13377 - Essential UV Observations of Eta Carinae's Change of State

Cycle: 21, Proposal Category: GO

(UV Initiative)

(Availability Mode: AVAILABLE)

INVESTIGATORS

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VISITS

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
01	(1) ETA-CAR-A CCDFLAT WAVE	STIS/CCD	2	22-Jul-2014 21:00:48.0	yes
02	(1) ETA-CAR-A	STIS/CCD STIS/FUV-MAMA STIS/NUV-MAMA	1	22-Jul-2014 21:00:52.0	yes
03	(1) ETA-CAR-A WAVE	STIS/CCD	1	22-Jul-2014 21:00:54.0	yes
04	(1) ETA-CAR-A WAVE	STIS/CCD	1	22-Jul-2014 21:00:58.0	yes

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
05	(1) ETA-CAR-A WAVE	STIS/CCD	1	22-Jul-2014 21:01:01.0	yes
06	(1) ETA-CAR-A WAVE	STIS/CCD	1	22-Jul-2014 21:01:04.0	yes
07	(1) ETA-CAR-A WAVE	STIS/CCD	1	22-Jul-2014 21:01:06.0	yes

8 Total Orbits Used

ABSTRACT

Eta Carinae is now passing though a critical phase in its evolution as it recovers from its ``Great Eruption" 170 years ago. About 12 years ago we began to see a dramatic and unpredicted change in eta Car's long-term behavior. The brightening rate suddenly accelerated, so by 2010 the central star had brightened by more than a factor of four in the near-UV. Between 2003 and 2010 the stellar-wind emission lines weakened by factors of 2 to 4(!) implying a rapid decrease in its mass loss rate. Eta Car is unsteadily returning to its pre-eruptive state, but the rapidity since 2000 has been astonishing. The recent secular changes are much stronger in the UV than at optical wavelengths, but no UV data have been obtained since 2010 and no far-UV observations since 2004. The extraordinary brightening and changes in the wind are fundamental and must indicate basic changes in the outer structure of this circa-130 Msun star. Therefore, this proposal focuses on the rapid secular changes rather than the expected 2014.6 periastron passage. This is primarily a UV problem, though longer wavelengths are also worthwhile. Fresh observations must be done early in Cycle 21 before the approaching periastron alters the system. Our highest priorities are the UV brightening and the long term changes in the wind.

OBSERVING DESCRIPTION

(1) A 2-orbit STIS/CCD visit should occur as early as possible.

(2) A 1- or 2-orbit STIS/MAMA visit as early as possible in Cycle 21.

(3) Additional STIS/CCD visits through and beyond the 2014.6 spectroscopic event; details TBD.

(4) If possible, another STIS/MAMA orbit in 2015.

The total is 11 orbits.

Integration times range from a few seconds in the red to several minutes in the UV.

--------- Additional Comments ----------

========== -- CLARIFICATION OF AN ORIENT RANGE --

Visit 1 has an ORIENT special requirement, to match some previous observations. If possible we would like ORIENT = exactly 197D. This appears to be feasible for a few days around September 17.

The Phase 2 plan specifies ORIENT = 196.8 to 197.2 degrees.

*** HOWEVER: IF THIS REQUIREMENT MAKES SCHEDULING VERY
DIFFICULT, WE CAN WIDEN THE RANGE OF ORIENT ANGLES. ***

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Visit

Proposal 13377, CCD-1-DITHERED (01), completed Wed Jul 23 01:01:08 GMT 2014

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD

Special Requirements: ORIENT 196.8D TO 197.2 D; BETWEEN 15-AUG-2013:00:00:00 AND 15-OCT-2013:00:00:00

Comments: WE WILL USE DATA FROM THIS VISIT TO PLAN DETAILS FOR THE LATER VISITS. THIS IS ESPECIALLY CRITICAL FOR UV BRIGHTNESS LEVELS IN NEXT VISIT MAMA-1.
-- A secondary purpose is to make precise spatial measurements of emission lines.
-- ORIENT goal is slit PA close to -28D or +152D. PA -28D was done often before 2004 and includes the nearby ejecta Weigelt knot D.
-- IMPORTANT: IF SCHEDULING IS DIFFICULT, ORIENT CAN BE RELAXED TO COVER A WIDER INTERVAL THAN 0.4. DEGREES.

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=STIS-ALONG-SLIT	Coordinate Frame=POS-TARG		(3-5), (7), (12), (14), (22-23), (25-26), (35)
	Purpose=DITHER	Pattern Orientation=90.0		
	Number Of Points=2	Angle Between Sides=		
	Point Spacing=0.2282	Center Pattern=false		
	Line Spacing=			

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	ETA-CAR-A	RA: 10 45 3.5910 (161.2649625d)		V=5.0+/-0.5	Reference Frame: GSC1
		Dec: -59 41 4.26 (-59.68452d)		F(2800) = 1.0E -11 +/- 0.4E-11,	
		Equinox: J2000		,	
		Plate Id: ZZZQ		F(2200) = 5E-12 +/- 3E-12	

Exposures

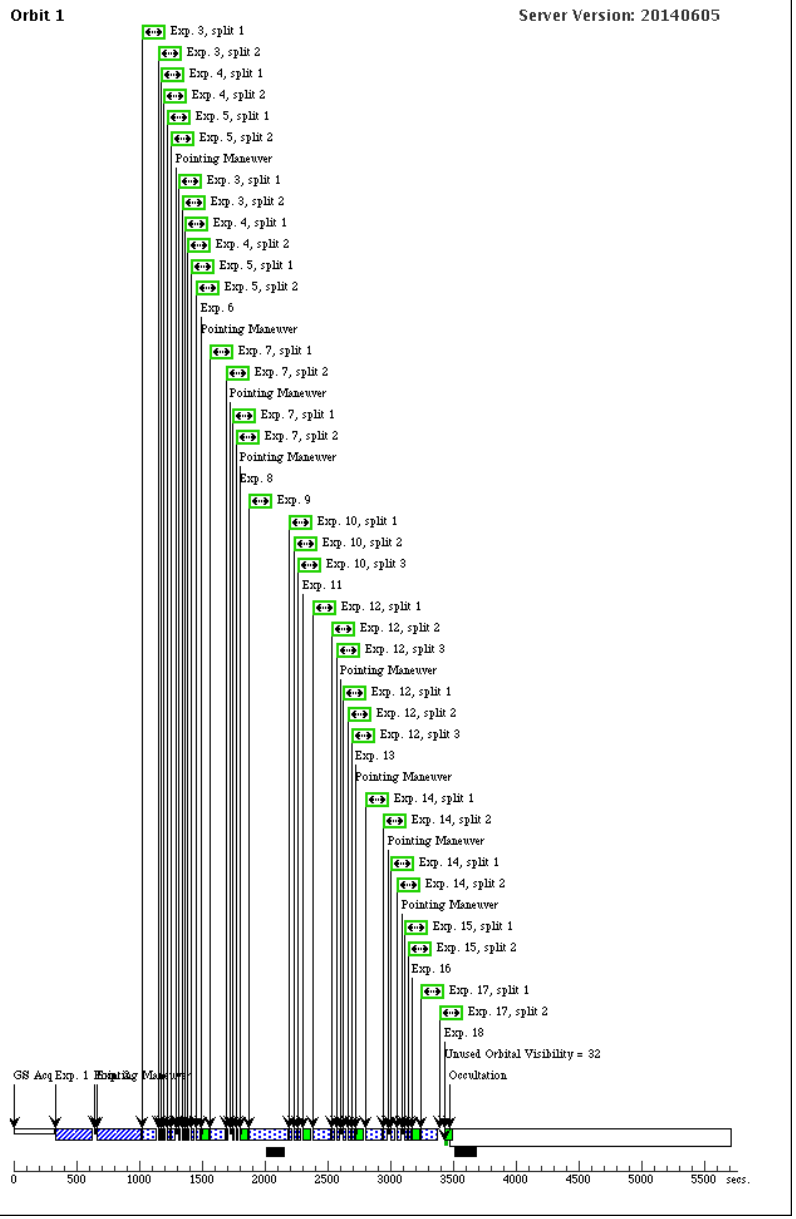
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ 1	(1) ETA-CAR-A	STIS/CCD, ACQ, F25ND3	MIRROR	ACQTYPE=POINT			0.4 Secs (0.4 Secs)	
								[==>]	***[1]***
Comments: Target Acquisition for STIS CCD longslit									
2	ACQ 2	(1) ETA-CAR-A	STIS/CCD, ACQ/PEAK, 52X0.1	G750M 7795 A				0.5 Secs (0.5 Secs)	
								[==>]	***[1]***
Comments: This wavelength interval 7795AA has no strong emision lines. Therefore peakup really leads to the star A and not to ejecta blobs like C and D.									
3	A 6768 short	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G750M 6768 A	CR-SPLIT=2; GAIN=4; SIZEAXIS2=100; WAVECAL=NO		Pattern 1, Exps 3-5 in CCD-1-DITHERED (01) (1)	0.2 Secs (0.4 Secs) *[==>(Pattern 1, Split 1)]* *[==>(Pattern 1, Split 2)]* *[==>(Pattern 2, Split 1)]* *[==>(Pattern 2, Split 2)]*	***[1]***
Comments: Ultra-short exposure to get extremely bright H-alpha emission line profile. WAVECAL=NO because we are explicitly managing the WCALs.									
4	A 6768 med	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G750M 6768 A	GAIN=4; WAVECAL=NO; SIZEAXIS2=160; CR-SPLIT=2		Pattern 1, Exps 3-5 in CCD-1-DITHERED (01) (1)	2 Secs (4 Secs) *[==>(Pattern 1, Split 1)]* *[==>(Pattern 1, Split 2)]* *[==>(Pattern 2, Split 1)]* *[==>(Pattern 2, Split 2)]*	***[1]***
Comments: Some H-alpha pixels will be saturated in this exposure; H-alpha is extremely bright. *NOTE: In past several years Eta Car has been brightening 0.1--0.2 magn per year.*									
5	A 6768 long	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G750M 6768 A	CR-SPLIT=2; GAIN=1; SIZEAXIS2=480; WAVECAL=NO		Pattern 1, Exps 3-5 in CCD-1-DITHERED (01) (1)	15 Secs (30 Secs) *[==>(Pattern 1, Split 1)]* *[==>(Pattern 1, Split 2)]* *[==>(Pattern 2, Split 1)]* *[==>(Pattern 2, Split 2)]*	***[1]***
Comments: H-alpha will be heavily overexposed with this exposure time.									
6	WCAL 6768	WAVE	STIS/CCD, ACCUM, 52X0.1	G750M 6768 A				*[==>]*	***[1]***
Comments: In this program we include WAVECALS explicitly so we can omit some that are definitely not needed for the program goals, and partly to force some of them into occultation periods.									
7	5734	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G750M 5734 A	CR-SPLIT=2; SIZEAXIS2=200; WAVECAL=NO; GAIN=4		Pattern 1, Exps 7-7 in CCD-1-DITHERED (01) (1)	4 Secs (8 Secs) *[==>(Pattern 1, Split 1)]* *[==>(Pattern 1, Split 2)]* *[==>(Pattern 2, Split 1)]* *[==>(Pattern 2, Split 2)]*	***[1]***
8	WCAL 5734	WAVE	STIS/CCD, ACCUM, 52X0.1	G750M 5734 A				*[==>]*	***[1]***
9	LODISP 2000 LONG	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G230LB 2375 A	CR-SPLIT=NO; SIZEAXIS2=200; GAIN=4; WAVECAL=NO			170 Secs (170 Secs) *[==>]*	***[1]***
Comments: Quick look at far UV, for photometry and also for planning later MAMA obs. With this exposure time, the longest wavelengths covered by this grating will be saturated. Compare shorter exposures. *--- There are two reasons for the long exposure time: (1) good S/N below 2400 AA, and (2)* *make use of the time during a buffer dump. This exposure is intended to coincide with a buffer dump.*									

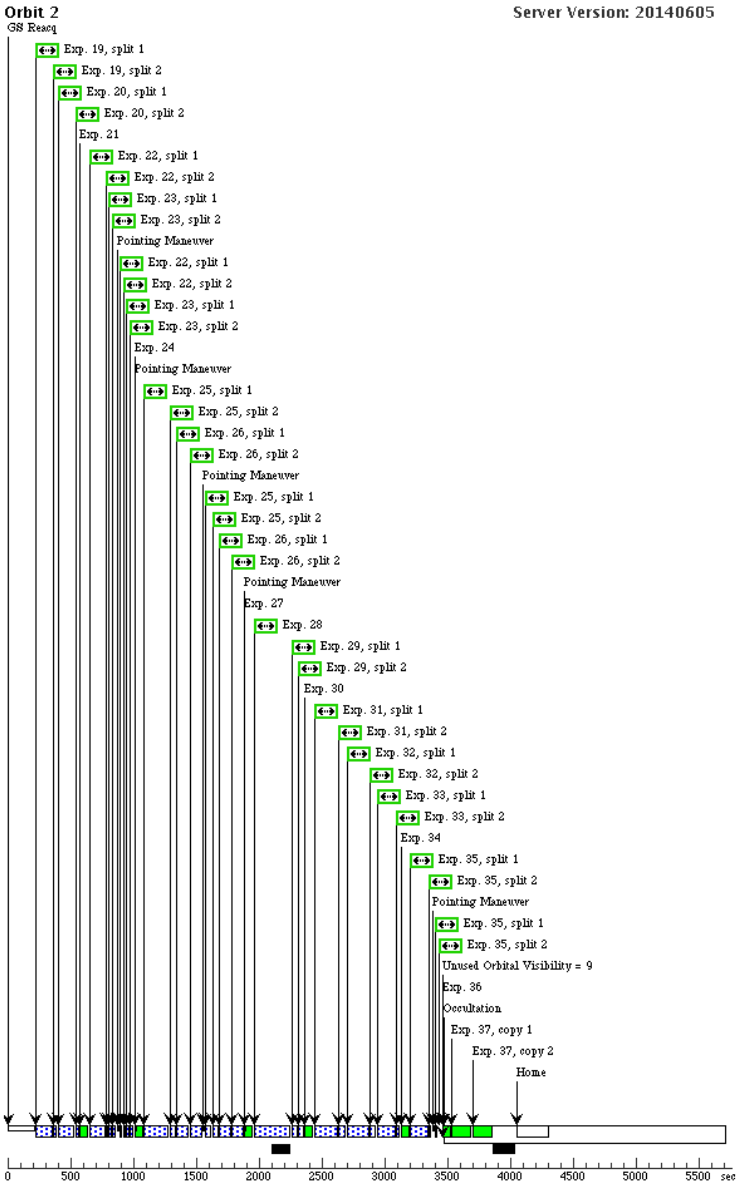
10	LODISP 2000 MED	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G230LB 2375 A	CR-SPLIT=3; SIZEAXIS2=200; GAIN=4; WAVECAL=NO		36 Secs (36 Secs) *[==>(Split 1)]* *[==>(Split 2)]* *[==>(Split 3)]*	***[1]***
Comments: Quick look at UV, for photometry and for planning later MAMA obs. Compare preceding long exposure.								
11	WCAL LO DISP 2000	WAVE	STIS/CCD, ACCUM, 52X0.1	G230LB 2375 A			*[==>]*	***[1]***
12	A 3936 med	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G430M 3936 A	CR-SPLIT=3; WAVECAL=NO; SIZEAXIS2=200; GAIN=4	Pattern 1, Exps 12-12 in CCD-1-DITHERED (01) (1)	27 Secs (54 Secs) *[==>(Pattern 1, Split 1)]* *[==>(Pattern 1, Split 2)]* *[==>(Pattern 1, Split 3)]* *[==>(Pattern 2, Split 1)]* *[==>(Pattern 2, Split 2)]* *[==>(Pattern 2, Split 3)]*	***[1]***
Comments: Important spectral region includes diverse emission features.								
13	WCAL 3936	WAVE	STIS/CCD, ACCUM, 52X0.1	G430M 3936 A			*[==>]*	***[1]***
14	A 4706 medium	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G430M 4706 A	CR-SPLIT=2; SIZEAXIS2=200; WAVECAL=NO; GAIN=4	Pattern 1, Exps 14-14 in CCD-1-DITHERED (01) (1)	30 Secs (60 Secs) *[==>(Pattern 1, Split 1)]* *[==>(Pattern 1, Split 2)]* *[==>(Pattern 2, Split 1)]* *[==>(Pattern 2, Split 2)]*	***[1]***
15	A 4706 short	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G430M 4706 A	CR-SPLIT=2; SIZEAXIS2=200; WAVECAL=NO; GAIN=4		8 Secs (8 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	***[1]***
16	WCAL 4706	WAVE	STIS/CCD, ACCUM, 52X0.1	G430M 4706 A			*[==>]*	***[1]***
17	A 3423	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G430M 3423 A	CR-SPLIT=2; WAVECAL=NO; SIZEAXIS2=100; GAIN=4		40 Secs (40 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	***[1]***
Comments: For photometry, WAVECAL is not essdential.								
18	WCAL 3423	WAVE	STIS/CCD, ACCUM, 52X0.1	G430M 3423 A			*[==>]*	***[1]***
19	A 3680	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G430M 3680 A	CR-SPLIT=2; WAVECAL=NO; SIZEAXIS2=100; GAIN=4		30 Secs (30 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	***[2]***
Comments: Mainly for photometry, S/N inadequate for spectroscopy, hence no WAVECAL needed. Observing plan doesn't have enough time for this WAVECAL.								
20	A 3165	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G430M 3165 A	CR-SPLIT=2; WAVECAL=NO; SIZEAXIS2=100; GAIN=4		24 Secs (24 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	***[2]***
Comments: For photometry, WAVECAL is not essential.								

21	WCAL 3165	WAVE	STIS/CCD, ACCUM, 52X0.1	G430M 3165 A			[==>]	[2]
22	A 4961 short	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G430M 4961 A	CR-SPLIT=2; WAVECAL=NO; SIZEAXIS2=100; GAIN=4	Pattern 1, Exps 22-23 in CCD-1-DITHERED (01) (1)	2.4 Secs (4.8 Secs) [==>(Pattern 1, Split 1)] [==>(Pattern 1, Split 2)] [==>(Pattern 2, Split 1)] [==>(Pattern 2, Split 2)]	[2]
23	A 4961 med	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G430M 4961 A	CR-SPLIT=2; WAVECAL=NO; SIZEAXIS2=200; GAIN=4	Pattern 1, Exps 22-23 in CCD-1-DITHERED (01) (1)	20 Secs (40 Secs) [==>(Pattern 1, Split 1)] [==>(Pattern 1, Split 2)] [==>(Pattern 2, Split 1)] [==>(Pattern 2, Split 2)]	[2]
24	WCAL 4961	WAVE	STIS/CCD, ACCUM, 52X0.1	G430M 4961 A			[==>]	[2]
25	A 2557 short	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G230MB 2557 A	SIZEAXIS2=160; CR-SPLIT=2; WAVECAL=NO; GAIN=4	Pattern 1, Exps 25-26 in CCD-1-DITHERED (01) (1)	60 Secs (120 Secs) [==>(Pattern 1, Split 1)] [==>(Pattern 1, Split 2)] [==>(Pattern 2, Split 1)] [==>(Pattern 2, Split 2)]	[2]
26	A 2557 long	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G230MB 2557 A	SIZEAXIS2=160; CR-SPLIT=2; WAVECAL=NO; GAIN=4	Pattern 1, Exps 25-26 in CCD-1-DITHERED (01) (1)	160 Secs (320 Secs) [==>(Pattern 1, Split 1)] [==>(Pattern 1, Split 2)] [==>(Pattern 2, Split 1)] [==>(Pattern 2, Split 2)]	[2]
27	WCAL 2557	WAVE	STIS/CCD, ACCUM, 52X0.1	G230MB 2557 A			[==>]	[2]
28	A 2836 long	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G230MB 2836 A	SIZEAXIS2=120; WAVECAL=NO; CR-SPLIT=NO; GAIN=4		150 Secs (150 Secs) [==>]	[2]
Comments: This exposure is intended to coincide with a buffer dump.								
29	A 2836	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G230MB 2836 A	SIZEAXIS2=120; WAVECAL=NO; CR-SPLIT=2; GAIN=4		60 Secs (60 Secs) [==>(Split 1)] [==>(Split 2)]	[2]
30	WCAL 2836	WAVE	STIS/CCD, ACCUM, 52X0.1	G230MB 2836 A			[==>]	[2]
31	A 2697	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G230MB 2697 A	SIZEAXIS2=120; WAVECAL=NO; CR-SPLIT=2; GAIN=4		90 Secs (90 Secs) [==>(Split 1)] [==>(Split 2)]	[2]
Comments: For photometry, no WAVECAL needed.								

32	A 2416	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G230MB 2416 A	SIZEAXIS2=120; WAVECAL=NO; CR-SPLIT=2; GAIN=1		70 Secs (70 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	***[2]***
Comments: For photometry, no WAVECAL needed.								
33	LODISP 4300	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G430L 4300 A	CR-SPLIT=2; GAIN=4; WAVECAL=NO; SIZEAXIS2=400		4 Secs (4 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	***[2]***
Comments: This grating will be used for synthetic photometry in future brief visits. Included here in order to calibrate those visits, by comparison with higer-dispersion data obtained this visit.								
34	WCAL LO DISP 4300	WAVE	STIS/CCD, ACCUM, 52X0.1	G430L 4300 A			*[==>]*	***[2]***
35	A 7283	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G750M 7283 A	CR-SPLIT=2; WAVECAL=NO; SIZEAXIS2=200; GAIN=4	Pattern 1, Exps 35-35 in CCD-1-DITHERED (01) (1)	4 Secs (8 Secs) *[==>(Pattern 1, Split 1)]* *[==>(Pattern 1, Split 2)]* *[==>(Pattern 2, Split 1)]* *[==>(Pattern 2, Split 2)]*	***[2]***
36	WCAL 7283	WAVE	STIS/CCD, ACCUM, 52X0.1	G750M 7283 A			*[==>]*	***[2]***
Comments: In this program we include WAVECALS explicitly so we can omit some that are definitely not needed for the program goals, and partly to force some of them into occultation periods.								
37	FFLAT 7283	CCDFLAT	STIS/CCD, ACCUM, 52X0.1	G750M 7283 A			*[==>(Copy 1)]* *[==>(Copy 2)]*	***[2]***

Orbit Structure




Orbit 2
Server Version: 20140605
GS Reacq
Exp. 19, split 1
Exp. 19, split 2
Exp. 20, split 1
Exp. 20, split 2
Exp. 21
Exp. 22, split 1
Exp. 22, split 2
Exp. 23, split 1
Exp. 23, split 2
Pointing Maneuver
Exp. 22, split 1
Exp. 22, split 2
Exp. 23, split 1
Exp. 23, split 2
Exp. 24
Pointing Maneuver
Exp. 25, split 1
Exp. 25, split 2
Exp. 26, split 1
Exp. 26, split 2
Pointing Maneuver
Exp. 25, split 1
Exp. 25, split 2
Exp. 26, split 1
Exp. 26, split 2
Pointing Maneuver
Exp. 27
Exp. 28
Exp. 29, split 1
Exp. 29, split 2
Exp. 30
Exp. 31, split 1
Exp. 31, split 2
Exp. 32, split 1
Exp. 32, split 2
Exp. 33, split 1
Exp. 33, split 2
Exp. 34
Exp. 35, split 1
Exp. 35, split 2
Pointing Maneuver
Exp. 35, split 1
Exp. 35, split 2
Unused Orbital Visibility = 9
Exp. 36
Occultation
Exp. 37, copy 1
Exp. 37, copy 2
Home
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec

Visit

Proposal 13377, MAMA-1 (02), completed Wed Jul 23 01:01:09 GMT 2014

Diagnostic Status: Warning

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

Special Requirements: PCS MODE FINE; AFTER 01 BY 20 D TO 50 D; BETWEEN 15-AUG-2013:00:00:00 AND 30-DEC-2013:00:00:00

Comments: UV spectra with E140M, E230M. Brightness levels were checked based on the preceeding CCD visit.

Diagnostics

(MAMA-1 (02)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

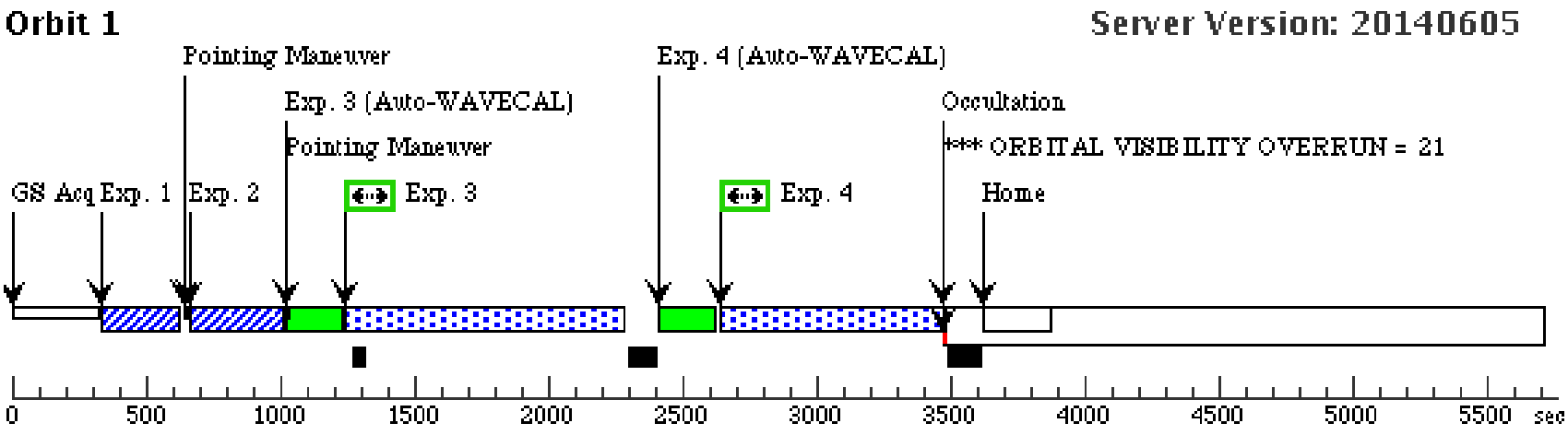
Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	ETA-CAR-A	RA: 10 45 3.5910 (161.2649625d) Dec: -59 41 4.26 (-59.68452d) Equinox: J2000 Plate Id: ZZZQ		V=5.0+/-0.5 F(2800) = 1.0E -11 +/- 0.4E-11, , F(2200) = 5E-12 +/- 3E-12	Reference Frame: GSC1

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ 1	(1) ETA-CAR-A	STIS/CCD, ACQ, F25ND3	MIRROR	ACQTYPE=POINT			0.4 Secs (0.4 Secs) *[==>]*	***[1]***
2	ACQ 2	(1) ETA-CAR-A	STIS/CCD, ACQ/PEAK, 52X0.1	G750M 7795 A				0.5 Secs (0.5 Secs) *[==>]*	***[1]***
Comments: The wavelength interval 7795AA has no strong emission lines. Therefore peakup leads to the star A and not to ejecta blobs like C and D.									
3	MAMA 1425 (STIS.sp.513973)	(1) ETA-CAR-A	STIS/FUV-MAMA, ACCUM, 0.2X0.2	E140M 1425 A				1000 Secs (1028 Secs) *[==>1028.0 Secs]*	***[1]***
4	MAMA 1978 (STIS.sp.513978)	(1) ETA-CAR-A	STIS/NUV-MAMA, ACCUM, 0.2X0.2	E230M 1978 A				820 Secs (820 Secs) *[==>820 Secs]*	***[1]***
Comments: Preceding STIS/CCD visit will be used to assure that this exposure does not violate brightness limits for NUV-MAMA.									

Orbit Structure



Visit

Proposal 13377, CCD-2 (03), completed Wed Jul 23 01:01:09 GMT 2014

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD

Special Requirements: BETWEEN 13-JUL-2014:00:00:00 AND 17-JUL-2014:00:00:00

Comments: 2014.6 spectroscopic event. This visit occurs near t = -30 d, expected max NUV and max HeII 4687.

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Visits CCD-2 to CCD-5 do not use the maximum possible orbit visibility time, because the timing of each visit is critical. Shortened visibility time increases the schedulability.

Fixed Targets

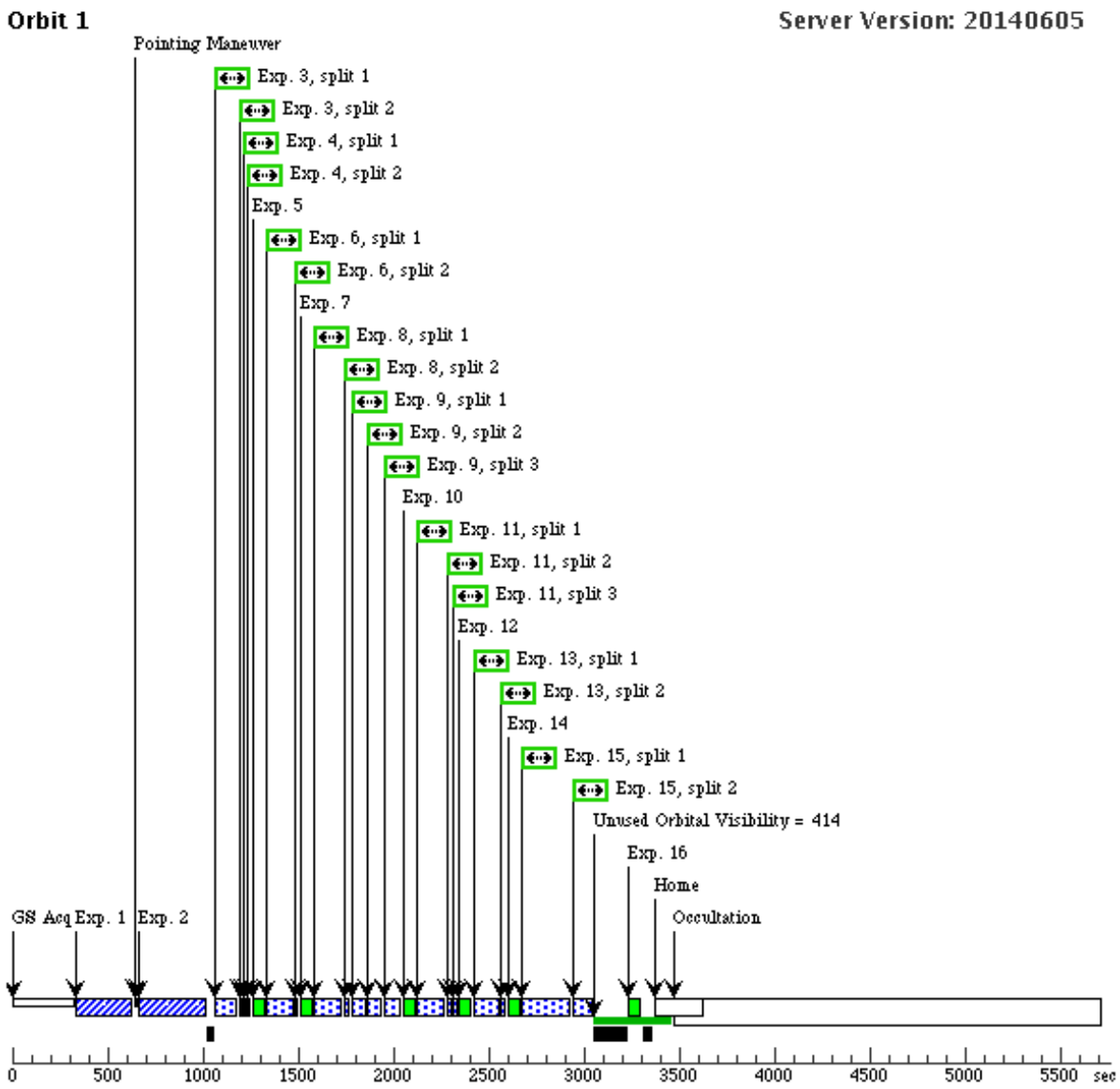
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	ETA-CAR-A	RA: 10 45 3.5910 (161.2649625d) Dec: -59 41 4.26 (-59.68452d) Equinox: J2000 Plate Id: ZZZQ		V=5.0+/-0.5 F(2800) = 1.0E -11 +/- 0.4E-11, , F(2200) = 5E-12 +/- 3E-12	Reference Frame: GSC1

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ 1	(1) ETA-CAR-A	STIS/CCD, ACQ, F25ND3	MIRROR	ACQTYPE=POINT			0.4 Secs (0.4 Secs)	
								[==>]	***[1]***
Comments: Target Acquisition for STIS CCD longslit									
2	ACQ 2	(1) ETA-CAR-A	STIS/CCD, ACQ/PEAK, 52X0.1	G750M				0.5 Secs (0.5 Secs)	
				7795 A				*[==>]*	***[1]***
Comments: This wavelength interval 7795AA has no strong emision lines. Therefore peakup really leads to the star A and not to ejecta blobs like C and D.									
3	A 6768a	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G750M	CR-SPLIT=2;			0.2 Secs (0.2 Secs)	
				6768 A	GAIN=4;			*[==>(Split 1)]*	
					SIZEAXIS2=80;			*[==>(Split 2)]*	***[1]***
					WAVECAL=NO				
Comments: Ultra-short exposure to get extremely bright H-alpha emission line profile. WAVECAL=NO because we are explicitly managing the WCALs.									
4	A 6768b	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G750M	GAIN=4;			2 Secs (2 Secs)	
				6768 A	WAVECAL=NO;			*[==>(Split 1)]*	
					SIZEAXIS2=160;			*[==>(Split 2)]*	***[1]***
					CR-SPLIT=2				
Comments: Some H-alpha pixels will be saturated in this exposure; H-alpha is extremely bright. *NOTE: In past several years Eta Car has been brightening 0.1--0.2 magn per year.*									
5	WCAL 6768	WAVE	STIS/CCD, ACCUM, 52X0.1	G750M				*[==>]*	***[1]***
				6768 A					
Comments: In this program we include WAVECALS explicitly so we can omit some that are definitely not needed for the program goals, and partly to force some of them into occultation periods.									
6	LODISP 4300	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G430L	CR-SPLIT=2;			3 Secs (3 Secs)	
				4300 A	GAIN=4;			*[==>(Split 1)]*	
					WAVECAL=NO;			*[==>(Split 2)]*	***[1]***
					SIZEAXIS2=160				
Comments: Mainly for photometry around 330 nm, also good for blue photometry.									
7	WCAL LO DISP 4300	WAVE	STIS/CCD, ACCUM, 52X0.1	G430L				*[==>]*	***[1]***
				4300 A					
8	LODISP 2000a	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G230LB	CR-SPLIT=2;			24 Secs (24 Secs)	
				2375 A	SIZEAXIS2=80;			*[==>(Split 1)]*	
					GAIN=4;			*[==>(Split 2)]*	***[1]***
					WAVECAL=NO				
Comments: Quick look at UV, for photometry and features 250-300 nm. Compare following long exposure.									
9	LODISP 2000b	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G230LB	CR-SPLIT=3;			201 Secs (201 Secs)	
				2375 A	SIZEAXIS2=160;			*[==>(Split 1)]*	
					GAIN=4;			*[==>(Split 2)]*	***[1]***
					WAVECAL=NO			*[==>(Split 3)]*	
Comments: Long exposure for UV 170--250 nm. CR-SPLIT = 3 instead of 2, because this observation is critical and one c.r. hit could ruin an entire spectral line at low dispersion.									
10	WCAL 2000	WAVE	STIS/CCD, ACCUM, 52X0.1	G230LB				*[==>]*	***[1]***
				2375 A					
11	A 4706	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G430M	CR-SPLIT=3;			25.5 Secs (25.5 Secs)	
				4706 A	SIZEAXIS2=160;			*[==>(Split 1)]*	
					WAVECAL=NO;			*[==>(Split 2)]*	***[1]***
					GAIN=4			*[==>(Split 3)]*	
Comments: Extremely important wavelength interval for HeII 4687 and other varying emission features.									

	12	WCAL 4706	WAVE	STIS/CCD, ACCUM, 52X0.1	G430M 4706 A		*[==>]*	***[1]***
	13	A 3936	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G430M 3936 A	CR-SPLIT=2; WAVECAL=NO; SIZEAXIS2=160; GAIN=4	24 Secs (24 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	 ***[1]***
	Comments: Important spectral region includes diverse emission features.							
	14	WCAL 3936	WAVE	STIS/CCD, ACCUM, 52X0.1	G430M 3936 A		*[==>]*	***[1]***
	15	A 2836	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G230MB 2836 A	SIZEAXIS2=80; CR-SPLIT=2; WAVECAL=NO; GAIN=4	180 Secs (180 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	 ***[1]***
	16	WCAL 2836	WAVE	STIS/CCD, ACCUM, 52X0.1	G230MB 2836 A		*[==>]*	***[1]***

Orbit Structure



Visit

Proposal 13377, CCD-3 (04), scheduled Wed Jul 23 01:01:10 GMT 2014

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD

Special Requirements: BETWEEN 30-JUL-2014:00:00:00 AND 03-AUG-2014:00:00:00

Comments: 2014.6 spectroscopic event. This sample is centered near t = -13 d, which in 2009 was near midpoint of NUV decline and minimum of HeII 4687 emission. There are reasons to suspect that this phase in the cycle may appear quite different from the 2009 event.

Fixed Targets

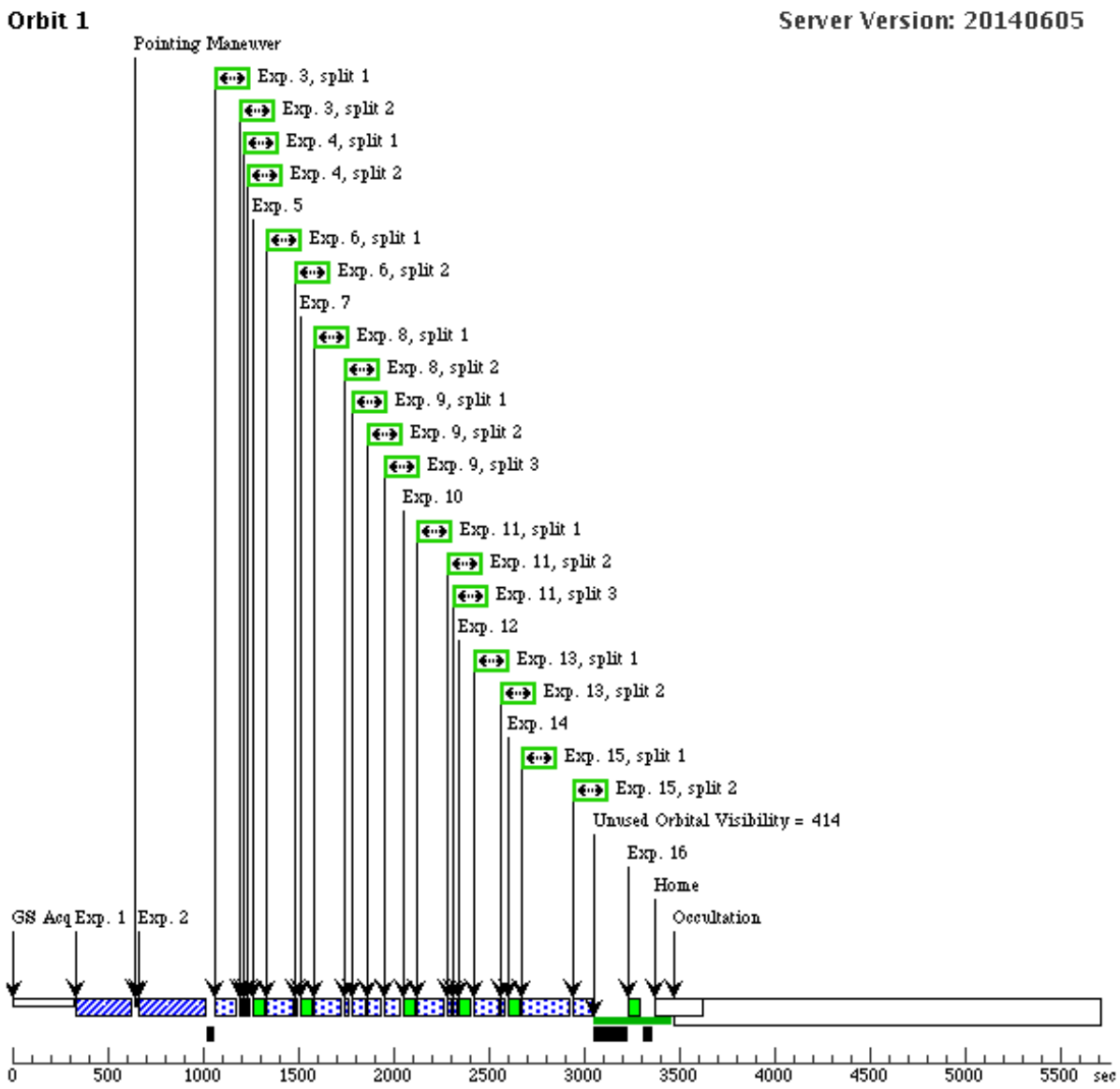
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	ETA-CAR-A	RA: 10 45 3.5910 (161.2649625d) Dec: -59 41 4.26 (-59.68452d) Equinox: J2000 Plate Id: ZZZQ		V=5.0+/-0.5 F(2800) = 1.0E -11 +/- 0.4E-11, , F(2200) = 5E-12 +/- 3E-12	Reference Frame: GSC1

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ 1	(1) ETA-CAR-A	STIS/CCD, ACQ, F25ND3	MIRROR	ACQTYPE=POINT			0.4 Secs (0.4 Secs)	
								[==>]	***[1]***
Comments: Target Acquisition for STIS CCD longslit									
2	ACQ 2	(1) ETA-CAR-A	STIS/CCD, ACQ/PEAK, 52X0.1	G750M				0.5 Secs (0.5 Secs)	
				7795 A				*[==>]*	***[1]***
Comments: This wavelength interval 7795AA has no strong emision lines. Therefore peakup really leads to the star A and not to ejecta blobs like C and D.									
3	A 6768a	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G750M	CR-SPLIT=2;			0.2 Secs (0.2 Secs)	
				6768 A	GAIN=4;			*[==>(Split 1)]*	
					SIZEAXIS2=80;			*[==>(Split 2)]*	***[1]***
					WAVECAL=NO				
Comments: Ultra-short exposure to get extremely bright H-alpha emission line profile. WAVECAL=NO because we are explicitly managing the WCALs.									
4	A 6768b	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G750M	GAIN=4;			2 Secs (2 Secs)	
				6768 A	WAVECAL=NO;			*[==>(Split 1)]*	
					SIZEAXIS2=160;			*[==>(Split 2)]*	***[1]***
					CR-SPLIT=2				
Comments: Some H-alpha pixels will be saturated in this exposure; H-alpha is extremely bright. *NOTE: In past several years Eta Car has been brightening 0.1--0.2 magn per year.*									
5	WCAL 6768	WAVE	STIS/CCD, ACCUM, 52X0.1	G750M				*[==>]*	***[1]***
				6768 A					
Comments: In this program we include WAVECALS explicitly so we can omit some that are definitely not needed for the program goals, and partly to force some of them into occultation periods.									
6	LODISP 4300	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G430L	CR-SPLIT=2;			3 Secs (3 Secs)	
				4300 A	GAIN=4;			*[==>(Split 1)]*	
					WAVECAL=NO;			*[==>(Split 2)]*	***[1]***
					SIZEAXIS2=160				
Comments: Photometry around 330 nm and also in blue.									
7	WCAL LO DISP 4300	WAVE	STIS/CCD, ACCUM, 52X0.1	G430L				*[==>]*	***[1]***
				4300 A					
8	LODISP 2000a	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G230LB	CR-SPLIT=2;			24 Secs (24 Secs)	
				2375 A	SIZEAXIS2=80;			*[==>(Split 1)]*	
					GAIN=4;			*[==>(Split 2)]*	***[1]***
					WAVECAL=NO				
Comments: Photometry 250--300 nm, also good for spectral features in same range.									
9	LODISP 2000b	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G230LB	CR-SPLIT=3;			201 Secs (201 Secs)	
				2375 A	SIZEAXIS2=160;			*[==>(Split 1)]*	
					GAIN=4;			*[==>(Split 2)]*	***[1]***
					WAVECAL=NO			*[==>(Split 3)]*	
Comments: Long exposure for features at short wavelengths 1650--2500 AA.									
10	WCAL 2000	WAVE	STIS/CCD, ACCUM, 52X0.1	G230LB				*[==>]*	***[1]***
				2375 A					
11	A 4706	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G430M	CR-SPLIT=3;			25.5 Secs (25.5 Secs)	
				4706 A	SIZEAXIS2=160;			*[==>(Split 1)]*	
					WAVECAL=NO;			*[==>(Split 2)]*	***[1]***
					GAIN=4			*[==>(Split 3)]*	
Comments: Critical HeII 4687 and other emission features in this interval.									

	12	WCAL 4706	WAVE	STIS/CCD, ACCUM, 52X0.1	G430M 4706 A		*[==>]*	***[1]***
	13	A 3936	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G430M 3936 A	CR-SPLIT=2; WAVECAL=NO; SIZEAXIS2=160; GAIN=4	24 Secs (24 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	 ***[1]***
	Comments: Important spectral region includes diverse emission features.							
	14	WCAL 3936	WAVE	STIS/CCD, ACCUM, 52X0.1	G430M 3936 A		*[==>]*	***[1]***
	15	A 2836	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G230MB 2836 A	SIZEAXIS2=80; CR-SPLIT=2; WAVECAL=NO; GAIN=4	180 Secs (180 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	 ***[1]***
	16	WCAL 2836	WAVE	STIS/CCD, ACCUM, 52X0.1	G230MB 2836 A		*[==>]*	***[1]***

Orbit Structure



Visit

Proposal 13377, CCD-4 (05), scheduling Wed Jul 23 01:01:10 GMT 2014

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD

Special Requirements: ORIENT 167.25D TO 167.35 D; BETWEEN 15-AUG-2014:00:00:00 AND 21-AUG-2014:00:00:00

Comments: 2014.6 spectroscopic event. This interval is centered near t = +4 d, which in 2009 was NUV minimum and beginning of 2nd HeII 4687 flash.
*** THIS VISIT MIGHT NEED TO BE REVISED BASED ON RESULTS OF VISIT CCD-2 A MONTH EARLIER. ***
--
ORIENT requirement samples Weigelt Knot C with same slit PA as obs in March 2010. This opportunity is fortuitous, because the timing requirement is based on other reasons. If the ORIENT requirement makes any trouble in scheduling, it can be widened or even deleted.

Fixed Targets

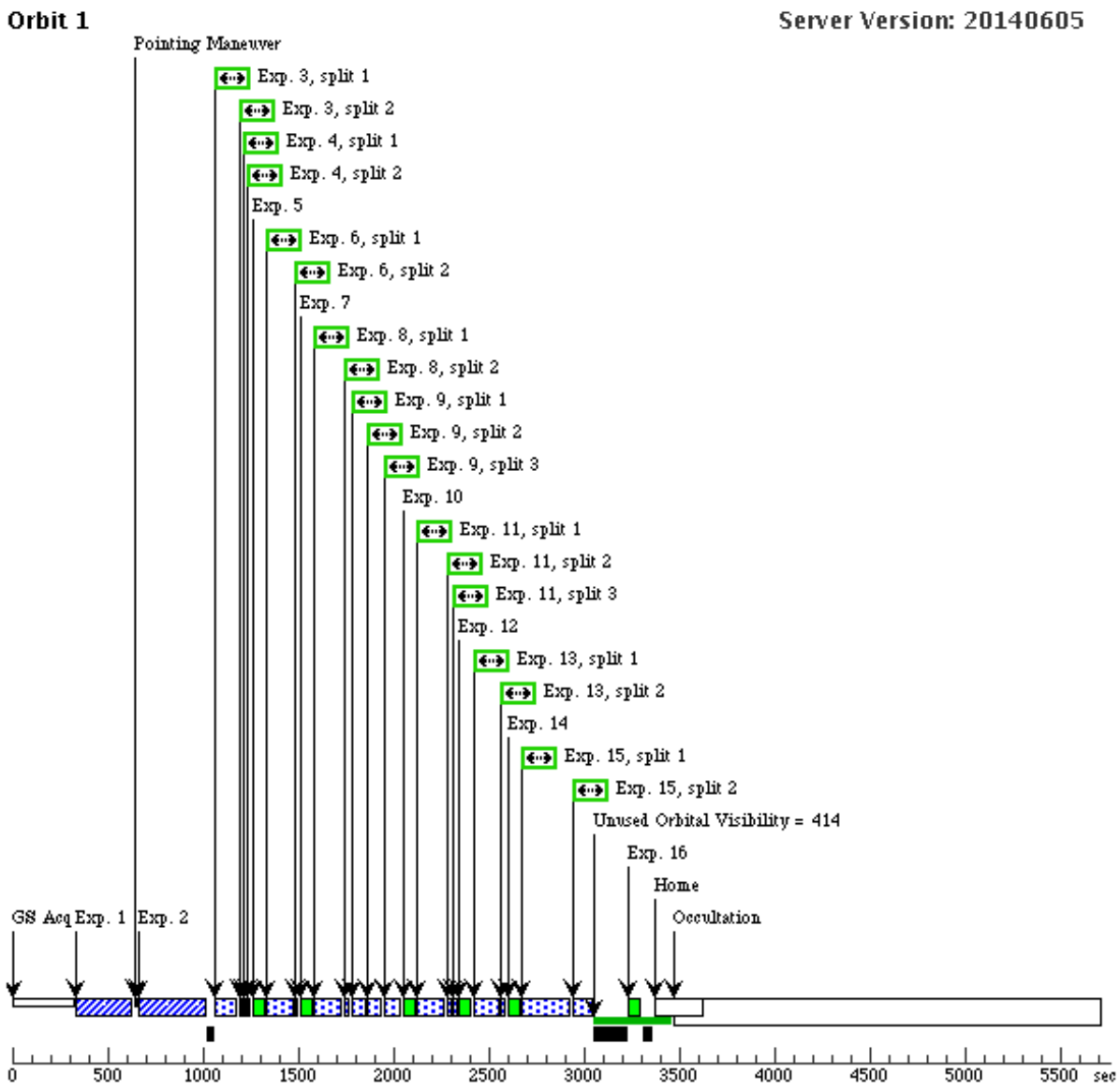
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	ETA-CAR-A	RA: 10 45 3.5910 (161.2649625d)		V=5.0+/-0.5	Reference Frame: GSC1
		Dec: -59 41 4.26 (-59.68452d)		F(2800) = 1.0E -11 +/- 0.4E-11,	
		Equinox: J2000		,	
		Plate Id: ZZZQ		F(2200) = 5E-12 +/- 3E-12	

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ 1	(1) ETA-CAR-A	STIS/CCD, ACQ, F25ND3	MIRROR	ACQTYPE=POINT			0.4 Secs (0.4 Secs)	
								[==>]	***[1]***
Comments: Target Acquisition for STIS CCD longslit									
2	ACQ 2	(1) ETA-CAR-A	STIS/CCD, ACQ/PEAK, 52X0.1	G750M				0.5 Secs (0.5 Secs)	
				7795 A				*[==>]*	***[1]***
Comments: This wavelength interval 7795AA has no strong emision lines. Therefore peakup really leads to the star A and not to ejecta blobs like C and D.									
3	A 6768a	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G750M	CR-SPLIT=2;			0.2 Secs (0.2 Secs)	
				6768 A	GAIN=4;			*[==>(Split 1)]*	
					SIZEAXIS2=80;			*[==>(Split 2)]*	***[1]***
					WAVECAL=NO				
Comments: Ultra-short exposure to get extremely bright H-alpha emission line profile. WAVECAL=NO because we are explicitly managing the WCALs.									
4	A 6768b	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G750M	GAIN=4;			2 Secs (2 Secs)	
				6768 A	WAVECAL=NO;			*[==>(Split 1)]*	
					SIZEAXIS2=160;			*[==>(Split 2)]*	***[1]***
					CR-SPLIT=2				
Comments: Some H-alpha pixels will be saturated in this exposure; H-alpha is extremely bright. *NOTE: In past several years Eta Car has been brightening 0.1--0.2 magn per year.*									
5	WCAL 6768	WAVE	STIS/CCD, ACCUM, 52X0.1	G750M				*[==>]*	***[1]***
				6768 A					
Comments: In this program we include WAVECALS explicitly so we can omit some that are definitely not needed for the program goals, and partly to force some of them into occultation periods.									
6	LODISP 4300	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G430L	CR-SPLIT=2;			3 Secs (3 Secs)	
				4300 A	GAIN=4;			*[==>(Split 1)]*	
					WAVECAL=NO;			*[==>(Split 2)]*	***[1]***
					SIZEAXIS2=160				
Comments: Photometry around 330 nm, and emission features at longer wavelengths.									
7	WCAL LO DISP 4300	WAVE	STIS/CCD, ACCUM, 52X0.1	G430L				*[==>]*	***[1]***
				4300 A					
8	LODISP 2000a	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G230LB	CR-SPLIT=2;			24 Secs (24 Secs)	
				2375 A	SIZEAXIS2=80;			*[==>(Split 1)]*	
					GAIN=4;			*[==>(Split 2)]*	***[1]***
					WAVECAL=NO				
Comments: Short exposure, features 250-300 nm.									
9	LODISP 2000b	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G230LB	CR-SPLIT=3;			201 Secs (201 Secs)	
				2375 A	SIZEAXIS2=160;			*[==>(Split 1)]*	
					GAIN=4;			*[==>(Split 2)]*	***[1]***
					WAVECAL=NO			*[==>(Split 3)]*	
Comments: Long exposure for short wavelengths 170-250 nm.									
10	WCAL 2000	WAVE	STIS/CCD, ACCUM, 52X0.1	G230LB				*[==>]*	***[1]***
				2375 A					
11	A 4706	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G430M	CR-SPLIT=3;			25.5 Secs (25.5 Secs)	
				4706 A	SIZEAXIS2=160;			*[==>(Split 1)]*	
					WAVECAL=NO;			*[==>(Split 2)]*	***[1]***
					GAIN=4			*[==>(Split 3)]*	
Comments: Critical HeII 4687 and other varying emission features.									

	12	WCAL 4706	WAVE	STIS/CCD, ACCUM, 52X0.1	G430M 4706 A		*[==>]*	***[1]***
	13	A 3936	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G430M 3936 A	CR-SPLIT=2; WAVECAL=NO; SIZEAXIS2=160; GAIN=4	24 Secs (24 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	 ***[1]***
	Comments: Important spectral region includes diverse emission features.							
	14	WCAL 3936	WAVE	STIS/CCD, ACCUM, 52X0.1	G430M 3936 A		*[==>]*	***[1]***
	15	A 2836	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G230MB 2836 A	SIZEAXIS2=80; CR-SPLIT=2; WAVECAL=NO; GAIN=4	180 Secs (180 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	 ***[1]***
	16	WCAL 2836	WAVE	STIS/CCD, ACCUM, 52X0.1	G230MB 2836 A		*[==>]*	***[1]***

Orbit Structure



Visit

Proposal 13377, CCD-5 (06), implementation Wed Jul 23 01:01:10 GMT 2014

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD

Special Requirements: BETWEEN 27-AUG-2014:00:00:00 AND 02-SEP-2014:00:00:00

Comments: -- REVISED 2014 JULY 22 (kd) --
2014.6 spectroscopic event. This interval is centered near t = +16 d, which in 2009 was just before peak of 2nd HeII 4687 flash.
--
Earlier version had an ORIENT requirement. This has been deleted because the timing requirement has been revised forward several days. (kd, July 22)

Fixed Targets

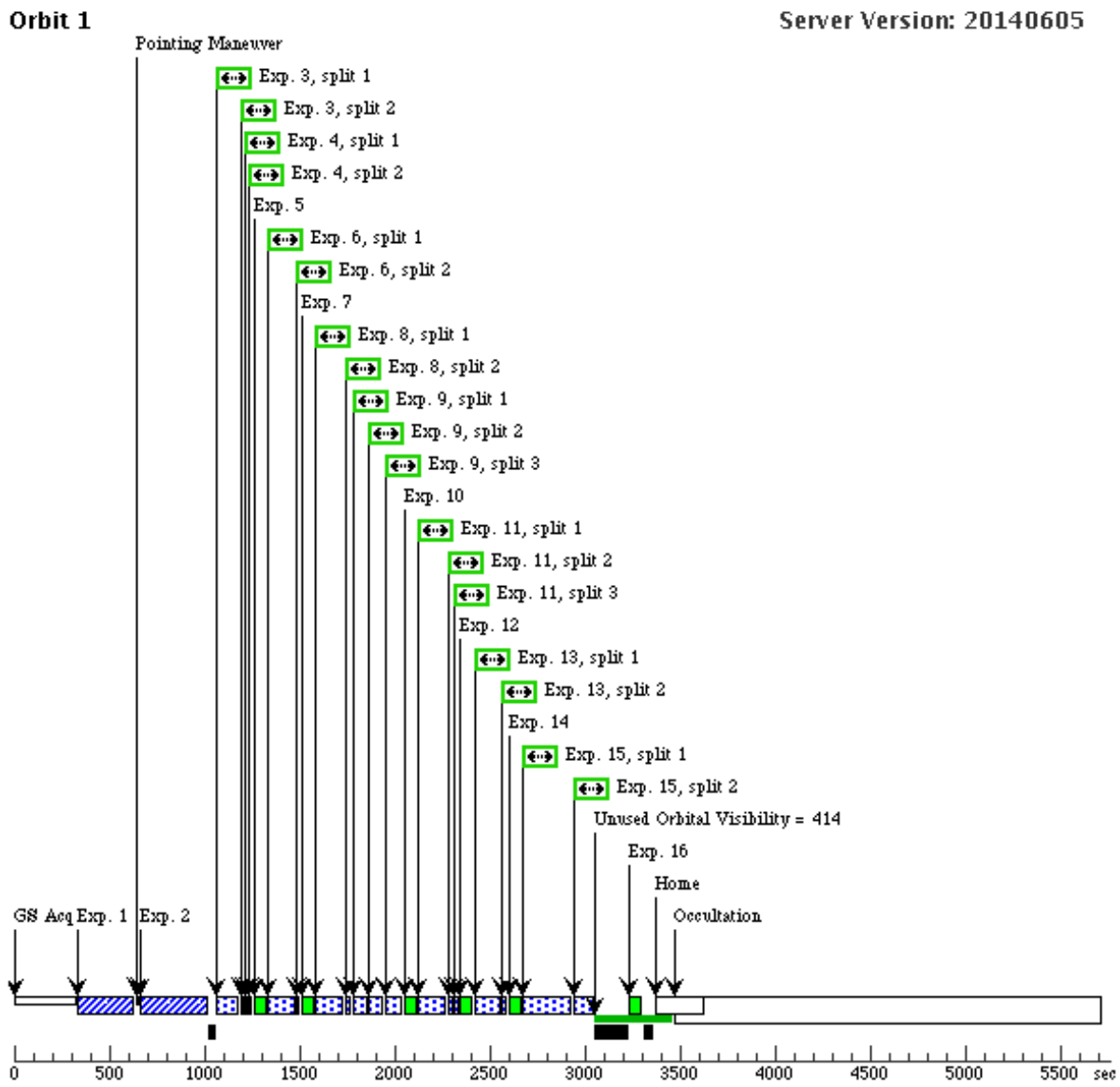
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	ETA-CAR-A	RA: 10 45 3.5910 (161.2649625d)		V=5.0+/-0.5	Reference Frame: GSC1
		Dec: -59 41 4.26 (-59.68452d)		F(2800) = 1.0E -11 +/- 0.4E-11,	
		Equinox: J2000		,	
		Plate Id: ZZZQ		F(2200) = 5E-12 +/- 3E-12	

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ 1	(1) ETA-CAR-A	STIS/CCD, ACQ, F25ND3	MIRROR	ACQTYPE=POINT			0.4 Secs (0.4 Secs) *[==>]*	 ***[1]***
Comments: Target Acquisition for STIS CCD longslit									
2	ACQ 2	(1) ETA-CAR-A	STIS/CCD, ACQ/PEAK, 52X0.1	G750M 7795 A				0.5 Secs (0.5 Secs) *[==>]*	 ***[1]***
Comments: This wavelength interval 7795AA has no strong emision lines. Therefore peakup really leads to the star A and not to ejecta blobs like C and D.									
3	A 6768a	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G750M 6768 A	CR-SPLIT=2; GAIN=4; SIZEAXIS2=80; WAVECAL=NO			0.2 Secs (0.2 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	 ***[1]***
Comments: Ultra-short exposure to get extremely bright H-alpha emission line profile. WAVECAL=NO because we are explicitly managing the WCALs.									
4	A 6768b	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G750M 6768 A	GAIN=4; WAVECAL=NO; SIZEAXIS2=160; CR-SPLIT=2			2 Secs (2 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	 ***[1]***
Comments: Some H-alpha pixels will be saturated in this exposure; H-alpha is extremely bright. *NOTE: In past several years Eta Car has been brightening 0.1--0.2 magn per year.*									
5	WCAL 6768	WAVE	STIS/CCD, ACCUM, 52X0.1	G750M 6768 A				*[==>]*	***[1]***
Comments: In this program we include WAVECALS explicitly so we can omit some that are definitely not needed for the program goals, and partly to force some of them into occultation periods.									
6	LODISP 4300	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G430L 4300 A	CR-SPLIT=2; GAIN=4; WAVECAL=NO; SIZEAXIS2=160			3 Secs (3 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	 ***[1]***
Comments: Photometry around 330 nm, and broad coverage of longer wavelengths.									
7	WCAL LO DISP 4300	WAVE	STIS/CCD, ACCUM, 52X0.1	G430L 4300 A				*[==>]*	***[1]***
8	LODISP 2000a	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G230LB 2375 A	CR-SPLIT=2; SIZEAXIS2=80; GAIN=4; WAVECAL=NO			24 Secs (24 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	 ***[1]***
Comments: Photometry and NUV features 250-300 nm.									
9	LODISP 2000b	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G230LB 2375 A	CR-SPLIT=3; SIZEAXIS2=160; GAIN=4; WAVECAL=NO			201 Secs (201 Secs) *[==>(Split 1)]* *[==>(Split 2)]* *[==>(Split 3)]*	 ***[1]***
Comments: Long exposure for UV 165-250 nm.									
10	WCAL 2000	WAVE	STIS/CCD, ACCUM, 52X0.1	G230LB 2375 A				*[==>]*	***[1]***
11	A 4706	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G430M 4706 A	CR-SPLIT=3; SIZEAXIS2=160; WAVECAL=NO; GAIN=4			25.5 Secs (25.5 Secs) *[==>(Split 1)]* *[==>(Split 2)]* *[==>(Split 3)]*	 ***[1]***
Comments: HeII 4687 and other varying emission features.									

	12	WCAL 4706	WAVE	STIS/CCD, ACCUM, 52X0.1	G430M 4706 A		*[==>]*	***[1]***
	13	A 3936	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G430M 3936 A	CR-SPLIT=2; WAVECAL=NO; SIZEAXIS2=160; GAIN=4	24 Secs (24 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	 ***[1]***
	Comments: Important spectral region includes diverse emission features.							
	14	WCAL 3936	WAVE	STIS/CCD, ACCUM, 52X0.1	G430M 3936 A		*[==>]*	***[1]***
	15	A 2836	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G230MB 2836 A	SIZEAXIS2=80; CR-SPLIT=2; WAVECAL=NO; GAIN=4	180 Secs (180 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	 ***[1]***
	16	WCAL 2836	WAVE	STIS/CCD, ACCUM, 52X0.1	G230MB 2836 A		*[==>]*	***[1]***

Orbit Structure



Visit

Proposal 13377, CCD-6 (07), implementation Wed Jul 23 01:01:10 GMT 2014

Diagnostic Status: No Diagnostics

Scientific Instruments: STIS/CCD

Special Requirements: ORIENT 196D TO 198 D; BETWEEN 16-SEP-2014:00:00:00 AND 22-SEP-2014:00:00:00

Comments: -- REVISED 22 JULY 2014 (kd) -- the timing is now several weeks earlier than in the original version. The new time is about t = 35 days in event, when He II 4686 will either be declining or absent. -- ORIENT requirement can be deleted if it makes trouble. It is intended to match many observations made in 1998-2004.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	ETA-CAR-A	RA: 10 45 3.5910 (161.2649625d)		V=5.0+/-0.5	Reference Frame: GSC1
		Dec: -59 41 4.26 (-59.68452d)		F(2800) = 1.0E -11 +/- 0.4E-11,	
		Equinox: J2000		,	
		Plate Id: ZZZQ		F(2200) = 5E-12 +/- 3E-12	

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ 1	(1) ETA-CAR-A	STIS/CCD, ACQ, F25ND3	MIRROR	ACQTYPE=POINT			0.4 Secs (0.4 Secs)	
								[==>]	***[1]***
Comments: Target Acquisition for STIS CCD longslit									
2	ACQ 2	(1) ETA-CAR-A	STIS/CCD, ACQ/PEAK, 52X0.1	G750M				0.5 Secs (0.5 Secs)	
				7795 A				*[==>]*	***[1]***
Comments: This wavelength interval 7795AA has no strong emision lines. Therefore peakup really leads to the star A and not to ejecta blobs like C and D.									
3	A 6768a	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G750M	CR-SPLIT=2;			0.2 Secs (0.2 Secs)	
				6768 A	GAIN=4;			*[==>(Split 1)]*	
					SIZEAXIS2=80;			*[==>(Split 2)]*	***[1]***
					WAVECAL=NO				
Comments: Ultra-short exposure to get extremely bright H-alpha emission line profile. WAVECAL=NO because we are explicitly managing the WCALs.									
4	A 6768b	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G750M	GAIN=4;			2 Secs (2 Secs)	
				6768 A	WAVECAL=NO;			*[==>(Split 1)]*	
					SIZEAXIS2=160;			*[==>(Split 2)]*	***[1]***
					CR-SPLIT=2				
Comments: Some H-alpha pixels will be saturated in this exposure; H-alpha is extremely bright. *NOTE: In past several years Eta Car has been brightening 0.1--0.2 magn per year.*									
5	WCAL 6768	WAVE	STIS/CCD, ACCUM, 52X0.1	G750M				*[==>]*	***[1]***
				6768 A					
Comments: In this program we include WAVECALS explicitly so we can omit some that are definitely not needed for the program goals, and partly to force some of them into occultation periods.									
6	LODISP 4300	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G430L	CR-SPLIT=2;			3 Secs (3 Secs)	
				4300 A	GAIN=4;			*[==>(Split 1)]*	
					WAVECAL=NO;			*[==>(Split 2)]*	***[1]***
					SIZEAXIS2=160				
Comments: Synthetic photometry around 330 nm, plus varying features at longer wvl.									
7	WCAL LO DISP 4300	WAVE	STIS/CCD, ACCUM, 52X0.1	G430L				*[==>]*	***[1]***
				4300 A					
8	LODISP 2000a	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G230LB	CR-SPLIT=2;			24 Secs (24 Secs)	
				2375 A	SIZEAXIS2=80;			*[==>(Split 1)]*	
					GAIN=4;			*[==>(Split 2)]*	***[1]***
					WAVECAL=NO				
Comments: Coverage of 250-300 nm varying features, and synthetic photometry.									
9	LODISP 2000b	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G230LB	CR-SPLIT=3;			201 Secs (201 Secs)	
				2375 A	SIZEAXIS2=160;			*[==>(Split 1)]*	
					GAIN=4;			*[==>(Split 2)]*	***[1]***
					WAVECAL=NO			*[==>(Split 3)]*	
Comments: Long exposure for UV 165-250 nm.									
10	WCAL 2000	WAVE	STIS/CCD, ACCUM, 52X0.1	G230LB				*[==>]*	***[1]***
				2375 A					
11	A 4706	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G430M	CR-SPLIT=3;			25.5 Secs (25.5 Secs)	
				4706 A	SIZEAXIS2=160;			*[==>(Split 1)]*	
					WAVECAL=NO;			*[==>(Split 2)]*	
					GAIN=4			*[==>(Split 3)]*	***[1]***

	12	WCAL 4706	WAVE	STIS/CCD, ACCUM, 52X0.1	G430M 4706 A		*[==>]*	***[1]***
	13	A 3936	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G430M 3936 A	CR-SPLIT=2; WAVECAL=NO; SIZEAXIS2=160; GAIN=4	24 Secs (24 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	 ***[1]***
	Comments: Important spectral region includes diverse emission features.							
	14	WCAL 3936	WAVE	STIS/CCD, ACCUM, 52X0.1	G430M 3936 A		*[==>]*	***[1]***
	15	A 2836	(1) ETA-CAR-A	STIS/CCD, ACCUM, 52X0.1	G230MB 2836 A	SIZEAXIS2=80; CR-SPLIT=2; WAVECAL=NO; GAIN=4	180 Secs (180 Secs) *[==>(Split 1)]* *[==>(Split 2)]*	 ***[1]***
	16	WCAL 2836	WAVE	STIS/CCD, ACCUM, 52X0.1	G230MB 2836 A		*[==>]*	***[1]***

Orbit Structure