17168 - Confirming the Protoplanet Candidate AB Aur b with Accretion Light Echoes

Cycle: 30, Proposal Category: GO

(Availability Mode: SUPPORTED)

INVESTIGATORS

Name	Institution	E-Mail
Dr. Brendan Bowler (PI) (Contact)	**University of Texas at Austin**	**bpbowler@astro.as.utexas.edu**
Dr. Yifan Zhou (CoI)	University of Texas at Austin	yifan.zhou@utexas.edu
Mr. Aniket Sanghi (CoI)	University of Texas at Austin	asanghi01@utexas.edu
Dr. Lauren Irene Biddle (CoI)	University of Texas at Austin	lbiddle@utexas.edu
Dr. Laird Close (CoI)	University of Arizona	lclose@as.arizona.edu
Feng Long (CoI)	University of Arizona	longfengshine@gmail.com
Dr. Jaehan Bae (CoI)	University of Florida	jbae@ufl.edu
Dr. Adam L. Kraus (CoI)	University of Texas at Austin	alk@astro.as.utexas.edu
Dr. Zhaohuan Zhu (CoI)	Princeton University	zhzhu@astro.princeton.edu
Ya-Lin Wu (CoI)	National Taiwan Normal University	yalinwu@ntnu.edu.tw
Dr. Kimberly Ward-Duong (CoI)	Smith College	kwardduong@smith.edu
Dr. Katherine Brutlag Follette (CoI)	Amherst College	kfollette@amherst.edu
Mr. Quang Tran (CoI)	University of Texas at Austin	quangtran@utexas.edu

VISITS

Visit	Targets used in Visit	Configurations used in Visit	Orbits Used	Last Orbit Planner Run	OP Current with Visit?
A0	(1) V-AB-AUR	WFC3/UVIS	1	06-Dec-2022 11:00:52.0	yes
A1	(1) V-AB-AUR	WFC3/UVIS	1	06-Dec-2022 11:00:57.0	yes
A2	(1) V-AB-AUR	WFC3/UVIS	1	06-Dec-2022 11:01:02.0	yes

Visit	Targets used in Visit	Configurations used in Visit	Orbits Used	Last Orbit Planner Run	OP Current with Visit?
A3	(1) V-AB-AUR	WFC3/UVIS	1	06-Dec-2022 11:01:06.0	yes
B0	(1) V-AB-AUR	WFC3/UVIS	1	06-Dec-2022 11:01:10.0	yes
B1	(1) V-AB-AUR	WFC3/UVIS	1	06-Dec-2022 11:01:15.0	yes
B2	(1) V-AB-AUR	WFC3/UVIS	1	06-Dec-2022 11:01:19.0	yes
B3	(1) V-AB-AUR	WFC3/UVIS	1	06-Dec-2022 11:01:24.0	yes
C0	(1) V-AB-AUR	WFC3/UVIS	1	06-Dec-2022 11:01:28.0	yes
C1	(1) V-AB-AUR	WFC3/UVIS	1	06-Dec-2022 11:01:33.0	yes
C2	(1) V-AB-AUR	WFC3/UVIS	1	06-Dec-2022 11:01:37.0	yes
C3	(1) V-AB-AUR	WFC3/UVIS	1	06-Dec-2022 11:01:42.0	yes
D0	(1) V-AB-AUR	WFC3/UVIS	1	06-Dec-2022 11:01:46.0	yes
D1	(1) V-AB-AUR	WFC3/UVIS	1	06-Dec-2022 11:01:50.0	yes
D2	(1) V-AB-AUR	WFC3/UVIS	1	06-Dec-2022 11:01:55.0	yes
D3	(1) V-AB-AUR	WFC3/UVIS	1	06-Dec-2022 11:01:59.0	yes
E0	(1) V-AB-AUR	WFC3/UVIS	1	06-Dec-2022 11:02:03.0	yes
E1	(1) V-AB-AUR	WFC3/UVIS	1	06-Dec-2022 11:02:08.0	yes
E2	(1) V-AB-AUR	WFC3/UVIS	1	06-Dec-2022 11:02:12.0	yes
E3	(1) V-AB-AUR	WFC3/UVIS	1	06-Dec-2022 11:02:17.0	yes

20 Total Orbits Used

ABSTRACT

Giant planets generate accretion luminosity as they form. Much of this energy is radiated in the form of strong Halpha line emission, enabling direct constraints on accretion mechanisms in the plaentary regime and the transport of material from circumplanetary disks onto young planets. However, compact disk features can mimic accreting planets by scattering Halpha emission generated by the host star; this can greatly complicate the interpretaion of point sources detected within protoplanetary disks. Recently a protoplanet candidate was directly imaged in Halpha with HST inside the transition disk of the young Herbig Ae/Be star AB Aurigae. We propose a novel test of the protoplanet hypothesis in this system using accretion light echoes by assessing whether the emission line strength is correlated between the candidate planet and the host star---a measurement only

possible with HST. Strong positive correlation would point to scattering whereas no correlation would support the planet interpretation. If confirmed, this protoplant would explain many substructures in the AB Aur disk and would join only two other uncontested accreting giant planets detected with direct imaging.

OBSERVING DESCRIPTION

Instrument setups:

We will take direct imaging observations of AB Aur using WFC3/UVIS in the F656N filter to observe its H-alpha emission line. A four-point box dithering pattern will be adopted for observations in each orbit. The dithering distance is one half pixel (20~mas) in either direction. A set of four images taken at the four dithering pointings will be combined
using the Fourier interlacing algorithms, which guarantees the combined images to be Nyquist sampled and has been demonstrated to be successful in assisting high-contrast imaging observations. At each dithering pointing, a series of 2.7~s exposures will be taken using the WFC3 UVIS2 C512C subarray, resulting in a raw SNR of 450 per image.

This program requires roll constraints to avoid the host star's diffraction spikes falling on the companion. Different relative orientation angles are also required to facilitate ADI for each epoch using two telescope roll angles with a difference of 25 to 35 degrees.

The region of interest is 0.6 arcsec away from the stellar PSF center. This area contains a significant amount of flux from the stellar PSF halo. As a result, our exposure does not suffer severe charge transfer loss. We set the post-flash level to be 12 electron, lower than the 20 electron requirement. This is consistent with the Cycle 29 observations. The strategy has been proven to be successful.

Timing consideration:

The light travel time from the host out to the (deprojected) separation of the candidate at ~100~AU is approximately 13 hours. Therefore, any accretion variability that AB Aur undergoes will only be seen at the location of the point source 13 hours later. The "effective time resolution" of each 4-orbit set of observations is ~96 min/orbit x 4 orbits, or 6 hours if they are taken in a contiguous block. With this back-to-back scheduling, the main science observations of the companion will not perfectly sample the host star's behavior in the same dataset owing the large star-companion distance.

Each epoch will require four orbits of observations. To account for potential light-travel time effects, we require the first orbit separated by a gap of ~7 orbits (0.5--0.6~days) before the next three contiguous orbits are carried out. Each group (four orbits) observations requires a gap of at least two weeks to ensure each epoch is an independent measurement.

Visit	**Proposal 17168, AB Aur (A0), implementation** Tue Dec 06 16:02:18 GMT 2022 **Diagnostic Status: Warning** Scientific Instruments: WFC3/UVIS Special Requirements: ORIENT 190D TO 260 D; ORIENT 280D TO 350 D; ORIENT 10D TO 80 D; ORIENT 100D TO 170 D

Diagnostics

(Exposure 1 (Pattern 1, Exps 1-1 in AB Aur (A0))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=BOX	Coordinate Frame=POS-TARG		(1)
	Purpose=DITHER	Pattern Orientation=0		
	Number Of Points=4	Angle Between Sides=90		
	Point Spacing=0.02	Center Pattern=false		
	Line Spacing=0.02			

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	V-AB-AUR	RA: 04 55 45.8507 (73.9410446d) Dec: +30 33 3.92 (30.55109d) Equinox: J2000	Proper Motion RA: 3.1104743402068534E-4 sec of time/yr Proper Motion Dec: -0.024027000063142623 arcsec/yr Epoch of Position: 2015.5	V=7.05	Reference Frame: SIMBAD

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=STAR
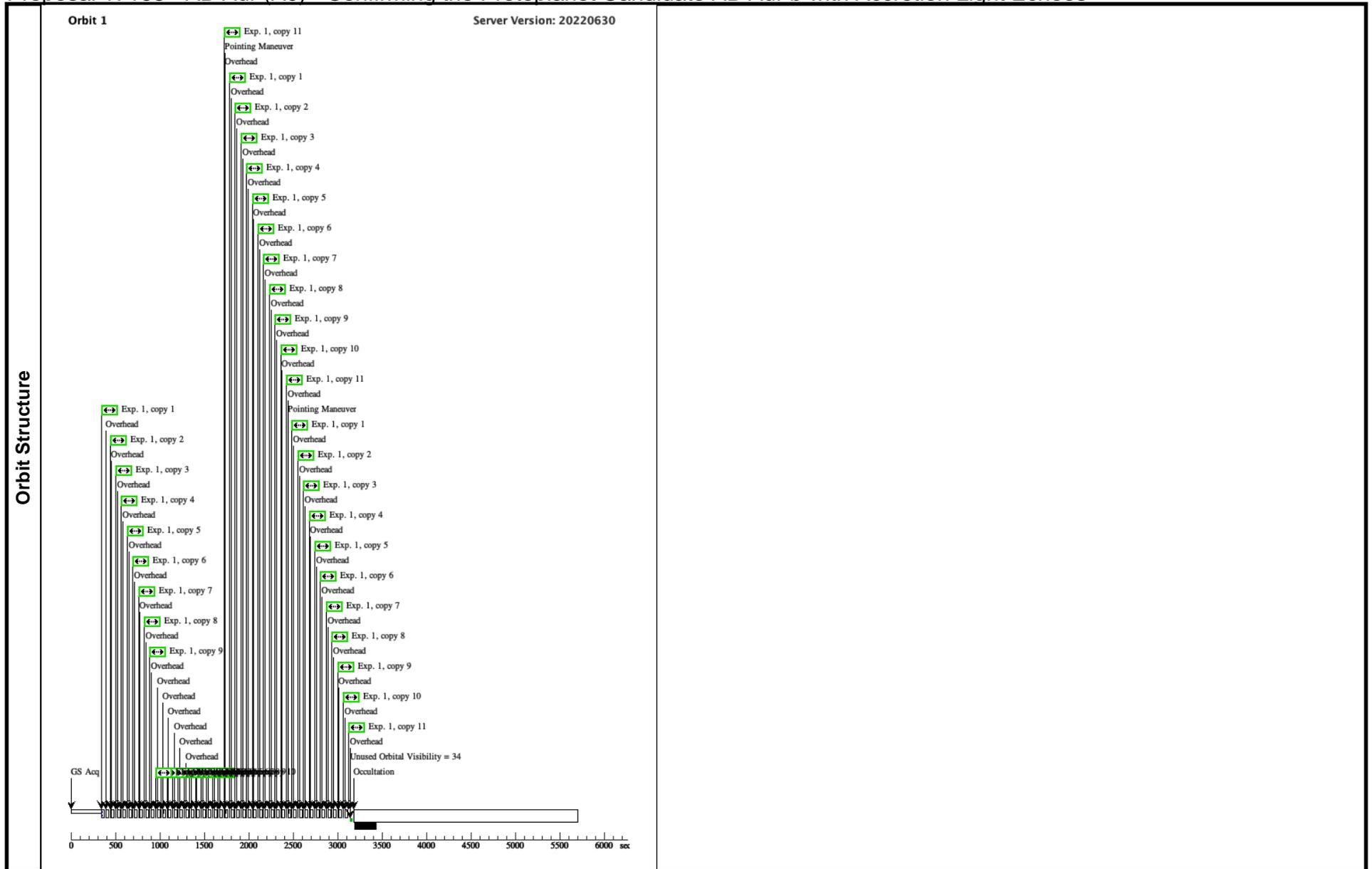*Description=[EXTRA-SOLAR PLANETARY SYSTEM, HERBIG AE/BE]*

Proposal 17168 - AB Aur (A0) - Confirming the Protoplanet Candidate AB Aur b with Accretion Light Echoes

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit

1	(WFC3UVI S.im.152459 0)	(1) V-AB-AUR	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N	FLASH=12	Pattern 1, Exps 1-1 in AB Aur (A0) (1)	2.7 Secs X 11 (118.8 Secs)	
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Orbit Structure

Orbit 1

Server Version: 20220630

Exp. 1, copy 11
Pointing Maneuver
Overhead
Exp. 1, copy 1
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Exp. 1, copy 2
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Exp. 1, copy 3
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Exp. 1, copy 4
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Exp. 1, copy 8
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Exp. 1, copy 9
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Exp. 1, copy 10
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Exp. 1, copy 11
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Pointing Maneuver
Exp. 1, copy 1
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Exp. 1, copy 2
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Exp. 1, copy 3
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Exp. 1, copy 4
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Exp. 1, copy 5
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Exp. 1, copy 6
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Exp. 1, copy 8
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Exp. 1, copy 9
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Exp. 1, copy 10
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Exp. 1, copy 11
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Unused Orbital Visibility = 34
Occultation

Exp. 1, copy 1
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Exp. 1, copy 2
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Exp. 1, copy 3
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GS Acq

0   500   1000   1500   2000   2500   3000   3500   4000   4500   5000   5500   6000 sec

Proposal 17168 - AB Aur (A1) - Confirming the Protoplanet Candidate AB Aur b with Accretion Light Echoes

Proposal 17168, AB Aur (A1), implementation	Tue Dec 06 16:02:19 GMT 2022

Visit

Diagnostic Status: Warning

Scientific Instruments: WFC3/UVIS

Special Requirements: ORIENT 25D TO 35D FROM A0; AFTER_A0 BY 6.5 Orbits TO 8.5 Orbits

Diagnostics

(Exposure 1 (Pattern 1, Exps 1-1 in AB Aur (A1))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=BOX	Coordinate Frame=POS-TARG		(1)
	Purpose=DITHER	Pattern Orientation=0		
	Number Of Points=4	Angle Between Sides=90		
	Point Spacing=0.02	Center Pattern=false		
	Line Spacing=0.02			

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	V-AB-AUR	RA: 04 55 45.8507 (73.9410446d) Dec: +30 33 3.92 (30.55109d) Equinox: J2000	Proper Motion RA: 3.1104743402068534E-4 sec of time/yr Proper Motion Dec: -0.024027000063142623 arcsec/yr Epoch of Position: 2015.5	V=7.05	Reference Frame: SIMBAD

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=STAR
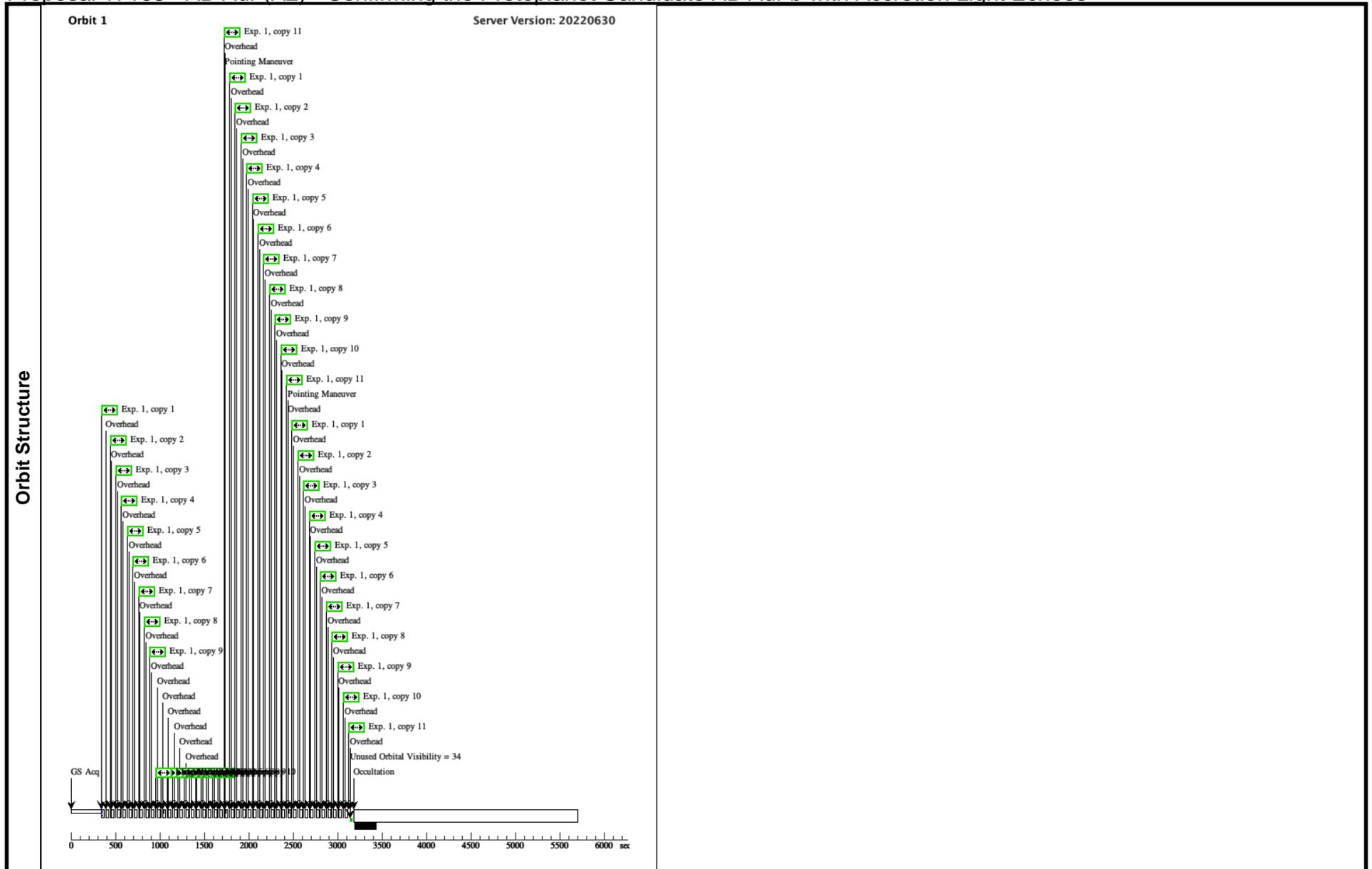*Description=[EXTRA-SOLAR PLANETARY SYSTEM, HERBIG AE/BE]*

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit

| 1 | (WFC3UVI
S.im.152459
0) | (1) V-AB-AUR | WFC3/UVIS, ACCUM,
UVIS2-C512C-SUB | F656N | FLASH=12 | Pattern 1, Exps 1-1 i
n AB Aur (A1) (1) | 2.7 Secs X 11 (118.8 Secs) | |
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Visit	**Proposal 17168, AB Aur (A2), implementation** **Diagnostic Status: Warning** Scientific Instruments: WFC3/UVIS Special Requirements: SAME ORIENT AS A0; AFTER A1 BY 0.5 Orbits TO 1.5 Orbits	Tue Dec 06 16:02:19 GMT 2022

Diagnostics	(Exposure 1 (Pattern 1, Exps 1-1 in AB Aur (A2))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser

	#	Primary Pattern		Secondary Pattern	Exposures
Patterns	(1)	Pattern Type=BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.02 Line Spacing=0.02	Coordinate Frame=POS-TARG Pattern Orientation=0 Angle Between Sides=90 Center Pattern=false		(1)

	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
Fixed Targets	(1)	V-AB-AUR	RA: 04 55 45.8507 (73.9410446d) Dec: +30 33 3.92 (30.55109d) Equinox: J2000	Proper Motion RA: 3.1104743402068534E-4 sec of time/yr Proper Motion Dec: -0.024027000063142623 arcsec/yr Epoch of Position: 2015.5	V=7.05	Reference Frame: SIMBAD

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=STAR
Description=[EXTRA-SOLAR PLANETARY SYSTEM, HERBIG AE/BE]

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit

1	(WFC3UVI S.im.152459 0)	(1) V-AB-AUR	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N	FLASH=12	Pattern 1, Exps 1-1 in AB Aur (A2) (1)	2.7 Secs X 11 (118.8 Secs)	
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Proposal 17168 - AB Aur (A3) - Confirming the Protoplanet Candidate AB Aur b with Accretion Light Echoes

<table>
<tr><td rowspan="4">Visit</td><td colspan="2">Proposal 17168, AB Aur (A3), implementation</td><td>Tue Dec 06 16:02:19 GMT 2022</td></tr>
<tr><td colspan="3">Diagnostic Status: Warning</td></tr>
<tr><td colspan="3">Scientific Instruments: WFC3/UVIS</td></tr>
<tr><td colspan="3">Special Requirements: SAME ORIENT AS A1; AFTER_A2 BY 0.5_Orbits TO 1.5_Orbits</td></tr>
<tr><td>Diagnostics</td><td colspan="3">(Exposure 1 (Pattern 1, Exps 1-1 in AB Aur (A3))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser</td></tr>
</table>

	#	Primary Pattern		Secondary Pattern	Exposures
Patterns	(1)	Pattern Type=BOX	Coordinate Frame=POS-TARG		(1)
		Purpose=DITHER	Pattern Orientation=0		
		Number Of Points=4	Angle Between Sides=90		
		Point Spacing=0.02	Center Pattern=false		
		Line Spacing=0.02			

	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
Fixed Targets	(1)	V-AB-AUR	RA: 04 55 45.8507 (73.9410446d)	Proper Motion RA: 3.1104743402068534E-4 sec of time/yr	V=7.05	Reference Frame: SIMBAD
			Dec: +30 33 3.92 (30.55109d)	Proper Motion Dec: -0.024027000063142623 arcsec/yr		
			Equinox: J2000	Epoch of Position: 2015.5		

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=STAR
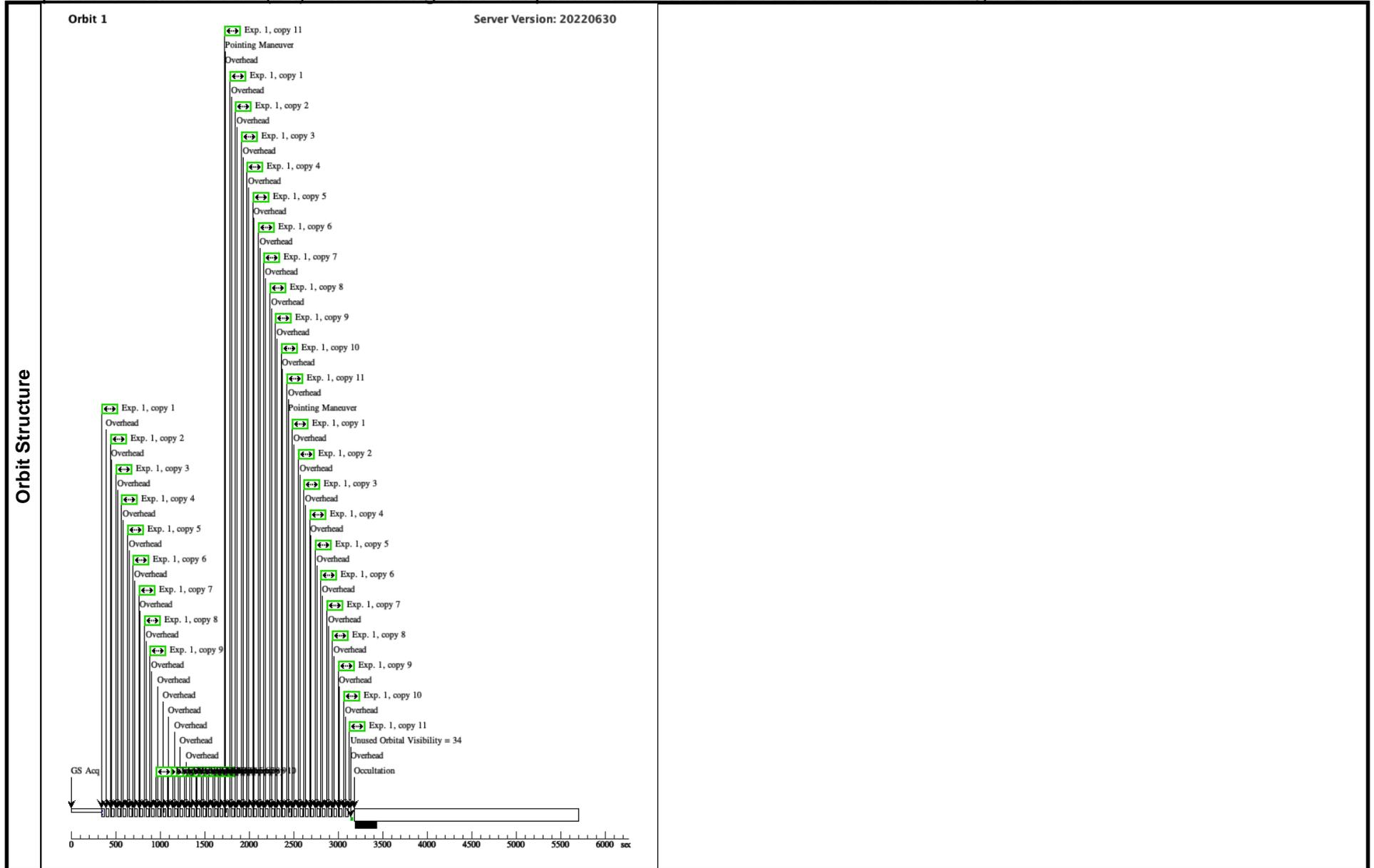*Description=[EXTRA-SOLAR PLANETARY SYSTEM, HERBIG AE/BE]*

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit

1	(WFC3UVI S.im.152459 0)	(1) V-AB-AUR	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N	FLASH=12	Pattern 1, Exps 1-1 in AB Aur (A3) (1)	2.7 Secs X 11 (118.8 Secs)	
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							[==>(Pattern 4, Copy 10)]	
							[==>(Pattern 4, Copy 11)]	

Visit	**Proposal 17168, AB Aur (B0), implementation** Tue Dec 06 16:02:19 GMT 2022 **Diagnostic Status: Warning** Scientific Instruments: WFC3/UVIS Special Requirements: ORIENT 190D TO 260 D; ORIENT 280D TO 350 D; ORIENT 10D TO 80 D; ORIENT 100D TO 170 D	
Diagnostics	(Exposure 1 (Pattern 1, Exps 1-1 in AB Aur (B0))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser	

	#	Primary Pattern		Secondary Pattern	Exposures
Patterns	(1)	Pattern Type=BOX	Coordinate Frame=POS-TARG		(1)
		Purpose=DITHER	Pattern Orientation=0		
		Number Of Points=4	Angle Between Sides=90		
		Point Spacing=0.02	Center Pattern=false		
		Line Spacing=0.02			

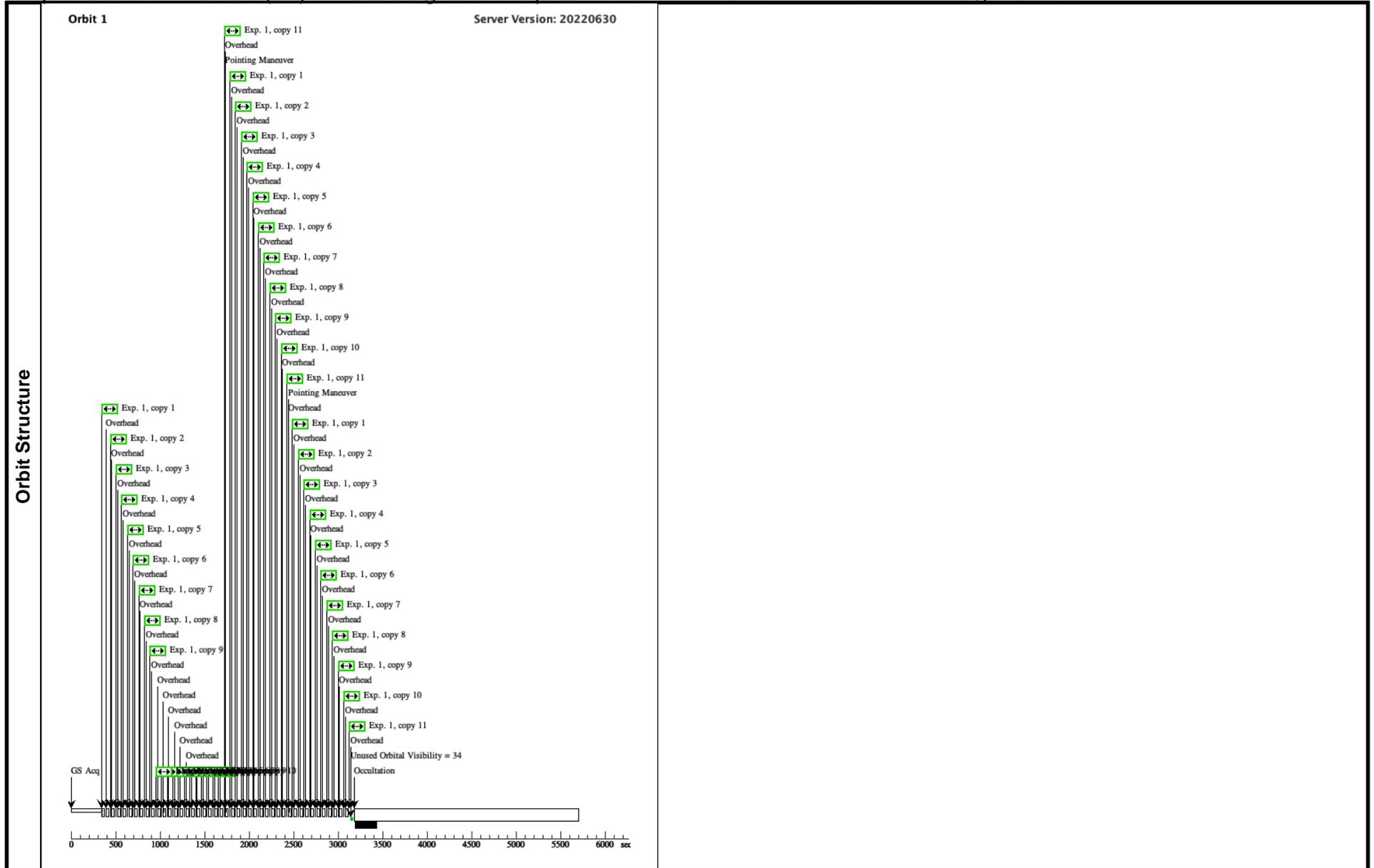|	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
Fixed Targets	(1)	V-AB-AUR	RA: 04 55 45.8507 (73.9410446d) Dec: +30 33 3.92 (30.55109d) Equinox: J2000	Proper Motion RA: 3.1104743402068534E-4 sec of time/yr Proper Motion Dec: -0.024027000063142623 arcsec/yr Epoch of Position: 2015.5	V=7.05	Reference Frame: SIMBAD
	Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. *Category=STAR* *Description=[EXTRA-SOLAR PLANETARY SYSTEM, HERBIG AE/BE]*					

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Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit

1	(WFC3UVI (1) V-AB-AUR S.im.152459 0)	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N	FLASH=12	Pattern 1, Exps 1-1 i n AB Aur (B0) (1)	2.7 Secs X 11 (118.8 Secs)	
						[==>(Pattern 1, Copy 1)]	
						[==>(Pattern 1, Copy 2)]	
						[==>(Pattern 1, Copy 3)]	
						[==>(Pattern 1, Copy 4)]	
						[==>(Pattern 1, Copy 5)]	
						[==>(Pattern 1, Copy 6)]	
						[==>(Pattern 1, Copy 7)]	
						[==>(Pattern 1, Copy 8)]	
						[==>(Pattern 1, Copy 9)]	
						[==>(Pattern 1, Copy 10)]	
						[==>(Pattern 1, Copy 11)]	
						[==>(Pattern 2, Copy 1)]	
						[==>(Pattern 2, Copy 2)]	
						[==>(Pattern 2, Copy 3)]	
						[==>(Pattern 2, Copy 4)]	
						[==>(Pattern 2, Copy 5)]	
						[==>(Pattern 2, Copy 6)]	
						[==>(Pattern 2, Copy 7)]	
						[==>(Pattern 2, Copy 8)]	
						[==>(Pattern 2, Copy 9)]	
						[==>(Pattern 2, Copy 10)]	
						[==>(Pattern 2, Copy 11)]	[1]
						[==>(Pattern 3, Copy 1)]	
						[==>(Pattern 3, Copy 2)]	
						[==>(Pattern 3, Copy 3)]	
						[==>(Pattern 3, Copy 4)]	
						[==>(Pattern 3, Copy 5)]	
						[==>(Pattern 3, Copy 6)]	
						[==>(Pattern 3, Copy 7)]	
						[==>(Pattern 3, Copy 8)]	
						[==>(Pattern 3, Copy 9)]	
						[==>(Pattern 3, Copy 10)]	
						[==>(Pattern 3, Copy 11)]	
						[==>(Pattern 4, Copy 1)]	
						[==>(Pattern 4, Copy 2)]	
						[==>(Pattern 4, Copy 3)]	
						[==>(Pattern 4, Copy 4)]	
						[==>(Pattern 4, Copy 5)]	
						[==>(Pattern 4, Copy 6)]	
						[==>(Pattern 4, Copy 7)]	
						[==>(Pattern 4, Copy 8)]	
						[==>(Pattern 4, Copy 9)]	
						[==>(Pattern 4, Copy 10)]	
						[==>(Pattern 4, Copy 11)]	

Proposal 17168 - AB Aur (B1) - Confirming the Protoplanet Candidate AB Aur b with Accretion Light Echoes

<table>
<tr><td rowspan="4">Visit</td><td colspan="2">Proposal 17168, AB Aur (B1), implementation</td><td>Tue Dec 06 16:02:19 GMT 2022</td></tr>
<tr><td colspan="3">Diagnostic Status: Warning</td></tr>
<tr><td colspan="3">Scientific Instruments: WFC3/UVIS</td></tr>
<tr><td colspan="3">Special Requirements: ORIENT 25D TO 35D FROM B0; AFTER_B0 BY 6.5 Orbits TO 8.5 Orbits</td></tr>
</table>

<table>
<tr><td rowspan="2">Diagnostics</td><td>(Exposure 1 (Pattern 1, Exps 1-1 in AB Aur (B1))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser</td></tr>
</table>

<table>
<tr><td rowspan="6">Patterns</td><td>#</td><td colspan="2">Primary Pattern</td><td>Secondary Pattern</td><td>Exposures</td></tr>
<tr><td>(1)</td><td>Pattern Type=BOX</td><td>Coordinate Frame=POS-TARG</td><td></td><td>(1)</td></tr>
<tr><td></td><td>Purpose=DITHER</td><td>Pattern Orientation=0</td><td></td><td></td></tr>
<tr><td></td><td>Number Of Points=4</td><td>Angle Between Sides=90</td><td></td><td></td></tr>
<tr><td></td><td>Point Spacing=0.02</td><td>Center Pattern=false</td><td></td><td></td></tr>
<tr><td></td><td>Line Spacing=0.02</td><td></td><td></td><td></td></tr>
</table>

<table>
<tr><td rowspan="7">Fixed Targets</td><td>#</td><td>Name</td><td>Target Coordinates</td><td>Targ. Coord. Corrections</td><td>Fluxes</td><td>Miscellaneous</td></tr>
<tr><td>(1)</td><td>V-AB-AUR</td><td>RA: 04 55 45.8507 (73.9410446d)</td><td>Proper Motion RA: 3.1104743402068534E-4 sec of time/yr</td><td>V=7.05</td><td>Reference Frame: SIMBAD</td></tr>
<tr><td></td><td></td><td>Dec: +30 33 3.92 (30.55109d)</td><td>Proper Motion Dec: -0.024027000063142623 arcsec/yr</td><td></td><td></td></tr>
<tr><td></td><td></td><td>Equinox: J2000</td><td>Epoch of Position: 2015.5</td><td></td><td></td></tr>
<tr><td colspan="6">Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=STAR
Description=[EXTRA-SOLAR PLANETARY SYSTEM, HERBIG AE/BE]</td></tr>
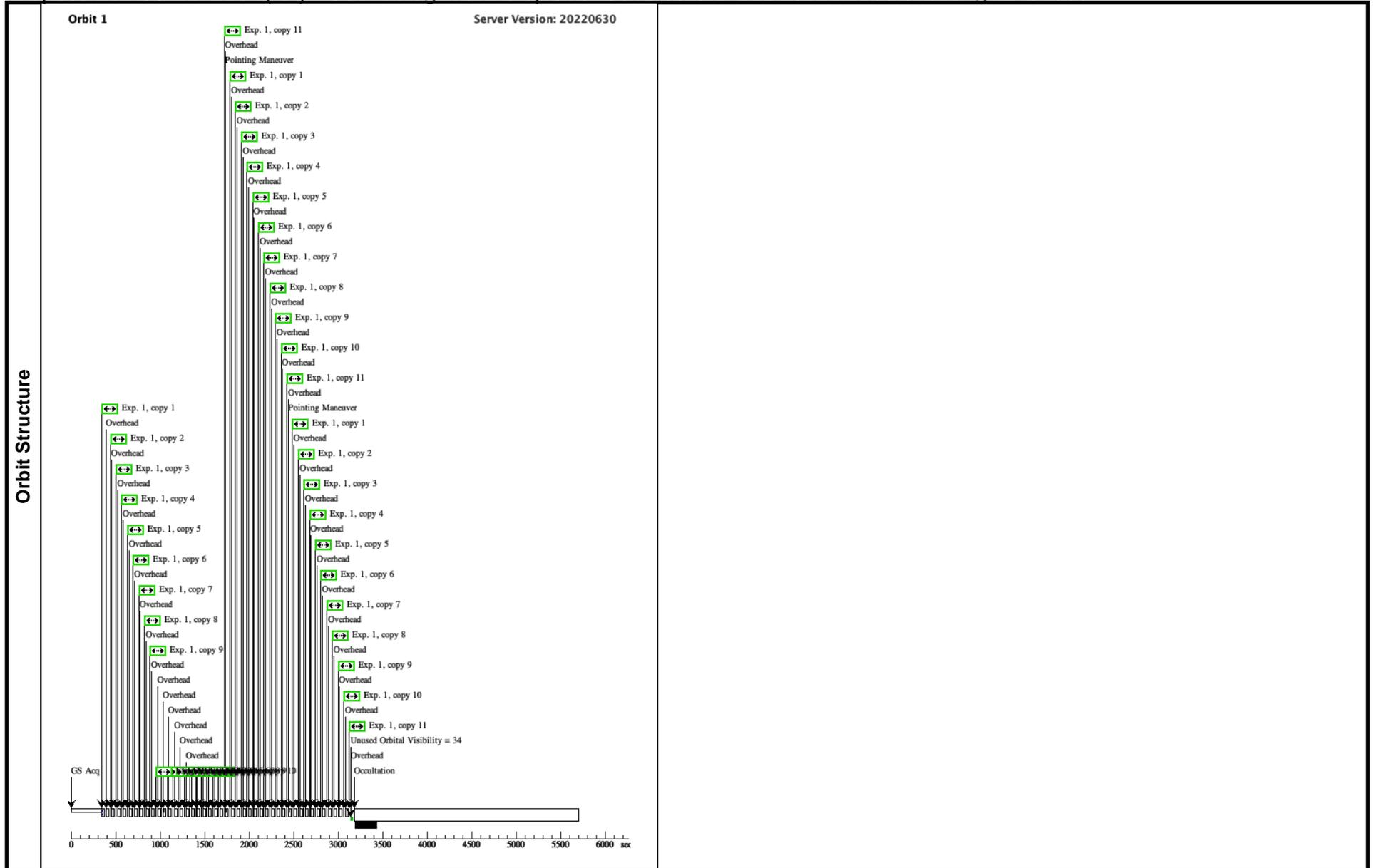</table>

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit

1	(WFC3UVI S.im.152459 0)	(1) V-AB-AUR	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N	FLASH=12	Pattern 1, Exps 1-1 in AB Aur (B1) (1)	2.7 Secs X 11 (118.8 Secs)	
							[==>(Pattern 1, Copy 1)]	
							[==>(Pattern 1, Copy 2)]	
							[==>(Pattern 1, Copy 3)]	
							[==>(Pattern 1, Copy 4)]	
							[==>(Pattern 1, Copy 5)]	
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							[==>(Pattern 1, Copy 7)]	
							[==>(Pattern 1, Copy 8)]	
							[==>(Pattern 1, Copy 9)]	
							[==>(Pattern 1, Copy 10)]	
							[==>(Pattern 1, Copy 11)]	
							[==>(Pattern 2, Copy 1)]	
							[==>(Pattern 2, Copy 2)]	
							[==>(Pattern 2, Copy 3)]	
							[==>(Pattern 2, Copy 4)]	
							[==>(Pattern 2, Copy 5)]	
							[==>(Pattern 2, Copy 6)]	
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							[==>(Pattern 2, Copy 9)]	
							[==>(Pattern 2, Copy 10)]	
							[==>(Pattern 2, Copy 11)]	[1]
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							[==>(Pattern 3, Copy 2)]	
							[==>(Pattern 3, Copy 3)]	
							[==>(Pattern 3, Copy 4)]	
							[==>(Pattern 3, Copy 5)]	
							[==>(Pattern 3, Copy 6)]	
							[==>(Pattern 3, Copy 7)]	
							[==>(Pattern 3, Copy 8)]	
							[==>(Pattern 3, Copy 9)]	
							[==>(Pattern 3, Copy 10)]	
							[==>(Pattern 3, Copy 11)]	
							[==>(Pattern 4, Copy 1)]	
							[==>(Pattern 4, Copy 2)]	
							[==>(Pattern 4, Copy 3)]	
							[==>(Pattern 4, Copy 4)]	
							[==>(Pattern 4, Copy 5)]	
							[==>(Pattern 4, Copy 6)]	
							[==>(Pattern 4, Copy 7)]	
							[==>(Pattern 4, Copy 8)]	
							[==>(Pattern 4, Copy 9)]	
							[==>(Pattern 4, Copy 10)]	
							[==>(Pattern 4, Copy 11)]	

Visit	**Proposal 17168, AB Aur (B2), implementation** **Diagnostic Status: Warning** Scientific Instruments: WFC3/UVIS Special Requirements: SAME ORIENT AS B0; AFTER B1 BY 0.5 Orbits TO 1.5 Orbits	Tue Dec 06 16:02:19 GMT 2022
Diagnostics	(Exposure 1 (Pattern 1, Exps 1-1 in AB Aur (B2))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser	

	#	Primary Pattern		Secondary Pattern	Exposures
Patterns	(1)	Pattern Type=BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.02 Line Spacing=0.02	Coordinate Frame=POS-TARG Pattern Orientation=0 Angle Between Sides=90 Center Pattern=false		(1)

	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
Fixed Targets	(1)	V-AB-AUR	RA: 04 55 45.8507 (73.9410446d) Dec: +30 33 3.92 (30.55109d) Equinox: J2000	Proper Motion RA: 3.1104743402068534E-4 sec of time/yr Proper Motion Dec: -0.024027000063142623 arcsec/yr Epoch of Position: 2015.5	V=7.05	Reference Frame: SIMBAD

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=STAR
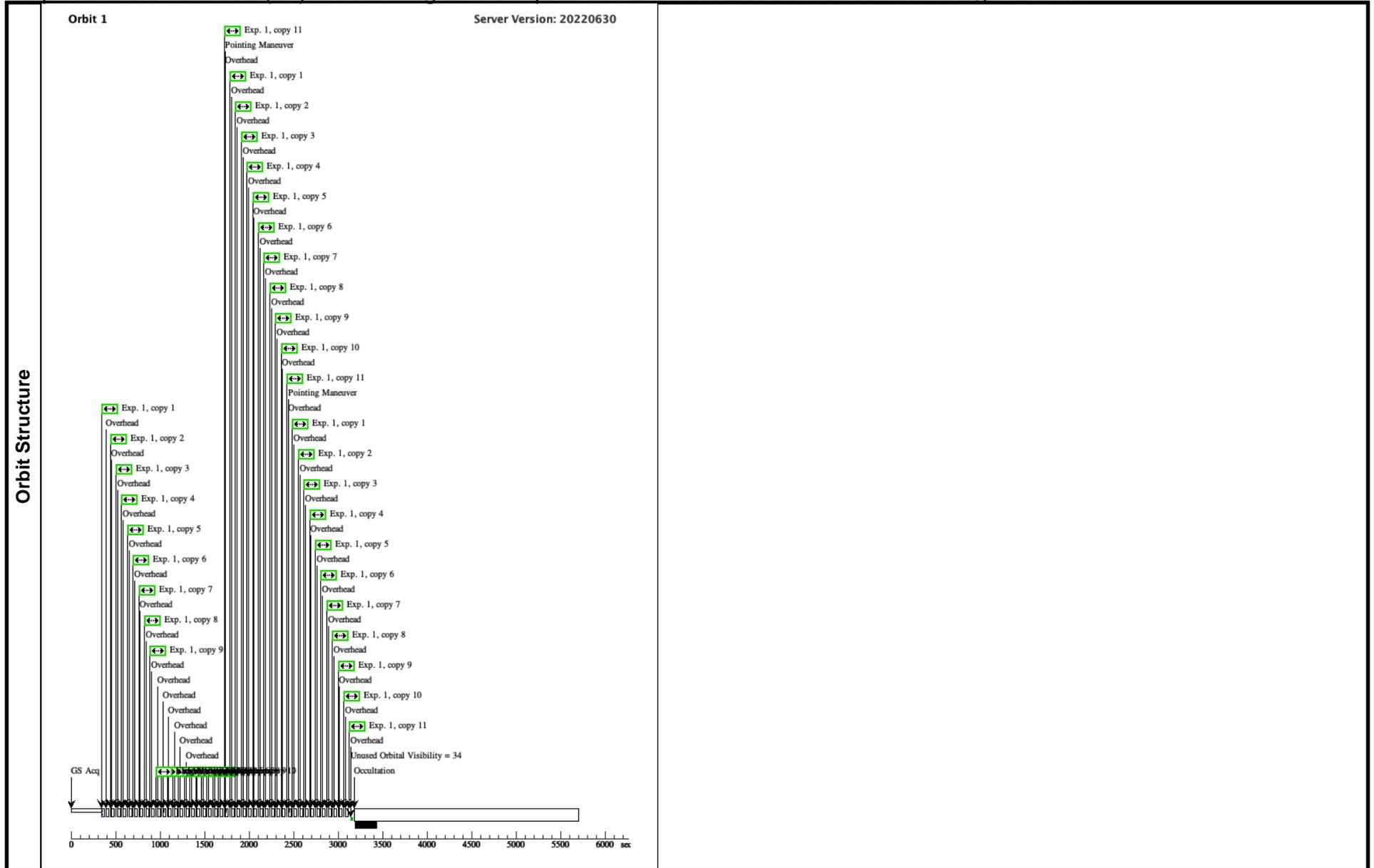*Description=[EXTRA-SOLAR PLANETARY SYSTEM, HERBIG AE/BE]*

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit

1	(WFC3UVI S.im.152459 0)	(1) V-AB-AUR	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N	FLASH=12	Pattern 1, Exps 1-1 in AB Aur (B2) (1)	2.7 Secs X 11 (118.8 Secs)	
							[==>(Pattern 1, Copy 1)]	
							[==>(Pattern 1, Copy 2)]	
							[==>(Pattern 1, Copy 3)]	
							[==>(Pattern 1, Copy 4)]	
							[==>(Pattern 1, Copy 5)]	
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							[==>(Pattern 1, Copy 11)]	
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							[==>(Pattern 2, Copy 2)]	
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							[==>(Pattern 2, Copy 7)]	
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							[==>(Pattern 2, Copy 9)]	
							[==>(Pattern 2, Copy 10)]	
							[==>(Pattern 2, Copy 11)]	*[1]*
							[==>(Pattern 3, Copy 1)]	
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							[==>(Pattern 4, Copy 7)]	
							[==>(Pattern 4, Copy 8)]	
							[==>(Pattern 4, Copy 9)]	
							[==>(Pattern 4, Copy 10)]	
							[==>(Pattern 4, Copy 11)]	

Visit	**Proposal 17168, AB Aur (B3), implementation**		Tue Dec 06 16:02:19 GMT 2022
	Diagnostic Status: Warning		
	Scientific Instruments: WFC3/UVIS		
	Special Requirements: SAME ORIENT AS B1; AFTER B2 BY 0.5 Orbits TO 1.5 Orbits		

Diagnostics	(Exposure 1 (Pattern 1, Exps 1-1 in AB Aur (B3))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser

	#	**Primary Pattern**		**Secondary Pattern**	**Exposures**
Patterns	(1)	Pattern Type=BOX	Coordinate Frame=POS-TARG		(1)
		Purpose=DITHER	Pattern Orientation=0		
		Number Of Points=4	Angle Between Sides=90		
		Point Spacing=0.02	Center Pattern=false		
		Line Spacing=0.02			

	#	**Name**	**Target Coordinates**	**Targ. Coord. Corrections**	**Fluxes**	**Miscellaneous**
Fixed Targets	(1)	V-AB-AUR	RA: 04 55 45.8507 (73.9410446d)	Proper Motion RA: 3.1104743402068534E-4 sec of time/yr	V=7.05	Reference Frame: SIMBAD
			Dec: +30 33 3.92 (30.55109d)	Proper Motion Dec: -0.024027000063142623 arcsec/yr		
			Equinox: J2000	Epoch of Position: 2015.5		
	Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.					
	Category=STAR					
	Description=[EXTRA-SOLAR PLANETARY SYSTEM, HERBIG AE/BE]					

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit

1	(WFC3UVI S.im.152459 0)	(1) V-AB-AUR	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N	FLASH=12	Pattern 1, Exps 1-1 in AB Aur (B3) (1)	2.7 Secs X 11 (118.8 Secs)	
							[==>(Pattern 1, Copy 1)]	
							[==>(Pattern 1, Copy 2)]	
							[==>(Pattern 1, Copy 3)]	
							[==>(Pattern 1, Copy 4)]	
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							[==>(Pattern 1, Copy 8)]	
							[==>(Pattern 1, Copy 9)]	
							[==>(Pattern 1, Copy 10)]	
							[==>(Pattern 1, Copy 11)]	
							[==>(Pattern 2, Copy 1)]	
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							[==>(Pattern 2, Copy 10)]	
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Proposal 17168 - AB Aur (C0) - Confirming the Protoplanet Candidate AB Aur b with Accretion Light Echoes

Visit	**Proposal 17168, AB Aur (C0), implementation**	Tue Dec 06 16:02:19 GMT 2022
	Diagnostic Status: Warning	
	Scientific Instruments: WFC3/UVIS	
	Special Requirements: ORIENT 190D TO 260 D; ORIENT 280D TO 350 D; ORIENT 10D TO 80 D; ORIENT 100D TO 170 D	

Diagnostics

(Exposure 1 (Pattern 1, Exps 1-1 in AB Aur (C0))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=BOX	Coordinate Frame=POS-TARG		(1)
	Purpose=DITHER	Pattern Orientation=0		
	Number Of Points=4	Angle Between Sides=90		
	Point Spacing=0.02	Center Pattern=false		
	Line Spacing=0.02			

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	V-AB-AUR	RA: 04 55 45.8507 (73.9410446d)	Proper Motion RA: 3.1104743402068534E-4 sec of time/yr	V=7.05	Reference Frame: SIMBAD
		Dec: +30 33 3.92 (30.55109d)	Proper Motion Dec: -0.024027000063142623 arcsec/yr		
		Equinox: J2000	Epoch of Position: 2015.5		

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=STAR
Description=[EXTRA-SOLAR PLANETARY SYSTEM, HERBIG AE/BE]

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit

1	(WFC3UVI S.im.152459 0)	(1) V-AB-AUR	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N	FLASH=12	Pattern 1, Exps 1-1 in AB Aur (C0) (1)	2.7 Secs X 11 (118.8 Secs)	
							[==>(Pattern 1, Copy 1)]	
							[==>(Pattern 1, Copy 2)]	
							[==>(Pattern 1, Copy 3)]	
							[==>(Pattern 1, Copy 4)]	
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Visit	**Proposal 17168, AB Aur (C1), implementation**

	Proposal 17168, AB Aur (C1), implementation Tue Dec 06 16:02:20 GMT 2022
	Diagnostic Status: Warning
	Scientific Instruments: WFC3/UVIS
	Special Requirements: PCS MODE FINE; GUID TOL 0.05"; GYRO MODE 3GOBAD; ORIENT 25D TO 35D FROM C0; AFTER_C0 BY 6.5_Orbits TO 8.5_Orbits

Diagnostics

(Exposure 1 (Pattern 1, Exps 1-1 in AB Aur (C1))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=BOX	Coordinate Frame=POS-TARG		(1)
	Purpose=DITHER	Pattern Orientation=0		
	Number Of Points=4	Angle Between Sides=90		
	Point Spacing=0.02	Center Pattern=false		
	Line Spacing=0.02			

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	V-AB-AUR	RA: 04 55 45.8507 (73.9410446d)	Proper Motion RA: 3.1104743402068534E-4 sec of time/yr	V=7.05	Reference Frame: SIMBAD
		Dec: +30 33 3.92 (30.55109d)	Proper Motion Dec: -0.024027000063142623 arcsec/yr		
		Equinox: J2000	Epoch of Position: 2015.5		

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=STAR
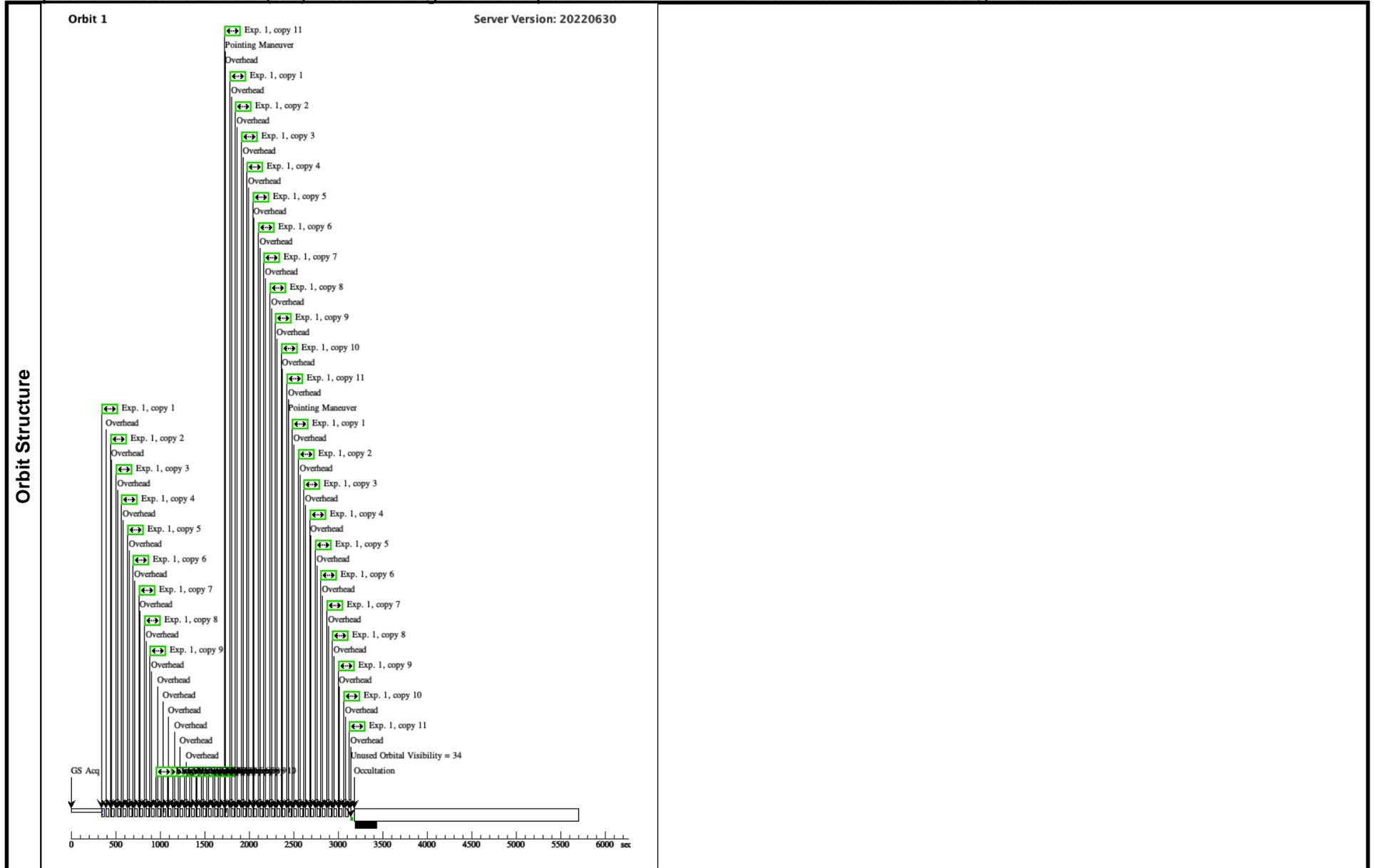*Description=[EXTRA-SOLAR PLANETARY SYSTEM, HERBIG AE/BE]*

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit

1	(WFC3UVI S.im.152459 0)	(1) V-AB-AUR	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N	FLASH=12	Pattern 1, Exps 1-1 in AB Aur (C1) (1)	2.7 Secs X 11 (118.8 Secs)	
							[==>(Pattern 1, Copy 1)]	
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							[==>(Pattern 4, Copy 11)]	

Orbit Structure

Orbit 1

Server Version: 20220630

Exp. 1, copy 11
Pointing Maneuver
Overhead
Exp. 1, copy 1
Overhead
Exp. 1, copy 2
Overhead
Exp. 1, copy 3
Overhead
Exp. 1, copy 4
Overhead
Exp. 1, copy 5
Overhead
Exp. 1, copy 6
Overhead
Exp. 1, copy 7
Overhead
Exp. 1, copy 8
Overhead
Exp. 1, copy 9
Overhead
Exp. 1, copy 10
Overhead
Exp. 1, copy 11
Overhead
Pointing Maneuver
Exp. 1, copy 1
Overhead
Exp. 1, copy 2
Overhead
Exp. 1, copy 3
Overhead
Exp. 1, copy 4
Overhead
Exp. 1, copy 5
Overhead
Exp. 1, copy 6
Overhead
Exp. 1, copy 7
Overhead
Exp. 1, copy 8
Overhead
Exp. 1, copy 9
Overhead
Exp. 1, copy 10
Overhead
Exp. 1, copy 11
Overhead
Unused Orbital Visibility = 34
Occultation

Exp. 1, copy 1
Overhead
Exp. 1, copy 2
Overhead
Exp. 1, copy 3
Overhead
Exp. 1, copy 4
Overhead
Exp. 1, copy 5
Overhead
Exp. 1, copy 6
Overhead
Exp. 1, copy 7
Overhead
Exp. 1, copy 8
Overhead
Exp. 1, copy 9
Overhead
Overhead
Overhead
Overhead
Overhead
Overhead

GS Acq

0   500   1000   1500   2000   2500   3000   3500   4000   4500   5000   5500   6000 sec

Visit	**Proposal 17168, AB Aur (C2), implementation** **Diagnostic Status: Warning** Scientific Instruments: WFC3/UVIS Special Requirements: SAME ORIENT AS C0; AFTER_C1 BY 0.5_Orbits TO 1.5_Orbits	Tue Dec 06 16:02:20 GMT 2022

Diagnostics	(Exposure 1 (Pattern 1, Exps 1-1 in AB Aur (C2))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser

	#	Primary Pattern		Secondary Pattern	Exposures
Patterns	(1)	Pattern Type=BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.02 Line Spacing=0.02	Coordinate Frame=POS-TARG Pattern Orientation=0 Angle Between Sides=90 Center Pattern=false		(1)

	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
Fixed Targets	(1)	V-AB-AUR	RA: 04 55 45.8507 (73.9410446d) Dec: +30 33 3.92 (30.55109d) Equinox: J2000	Proper Motion RA: 3.1104743402068534E-4 sec of time/yr Proper Motion Dec: -0.024027000063142623 arcsec/yr Epoch of Position: 2015.5	V=7.05	Reference Frame: SIMBAD

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=STAR
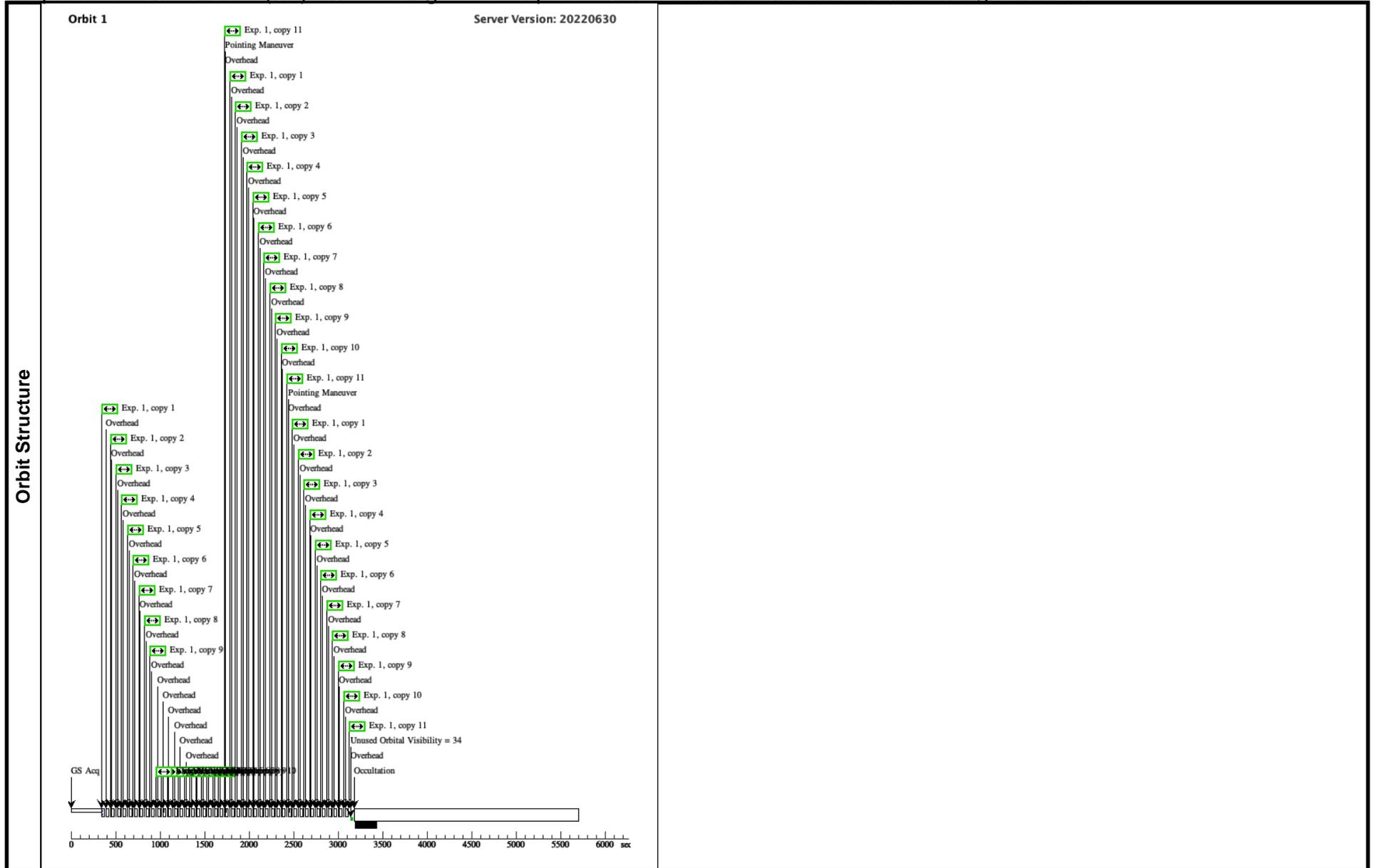*Description=[EXTRA-SOLAR PLANETARY SYSTEM, HERBIG AE/BE]*

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit

1	(WFC3UVI S.im.152459 0)	(1) V-AB-AUR	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N	FLASH=12	Pattern 1, Exps 1-1 i n AB Aur (C2) (1)	2.7 Secs X 11 (118.8 Secs)	
							[==>(Pattern 1, Copy 1)]	
							[==>(Pattern 1, Copy 2)]	
							[==>(Pattern 1, Copy 3)]	
							[==>(Pattern 1, Copy 4)]	
							[==>(Pattern 1, Copy 5)]	
							[==>(Pattern 1, Copy 6)]	
							[==>(Pattern 1, Copy 7)]	
							[==>(Pattern 1, Copy 8)]	
							[==>(Pattern 1, Copy 9)]	
							[==>(Pattern 1, Copy 10)]	
							[==>(Pattern 1, Copy 11)]	
							[==>(Pattern 2, Copy 1)]	
							[==>(Pattern 2, Copy 2)]	
							[==>(Pattern 2, Copy 3)]	
							[==>(Pattern 2, Copy 4)]	
							[==>(Pattern 2, Copy 5)]	
							[==>(Pattern 2, Copy 6)]	
							[==>(Pattern 2, Copy 7)]	
							[==>(Pattern 2, Copy 8)]	
							[==>(Pattern 2, Copy 9)]	
							[==>(Pattern 2, Copy 10)]	
							[==>(Pattern 2, Copy 11)]	[1]
							[==>(Pattern 3, Copy 1)]	
							[==>(Pattern 3, Copy 2)]	
							[==>(Pattern 3, Copy 3)]	
							[==>(Pattern 3, Copy 4)]	
							[==>(Pattern 3, Copy 5)]	
							[==>(Pattern 3, Copy 6)]	
							[==>(Pattern 3, Copy 7)]	
							[==>(Pattern 3, Copy 8)]	
							[==>(Pattern 3, Copy 9)]	
							[==>(Pattern 3, Copy 10)]	
							[==>(Pattern 3, Copy 11)]	
							[==>(Pattern 4, Copy 1)]	
							[==>(Pattern 4, Copy 2)]	
							[==>(Pattern 4, Copy 3)]	
							[==>(Pattern 4, Copy 4)]	
							[==>(Pattern 4, Copy 5)]	
							[==>(Pattern 4, Copy 6)]	
							[==>(Pattern 4, Copy 7)]	
							[==>(Pattern 4, Copy 8)]	
							[==>(Pattern 4, Copy 9)]	
							[==>(Pattern 4, Copy 10)]	
							[==>(Pattern 4, Copy 11)]	

Orbit 1

Server Version: 20220630

Orbit Structure

Visit	**Proposal 17168, AB Aur (C3), implementation** — Tue Dec 06 16:02:20 GMT 2022 **Diagnostic Status: Warning** Scientific Instruments: WFC3/UVIS Special Requirements: SAME ORIENT AS C1; AFTER C2 BY 0.5 Orbits TO 1.5 Orbits
Diagnostics	(Exposure 1 (Pattern 1, Exps 1-1 in AB Aur (C3))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=BOX	Coordinate Frame=POS-TARG		(1)
	Purpose=DITHER	Pattern Orientation=0		
	Number Of Points=4	Angle Between Sides=90		
	Point Spacing=0.02	Center Pattern=false		
	Line Spacing=0.02			

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	V-AB-AUR	RA: 04 55 45.8507 (73.9410446d) Dec: +30 33 3.92 (30.55109d) Equinox: J2000	Proper Motion RA: 3.1104743402068534E-4 sec of time/yr Proper Motion Dec: -0.024027000063142623 arcsec/yr Epoch of Position: 2015.5	V=7.05	Reference Frame: SIMBAD

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=STAR
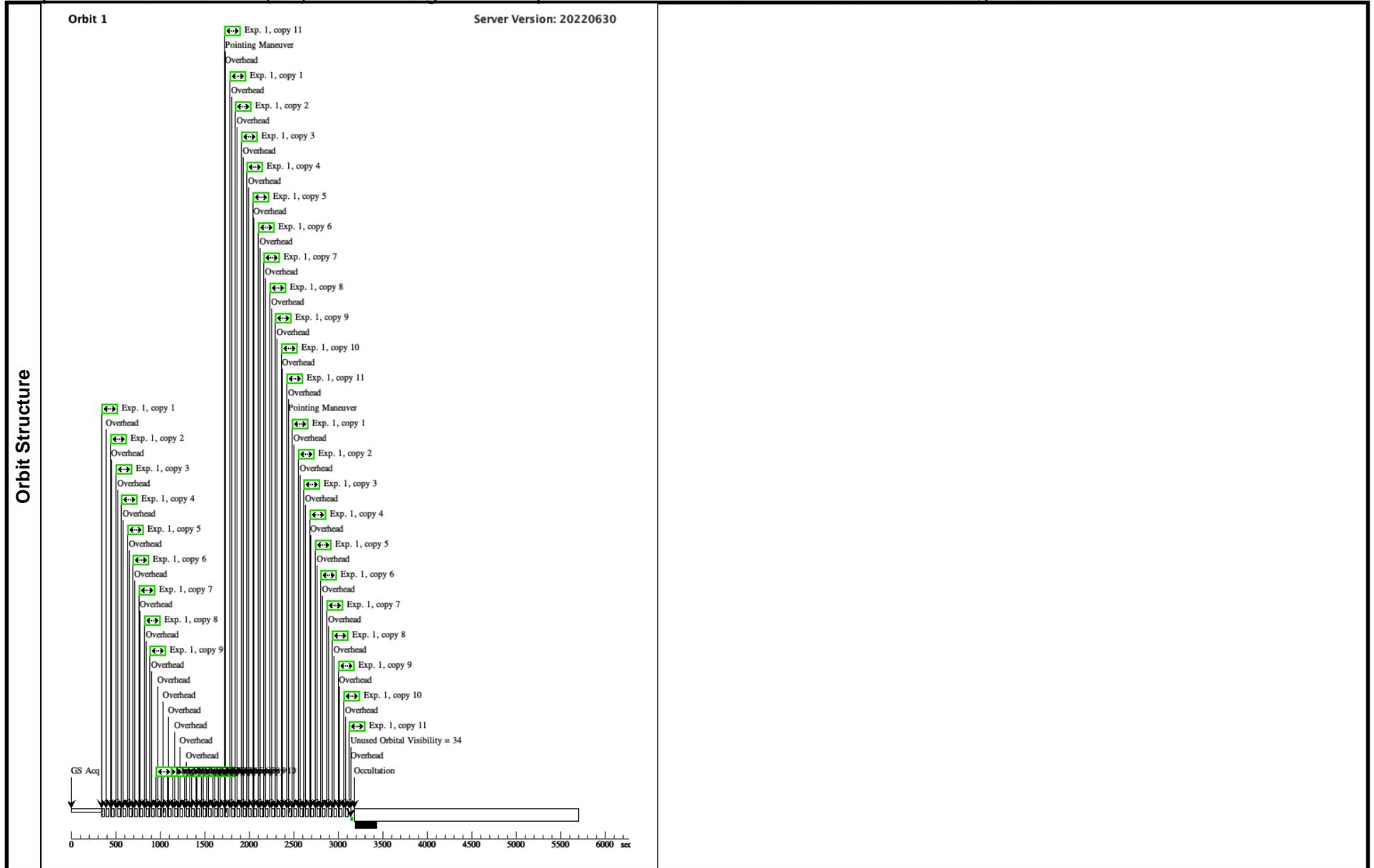*Description=[EXTRA-SOLAR PLANETARY SYSTEM, HERBIG AE/BE]*

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Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit

1	(WFC3UVI S.im.152459 0)	(1) V-AB-AUR	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N	FLASH=12	Pattern 1, Exps 1-1 in AB Aur (C3) (1)	2.7 Secs X 11 (118.8 Secs)	
							[==>(Pattern 1, Copy 1)]	
							[==>(Pattern 1, Copy 2)]	
							[==>(Pattern 1, Copy 3)]	
							[==>(Pattern 1, Copy 4)]	
							[==>(Pattern 1, Copy 5)]	
							[==>(Pattern 1, Copy 6)]	
							[==>(Pattern 1, Copy 7)]	
							[==>(Pattern 1, Copy 8)]	
							[==>(Pattern 1, Copy 9)]	
							[==>(Pattern 1, Copy 10)]	
							[==>(Pattern 1, Copy 11)]	
							[==>(Pattern 2, Copy 1)]	
							[==>(Pattern 2, Copy 2)]	
							[==>(Pattern 2, Copy 3)]	
							[==>(Pattern 2, Copy 4)]	
							[==>(Pattern 2, Copy 5)]	
							[==>(Pattern 2, Copy 6)]	
							[==>(Pattern 2, Copy 7)]	
							[==>(Pattern 2, Copy 8)]	
							[==>(Pattern 2, Copy 9)]	
							[==>(Pattern 2, Copy 10)]	
							[==>(Pattern 2, Copy 11)]	*[1]*
							[==>(Pattern 3, Copy 1)]	
							[==>(Pattern 3, Copy 2)]	
							[==>(Pattern 3, Copy 3)]	
							[==>(Pattern 3, Copy 4)]	
							[==>(Pattern 3, Copy 5)]	
							[==>(Pattern 3, Copy 6)]	
							[==>(Pattern 3, Copy 7)]	
							[==>(Pattern 3, Copy 8)]	
							[==>(Pattern 3, Copy 9)]	
							[==>(Pattern 3, Copy 10)]	
							[==>(Pattern 3, Copy 11)]	
							[==>(Pattern 4, Copy 1)]	
							[==>(Pattern 4, Copy 2)]	
							[==>(Pattern 4, Copy 3)]	
							[==>(Pattern 4, Copy 4)]	
							[==>(Pattern 4, Copy 5)]	
							[==>(Pattern 4, Copy 6)]	
							[==>(Pattern 4, Copy 7)]	
							[==>(Pattern 4, Copy 8)]	
							[==>(Pattern 4, Copy 9)]	
							[==>(Pattern 4, Copy 10)]	
							[==>(Pattern 4, Copy 11)]	

Proposal 17168 - AB Aur (D0) - Confirming the Protoplanet Candidate AB Aur b with Accretion Light Echoes

<table>
<tr><td rowspan="4" style="writing-mode: vertical">Visit</td><td colspan="2">Proposal 17168, AB Aur (D0), implementation</td><td>Tue Dec 06 16:02:20 GMT 2022</td></tr>
<tr><td colspan="3">Diagnostic Status: Warning</td></tr>
<tr><td colspan="3">Scientific Instruments: WFC3/UVIS</td></tr>
<tr><td colspan="3">Special Requirements: ORIENT 190D TO 260 D; ORIENT 280D TO 350 D; ORIENT 10D TO 80 D; ORIENT 100D TO 170 D</td></tr>
</table>

Diagnostics	(Exposure 1 (Pattern 1, Exps 1-1 in AB Aur (D0))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser

	#	Primary Pattern		Secondary Pattern	Exposures
Patterns	(1)	Pattern Type=BOX Purpose=DITHER Number Of Points=4 Point Spacing=0.02 Line Spacing=0.02	Coordinate Frame=POS-TARG Pattern Orientation=0 Angle Between Sides=90 Center Pattern=false		(1)

	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
Fixed Targets	(1)	V-AB-AUR	RA: 04 55 45.8507 (73.9410446d) Dec: +30 33 3.92 (30.55109d) Equinox: J2000	Proper Motion RA: 3.1104743402068534E-4 sec of time/yr Proper Motion Dec: -0.024027000063142623 arcsec/yr Epoch of Position: 2015.5	V=7.05	Reference Frame: SIMBAD

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=STAR
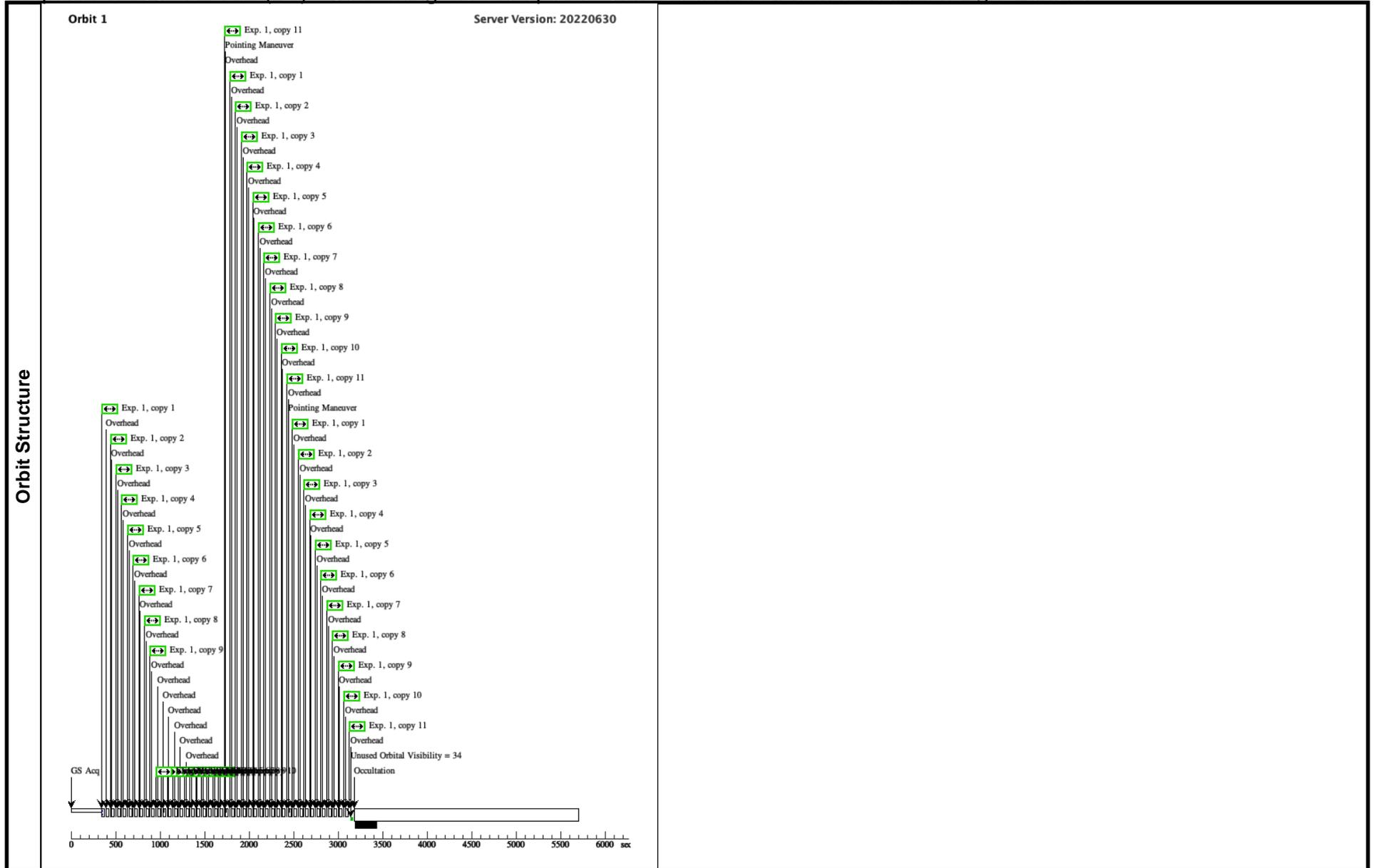*Description=[EXTRA-SOLAR PLANETARY SYSTEM, HERBIG AE/BE]*

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit

1	(WFC3UVI S.im.152459 0)	(1) V-AB-AUR	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N	FLASH=12	Pattern 1, Exps 1-1 i n AB Aur (D0) (1)	2.7 Secs X 11 (118.8 Secs)	
							[==>(Pattern 1, Copy 1)]	
							[==>(Pattern 1, Copy 2)]	
							[==>(Pattern 1, Copy 3)]	
							[==>(Pattern 1, Copy 4)]	
							[==>(Pattern 1, Copy 5)]	
							[==>(Pattern 1, Copy 6)]	
							[==>(Pattern 1, Copy 7)]	
							[==>(Pattern 1, Copy 8)]	
							[==>(Pattern 1, Copy 9)]	
							[==>(Pattern 1, Copy 10)]	
							[==>(Pattern 1, Copy 11)]	
							[==>(Pattern 2, Copy 1)]	
							[==>(Pattern 2, Copy 2)]	
							[==>(Pattern 2, Copy 3)]	
							[==>(Pattern 2, Copy 4)]	
							[==>(Pattern 2, Copy 5)]	
							[==>(Pattern 2, Copy 6)]	
							[==>(Pattern 2, Copy 7)]	
							[==>(Pattern 2, Copy 8)]	
							[==>(Pattern 2, Copy 9)]	
							[==>(Pattern 2, Copy 10)]	
							[==>(Pattern 2, Copy 11)]	[1]
							[==>(Pattern 3, Copy 1)]	
							[==>(Pattern 3, Copy 2)]	
							[==>(Pattern 3, Copy 3)]	
							[==>(Pattern 3, Copy 4)]	
							[==>(Pattern 3, Copy 5)]	
							[==>(Pattern 3, Copy 6)]	
							[==>(Pattern 3, Copy 7)]	
							[==>(Pattern 3, Copy 8)]	
							[==>(Pattern 3, Copy 9)]	
							[==>(Pattern 3, Copy 10)]	
							[==>(Pattern 3, Copy 11)]	
							[==>(Pattern 4, Copy 1)]	
							[==>(Pattern 4, Copy 2)]	
							[==>(Pattern 4, Copy 3)]	
							[==>(Pattern 4, Copy 4)]	
							[==>(Pattern 4, Copy 5)]	
							[==>(Pattern 4, Copy 6)]	
							[==>(Pattern 4, Copy 7)]	
							[==>(Pattern 4, Copy 8)]	
							[==>(Pattern 4, Copy 9)]	
							[==>(Pattern 4, Copy 10)]	
							[==>(Pattern 4, Copy 11)]	

Visit	**Proposal 17168, AB Aur (D1), implementation**	Tue Dec 06 16:02:20 GMT 2022
	Diagnostic Status: Warning	
	Scientific Instruments: WFC3/UVIS	
	Special Requirements: ORIENT 25D TO 35D FROM D0; AFTER D0 BY 6.5 Orbits TO 8.5 Orbits	

Diagnostics	(Exposure 1 (Pattern 1, Exps 1-1 in AB Aur (D1))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser

	#	Primary Pattern		Secondary Pattern	Exposures
Patterns	(1)	Pattern Type=BOX	Coordinate Frame=POS-TARG		(1)
		Purpose=DITHER	Pattern Orientation=0		
		Number Of Points=4	Angle Between Sides=90		
		Point Spacing=0.02	Center Pattern=false		
		Line Spacing=0.02			

	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
Fixed Targets	(1)	V-AB-AUR	RA: 04 55 45.8507 (73.9410446d)	Proper Motion RA: 3.1104743402068534E-4 sec of time/yr	V=7.05	Reference Frame: SIMBAD
			Dec: +30 33 3.92 (30.55109d)	Proper Motion Dec: -0.024027000063142623 arcsec/yr		
			Equinox: J2000	Epoch of Position: 2015.5		

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=STAR
Description=[EXTRA-SOLAR PLANETARY SYSTEM, HERBIG AE/BE]

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit

1	(WFC3UVI S.im.152459 0)	(1) V-AB-AUR	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N	FLASH=12	Pattern 1, Exps 1-1 in AB Aur (D1) (1)	2.7 Secs X 11 (118.8 Secs)	
							[==>(Pattern 1, Copy 1)]	
							[==>(Pattern 1, Copy 2)]	
							[==>(Pattern 1, Copy 3)]	
							[==>(Pattern 1, Copy 4)]	
							[==>(Pattern 1, Copy 5)]	
							[==>(Pattern 1, Copy 6)]	
							[==>(Pattern 1, Copy 7)]	
							[==>(Pattern 1, Copy 8)]	
							[==>(Pattern 1, Copy 9)]	
							[==>(Pattern 1, Copy 10)]	
							[==>(Pattern 1, Copy 11)]	
							[==>(Pattern 2, Copy 1)]	
							[==>(Pattern 2, Copy 2)]	
							[==>(Pattern 2, Copy 3)]	
							[==>(Pattern 2, Copy 4)]	
							[==>(Pattern 2, Copy 5)]	
							[==>(Pattern 2, Copy 6)]	
							[==>(Pattern 2, Copy 7)]	
							[==>(Pattern 2, Copy 8)]	
							[==>(Pattern 2, Copy 9)]	
							[==>(Pattern 2, Copy 10)]	
							[==>(Pattern 2, Copy 11)]	[1]
							[==>(Pattern 3, Copy 1)]	
							[==>(Pattern 3, Copy 2)]	
							[==>(Pattern 3, Copy 3)]	
							[==>(Pattern 3, Copy 4)]	
							[==>(Pattern 3, Copy 5)]	
							[==>(Pattern 3, Copy 6)]	
							[==>(Pattern 3, Copy 7)]	
							[==>(Pattern 3, Copy 8)]	
							[==>(Pattern 3, Copy 9)]	
							[==>(Pattern 3, Copy 10)]	
							[==>(Pattern 3, Copy 11)]	
							[==>(Pattern 4, Copy 1)]	
							[==>(Pattern 4, Copy 2)]	
							[==>(Pattern 4, Copy 3)]	
							[==>(Pattern 4, Copy 4)]	
							[==>(Pattern 4, Copy 5)]	
							[==>(Pattern 4, Copy 6)]	
							[==>(Pattern 4, Copy 7)]	
							[==>(Pattern 4, Copy 8)]	
							[==>(Pattern 4, Copy 9)]	
							[==>(Pattern 4, Copy 10)]	
							[==>(Pattern 4, Copy 11)]	

Visit	**Proposal 17168, AB Aur (D2), implementation**			Tue Dec 06 16:02:20 GMT 2022
	Diagnostic Status: Warning			
	Scientific Instruments: WFC3/UVIS			
	Special Requirements: SAME ORIENT AS D0; AFTER_D1 BY 0.5 Orbits TO 1.5 Orbits			

Diagnostics	(Exposure 1 (Pattern 1, Exps 1-1 in AB Aur (D2))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser

	#	Primary Pattern		Secondary Pattern	Exposures
Patterns	(1)	Pattern Type=BOX	Coordinate Frame=POS-TARG		(1)
		Purpose=DITHER	Pattern Orientation=0		
		Number Of Points=4	Angle Between Sides=90		
		Point Spacing=0.02	Center Pattern=false		
		Line Spacing=0.02			

	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
Fixed Targets	(1)	V-AB-AUR	RA: 04 55 45.8507 (73.9410446d)	Proper Motion RA: 3.1104743402068534E-4 sec of time/yr	V=7.05	Reference Frame: SIMBAD
			Dec: +30 33 3.92 (30.55109d)	Proper Motion Dec: -0.024027000063142623 arcsec/yr		
			Equinox: J2000	Epoch of Position: 2015.5		

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=STAR
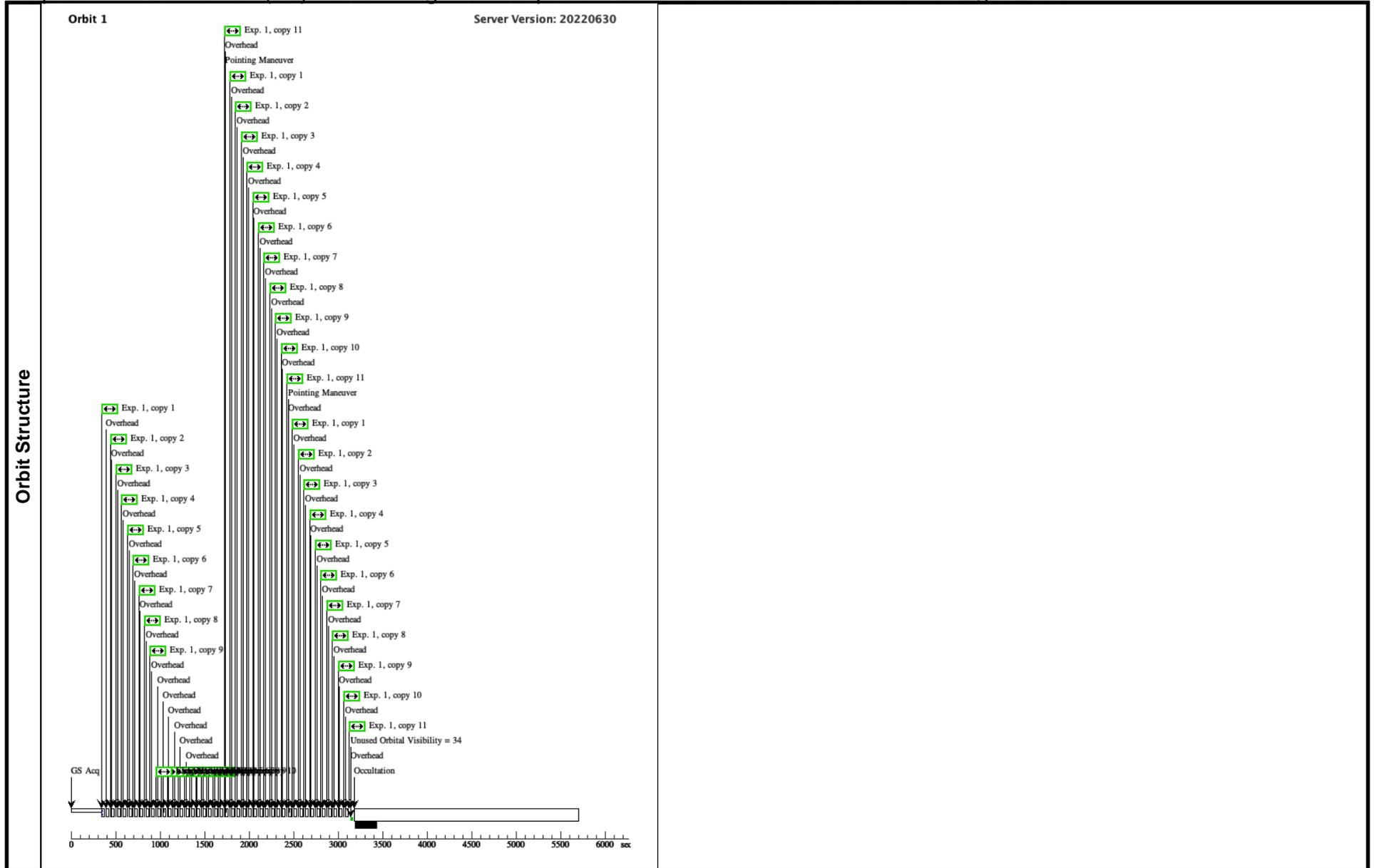*Description=[EXTRA-SOLAR PLANETARY SYSTEM, HERBIG AE/BE]*

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit

1	(WFC3UVI S.im.152459 0)	(1) V-AB-AUR	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N	FLASH=12	Pattern 1, Exps 1-1 in AB Aur (D2) (1)	2.7 Secs X 11 (118.8 Secs)	
							[==>(Pattern 1, Copy 1)]	
							[==>(Pattern 1, Copy 2)]	
							[==>(Pattern 1, Copy 3)]	
							[==>(Pattern 1, Copy 4)]	
							[==>(Pattern 1, Copy 5)]	
							[==>(Pattern 1, Copy 6)]	
							[==>(Pattern 1, Copy 7)]	
							[==>(Pattern 1, Copy 8)]	
							[==>(Pattern 1, Copy 9)]	
							[==>(Pattern 1, Copy 10)]	
							[==>(Pattern 1, Copy 11)]	
							[==>(Pattern 2, Copy 1)]	
							[==>(Pattern 2, Copy 2)]	
							[==>(Pattern 2, Copy 3)]	
							[==>(Pattern 2, Copy 4)]	
							[==>(Pattern 2, Copy 5)]	
							[==>(Pattern 2, Copy 6)]	
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							[==>(Pattern 2, Copy 8)]	
							[==>(Pattern 2, Copy 9)]	
							[==>(Pattern 2, Copy 10)]	
							[==>(Pattern 2, Copy 11)]	[1]
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							[==>(Pattern 3, Copy 10)]	
							[==>(Pattern 3, Copy 11)]	
							[==>(Pattern 4, Copy 1)]	
							[==>(Pattern 4, Copy 2)]	
							[==>(Pattern 4, Copy 3)]	
							[==>(Pattern 4, Copy 4)]	
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							[==>(Pattern 4, Copy 6)]	
							[==>(Pattern 4, Copy 7)]	
							[==>(Pattern 4, Copy 8)]	
							[==>(Pattern 4, Copy 9)]	
							[==>(Pattern 4, Copy 10)]	
							[==>(Pattern 4, Copy 11)]	

Visit	**Proposal 17168, AB Aur (D3), implementation** — Tue Dec 06 16:02:20 GMT 2022 **Diagnostic Status: Warning** Scientific Instruments: WFC3/UVIS Special Requirements: SAME ORIENT AS D1; AFTER D2 BY 0.5 Orbits TO 1.5 Orbits
Diagnostics	(Exposure 1 (Pattern 1, Exps 1-1 in AB Aur (D3))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser

Patterns

#	Primary Pattern	Secondary Pattern	Exposures
(1)	Pattern Type=BOX Coordinate Frame=POS-TARG Purpose=DITHER Pattern Orientation=0 Number Of Points=4 Angle Between Sides=90 Point Spacing=0.02 Center Pattern=false Line Spacing=0.02		(1)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	V-AB-AUR	RA: 04 55 45.8507 (73.9410446d) Dec: +30 33 3.92 (30.55109d) Equinox: J2000	Proper Motion RA: 3.1104743402068534E-4 sec of time/yr Proper Motion Dec: -0.024027000063142623 arcsec/yr Epoch of Position: 2015.5	V=7.05	Reference Frame: SIMBAD

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=STAR
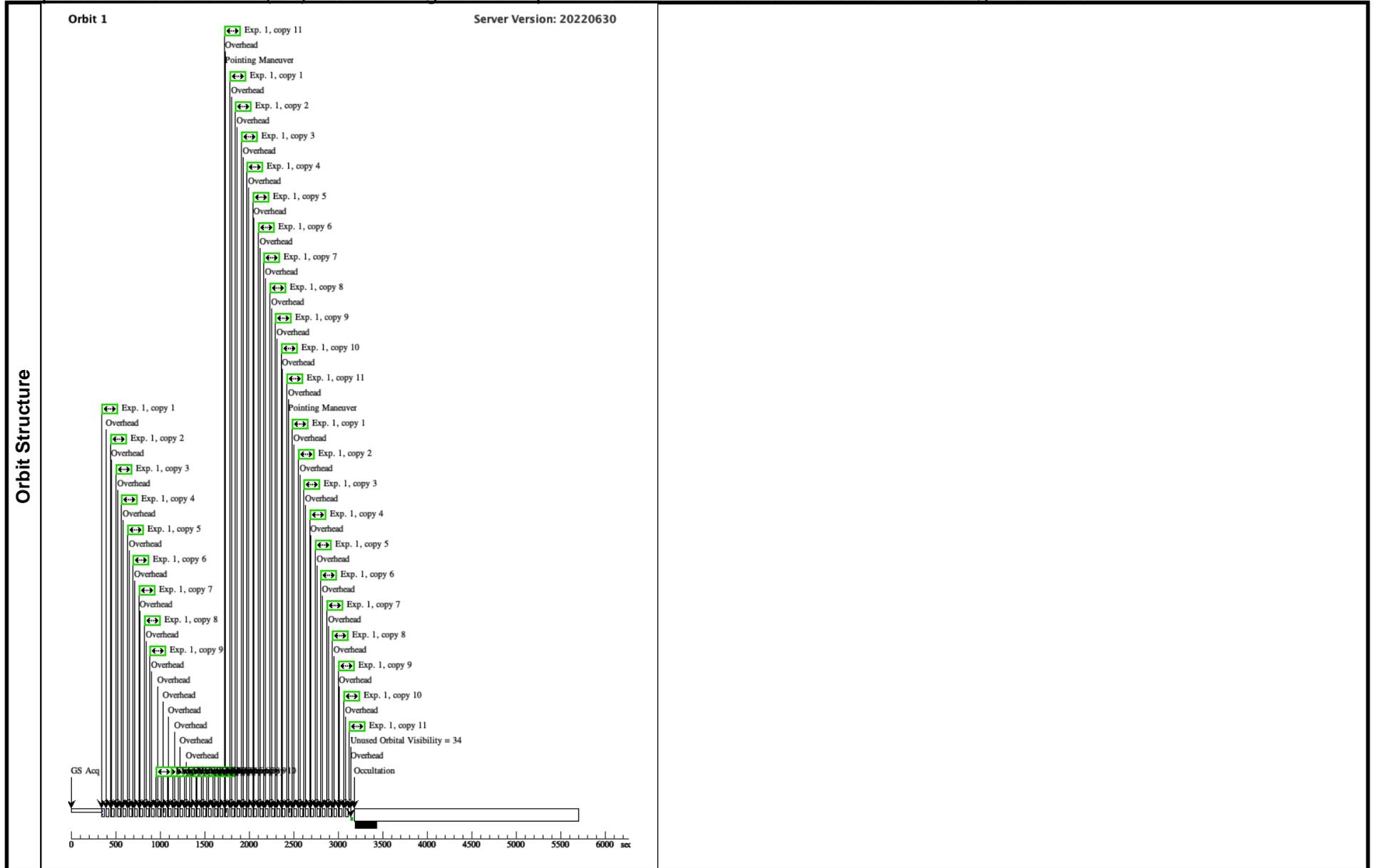*Description=[EXTRA-SOLAR PLANETARY SYSTEM, HERBIG AE/BE]*

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit

1	(WFC3UVI S.im.152459 0)	(1) V-AB-AUR	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N	FLASH=12	Pattern 1, Exps 1-1 in AB Aur (D3) (1)	2.7 Secs X 11 (118.8 Secs)	
							[==>(Pattern 1, Copy 1)]	
							[==>(Pattern 1, Copy 2)]	
							[==>(Pattern 1, Copy 3)]	
							[==>(Pattern 1, Copy 4)]	
							[==>(Pattern 1, Copy 5)]	
							[==>(Pattern 1, Copy 6)]	
							[==>(Pattern 1, Copy 7)]	
							[==>(Pattern 1, Copy 8)]	
							[==>(Pattern 1, Copy 9)]	
							[==>(Pattern 1, Copy 10)]	
							[==>(Pattern 1, Copy 11)]	
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							[==>(Pattern 2, Copy 7)]	
							[==>(Pattern 2, Copy 8)]	
							[==>(Pattern 2, Copy 9)]	
							[==>(Pattern 2, Copy 10)]	
							[==>(Pattern 2, Copy 11)]	[1]
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							[==>(Pattern 3, Copy 8)]	
							[==>(Pattern 3, Copy 9)]	
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							[==>(Pattern 4, Copy 1)]	
							[==>(Pattern 4, Copy 2)]	
							[==>(Pattern 4, Copy 3)]	
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Orbit Structure

Orbit 1

Server Version: 20220630

Exp. 1, copy 11
Overhead
Pointing Maneuver
Exp. 1, copy 1
Overhead
Exp. 1, copy 2
Overhead
Exp. 1, copy 3
Overhead
Exp. 1, copy 4
Overhead
Exp. 1, copy 5
Overhead
Exp. 1, copy 6
Overhead
Exp. 1, copy 7
Overhead
Exp. 1, copy 8
Overhead
Exp. 1, copy 9
Overhead
Exp. 1, copy 10
Overhead
Exp. 1, copy 11
Overhead
Pointing Maneuver
Exp. 1, copy 1
Overhead
Exp. 1, copy 2
Overhead
Exp. 1, copy 3
Overhead
Exp. 1, copy 4
Overhead
Exp. 1, copy 5
Overhead
Exp. 1, copy 6
Overhead
Exp. 1, copy 7
Overhead
Exp. 1, copy 8
Overhead
Exp. 1, copy 9
Overhead
Exp. 1, copy 10
Overhead
Exp. 1, copy 11
Unused Orbital Visibility = 34
Overhead
Occultation

Exp. 1, copy 1
Overhead
Exp. 1, copy 2
Overhead
Exp. 1, copy 3
Overhead
Exp. 1, copy 4
Overhead
Exp. 1, copy 5
Overhead
Exp. 1, copy 6
Overhead
Exp. 1, copy 7
Overhead
Exp. 1, copy 8
Overhead
Exp. 1, copy 9
Overhead
Overhead
Overhead
Overhead
Overhead
Overhead
GS Acq

0   500   1000   1500   2000   2500   3000   3500   4000   4500   5000   5500   6000 sec

68

Visit		
	Proposal 17168, AB Aur (E0), implementation	Tue Dec 06 16:02:20 GMT 2022
	Diagnostic Status: Warning	
	Scientific Instruments: WFC3/UVIS	
	Special Requirements: ORIENT 190D TO 260 D; ORIENT 280D TO 350 D; ORIENT 10D TO 80 D; ORIENT 100D TO 170 D	

Diagnostics
(Exposure 1 (Pattern 1, Exps 1-1 in AB Aur (E0))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=BOX	Coordinate Frame=POS-TARG		(1)
	Purpose=DITHER	Pattern Orientation=0		
	Number Of Points=4	Angle Between Sides=90		
	Point Spacing=0.02	Center Pattern=false		
	Line Spacing=0.02			

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	V-AB-AUR	RA: 04 55 45.8507 (73.9410446d)	Proper Motion RA: 3.1104743402068534E-4 sec of time/yr	V=7.05	Reference Frame: SIMBAD
		Dec: +30 33 3.92 (30.55109d)	Proper Motion Dec: -0.024027000063142623 arcsec/yr		
		Equinox: J2000	Epoch of Position: 2015.5		

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=STAR
Description=[EXTRA-SOLAR PLANETARY SYSTEM, HERBIG AE/BE]

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit

1	(WFC3UVI S.im.152459 0)	(1) V-AB-AUR	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N	FLASH=12	Pattern 1, Exps 1-1 in AB Aur (E0) (1)	2.7 Secs X 11 (118.8 Secs)	
							[==>(Pattern 1, Copy 1)]	
							[==>(Pattern 1, Copy 2)]	
							[==>(Pattern 1, Copy 3)]	
							[==>(Pattern 1, Copy 4)]	
							[==>(Pattern 1, Copy 5)]	
							[==>(Pattern 1, Copy 6)]	
							[==>(Pattern 1, Copy 7)]	
							[==>(Pattern 1, Copy 8)]	
							[==>(Pattern 1, Copy 9)]	
							[==>(Pattern 1, Copy 10)]	
							[==>(Pattern 1, Copy 11)]	
							[==>(Pattern 2, Copy 1)]	
							[==>(Pattern 2, Copy 2)]	
							[==>(Pattern 2, Copy 3)]	
							[==>(Pattern 2, Copy 4)]	
							[==>(Pattern 2, Copy 5)]	
							[==>(Pattern 2, Copy 6)]	
							[==>(Pattern 2, Copy 7)]	
							[==>(Pattern 2, Copy 8)]	
							[==>(Pattern 2, Copy 9)]	
							[==>(Pattern 2, Copy 10)]	
							[==>(Pattern 2, Copy 11)]	[1]
							[==>(Pattern 3, Copy 1)]	
							[==>(Pattern 3, Copy 2)]	
							[==>(Pattern 3, Copy 3)]	
							[==>(Pattern 3, Copy 4)]	
							[==>(Pattern 3, Copy 5)]	
							[==>(Pattern 3, Copy 6)]	
							[==>(Pattern 3, Copy 7)]	
							[==>(Pattern 3, Copy 8)]	
							[==>(Pattern 3, Copy 9)]	
							[==>(Pattern 3, Copy 10)]	
							[==>(Pattern 3, Copy 11)]	
							[==>(Pattern 4, Copy 1)]	
							[==>(Pattern 4, Copy 2)]	
							[==>(Pattern 4, Copy 3)]	
							[==>(Pattern 4, Copy 4)]	
							[==>(Pattern 4, Copy 5)]	
							[==>(Pattern 4, Copy 6)]	
							[==>(Pattern 4, Copy 7)]	
							[==>(Pattern 4, Copy 8)]	
							[==>(Pattern 4, Copy 9)]	
							[==>(Pattern 4, Copy 10)]	
							[==>(Pattern 4, Copy 11)]	

Visit	Proposal 17168, AB Aur (E1), implementation	Tue Dec 06 16:02:20 GMT 2022
	Diagnostic Status: Warning	
	Scientific Instruments: WFC3/UVIS	
	Special Requirements: ORIENT 25D TO 35D FROM E0; AFTER_E0 BY 6.5 Orbits TO 8.5 Orbits	

Diagnostics

(Exposure 1 (Pattern 1, Exps 1-1 in AB Aur (E1))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=BOX	Coordinate Frame=POS-TARG		(1)
	Purpose=DITHER	Pattern Orientation=0		
	Number Of Points=4	Angle Between Sides=90		
	Point Spacing=0.02	Center Pattern=false		
	Line Spacing=0.02			

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	V-AB-AUR	RA: 04 55 45.8507 (73.9410446d)	Proper Motion RA: 3.1104743402068534E-4 sec of time/yr	V=7.05	Reference Frame: SIMBAD
		Dec: +30 33 3.92 (30.55109d)	Proper Motion Dec: -0.024027000063142623 arcsec/yr		
		Equinox: J2000	Epoch of Position: 2015.5		

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=STAR
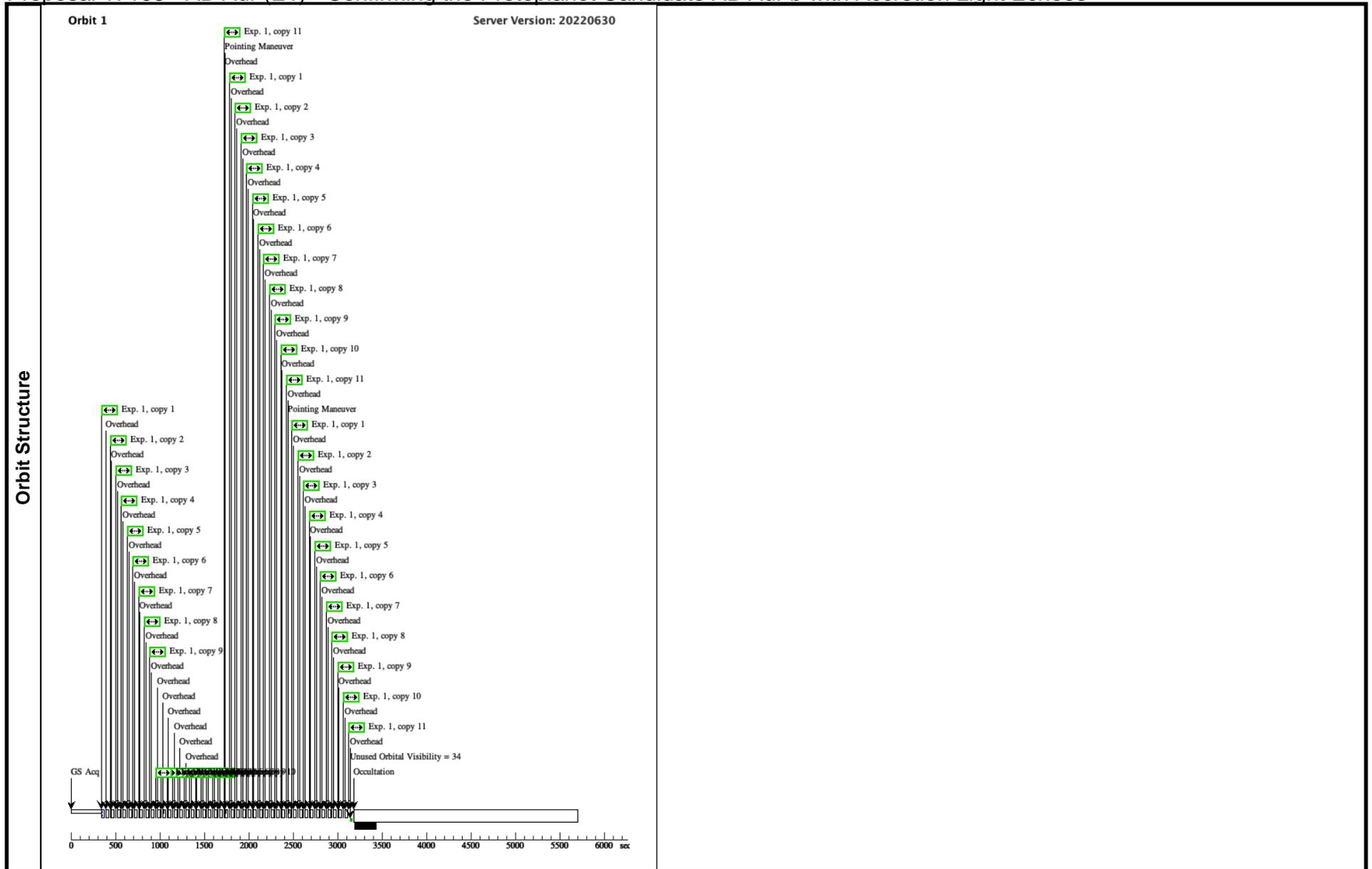*Description=[EXTRA-SOLAR PLANETARY SYSTEM, HERBIG AE/BE]*

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit

1	(WFC3UVI S.im.152459 0)	(1) V-AB-AUR	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N	FLASH=12	Pattern 1, Exps 1-1 in AB Aur (E1) (1)	2.7 Secs X 11 (118.8 Secs)	
							[==>(Pattern 1, Copy 1)]	
							[==>(Pattern 1, Copy 2)]	
							[==>(Pattern 1, Copy 3)]	
							[==>(Pattern 1, Copy 4)]	
							[==>(Pattern 1, Copy 5)]	
							[==>(Pattern 1, Copy 6)]	
							[==>(Pattern 1, Copy 7)]	
							[==>(Pattern 1, Copy 8)]	
							[==>(Pattern 1, Copy 9)]	
							[==>(Pattern 1, Copy 10)]	
							[==>(Pattern 1, Copy 11)]	
							[==>(Pattern 2, Copy 1)]	
							[==>(Pattern 2, Copy 2)]	
							[==>(Pattern 2, Copy 3)]	
							[==>(Pattern 2, Copy 4)]	
							[==>(Pattern 2, Copy 5)]	
							[==>(Pattern 2, Copy 6)]	
							[==>(Pattern 2, Copy 7)]	
							[==>(Pattern 2, Copy 8)]	
							[==>(Pattern 2, Copy 9)]	
							[==>(Pattern 2, Copy 10)]	
							[==>(Pattern 2, Copy 11)]	*[1]*
							[==>(Pattern 3, Copy 1)]	
							[==>(Pattern 3, Copy 2)]	
							[==>(Pattern 3, Copy 3)]	
							[==>(Pattern 3, Copy 4)]	
							[==>(Pattern 3, Copy 5)]	
							[==>(Pattern 3, Copy 6)]	
							[==>(Pattern 3, Copy 7)]	
							[==>(Pattern 3, Copy 8)]	
							[==>(Pattern 3, Copy 9)]	
							[==>(Pattern 3, Copy 10)]	
							[==>(Pattern 3, Copy 11)]	
							[==>(Pattern 4, Copy 1)]	
							[==>(Pattern 4, Copy 2)]	
							[==>(Pattern 4, Copy 3)]	
							[==>(Pattern 4, Copy 4)]	
							[==>(Pattern 4, Copy 5)]	
							[==>(Pattern 4, Copy 6)]	
							[==>(Pattern 4, Copy 7)]	
							[==>(Pattern 4, Copy 8)]	
							[==>(Pattern 4, Copy 9)]	
							[==>(Pattern 4, Copy 10)]	
							[==>(Pattern 4, Copy 11)]	

Visit	**Proposal 17168, AB Aur (E2), implementation**	Tue Dec 06 16:02:20 GMT 2022
	Diagnostic Status: Warning	
	Scientific Instruments: WFC3/UVIS	
	Special Requirements: SAME ORIENT AS E0; AFTER E1 BY 0.5 Orbits TO 1.5 Orbits	

Diagnostics	(Exposure 1 (Pattern 1, Exps 1-1 in AB Aur (E2))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser

	#	Primary Pattern		Secondary Pattern	Exposures
Patterns	(1)	Pattern Type=BOX	Coordinate Frame=POS-TARG		(1)
		Purpose=DITHER	Pattern Orientation=0		
		Number Of Points=4	Angle Between Sides=90		
		Point Spacing=0.02	Center Pattern=false		
		Line Spacing=0.02			

	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
Fixed Targets	(1)	V-AB-AUR	RA: 04 55 45.8507 (73.9410446d)	Proper Motion RA: 3.1104743402068534E-4 sec of time/yr	V=7.05	Reference Frame: SIMBAD
			Dec: +30 33 3.92 (30.55109d)	Proper Motion Dec: -0.024027000063142623 arcsec/yr		
			Equinox: J2000	Epoch of Position: 2015.5		

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=STAR
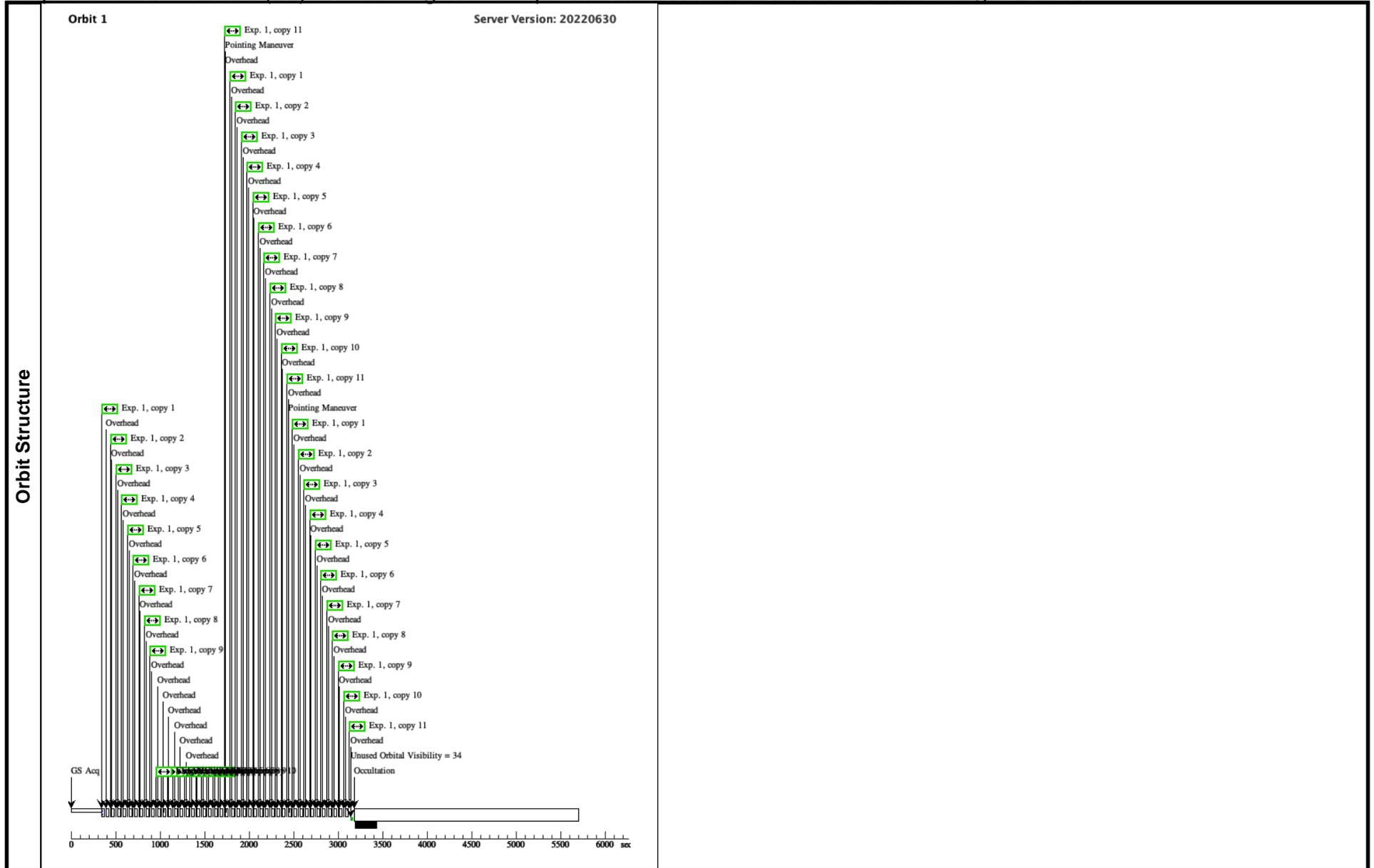*Description=[EXTRA-SOLAR PLANETARY SYSTEM, HERBIG AE/BE]*

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit

1	(WFC3UVI S.im.152459 0)	(1) V-AB-AUR	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N	FLASH=12	Pattern 1, Exps 1-1 in AB Aur (E2) (1)	2.7 Secs X 11 (118.8 Secs)
							[==>(Pattern 1, Copy 1)]
							[==>(Pattern 1, Copy 2)]
							[==>(Pattern 1, Copy 3)]
							[==>(Pattern 1, Copy 4)]
							[==>(Pattern 1, Copy 5)]
							[==>(Pattern 1, Copy 6)]
							[==>(Pattern 1, Copy 7)]
							[==>(Pattern 1, Copy 8)]
							[==>(Pattern 1, Copy 9)]
							[==>(Pattern 1, Copy 10)]
							[==>(Pattern 1, Copy 11)]
							[==>(Pattern 2, Copy 1)]
							[==>(Pattern 2, Copy 2)]
							[==>(Pattern 2, Copy 3)]
							[==>(Pattern 2, Copy 4)]
							[==>(Pattern 2, Copy 5)]
							[==>(Pattern 2, Copy 6)]
							[==>(Pattern 2, Copy 7)]
							[==>(Pattern 2, Copy 8)]
							[==>(Pattern 2, Copy 9)]
							[==>(Pattern 2, Copy 10)]
							[==>(Pattern 2, Copy 11)]
						[1]	[==>(Pattern 3, Copy 1)]
							[==>(Pattern 3, Copy 2)]
							[==>(Pattern 3, Copy 3)]
							[==>(Pattern 3, Copy 4)]
							[==>(Pattern 3, Copy 5)]
							[==>(Pattern 3, Copy 6)]
							[==>(Pattern 3, Copy 7)]
							[==>(Pattern 3, Copy 8)]
							[==>(Pattern 3, Copy 9)]
							[==>(Pattern 3, Copy 10)]
							[==>(Pattern 3, Copy 11)]
							[==>(Pattern 4, Copy 1)]
							[==>(Pattern 4, Copy 2)]
							[==>(Pattern 4, Copy 3)]
							[==>(Pattern 4, Copy 4)]
							[==>(Pattern 4, Copy 5)]
							[==>(Pattern 4, Copy 6)]
							[==>(Pattern 4, Copy 7)]
							[==>(Pattern 4, Copy 8)]
							[==>(Pattern 4, Copy 9)]
							[==>(Pattern 4, Copy 10)]
							[==>(Pattern 4, Copy 11)]

Visit	**Proposal 17168, AB Aur (E3), implementation** Tue Dec 06 16:02:20 GMT 2022 **Diagnostic Status: Warning** Scientific Instruments: WFC3/UVIS Special Requirements: SAME ORIENT AS E1; AFTER E2 BY 0.5 Orbits TO 1.5 Orbits

Diagnostics

(Exposure 1 (Pattern 1, Exps 1-1 in AB Aur (E3))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser

Patterns

#	Primary Pattern		Secondary Pattern	Exposures
(1)	Pattern Type=BOX	Coordinate Frame=POS-TARG		(1)
	Purpose=DITHER	Pattern Orientation=0		
	Number Of Points=4	Angle Between Sides=90		
	Point Spacing=0.02	Center Pattern=false		
	Line Spacing=0.02			

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	V-AB-AUR	RA: 04 55 45.8507 (73.9410446d) Dec: +30 33 3.92 (30.55109d) Equinox: J2000	Proper Motion RA: 3.1104743402068534E-4 sec of time/yr Proper Motion Dec: -0.024027000063142623 arcsec/yr Epoch of Position: 2015.5	V=7.05	Reference Frame: SIMBAD

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=STAR
Description=[EXTRA-SOLAR PLANETARY SYSTEM, HERBIG AE/BE]

Exposures

#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit

1	(WFC3UVI S.im.152459 0)	(1) V-AB-AUR	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N	FLASH=12	Pattern 1, Exps 1-1 in AB Aur (E3) (1)	2.7 Secs X 11 (118.8 Secs)	
							[==>(Pattern 1, Copy 1)]	
							[==>(Pattern 1, Copy 2)]	
							[==>(Pattern 1, Copy 3)]	
							[==>(Pattern 1, Copy 4)]	
							[==>(Pattern 1, Copy 5)]	
							[==>(Pattern 1, Copy 6)]	
							[==>(Pattern 1, Copy 7)]	
							[==>(Pattern 1, Copy 8)]	
							[==>(Pattern 1, Copy 9)]	
							[==>(Pattern 1, Copy 10)]	
							[==>(Pattern 1, Copy 11)]	
							[==>(Pattern 2, Copy 1)]	
							[==>(Pattern 2, Copy 2)]	
							[==>(Pattern 2, Copy 3)]	
							[==>(Pattern 2, Copy 4)]	
							[==>(Pattern 2, Copy 5)]	
							[==>(Pattern 2, Copy 6)]	
							[==>(Pattern 2, Copy 7)]	
							[==>(Pattern 2, Copy 8)]	
							[==>(Pattern 2, Copy 9)]	
							[==>(Pattern 2, Copy 10)]	
							[==>(Pattern 2, Copy 11)]	*[1]*
							[==>(Pattern 3, Copy 1)]	
							[==>(Pattern 3, Copy 2)]	
							[==>(Pattern 3, Copy 3)]	
							[==>(Pattern 3, Copy 4)]	
							[==>(Pattern 3, Copy 5)]	
							[==>(Pattern 3, Copy 6)]	
							[==>(Pattern 3, Copy 7)]	
							[==>(Pattern 3, Copy 8)]	
							[==>(Pattern 3, Copy 9)]	
							[==>(Pattern 3, Copy 10)]	
							[==>(Pattern 3, Copy 11)]	
							[==>(Pattern 4, Copy 1)]	
							[==>(Pattern 4, Copy 2)]	
							[==>(Pattern 4, Copy 3)]	
							[==>(Pattern 4, Copy 4)]	
							[==>(Pattern 4, Copy 5)]	
							[==>(Pattern 4, Copy 6)]	
							[==>(Pattern 4, Copy 7)]	
							[==>(Pattern 4, Copy 8)]	
							[==>(Pattern 4, Copy 9)]	
							[==>(Pattern 4, Copy 10)]	
							[==>(Pattern 4, Copy 11)]	