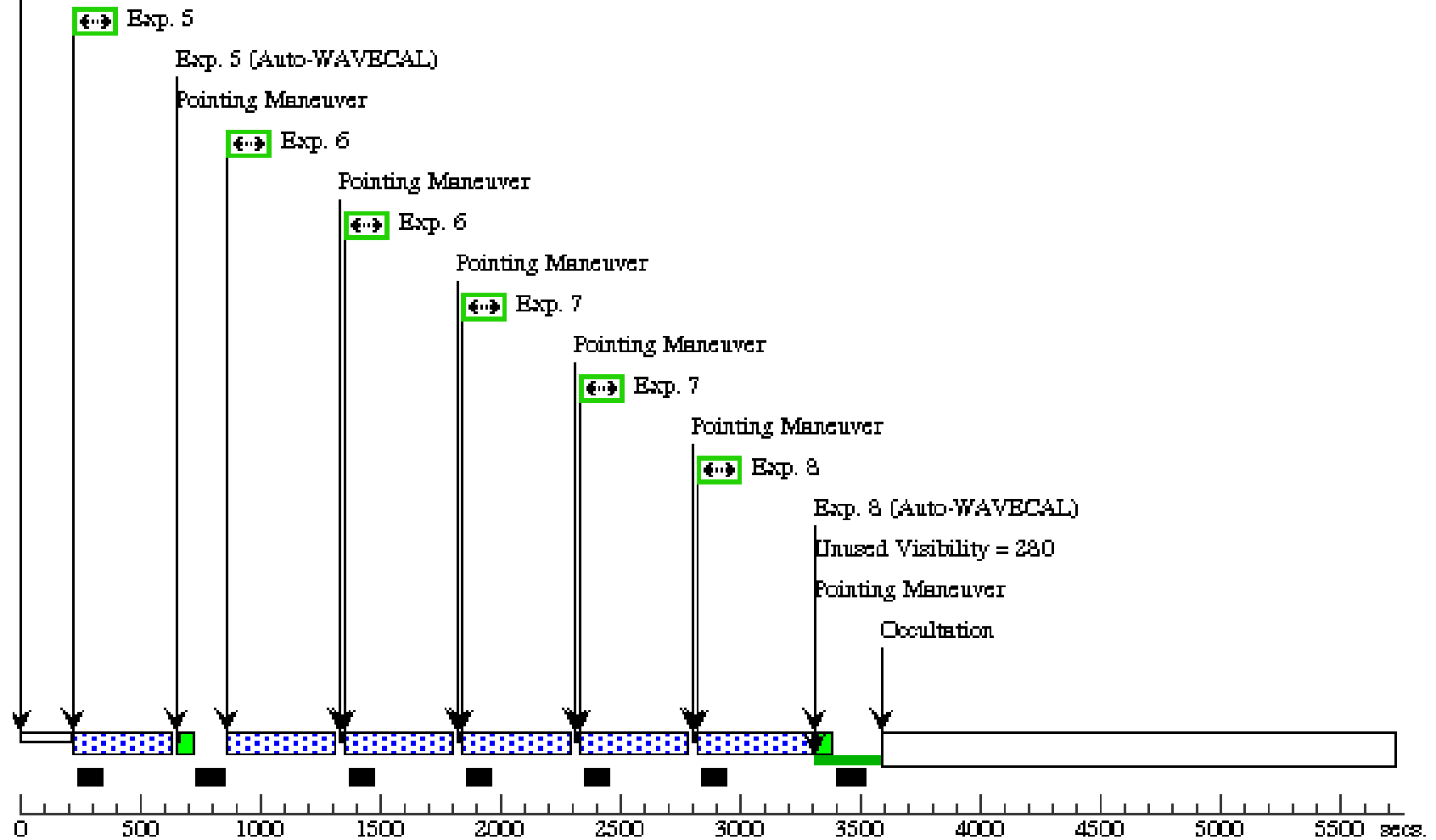
#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit	
Exposures	1	(197926)	(22) MELNICK34	STIS/CCD, ACQ, F28X50LP	MIRROR			1 Secs [==>]	[1]	
	<i>Comments: ETC predicts S/N=174 for 1 sec exposure through F28X50LP aperture for Melnick 34 (V=13.09).</i>									
	2	(198019)	(22) MELNICK34	STIS/CCD, ACQ/PEAK, 52X0.1	MIRROR			0.5 Secs [==>]	[1]	
	<i>Comments: Peakup on Melnick 34 for accurate positioning prior to offset. ETC predicts 58,000 e- from source in 0.5 sec exposure through 52x0.1 aperture for Melnick 34 (V=13.09), order of magnitude below saturation level.</i>									
	3	(185246)	(2) R136-SE9	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A			Pattern 3, Exps 3-3 in Visit 04 (3) 400 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]	
	4	(185162)	(4) R136-SE8	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A			Pattern 3, Exps 4-4 in Visit 04 (3) 400 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]	
	5	(185247)	(5) R136-SE7	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A			Pattern 3, Exps 5-5 in Visit 04 (3) 400 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1] [2]	
	6	(185248)	(6) R136-SE6	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A			Pattern 3, Exps 6-6 in Visit 04 (3) 440 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[2]	
	7	(185249)	(7) R136-SE5	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A			Pattern 3, Exps 7-7 in Visit 04 (3) 440 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[2]	
	8	(185250)	(8) R136-SE4	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A			Pattern 3, Exps 8-8 in Visit 04 (3) 470 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[2] [3]	
	9	(185251)	(9) R136-SE3	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A			Pattern 3, Exps 9-9 in Visit 04 (3) 470 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[3]	
	10	(185252)	(10) R136-SE2	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A			Pattern 3, Exps 10-10 in Visit 04 (3) 470 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[3]	
	11	(185163)	(11) R136-SE1	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A			Pattern 3, Exps 11-11 in Visit 04 (3) 400 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[3] [4]	
	12	(185164)	(12) R136-NW1	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A			Pattern 3, Exps 12-12 in Visit 04 (3) 400 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[4]	
13	(185253)	(13) R136-NW2	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A			Pattern 3, Exps 13-13 in Visit 04 (3) 400 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[4]		
14	(185254)	(14) R136-NW3	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A			Pattern 3, Exps 14-14 in Visit 04 (3) 400 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[4]		

Orbit Structure

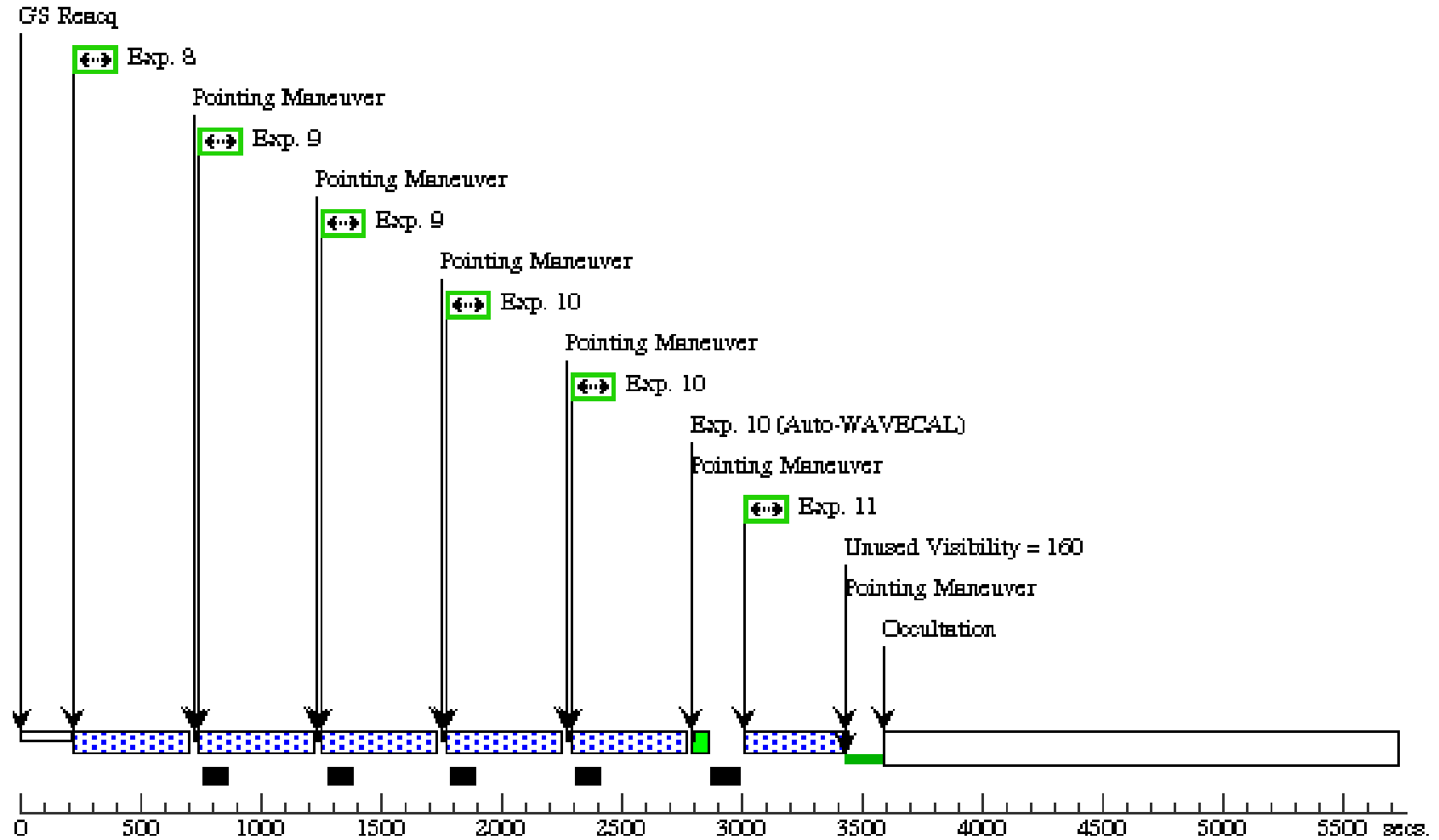


Orbit 2

GS Recsq

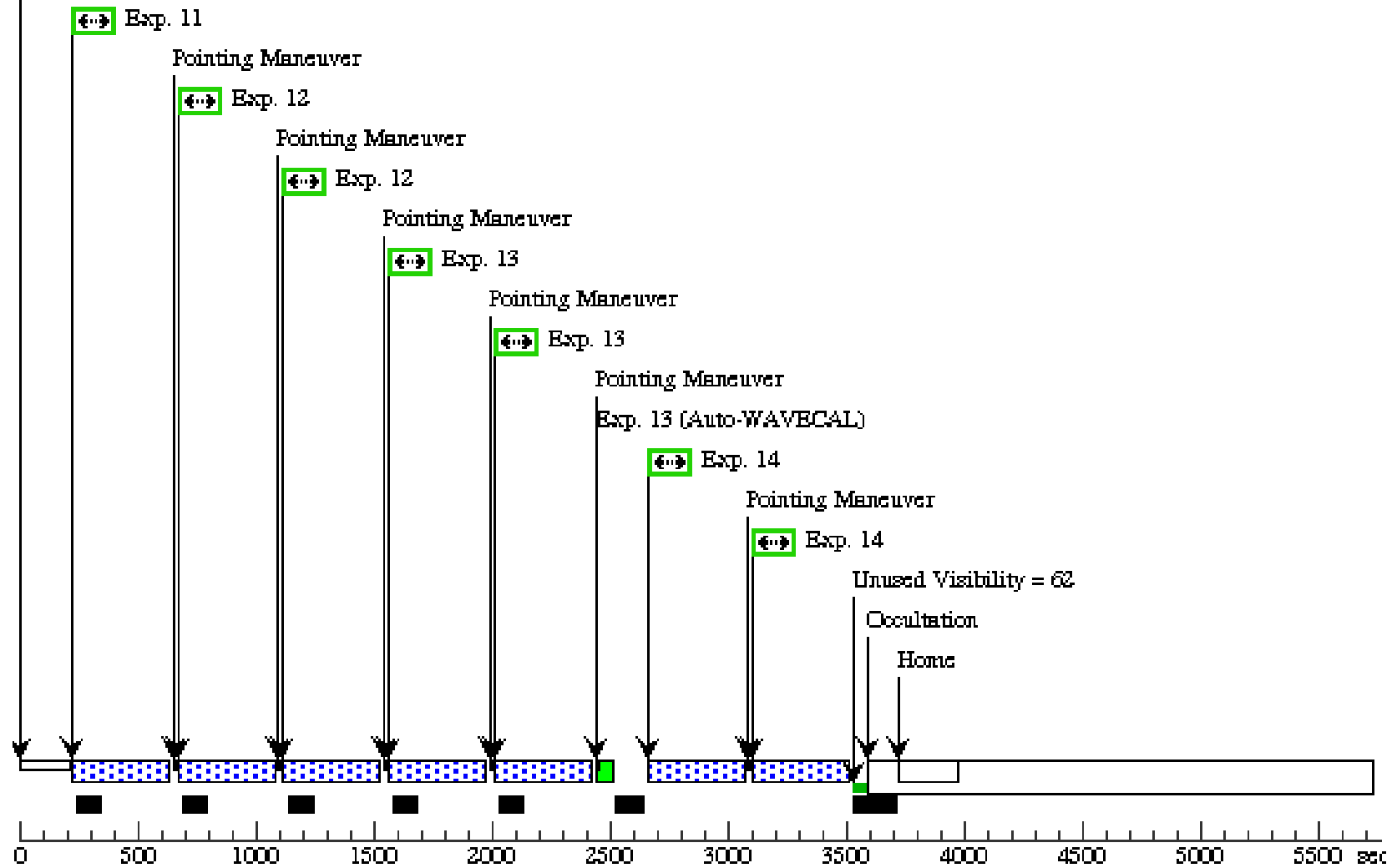


Orbit 3



Orbit 4

GS Recsq



Proposal 12465 - Visit 05 - A Massive Star Census of the Starburst Cluster R136

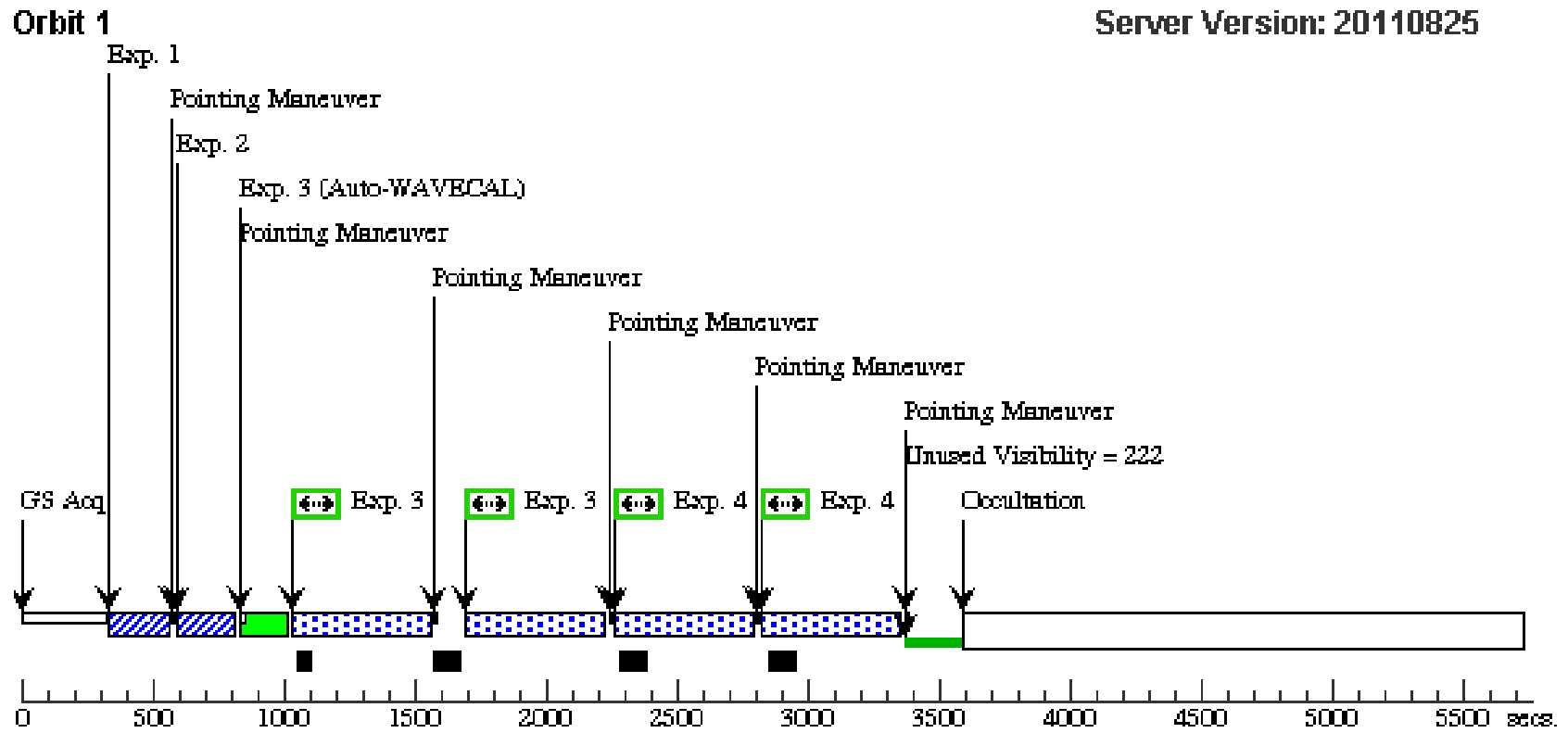
Thu Nov 10 02:24:29 GMT 2011

Visit	Proposal 12465, Visit 05, implementation Diagnostic Status: No Diagnostics Scientific Instruments: STIS/CCD, STIS/FUV-MAMA Special Requirements: ORIENT 109D TO 109 D <i>Comments: STIS G140L slit scan (25x0.2 arcsec) across R136 at 9 adjoining positions (PA=64 degrees). Update: 7/Nov/2011: ORIENT = PA+45 = 109. (single ORIENT for MAMA due to repeller-wire offset)</i>						
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures		
	(3)	Pattern Type=STIS-ALONG-SLIT Coordinate Frame=POS-TARG Purpose=DITHER Pattern Orientation=90.0 Number Of Points=2 Angle Between Sides= Point Spacing=0.2706 Center Pattern=false Line Spacing=		(3), (4), (5), (6), (7)			
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	
	(15)	R136-NW4	Offset from MELNICK34 by RA Offset: -1.912 Secs Dec Offset: 3.51 Arcsec		V=14.21	Offset Position (R136-NW4) Reference Frame: ICRS	
	<i>Comments: -10.229 arcsec RA, +3.510 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 30 (VEGA V = 14.21)</i>						
	(16)	R136-NW5	Offset from MELNICK34 by RA Offset: -1.928 Secs Dec Offset: 3.69 Arcsec		V=14.43	Offset Position (R136-NW5) Reference Frame: ICRS	
	<i>Comments: -10.317 arcsec RA, 3.690 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 35 (VEGA V = 14.43)</i>						
	(17)	R136-NW6	Offset from MELNICK34 by RA Offset: -1.945 Secs Dec Offset: 3.87 Arcsec		V=15.46	Offset Position (R136-NW6) Reference Frame: ICRS	
	<i>Comments: -10.405 arcsec RA, +3.870 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 92 (VEGA V = 15.46)</i>						
(18)	R136-NW7	Offset from MELNICK34 by RA Offset: -1.961 Secs Dec Offset: 4.05 Arcsec		V=15.03	Offset Position (R136-NW7) Reference Frame: ICRS		
<i>Comments: -10.493 arcsec RA, +4.050 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 64 (VEGA V = 15.03)</i>							
(19)	R136-NW8	Offset from MELNICK34 by RA Offset: -1.977 Secs Dec Offset: 4.23 Arcsec		V=14.56	Offset Position (R136-NW8) Reference Frame: ICRS		
<i>Comments: -10.580 arcsec RA, +4.230 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 40 (VEGA V = 14.56)</i>							
(22)	MELNICK34	RA: 05 38 44.2460 (84.6843583d) Dec: -69 06 5.85 (-69.10163d) Equinox: J2000		V=13.09+/-0.01 B-V = 0.25	Reference Frame: ICRS		
<i>Comments: VEGAMAG Photometry from WFC3 F555W Early Release Observation IB6WD6050 (De Marchi et al. 2011). ICRS astrometry of Melnick 34 (2MASS 05384424-6906058). Used for acquisition due to severe crowding within R136 itself.</i>							

Proposal 12465 - Visit 05 - A Massive Star Census of the Starburst Cluster R136

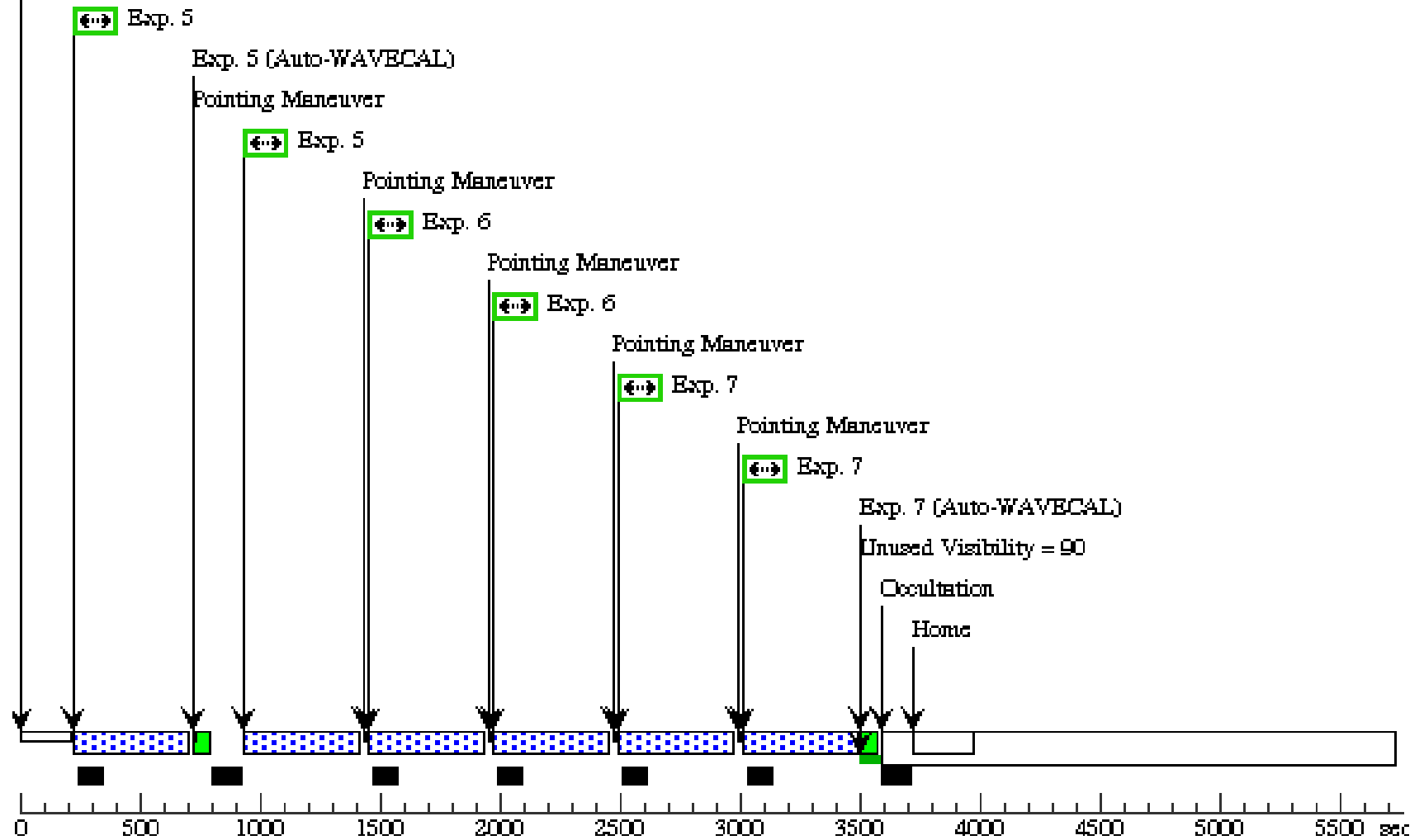
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit	
	1	(186001)	(22) MELNICK34	STIS/CCD, ACQ, F28X50LP	MIRROR				1 Secs [==>]	[1]	
	<i>Comments: ETC predicts S/N=174 for 1 sec exposure through F28X50LP aperture for Melnick 34 (V=13.09).</i>										
	2	(198019)	(22) MELNICK34	STIS/CCD, ACQ/PEAK, 52X0.1	MIRROR				0.5 Secs [==>]	[1]	
	<i>Comments: Peakup on Melnick 34 for accurate positioning prior to offset. ETC predicts 58,000 e- from source in 0.5 sec exposure through 52x0.1 aperture for Melnick 34 (V=13.09), order of magnitude below saturation level.</i>										
	3	(185255)	(15) R136-NW4	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A			Pattern 3, Exps 3-3 in Visit 05 (3)	520 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]	
	4	(185256)	(16) R136-NW5	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A			Pattern 3, Exps 4-4 in Visit 05 (3)	520 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]	
5	(185257)	(17) R136-NW6	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A			Pattern 3, Exps 5-5 in Visit 05 (3)	470 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[2]		
6	(185258)	(18) R136-NW7	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A			Pattern 3, Exps 6-6 in Visit 05 (3)	470 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[2]		
7	(185259)	(19) R136-NW8	STIS/FUV-MAMA, ACCUM, 52X0.2	G140L 1425 A			Pattern 3, Exps 7-7 in Visit 05 (3)	470 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[2]		

Orbit Structure



Orbit 2

GS Reacq



Proposal 12465 - Visit 06 - A Massive Star Census of the Starburst Cluster R136

Thu Nov 10 02:24:30 GMT 2011

Visit	Proposal 12465, Visit 06, implementation Diagnostic Status: No Diagnostics Scientific Instruments: STIS/CCD Special Requirements: ORIENT 109D TO 109 D; ORIENT 289D TO 289 D <i>Comments: STIS G750M/6581 slit scan (52x0.2 arcsec) across R136 at 18 adjoining positions (PA=64 degrees).</i> <i>Update: 7/Nov/2011: ORIENT = PA+45 or PA+180+45 = 109 or 289</i>								
	Patterns	<table border="1"> <thead> <tr> <th>#</th> <th>Primary Pattern</th> <th>Secondary Pattern</th> <th>Exposures</th> </tr> </thead> <tbody> <tr> <td>(4)</td> <td> Pattern Type=STIS-ALONG-SLIT Coordinate Frame=POS-TARG Purpose=DITHER Pattern Orientation=90.0 Number Of Points=2 Angle Between Sides= Point Spacing=0.35546 Center Pattern=false Line Spacing= </td> <td></td> <td>(3), (4), (5), (6), (7), (8), (9), (10), (11), (12), (13), (14), (15), (16), (17), (18), (19)</td> </tr> </tbody> </table>	#	Primary Pattern	Secondary Pattern	Exposures	(4)	Pattern Type=STIS-ALONG-SLIT Coordinate Frame=POS-TARG Purpose=DITHER Pattern Orientation=90.0 Number Of Points=2 Angle Between Sides= Point Spacing=0.35546 Center Pattern=false Line Spacing=	
#	Primary Pattern	Secondary Pattern	Exposures						
(4)	Pattern Type=STIS-ALONG-SLIT Coordinate Frame=POS-TARG Purpose=DITHER Pattern Orientation=90.0 Number Of Points=2 Angle Between Sides= Point Spacing=0.35546 Center Pattern=false Line Spacing=		(3), (4), (5), (6), (7), (8), (9), (10), (11), (12), (13), (14), (15), (16), (17), (18), (19)						

Proposal 12465 - Visit 06 - A Massive Star Census of the Starburst Cluster R136

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(2)	R136-SE9	Offset from MELNICK34 by RA Offset: -1.715 Secs Dec Offset: 1.35 Arcsec		V=14.74	Offset Position (R136-SE9) Reference Frame: ICRS
<i>Comments: -9.176 arcsec RA, 1.350 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit Hunter 55 (VEGA V = 14.74)</i>					
(4)	R136-SE8	Offset from MELNICK34 by RA Offset: -1.731 Secs Dec Offset: 1.53 Arcsec		V=13.24	Offset Position (R136-SE8) Reference Frame: ICRS
<i>Comments: -9.264 arcsec RA, +1.530 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - R136B (VEGA V = 13.24)</i>					
(5)	R136-SE7	Offset from MELNICK34 by RA Offset: -1.748 Secs Dec Offset: 1.71 Arcsec		V=14.65	Offset Position (R136-SE7) Reference Frame: ICRS
<i>Comments: -9.352 arcsec RA, +1.710 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 45 (VEGA V = 14.65)</i>					
(6)	R136-SE6	Offset from MELNICK34 by RA Offset: -1.764 Secs Dec Offset: 1.89 Arcsec		V=15.79	Offset Position (R136-SE6) Reference Frame: ICRS
<i>Comments: -9.439 arcsec RA, +1.890 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 116 (VEGA V = 15.788)</i>					
(7)	R136-SE5	Offset from MELNICK34 by RA Offset: -1.78 Secs Dec Offset: 2.07 Arcsec		V=15.1	Offset Position (R136-SE5) Reference Frame: ICRS
<i>Comments: -9.527 arcsec RA, +2.070 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter69 (VEGA B = 15.1)</i>					
(8)	R136-SE4	Offset from MELNICK34 by RA Offset: -1.797 Secs Dec Offset: 2.25 Arcsec		V=15.13	Offset Position (R136-SE4) Reference Frame: ICRS
<i>Comments: -9.615 arcsec RA, +2.250 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 73 (VEGA V = 15.13)</i>					
(9)	R136-SE3	Offset from MELNICK34 by RA Offset: -1.813 Secs Dec Offset: 2.43 Arcsec		V=14.41	Offset Position (R136-SE3) Reference Frame: ICRS
<i>Comments: -9.703 arcsec RA, +2.430 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 3 (VEGA V = 14.41)</i>					
(10)	R136-SE2	Offset from MELNICK34 by RA Offset: -1.83 Secs Dec Offset: 2.61 Arcsec		V=14.65	Offset Position (R136-SE2) Reference Frame: ICRS
<i>Comments: -9.790 arcsec RA, +2.610 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 50 (VEGA V = 14.65)</i>					
(11)	R136-SE1	Offset from MELNICK34 by RA Offset: -1.846 Secs Dec Offset: 2.79 Arcsec		V=12.97	Offset Position (R136-SE1) Reference Frame: ICRS
<i>Comments: -9.878 arcsec RA, +2.790 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit R136a3 (VEGA V = 12.97)</i>					
(12)	R136-NW1	Offset from MELNICK34 by RA Offset: -1.863 Secs Dec Offset: 2.97 Arcsec		V=12.28	Offset Position (R136-NW1) Reference Frame: ICRS
<i>Comments: -9.966 arcsec RA, +2.970 arcsec Dec offset (R136a1/a2) from Mk34 in WFC3 V555W image. Brightest cluster star in slit R136a1 (VEGA V = 12.28)</i>					
(13)	R136-NW2	Offset from MELNICK34 by RA Offset: -1.879 Secs Dec Offset: 3.15 Arcsec		V=13.97	Offset Position (R136-NW2) Reference Frame: ICRS
<i>Comments: -10.054 arcsec RA, +3.150 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - R136a7 (VEGA V = 13.97)</i>					

Fixed Targets

Proposal 12465 - Visit 06 - A Massive Star Census of the Starburst Cluster R136

(14)	R136-NW3	Offset from MELNICK34 by RA Offset: -1.895 Secs Dec Offset: 3.33 Arcsec	V=13.41	Offset Position (R136-NW3) Reference Frame: ICRS
<i>Comments: -10.142 arcsec RA, +3.330 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - R136a4+a8 (VEGA V = 13.41)</i>				
(15)	R136-NW4	Offset from MELNICK34 by RA Offset: -1.912 Secs Dec Offset: 3.51 Arcsec	V=14.21	Offset Position (R136-NW4) Reference Frame: ICRS
<i>Comments: -10.229 arcsec RA, +3.510 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 30 (VEGA V = 14.21)</i>				
(16)	R136-NW5	Offset from MELNICK34 by RA Offset: -1.928 Secs Dec Offset: 3.69 Arcsec	V=14.43	Offset Position (R136-NW5) Reference Frame: ICRS
<i>Comments: -10.317 arcsec RA, 3.690 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 35 (VEGA V = 14.43)</i>				
(17)	R136-NW6	Offset from MELNICK34 by RA Offset: -1.945 Secs Dec Offset: 3.87 Arcsec	V=15.46	Offset Position (R136-NW6) Reference Frame: ICRS
<i>Comments: -10.405 arcsec RA, +3.870 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 92 (VEGA V = 15.46)</i>				
(18)	R136-NW7	Offset from MELNICK34 by RA Offset: -1.961 Secs Dec Offset: 4.05 Arcsec	V=15.03	Offset Position (R136-NW7) Reference Frame: ICRS
<i>Comments: -10.493 arcsec RA, +4.050 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 64 (VEGA V = 15.03)</i>				
(19)	R136-NW8	Offset from MELNICK34 by RA Offset: -1.977 Secs Dec Offset: 4.23 Arcsec	V=14.56	Offset Position (R136-NW8) Reference Frame: ICRS
<i>Comments: -10.580 arcsec RA, +4.230 arcsec Dec offset from Mk34 in WFC3 V555W image. Brightest cluster star in slit - Hunter 40 (VEGA V = 14.56)</i>				
(22)	MELNICK34	RA: 05 38 44.2460 (84.6843583d) Dec: -69 06 5.85 (-69.10163d) Equinox: J2000	V=13.09+/-0.01 B-V = 0.25	Reference Frame: ICRS
<i>Comments: VEGAMAG Photometry from WFC3 F555W Early Release Observation IB6WD6050 (De Marchi et al. 2011). ICRS astrometry of Melnick 34 (2MASS 05384424-6906058). Used for acquisition due to severe crowding within R136 itself.</i>				

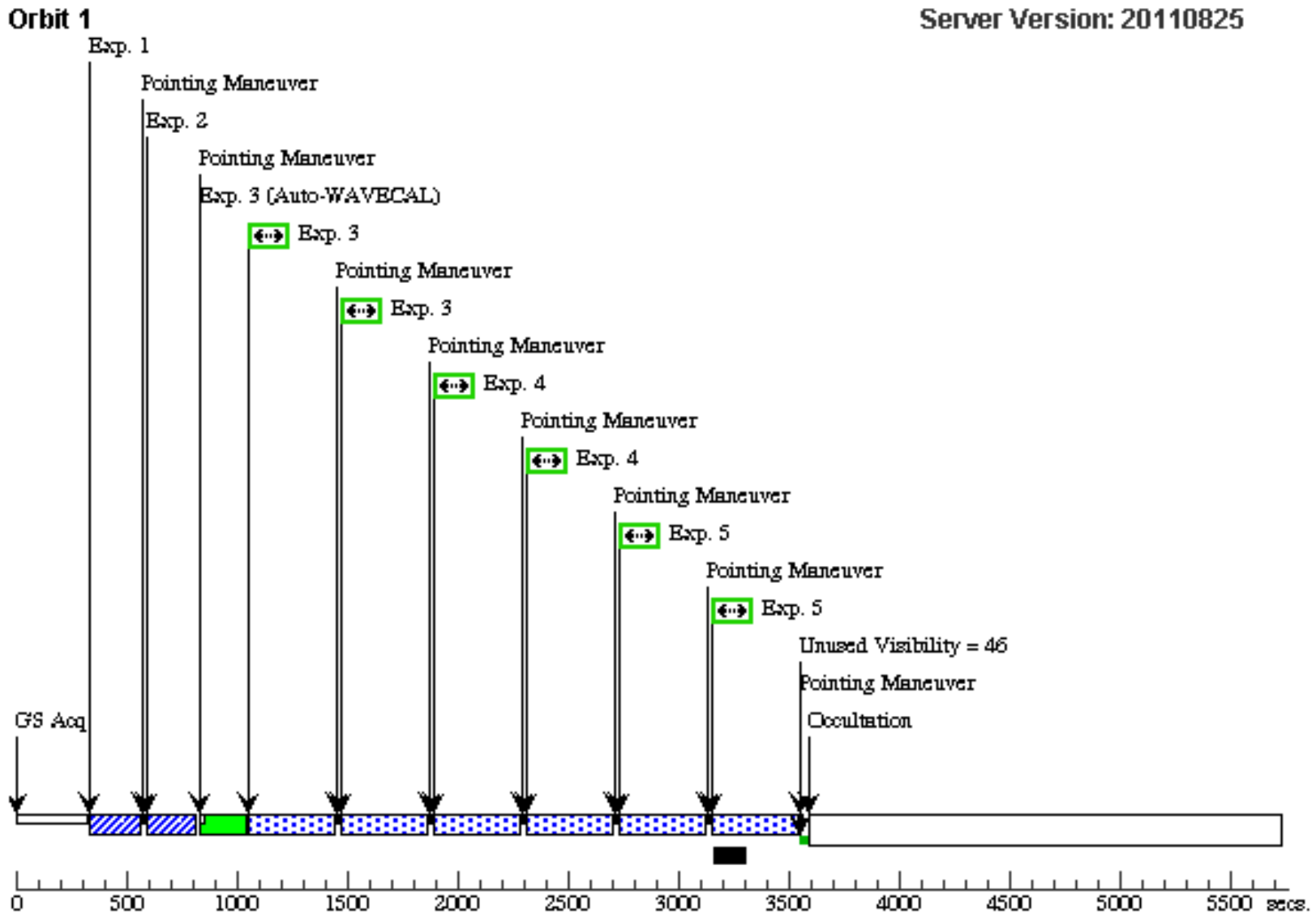
Proposal 12465 - Visit 06 - A Massive Star Census of the Starburst Cluster R136

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit	
Exposures	1	(197926)	(22) MELNICK34	STIS/CCD, ACQ, F28X50LP	MIRROR			1 Secs [==>]	[1]	
	<i>Comments: ETC predicts S/N=174 for 1 sec exposure through F28X50LP aperture for Melnick 34 (V=13.09).</i>									
	2	(198019)	(22) MELNICK34	STIS/CCD, ACQ/PEAK, 52X0.1	MIRROR			0.5 Secs [==>]	[1]	
	<i>Comments: Peakup on Melnick 34 for accurate positioning prior to offset. ETC predicts 58,000 e- from source in 0.5 sec exposure through 52x0.1 aperture for Melnick 34 (V=13.09), order of magnitude below saturation level.</i>									
	3	(2) R136-SE9		STIS/CCD, ACCUM, 52X0.2	G750M 6581 A	CR-SPLIT=NO		Pattern 4, Exps 3-3 in Visit 06 (4)	350 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	4	(4) R136-SE8		STIS/CCD, ACCUM, 52X0.2	G750M 6581 A	CR-SPLIT=NO		Pattern 4, Exps 4-4 in Visit 06 (4)	350 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	5	(5) R136-SE7		STIS/CCD, ACCUM, 52X0.2	G750M 6581 A	CR-SPLIT=NO		Pattern 4, Exps 5-5 in Visit 06 (4)	350 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	6	(6) R136-SE6		STIS/CCD, ACCUM, 52X0.2	G750M 6581 A	CR-SPLIT=NO		Pattern 4, Exps 6-6 in Visit 06 (4)	370 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[2]
	7	(7) R136-SE5		STIS/CCD, ACCUM, 52X0.2	G750M 6581 A	CR-SPLIT=NO		Pattern 4, Exps 7-7 in Visit 06 (4)	370 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[2]
	8	(8) R136-SE4		STIS/CCD, ACCUM, 52X0.2	G750M 6581 A	CR-SPLIT=NO		Pattern 4, Exps 8-8 in Visit 06 (4)	370 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[2]
	9	(9) R136-SE3		STIS/CCD, ACCUM, 52X0.2	G750M 6581 A	CR-SPLIT=NO		Pattern 4, Exps 9-9 in Visit 06 (4)	370 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[2] [3]
	10	(10) R136-SE2		STIS/CCD, ACCUM, 52X0.2	G750M 6581 A	CR-SPLIT=NO		Pattern 4, Exps 10-10 in Visit 06 (4)	370 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[3]
	11	(11) R136-SE1		STIS/CCD, ACCUM, 52X0.2	G750M 6581 A	CR-SPLIT=NO		Pattern 4, Exps 11-11 in Visit 06 (4)	370 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[3]
	12	(12) R136-NW1		STIS/CCD, ACCUM, 52X0.2	G750M 6581 A	CR-SPLIT=NO		Pattern 4, Exps 12-12 in Visit 06 (4)	370 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[3]
13	(13) R136-NW2		STIS/CCD, ACCUM, 52X0.2	G750M 6581 A	CR-SPLIT=NO		Pattern 4, Exps 13-13 in Visit 06 (4)	370 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[4]	
14	(14) R136-NW3		STIS/CCD, ACCUM, 52X0.2	G750M 6581 A	CR-SPLIT=NO		Pattern 4, Exps 14-14 in Visit 06 (4)	370 Secs [==>(Pattern 1)] [==>(Pattern 2)]	[4]	

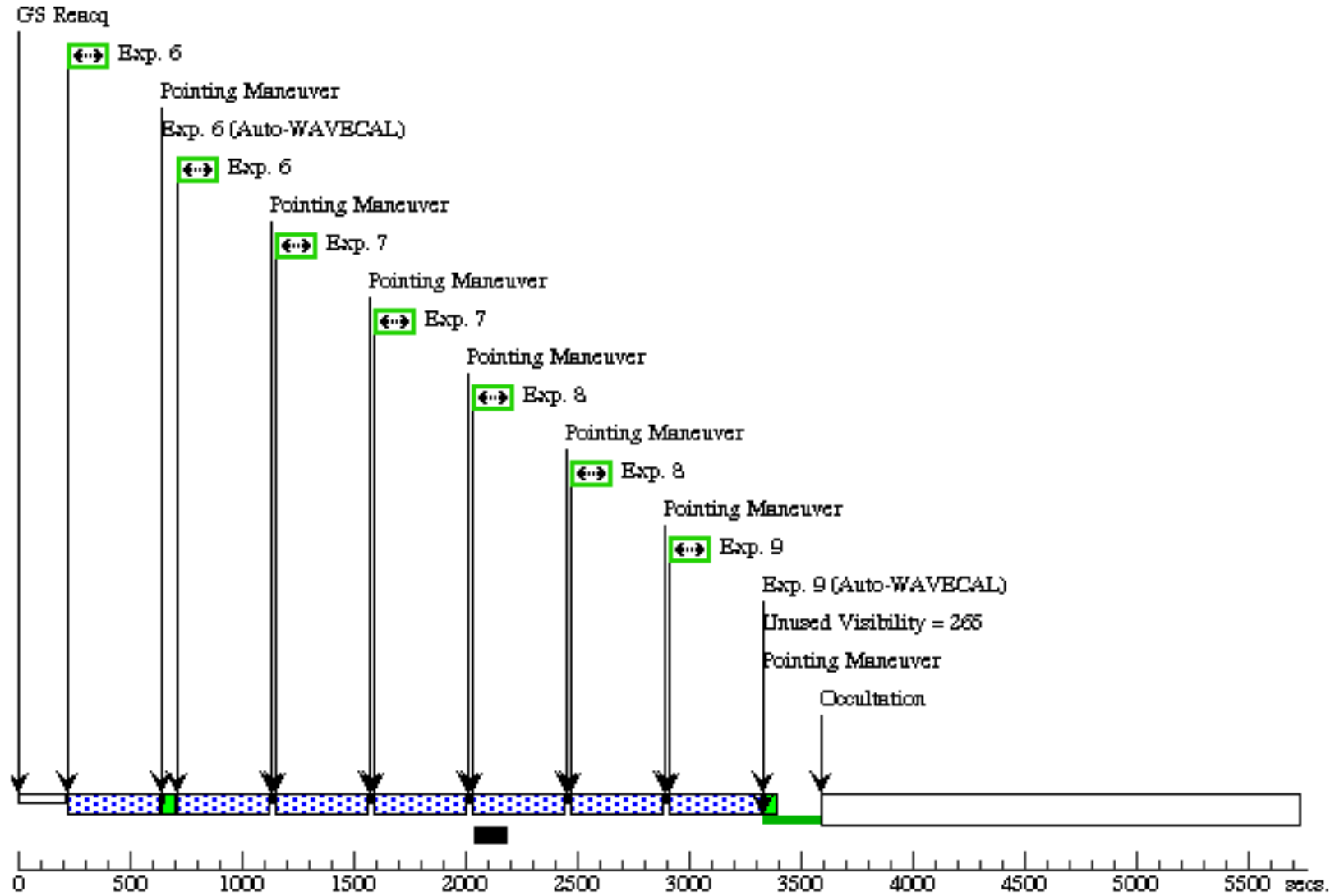
Proposal 12465 - Visit 06 - A Massive Star Census of the Starburst Cluster R136

15	(15) R136-NW4	STIS/CCD, ACCUM, 52X0.2	G750M 6581 A	CR-SPLIT=NO	Pattern 4, Exps 15-1 5 in Visit 06 (4)	370 Secs	
						[==>(Pattern 1)]	[4]
16	(16) R136-NW5	STIS/CCD, ACCUM, 52X0.2	G750M 6581 A	CR-SPLIT=NO	Pattern 4, Exps 16-1 6 in Visit 06 (4)	370 Secs	
						[==>(Pattern 1)]	[4]
17	(17) R136-NW6	STIS/CCD, ACCUM, 52X0.2	G750M 6581 A	CR-SPLIT=NO	Pattern 4, Exps 17-1 7 in Visit 06 (4)	350 Secs	
						[==>(Pattern 1)]	[5]
18	(18) R136-NW7	STIS/CCD, ACCUM, 52X0.2	G750M 6581 A	CR-SPLIT=NO	Pattern 4, Exps 18-1 8 in Visit 06 (4)	350 Secs	
						[==>(Pattern 1)]	[5]
19	(19) R136-NW8	STIS/CCD, ACCUM, 52X0.2	G750M 6581 A	CR-SPLIT=NO	Pattern 4, Exps 19-1 9 in Visit 06 (4)	350 Secs	
						[==>(Pattern 1)]	[5]

Orbit Structure

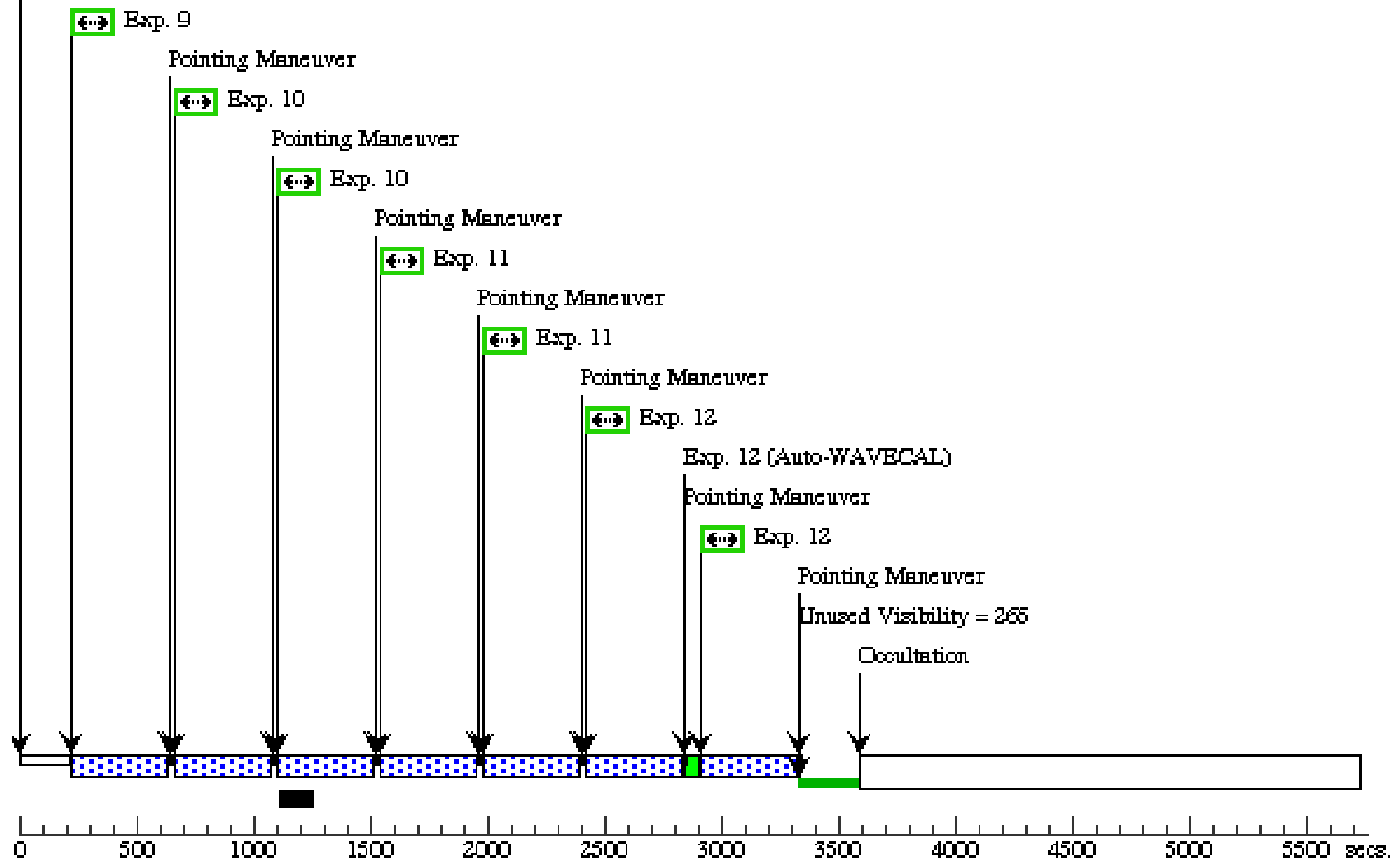


Orbit 2



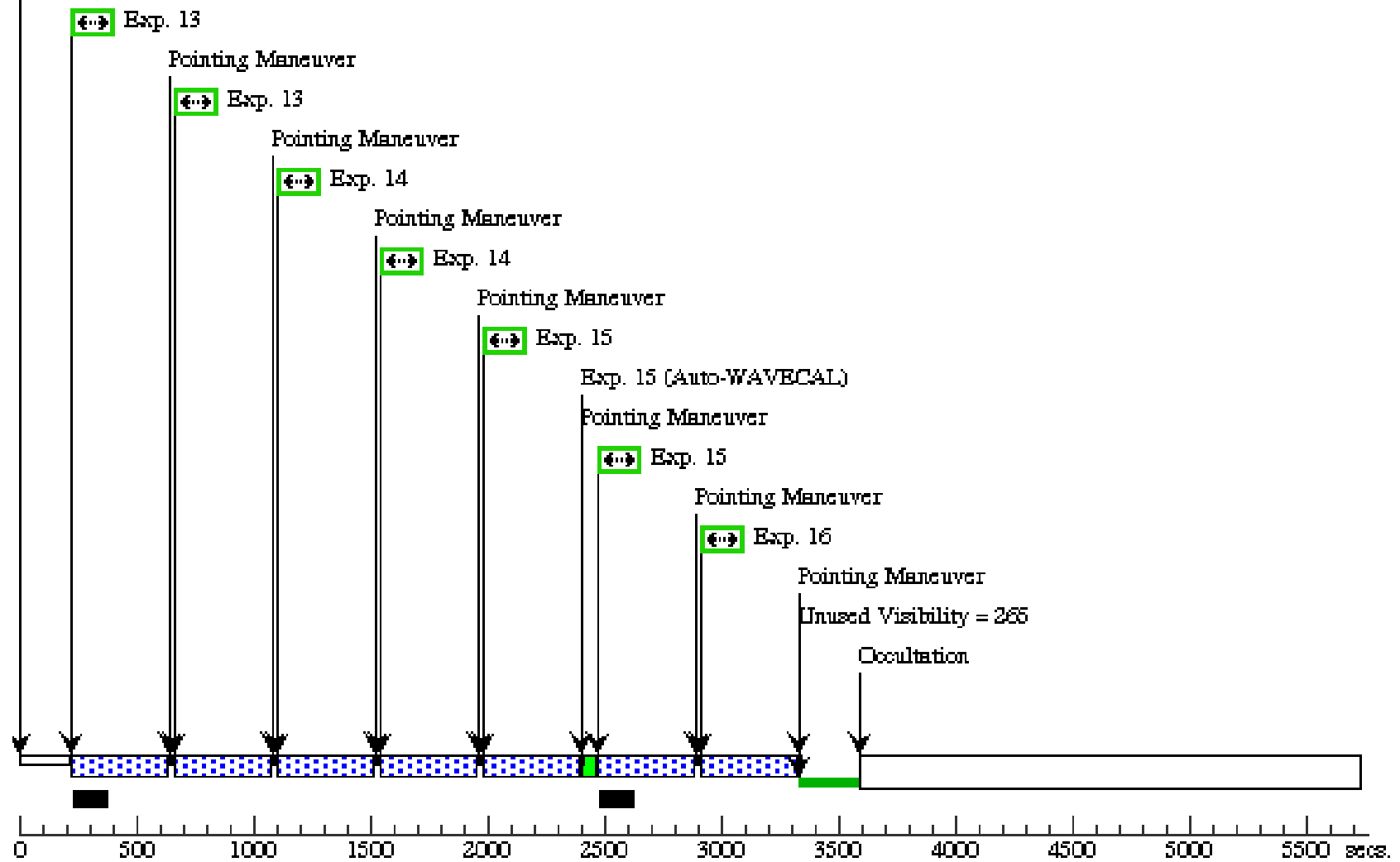
Orbit 3

GS Recsq



Orbit 4

GS Recsq



Orbit 5

GS Req

