



17427 - Monitoring the H-alpha Emission from the PDS 70 Planets

Cycle: 31, Proposal Category: GO

(Availability Mode: SUPPORTED)

INVESTIGATORS

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Jun Hashimoto (CoI)	National Astronomical Observatory of Japan (NAOJ)
Dr. Yuhiko Aoyama (CoI)	Peking University
Dr. Taichi Uyama (CoI)	California State University - Northridge
Dr. Yasuhiro Hasegawa (CoI)	Jet Propulsion Laboratory
Dr. Nuria Calvet (CoI)	University of Michigan
Dr. Thanawuth Thanathibodee (CoI)	Boston University
Dr. Sebastiaan Haffert (CoI)	University of Arizona
Dr. Shinsuke Takasao (CoI)	Osaka University
Ya-Lin Wu (CoI)	National Taiwan Normal University
Dr. Lauren Irene Biddle (CoI)	University of Texas at Austin
Dr. Mickael Bonnefoy (CoI) (ESA Member)	Institut de Planetologie et d'Astrophysique de Grenoble
Dr. Catherine Dougados (CoI) (ESA Member)	Institut de Planetologie et d'Astrophysique de Grenoble
Mr. Dorian Demars (CoI) (ESA Member)	Institut de Planetologie et d'Astrophysique de Grenoble

VISITS

<i>Visit</i>	<i>Targets used in Visit</i>	<i>Configurations used in Visit</i>	<i>Orbits Used</i>	<i>Last Orbit Planner Run</i>	<i>OP Current with Visit?</i>
01	(1) CD-40-8434	WFC3/UVIS	1	15-Jul-2024 14:00:43.0	yes
02	(1) CD-40-8434	WFC3/UVIS	1	15-Jul-2024 14:00:44.0	yes
03	(1) CD-40-8434	WFC3/UVIS	1	15-Jul-2024 14:00:46.0	yes
04	(1) CD-40-8434	WFC3/UVIS	1	15-Jul-2024 14:00:47.0	yes
05	(1) CD-40-8434	WFC3/UVIS	1	15-Jul-2024 14:00:49.0	yes
06	(1) CD-40-8434	WFC3/UVIS	1	15-Jul-2024 14:00:51.0	yes
07	(1) CD-40-8434	WFC3/UVIS	1	15-Jul-2024 14:00:52.0	yes
08	(1) CD-40-8434	WFC3/UVIS	1	15-Jul-2024 14:00:53.0	yes
09	(1) CD-40-8434	WFC3/UVIS	1	15-Jul-2024 14:00:55.0	yes
10	(1) CD-40-8434	WFC3/UVIS	1	15-Jul-2024 14:00:56.0	yes
11	(1) CD-40-8434	WFC3/UVIS	1	15-Jul-2024 14:00:58.0	yes
12	(1) CD-40-8434	WFC3/UVIS	1	15-Jul-2024 14:00:59.0	yes
13	(1) CD-40-8434	WFC3/UVIS	1	15-Jul-2024 14:01:01.0	yes
14	(1) CD-40-8434	WFC3/UVIS	1	15-Jul-2024 14:01:02.0	yes
15	(1) CD-40-8434	WFC3/UVIS	1	15-Jul-2024 14:01:04.0	yes
16	(1) CD-40-8434	WFC3/UVIS	1	15-Jul-2024 14:01:05.0	yes
17	(1) CD-40-8434	WFC3/UVIS	1	15-Jul-2024 14:01:06.0	yes
18	(1) CD-40-8434	WFC3/UVIS	1	15-Jul-2024 14:01:08.0	yes
19	(1) CD-40-8434	WFC3/UVIS	1	15-Jul-2024 14:01:09.0	yes
20	(1) CD-40-8434	WFC3/UVIS	1	15-Jul-2024 14:01:11.0	yes

20 Total Orbits Used

ABSTRACT

Protoplanets that are actively accreting within their circumstellar disks offer an exciting opportunity to investigate planet formation. Strong H-alpha emission lines produced by accretion shocks have been detected in direct-imaging observations of the ~5 Myr old giant protoplanets PDS 70 b and c. These observations measured snapshots of these planets' mass accretion rate. However, the time-varying aspects of planetary accretion have not been

Recent HST/WFC3/UVIS observations of PDS 70 b demonstrated this instrument's high-contrast imaging capability. We propose to apply similar observing strategies and leverage HST's excellent long-term photometric stability to monitor the PDS 70 planets' H-alpha emission. The observations are designed to cover three representative timescales, corresponding to the planetary rotational periods, circumplanetary disk Keplerian motion, and long-term irregular variability. These observations will allow us to determine whether the PDS 70 planets maintain a steady accretion rate. Comparing variability amplitudes between different timescales will help distinguish the physical origins of multiple potential shock fronts in this system. If rotational modulations are detected, we will measure the rotation rates, which will offer rare constraints on the angular momentum evolution of gas giants like Jupiter at young ages..

OBSERVING DESCRIPTION

The program's main objective is to monitor the H-alpha emissions from the accreting young planets PDS 70 b and c across three distinct timescales. The fourteen orbits are categorized into five visit-sets: A1-A6, B1-B2, C1-C2, D1-D2, and E1-E2. The initial set comprises six consecutive orbits, aimed at capturing variability linked to planetary rotation timescales. The remaining four sets consist of two orbits each, facilitating the observation of long-term and stochastic variabilities.

Timing of the observations is essential to establish the monitoring time baseline. The sequence starts with the A1 to A6 visit-set. Subsequently, the B1-B2 and C1-C2 sets should be scheduled approximately two days (1.5 to 2.5 days) after their respective preceding sets, while the D1-D2 and E1-E2 sets should be conducted at least 10 days after the preceding visits.

The two planets have small angular separations (5-8 WFC3/UVIS pixels) to the host star. To extract the planetary flux accurately, we intend to employ angular differential imaging. This technique has demonstrated its efficacy in furnishing precise point spread function references, thereby enabling planet recoveries. During the initial visit-set, the telescope's roll angle should alternate between two angles, ensuring a separation of no less than 25 degrees. For the subsequent B1 to E2 visit-sets, the roll angles are governed by a relative roll angle chain. This constraint mandates a minimum difference of 25 degrees in roll angle between consecutive visits.

The detector configurations mirror those employed in programs GO-15830, 16651, and 17280, which yielded successful recoveries of close companions. We implement a four-point dither pattern (20 arcsec) to facilitate the reconstruction of Nyquist-sampled images. At each dithering

position, a sequence of six 65-second exposures will be acquired.

The background flux at the planets location is high. Based on previous WFC3 data collected in GO-15830 observations, we estimate the background levels to be 300 to 400 electrons near planets b and c. Therefore, we decide to ignore the warnings about the FLASH levels and not apply additional FLASH.

Our observation plan closely follows the description in the Phase I proposal. Nevertheless, there are several necessary changes:

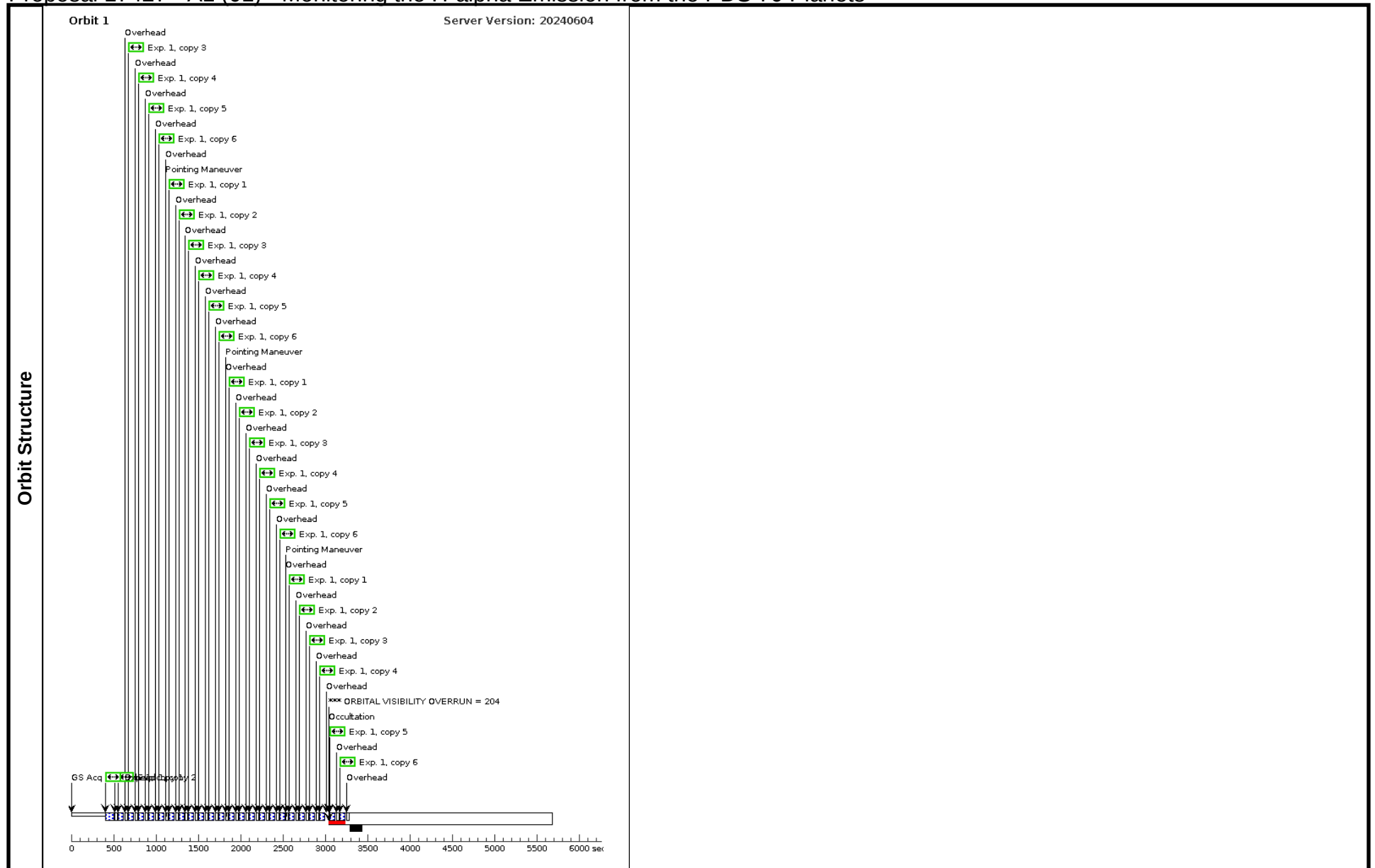
1. The exposure time is shortened from the proposed 185 seconds to 65 seconds to ensure no saturation.
2. The time intervals between visits C2 and D1, and D2 and E1 are shortened from the proposed 30 days to 10 days. This change makes the observation schedulable in APT. However, we request the time intervals between the last three visit-sets to be as large as possible to establish a sufficiently long time baseline.

Proposal 17427 - A1 (01) - Monitoring the H-alpha Emission from the PDS 70 Planets

Visit	Proposal 17427, A1 (01), failed					Mon Jul 15 18:01:12 GMT 2024
	Diagnostic Status: Warning					
	Scientific Instruments: WFC3/UVIS					
	Special Requirements: (none)					
Diagnostics	(A1 (01)) Warning (Orbit Planner): GS ACQ SCENARIO REQUESTED INCONSISTENT WITH VISIT GYRO MODE					
	(A1 (01)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN					
	(A1 (01)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN					
	(Exposure 1 (Pattern 1, Exps 1-1 in A1 (01))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser					
	(Exposure 1 (Pattern 1, Exps 1-1 in A1 (01)) special requirements) Warning (Form): The specified GS Acq Scenario is not in the current list of valid scenarios.					
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)	CD-40-8434	RA: 14 08 10.1137 (212.0421404d) Dec: -41 23 52.95 (-41.39804d) Equinox: J2000	Proper Motion RA: -0.0026360634619137357 V=12.18 sec of time/yr Proper Motion Dec: -0.02382299996952497 arcsec/yr Epoch of Position: 2015.5		Reference Frame: SIMBAD
	Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.					
	Category=STAR Description=[EXTRA-SOLAR PLANETARY SYSTEM, K V-IV, T TAURI STAR] Extended=NO					

Proposal 17427 - A1 (01) - Monitoring the H-alpha Emission from the PDS 70 Planets

	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	(1888734)	(1) CD-40-8434	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N		GS ACQ SCENARI O BASE1BE	Pattern 1, Exps 1-1 i n A1 (01) (1)	65 Secs X 6 (1560 Secs)	
									[==>(Pattern 1, Copy 1)]	[1]
									[==>(Pattern 1, Copy 2)]	
									[==>(Pattern 1, Copy 3)]	
									[==>(Pattern 1, Copy 4)]	
									[==>(Pattern 1, Copy 5)]	
									[==>(Pattern 1, Copy 6)]	
									[==>(Pattern 2, Copy 1)]	
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									[==>(Pattern 2, Copy 3)]	
									[==>(Pattern 2, Copy 4)]	
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									[==>(Pattern 2, Copy 6)]	
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									[==>(Pattern 3, Copy 3)]	
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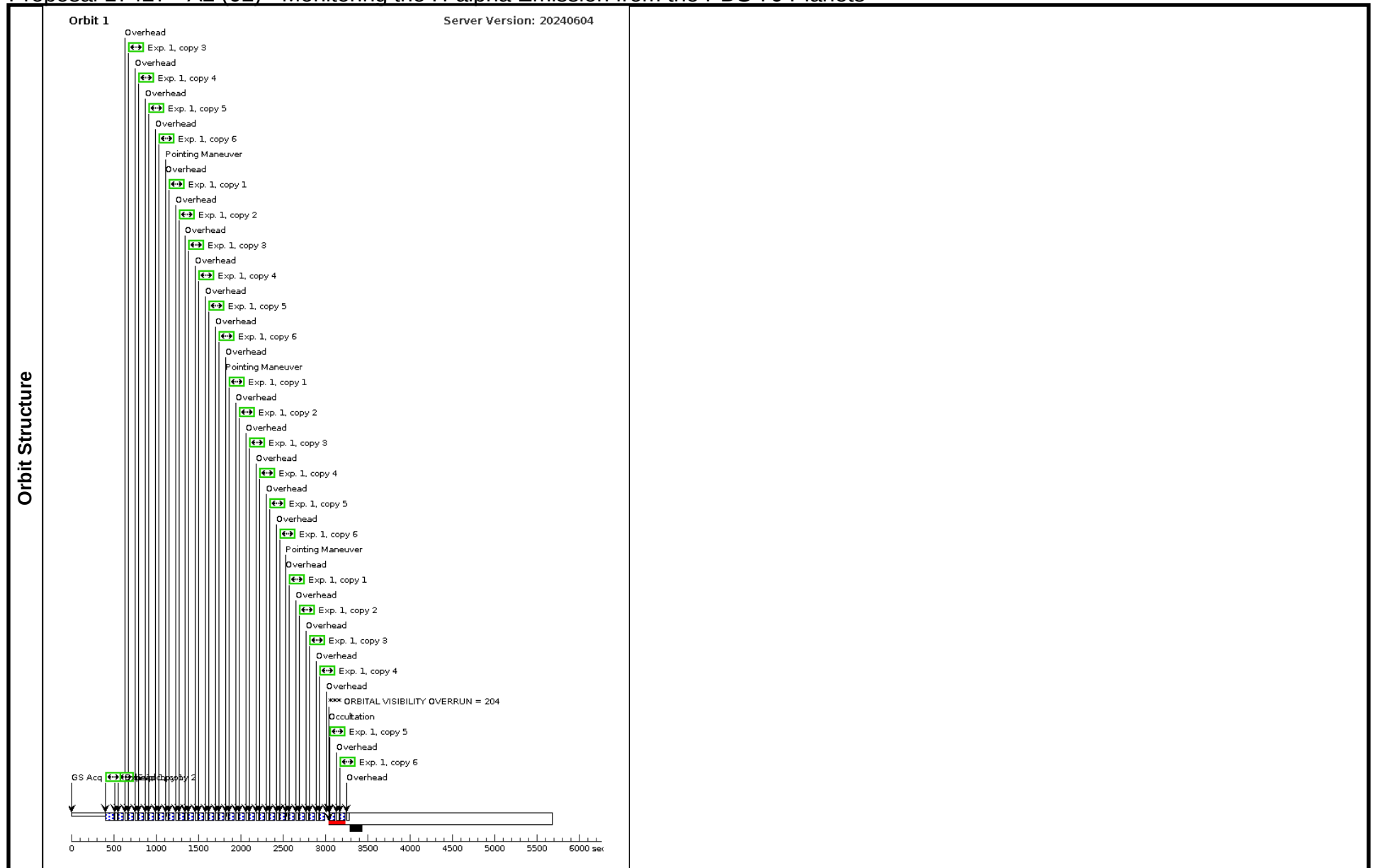


Proposal 17427 - A2 (02) - Monitoring the H-alpha Emission from the PDS 70 Planets

Visit	Proposal 17427, A2 (02), failed					Mon Jul 15 18:01:12 GMT 2024
	Diagnostic Status: Warning					
Scientific Instruments: WFC3/UVIS						
Special Requirements: ORIENT 10D TO 35D FROM 01; AFTER 01 BY 0.5 Orbits TO 1.5 Orbits						
Diagnostics	(A2 (02)) Warning (Orbit Planner): GS ACQ SCENARIO REQUESTED INCONSISTENT WITH VISIT GYRO MODE					
	(A2 (02)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN					
	(A2 (02)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN					
	(Exposure 1 (Pattern 1, Exps 1-1 in A2 (02))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser					
	(Exposure 1 (Pattern 1, Exps 1-1 in A2 (02)) special requirements) Warning (Form): The specified GS Acq Scenario is not in the current list of valid scenarios.					
(A2 (02)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.						
Patterns	#	Primary Pattern			Secondary Pattern	Exposures
	(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)
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	CD-40-8434	RA: 14 08 10.1137 (212.0421404d) Dec: -41 23 52.95 (-41.39804d) Equinox: J2000	Proper Motion RA: -0.0026360634619137357 sec of time/yr Proper Motion Dec: -0.02382299996952497 arcsec/yr Epoch of Position: 2015.5	V=12.18	Reference Frame: SIMBAD
	Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.					
	Category=STAR					
	Description=[EXTRA-SOLAR PLANETARY SYSTEM, K V-IV, T TAURI STAR]					
Extended=NO						

Proposal 17427 - A2 (02) - Monitoring the H-alpha Emission from the PDS 70 Planets

	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	(1888734)	(1) CD-40-8434	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N		GS ACQ SCENARI O BASE1BE	Pattern 1, Exps 1-1 i n A2 (02) (1)	65 Secs X 6 (1560 Secs)	
									[==>(Pattern 1, Copy 1)]	[1]
									[==>(Pattern 1, Copy 2)]	
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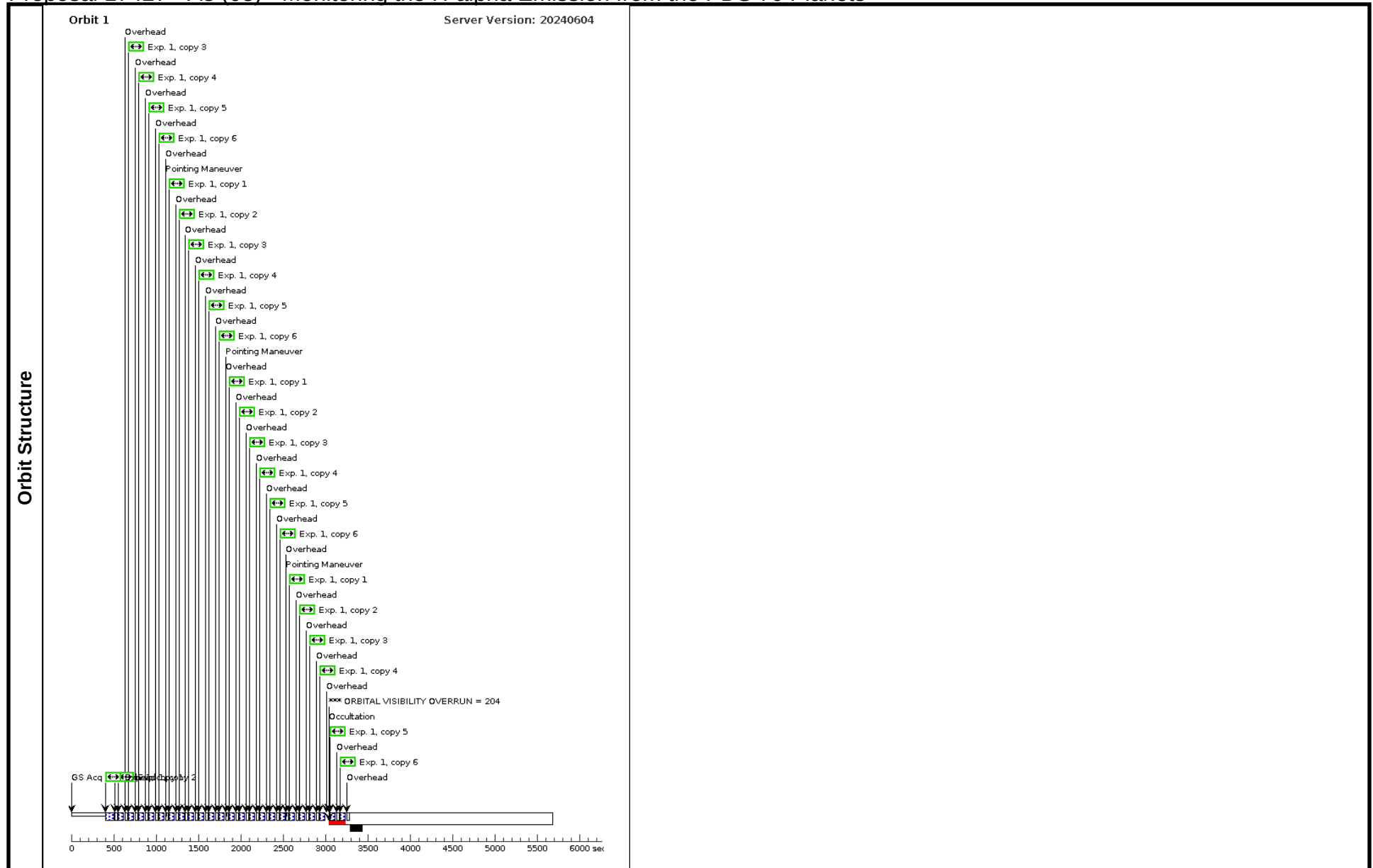


Proposal 17427 - A3 (03) - Monitoring the H-alpha Emission from the PDS 70 Planets

Visit	Proposal 17427, A3 (03), failed				Mon Jul 15 18:01:12 GMT 2024	
	Diagnostic Status: Warning					
	Scientific Instruments: WFC3/UVIS					
	Special Requirements: SAME ORIENT AS 01; AFTER 02 BY 0.5 Orbits TO 1.5 Orbits					
Diagnostics	(A3 (03)) Warning (Orbit Planner): GS ACQ SCENARIO REQUESTED INCONSISTENT WITH VISIT GYRO MODE					
	(A3 (03)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN					
	(A3 (03)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN					
	(Exposure 1 (Pattern 1, Exps 1-1 in A3 (03))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser					
	(Exposure 1 (Pattern 1, Exps 1-1 in A3 (03)) special requirements) Warning (Form): The specified GS Acq Scenario is not in the current list of valid scenarios.					
(A3 (03)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.						
Patterns	#	Primary Pattern		Secondary Pattern	Exposures	
	(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)	
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	CD-40-8434	RA: 14 08 10.1137 (212.0421404d) Dec: -41 23 52.95 (-41.39804d) Equinox: J2000	Proper Motion RA: -0.0026360634619137357 sec of time/yr Proper Motion Dec: -0.02382299996952497 arcsec/yr Epoch of Position: 2015.5	V=12.18	Reference Frame: SIMBAD
	Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.					
	Category=STAR					
	Description=[EXTRA-SOLAR PLANETARY SYSTEM, K V-IV, T TAURI STAR] Extended=NO					

Proposal 17427 - A3 (03) - Monitoring the H-alpha Emission from the PDS 70 Planets

	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	(1888734)	(1) CD-40-8434	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N		GS ACQ SCENARI O BASE1BE	Pattern 1, Exps 1-1 i n A3 (03) (1)	65 Secs X 6 (1560 Secs)	
									[==>(Pattern 1, Copy 1)]	[1]
									[==>(Pattern 1, Copy 2)]	
									[==>(Pattern 1, Copy 3)]	
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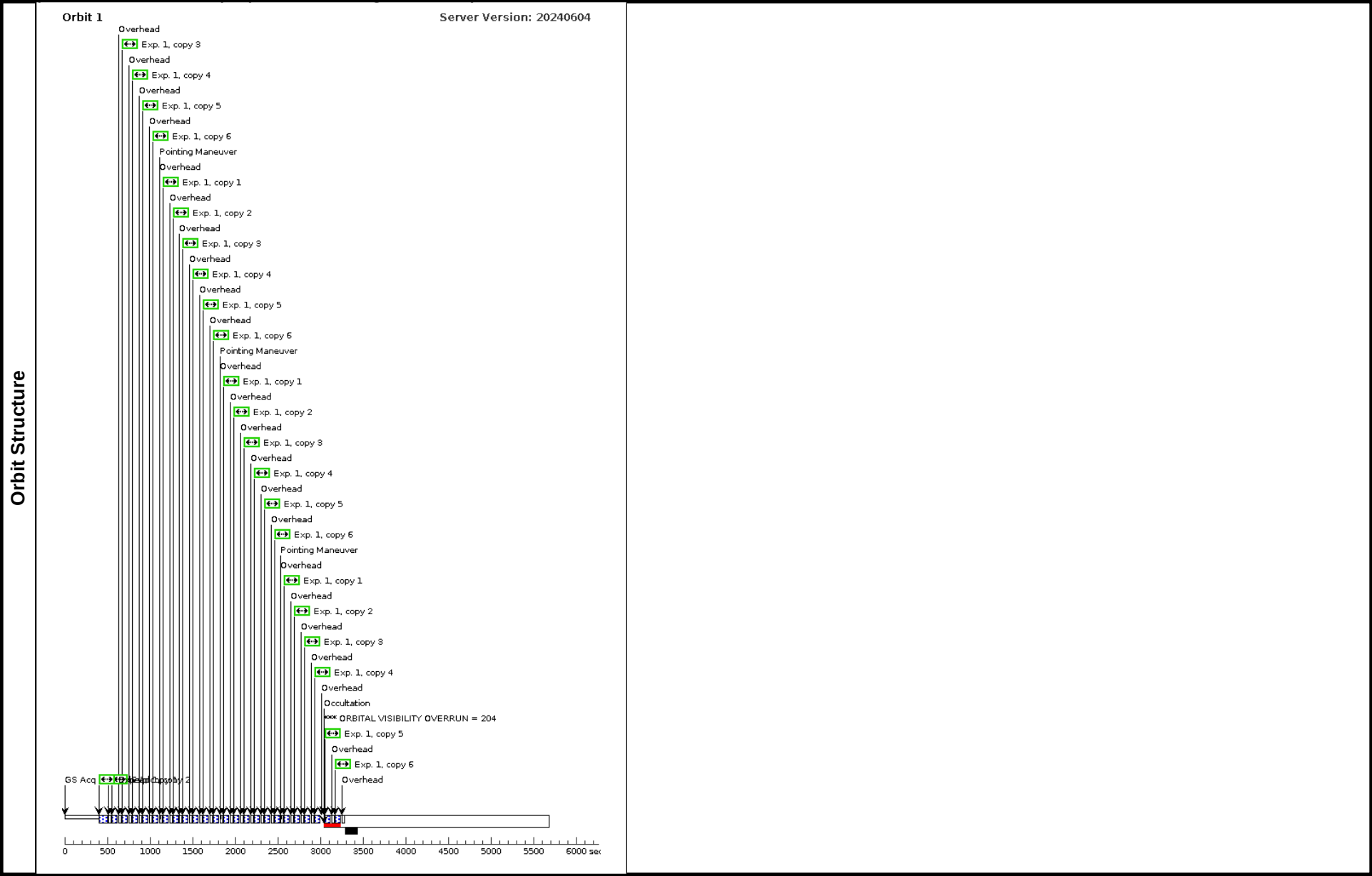


Proposal 17427 - A4 (04) - Monitoring the H-alpha Emission from the PDS 70 Planets

Visit	Proposal 17427, A4 (04), failed					Mon Jul 15 18:01:12 GMT 2024
	Diagnostic Status: Warning					
	Scientific Instruments: WFC3/UVIS					
	Special Requirements: SAME ORIENT AS 02; AFTER 03 BY 0.5 Orbits TO 1.5 Orbits					
Diagnostics	(A4 (04)) Warning (Orbit Planner): GS ACQ SCENARIO REQUESTED INCONSISTENT WITH VISIT GYRO MODE					
	(A4 (04)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN					
	(A4 (04)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN					
	(Exposure 1 (Pattern 1, Exps 1-1 in A4 (04))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser					
	(Exposure 1 (Pattern 1, Exps 1-1 in A4 (04)) special requirements) Warning (Form): The specified GS Acq Scenario is not in the current list of valid scenarios.					
(A4 (04)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.						
Patterns	#	Primary Pattern			Secondary Pattern	Exposures
	(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)
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	CD-40-8434	RA: 14 08 10.1137 (212.0421404d) Dec: -41 23 52.95 (-41.39804d) Equinox: J2000	Proper Motion RA: -0.0026360634619137357 sec of time/yr Proper Motion Dec: -0.02382299996952497 arcsec/yr Epoch of Position: 2015.5	V=12.18	Reference Frame: SIMBAD
	Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.					
	Category=STAR					
	Description=[EXTRA-SOLAR PLANETARY SYSTEM, K V-IV, T TAURI STAR] Extended=NO					

Proposal 17427 - A4 (04) - Monitoring the H-alpha Emission from the PDS 70 Planets

	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	(1888734)	(1) CD-40-8434	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N		GS ACQ SCENARI O BASE1BE	Pattern 1, Exps 1-1 i n A4 (04) (1)	65 Secs X 6 (1560 Secs)	
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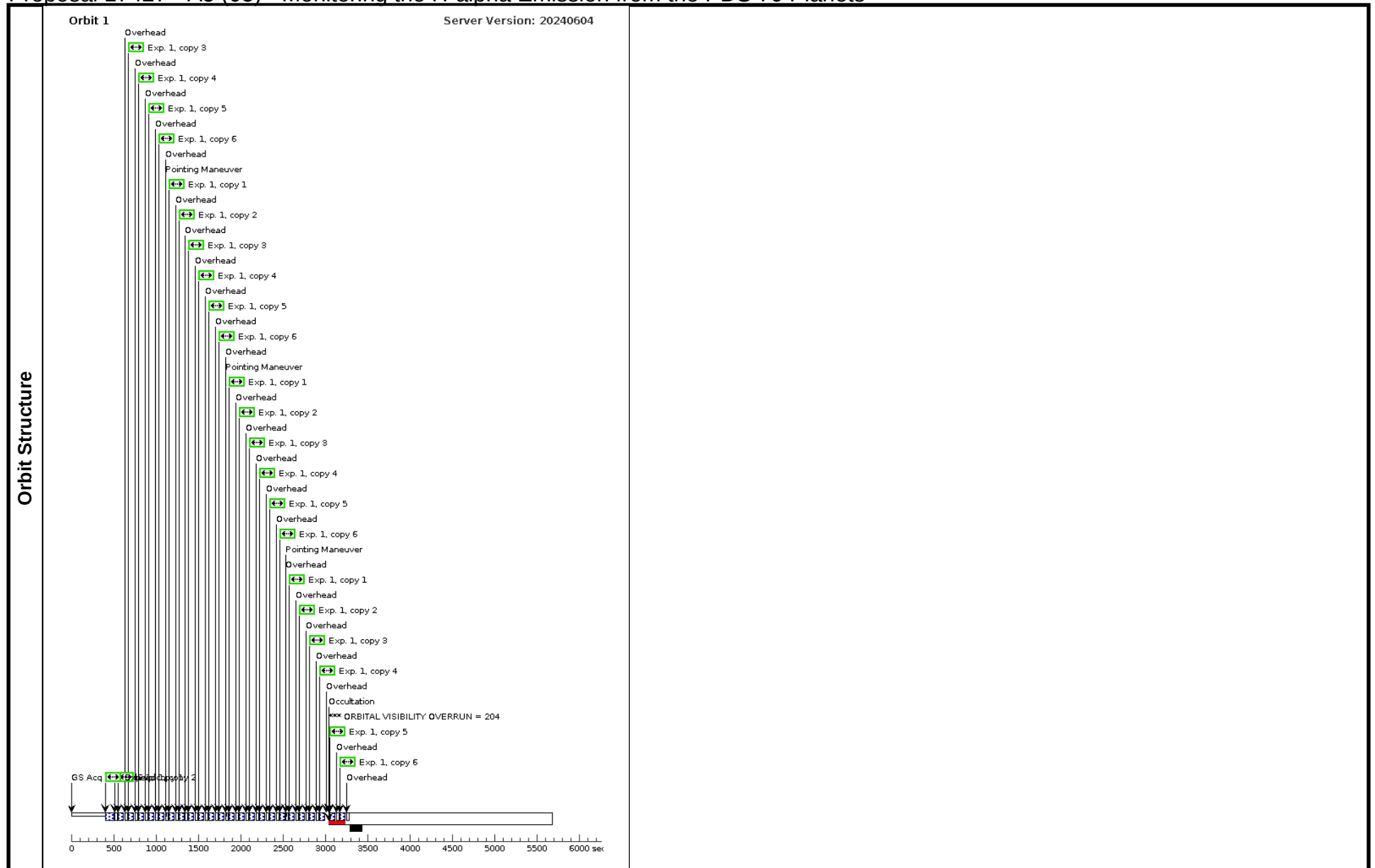


Proposal 17427 - A5 (05) - Monitoring the H-alpha Emission from the PDS 70 Planets

Visit	Proposal 17427, A5 (05), failed					Mon Jul 15 18:01:12 GMT 2024
	Diagnostic Status: Warning					
	Scientific Instruments: WFC3/UVIS					
	Special Requirements: SAME ORIENT AS 01; AFTER 04 BY 0.5 Orbits TO 1.5 Orbits					
Diagnostics	(A5 (05)) Warning (Orbit Planner): GS ACQ SCENARIO REQUESTED INCONSISTENT WITH VISIT GYRO MODE					
	(A5 (05)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN					
	(A5 (05)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN					
	(Exposure 1 (Pattern 1, Exps 1-1 in A5 (05))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser					
	(Exposure 1 (Pattern 1, Exps 1-1 in A5 (05)) special requirements) Warning (Form): The specified GS Acq Scenario is not in the current list of valid scenarios.					
(A5 (05)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.						
Patterns	#	Primary Pattern			Secondary Pattern	Exposures
	(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)
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	CD-40-8434	RA: 14 08 10.1137 (212.0421404d) Dec: -41 23 52.95 (-41.39804d) Equinox: J2000	Proper Motion RA: -0.0026360634619137357 sec of time/yr Proper Motion Dec: -0.02382299996952497 arcsec/yr Epoch of Position: 2015.5	V=12.18	Reference Frame: SIMBAD
	Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.					
	Category=STAR					
	Description=[EXTRA-SOLAR PLANETARY SYSTEM, K V-IV, T TAURI STAR] Extended=NO					

Proposal 17427 - A5 (05) - Monitoring the H-alpha Emission from the PDS 70 Planets

	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	(1888734)	(1) CD-40-8434	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N		GS ACQ SCENARI O BASE1BE	Pattern 1, Exps 1-1 i n A5 (05) (1)	65 Secs X 6 (1560 Secs)	
									[==>(Pattern 1, Copy 1)]	[1]
									[==>(Pattern 1, Copy 2)]	
									[==>(Pattern 1, Copy 3)]	
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									[==>(Pattern 4, Copy 5)]	
									[==>(Pattern 4, Copy 6)]	



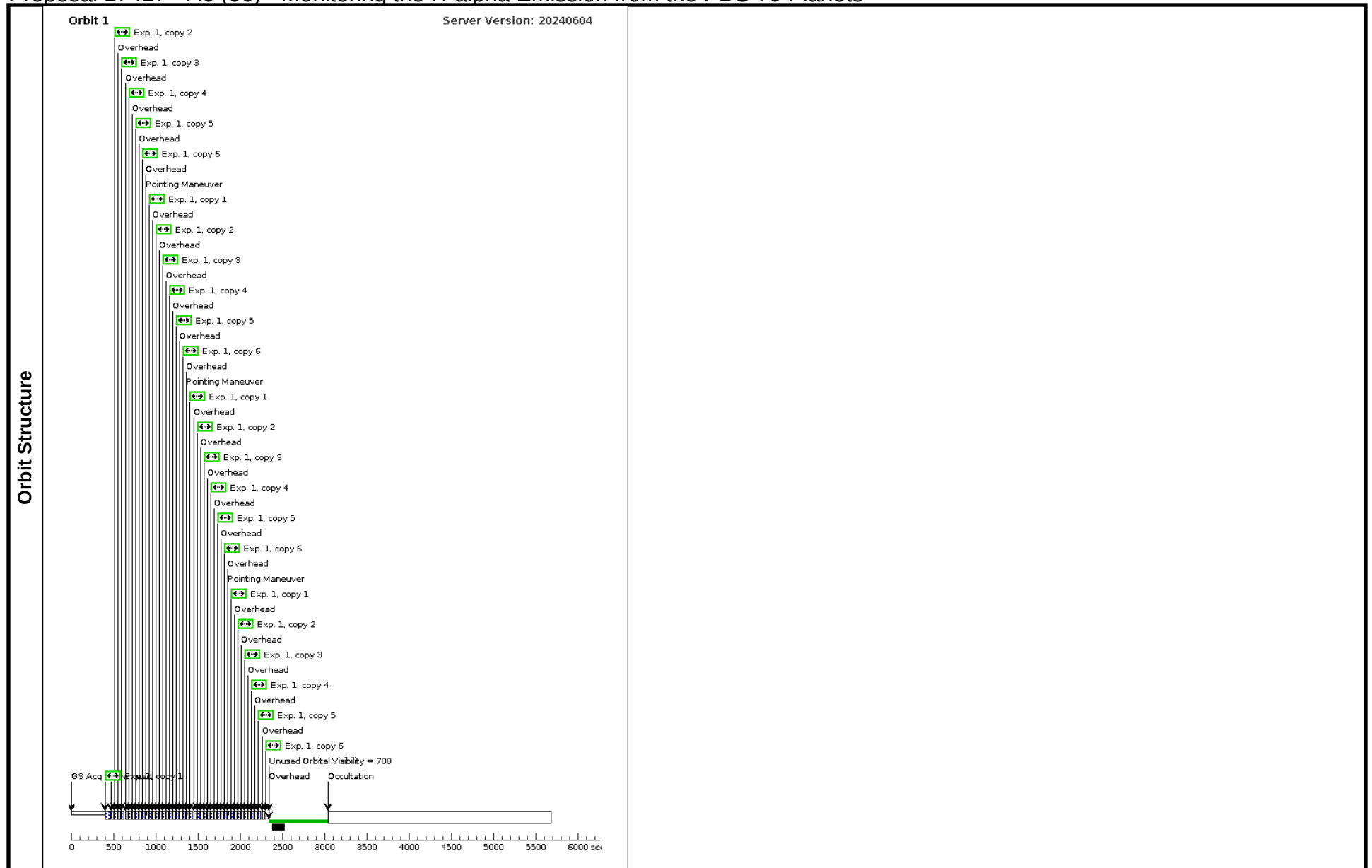
Proposal 17427 - A6 (06) - Monitoring the H-alpha Emission from the PDS 70 Planets

Visit	Proposal 17427, A6 (06), failed				Mon Jul 15 18:01:12 GMT 2024	
	Diagnostic Status: Warning					
	Scientific Instruments: WFC3/UVIS					
	Special Requirements: SAME ORIENT AS 02; AFTER 05 BY 0.5 Orbits TO 1.5 Orbits					
Diagnostics	(A6 (06)) Warning (Orbit Planner): GS ACQ SCENARIO REQUESTED INCONSISTENT WITH VISIT GYRO MODE					
	(Exposure 1 (Pattern 1, Exps 1-1 in A6 (06))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser					
	(Exposure 1 (Pattern 1, Exps 1-1 in A6 (06)) special requirements) Warning (Form): The specified GS Acq Scenario is not in the current list of valid scenarios.					
	(A6 (06)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.					
Patterns	#	Primary Pattern		Secondary Pattern	Exposures	
	(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)	
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	CD-40-8434	RA: 14 08 10.1137 (212.0421404d) Dec: -41 23 52.95 (-41.39804d) Equinox: J2000	Proper Motion RA: -0.0026360634619137357 V=12.18 sec of time/yr Proper Motion Dec: -0.02382299996952497 arcsec/yr Epoch of Position: 2015.5		Reference Frame: SIMBAD
	Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.					
	Category=STAR Description=[EXTRA-SOLAR PLANETARY SYSTEM, K V-IV, T TAURI STAR] Extended=NO					

Proposal 17427 - A6 (06) - Monitoring the H-alpha Emission from the PDS 70 Planets

	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	(1888734)	(1) CD-40-8434	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N		GS ACQ SCENARI O BASE1BE	Pattern 1, Exps 1-1 i n A6 (06) (1)	27 Secs X 6 (648 Secs)	
									[==>(Pattern 1, Copy 1)]	[1]
									[==>(Pattern 1, Copy 2)]	
									[==>(Pattern 1, Copy 3)]	
									[==>(Pattern 1, Copy 4)]	
									[==>(Pattern 1, Copy 5)]	
									[==>(Pattern 1, Copy 6)]	
									[==>(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 3, Copy 1)]	
									[==>(Pattern 3, Copy 2)]	
									[==>(Pattern 3, Copy 3)]	
									[==>(Pattern 3, Copy 4)]	
									[==>(Pattern 3, Copy 5)]	
									[==>(Pattern 3, Copy 6)]	
									[==>(Pattern 4, Copy 1)]	
									[==>(Pattern 4, Copy 2)]	
									[==>(Pattern 4, Copy 3)]	
									[==>(Pattern 4, Copy 4)]	
									[==>(Pattern 4, Copy 5)]	
									[==>(Pattern 4, Copy 6)]	

Proposal 17427 - A6 (06) - Monitoring the H-alpha Emission from the PDS 70 Planets

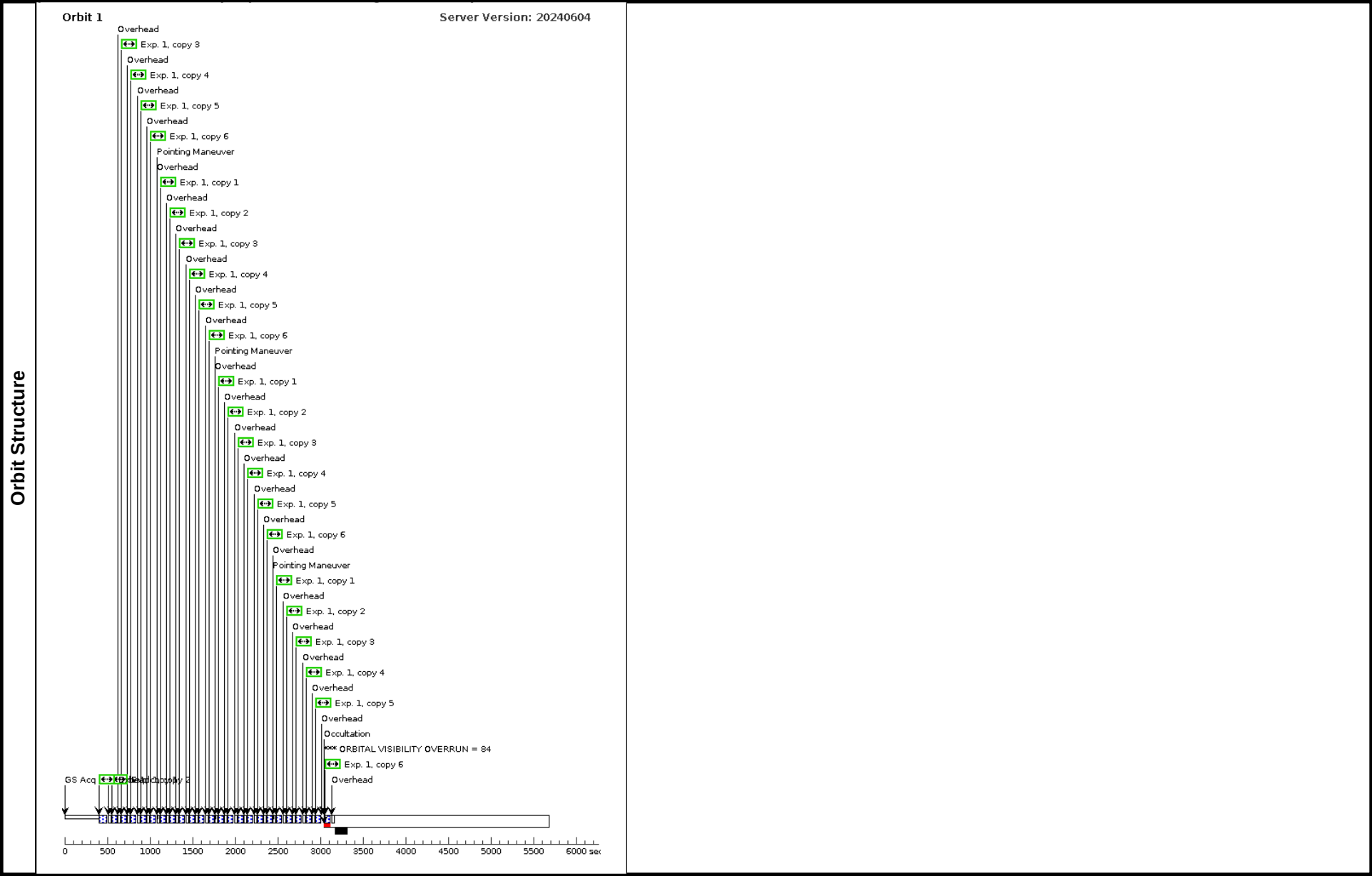


Proposal 17427 - B1 (07) - Monitoring the H-alpha Emission from the PDS 70 Planets

Visit	Proposal 17427, B1 (07), completed				Mon Jul 15 18:01:12 GMT 2024	
	Diagnostic Status: Warning					
	Scientific Instruments: WFC3/UVIS					
	Special Requirements: AFTER 06 BY 1.5 D TO 2.5 D					
Diagnostics	(B1 (07)) Warning (Orbit Planner): GS ACQ SCENARIO REQUESTED INCONSISTENT WITH VISIT GYRO MODE					
	(B1 (07)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN					
	(Exposure 1 (Pattern 1, Exps 1-1 in B1 (07))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser					
	(Exposure 1 (Pattern 1, Exps 1-1 in B1 (07)) special requirements) Warning (Form): The specified GS Acq Scenario is not in the current list of valid scenarios.					
Patterns	#	Primary Pattern		Secondary Pattern	Exposures	
	(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)	
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	CD-40-8434	RA: 14 08 10.1137 (212.0421404d) Dec: -41 23 52.95 (-41.39804d) Equinox: J2000	Proper Motion RA: -0.0026360634619137357 sec of time/yr Proper Motion Dec: -0.02382299996952497 arcsec/yr Epoch of Position: 2015.5	V=12.18	Reference Frame: SIMBAD
	Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.					
	Category=STAR Description=[EXTRA-SOLAR PLANETARY SYSTEM, K V-IV, T TAURI STAR] Extended=NO					

Proposal 17427 - B1 (07) - Monitoring the H-alpha Emission from the PDS 70 Planets

	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	(1888734)	(1) CD-40-8434	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N		GS ACQ SCENARI O BASE1BE	Pattern 1, Exps 1-1 i n B1 (07) (1)	60 Secs X 6 (1440 Secs)	
									[==>(Pattern 1, Copy 1)]	[1]
									[==>(Pattern 1, Copy 2)]	
									[==>(Pattern 1, Copy 3)]	
									[==>(Pattern 1, Copy 4)]	
									[==>(Pattern 1, Copy 5)]	
									[==>(Pattern 1, Copy 6)]	
									[==>(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 3, Copy 1)]	
									[==>(Pattern 3, Copy 2)]	
									[==>(Pattern 3, Copy 3)]	
									[==>(Pattern 3, Copy 4)]	
									[==>(Pattern 3, Copy 5)]	
									[==>(Pattern 3, Copy 6)]	
									[==>(Pattern 4, Copy 1)]	
									[==>(Pattern 4, Copy 2)]	
									[==>(Pattern 4, Copy 3)]	
									[==>(Pattern 4, Copy 4)]	
									[==>(Pattern 4, Copy 5)]	
									[==>(Pattern 4, Copy 6)]	



Proposal 17427 - B2 (08) - Monitoring the H-alpha Emission from the PDS 70 Planets

Visit	Proposal 17427, B2 (08), completed			Mon Jul 15 18:01:12 GMT 2024		
	Diagnostic Status: Warning					
	Scientific Instruments: WFC3/UVIS					
	Special Requirements: ORIENT 10D TO 35D FROM 07; AFTER 07 BY 0.5 Orbits TO 1.5 Orbits					
Diagnostics	(B2 (08)) Warning (Orbit Planner): GS ACQ SCENARIO REQUESTED INCONSISTENT WITH VISIT GYRO MODE					
	(B2 (08)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN					
	(Exposure 1 (Pattern 1, Exps 1-1 in B2 (08))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser					
	(Exposure 1 (Pattern 1, Exps 1-1 in B2 (08)) special requirements) Warning (Form): The specified GS Acq Scenario is not in the current list of valid scenarios.					
Patterns	(B2 (08)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.					
	#	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)	CD-40-8434	RA: 14 08 10.1137 (212.0421404d) Dec: -41 23 52.95 (-41.39804d) Equinox: J2000	Proper Motion RA: -0.0026360634619137357 sec of time/yr Proper Motion Dec: -0.02382299996952497 arcsec/yr Epoch of Position: 2015.5	V=12.18	Reference Frame: SIMBAD
	Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.					
	Category=STAR Description=[EXTRA-SOLAR PLANETARY SYSTEM, K V-IV, T TAURI STAR] Extended=NO					

Proposal 17427 - B2 (08) - Monitoring the H-alpha Emission from the PDS 70 Planets

	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	(1888734)	(1) CD-40-8434	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N		GS ACQ SCENARI O BASE1BE	Pattern 1, Exps 1-1 i n B2 (08) (1)	60 Secs X 6 (1440 Secs)	
									[==>(Pattern 1, Copy 1)]	[1]
									[==>(Pattern 1, Copy 2)]	
									[==>(Pattern 1, Copy 3)]	
									[==>(Pattern 1, Copy 4)]	
									[==>(Pattern 1, Copy 5)]	
									[==>(Pattern 1, Copy 6)]	
									[==>(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 3, Copy 1)]	
									[==>(Pattern 3, Copy 2)]	
									[==>(Pattern 3, Copy 3)]	
									[==>(Pattern 3, Copy 4)]	
									[==>(Pattern 3, Copy 5)]	
									[==>(Pattern 3, Copy 6)]	
									[==>(Pattern 4, Copy 1)]	
									[==>(Pattern 4, Copy 2)]	
									[==>(Pattern 4, Copy 3)]	
									[==>(Pattern 4, Copy 4)]	
									[==>(Pattern 4, Copy 5)]	
									[==>(Pattern 4, Copy 6)]	

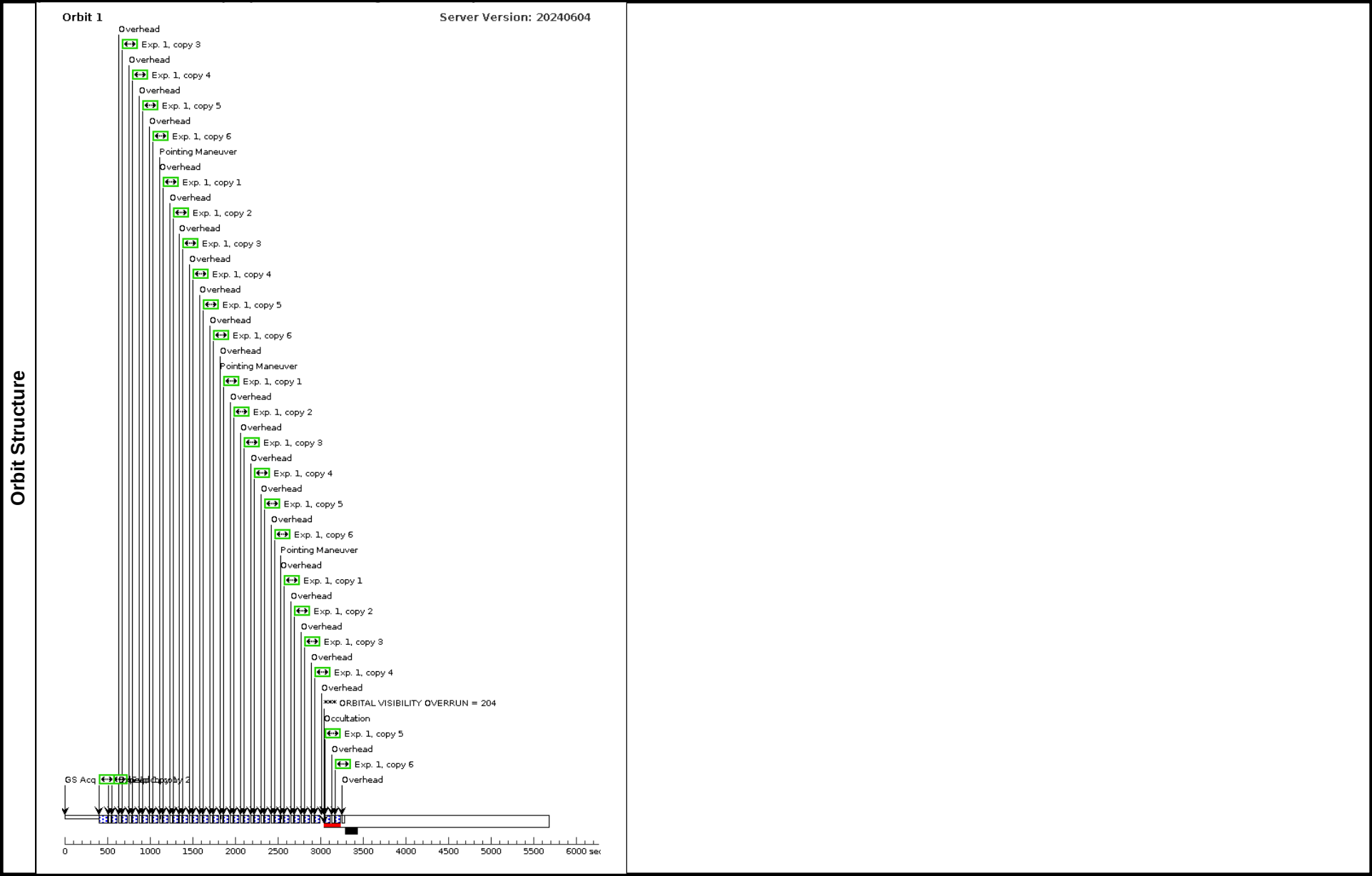


Proposal 17427 - C1 (09) - Monitoring the H-alpha Emission from the PDS 70 Planets

Visit	Proposal 17427, C1 (09), completed				Mon Jul 15 18:01:12 GMT 2024	
	Diagnostic Status: Warning					
	Scientific Instruments: WFC3/UVIS					
	Special Requirements: AFTER 08 BY 1.5 D TO 2.5 D					
Diagnostics	(C1 (09)) Warning (Orbit Planner): GS ACQ SCENARIO REQUESTED INCONSISTENT WITH VISIT GYRO MODE					
	(C1 (09)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN					
	(C1 (09)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN					
	(Exposure 1 (Pattern 1, Exps 1-1 in C1 (09))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser					
	(Exposure 1 (Pattern 1, Exps 1-1 in C1 (09)) special requirements) Warning (Form): The specified GS Acq Scenario is not in the current list of valid scenarios.					
Patterns	#	Primary Pattern		Secondary Pattern	Exposures	
	(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)	
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	CD-40-8434	RA: 14 08 10.1137 (212.0421404d) Dec: -41 23 52.95 (-41.39804d) Equinox: J2000	Proper Motion RA: -0.0026360634619137357 sec of time/yr Proper Motion Dec: -0.02382299996952497 arcsec/yr Epoch of Position: 2015.5	V=12.18	Reference Frame: SIMBAD
	Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.					
	Category=STAR Description=[EXTRA-SOLAR PLANETARY SYSTEM, K V-IV, T TAURI STAR] Extended=NO					

Proposal 17427 - C1 (09) - Monitoring the H-alpha Emission from the PDS 70 Planets

	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	(1888734)	(1) CD-40-8434	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N		GS ACQ SCENARI O BASE1BE	Pattern 1, Exps 1-1 i n C1 (09) (1)	65 Secs X 6 (1560 Secs)	
									[==>(Pattern 1, Copy 1)]	[1]
									[==>(Pattern 1, Copy 2)]	
									[==>(Pattern 1, Copy 3)]	
									[==>(Pattern 1, Copy 4)]	
									[==>(Pattern 1, Copy 5)]	
									[==>(Pattern 1, Copy 6)]	
									[==>(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 3, Copy 1)]	
									[==>(Pattern 3, Copy 2)]	
									[==>(Pattern 3, Copy 3)]	
									[==>(Pattern 3, Copy 4)]	
									[==>(Pattern 3, Copy 5)]	
									[==>(Pattern 3, Copy 6)]	
									[==>(Pattern 4, Copy 1)]	
									[==>(Pattern 4, Copy 2)]	
									[==>(Pattern 4, Copy 3)]	
									[==>(Pattern 4, Copy 4)]	
									[==>(Pattern 4, Copy 5)]	
									[==>(Pattern 4, Copy 6)]	



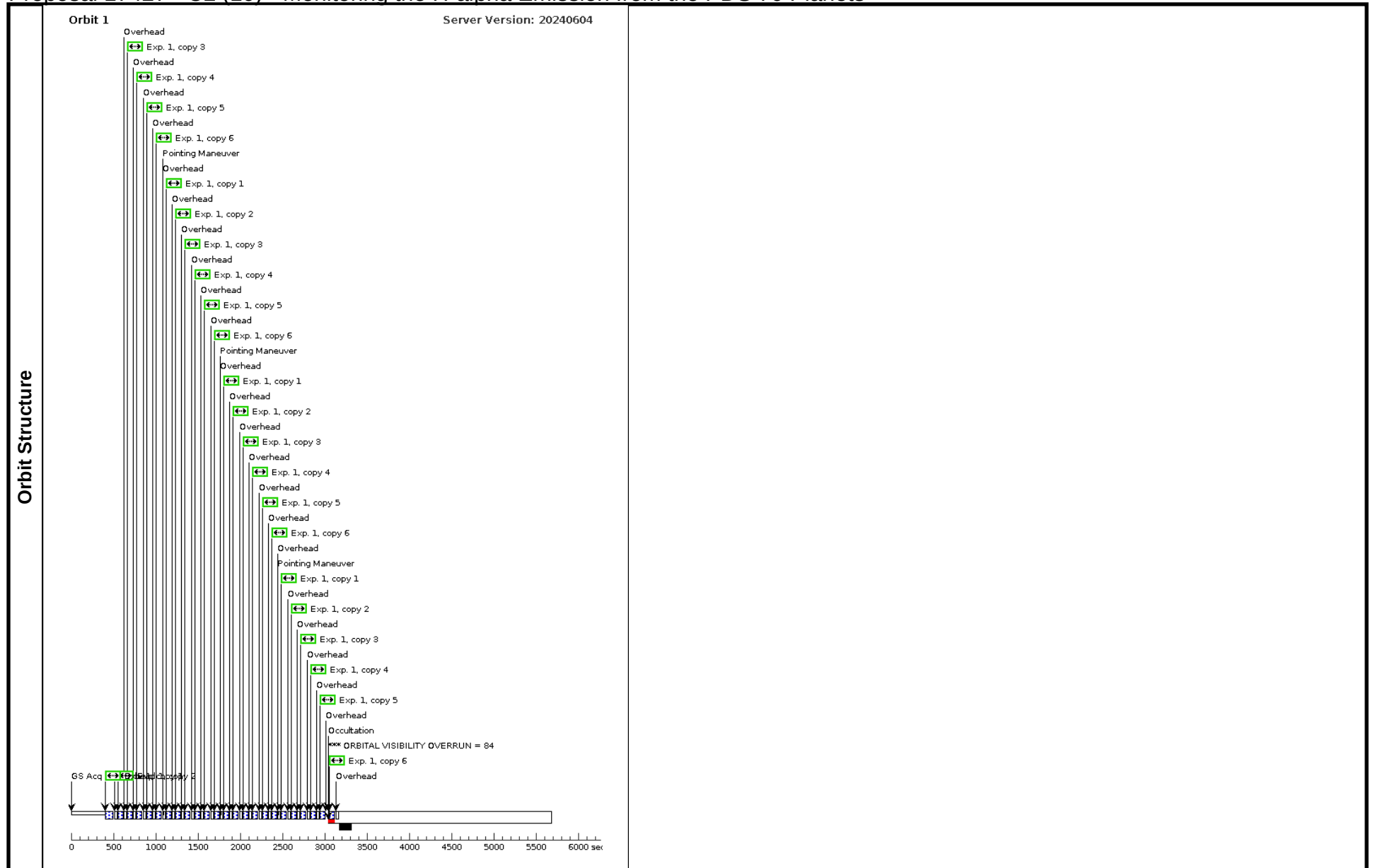
Proposal 17427 - C2 (10) - Monitoring the H-alpha Emission from the PDS 70 Planets

Visit	Proposal 17427, C2 (10), completed				Mon Jul 15 18:01:12 GMT 2024	
	Diagnostic Status: Warning					
	Scientific Instruments: WFC3/UVIS					
	Special Requirements: ORIENT 10D TO 35D FROM 09; AFTER 09 BY 0.5 Orbits TO 1.5 Orbits					
Diagnostics	(C2 (10)) Warning (Orbit Planner): GS ACQ SCENARIO REQUESTED INCONSISTENT WITH VISIT GYRO MODE					
	(C2 (10)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN					
	(Exposure 1 (Pattern 1, Exps 1-1 in C2 (10))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser					
	(Exposure 1 (Pattern 1, Exps 1-1 in C2 (10)) special requirements) Warning (Form): The specified GS Acq Scenario is not in the current list of valid scenarios.					
Patterns	(C2 (10)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.					
	#	Primary Pattern		Secondary Pattern	Exposures	
	(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)	
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	CD-40-8434	RA: 14 08 10.1137 (212.0421404d) Dec: -41 23 52.95 (-41.39804d) Equinox: J2000	Proper Motion RA: -0.0026360634619137357 V=12.18 sec of time/yr Proper Motion Dec: -0.02382299996952497 arcsec/yr Epoch of Position: 2015.5		Reference Frame: SIMBAD
	Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.					
	Category=STAR Description=[EXTRA-SOLAR PLANETARY SYSTEM, K V-IV, T TAURI STAR] Extended=NO					

Proposal 17427 - C2 (10) - Monitoring the H-alpha Emission from the PDS 70 Planets

	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	(1888734)	(1) CD-40-8434	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N		GS ACQ SCENARI O BASE1BE	Pattern 1, Exps 1-1 i n C2 (10) (1)	60 Secs X 6 (1440 Secs)	
									[==>(Pattern 1, Copy 1)]	[1]
									[==>(Pattern 1, Copy 2)]	
									[==>(Pattern 1, Copy 3)]	
									[==>(Pattern 1, Copy 4)]	
									[==>(Pattern 1, Copy 5)]	
									[==>(Pattern 1, Copy 6)]	
									[==>(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 3, Copy 1)]	
									[==>(Pattern 3, Copy 2)]	
									[==>(Pattern 3, Copy 3)]	
									[==>(Pattern 3, Copy 4)]	
									[==>(Pattern 3, Copy 5)]	
									[==>(Pattern 3, Copy 6)]	
									[==>(Pattern 4, Copy 1)]	
									[==>(Pattern 4, Copy 2)]	
									[==>(Pattern 4, Copy 3)]	
									[==>(Pattern 4, Copy 4)]	
									[==>(Pattern 4, Copy 5)]	
									[==>(Pattern 4, Copy 6)]	

Proposal 17427 - C2 (10) - Monitoring the H-alpha Emission from the PDS 70 Planets

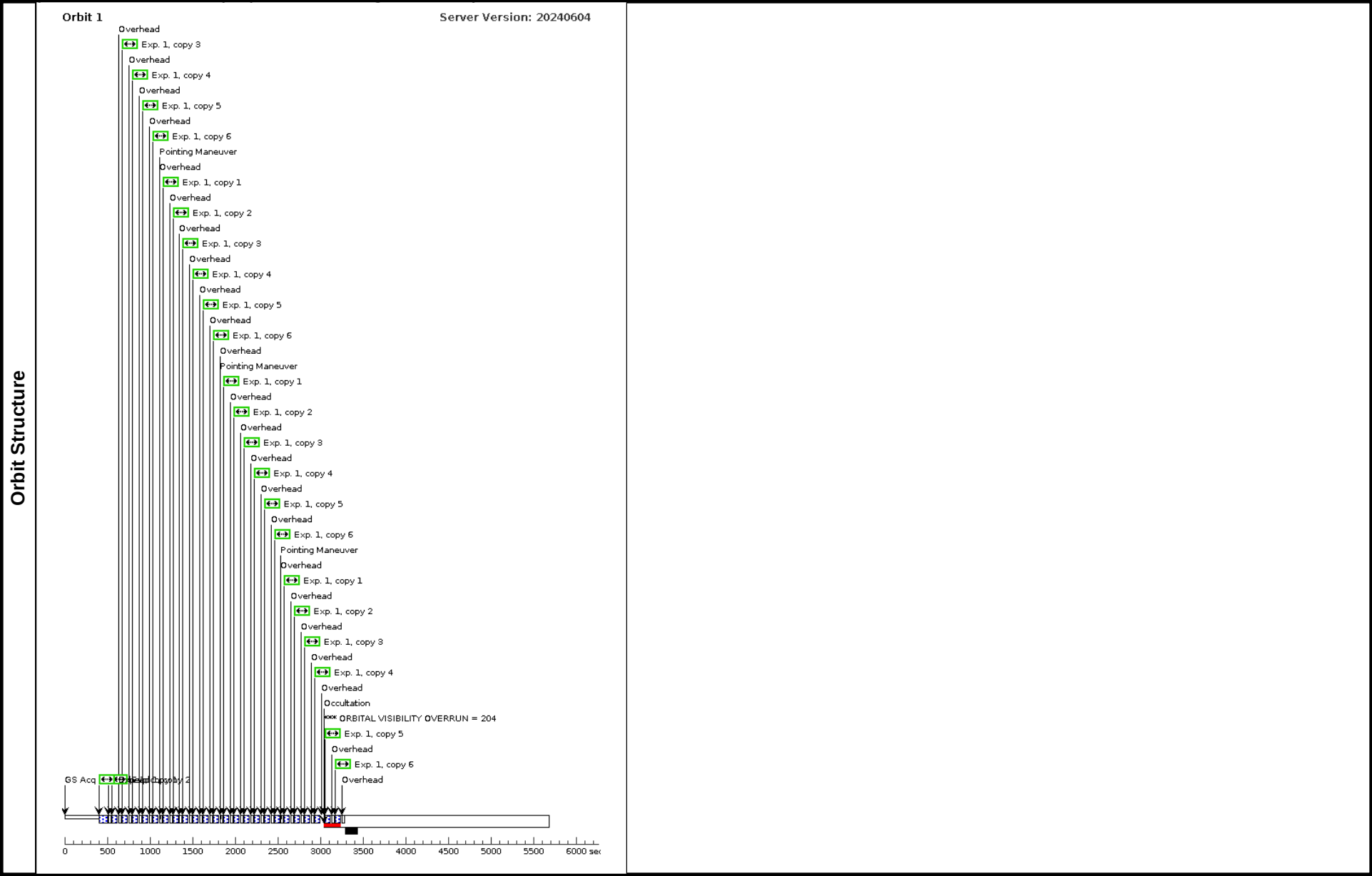


Proposal 17427 - D1 (11) - Monitoring the H-alpha Emission from the PDS 70 Planets

Visit	Proposal 17427, D1 (11), completed					Mon Jul 15 18:01:12 GMT 2024
	Diagnostic Status: Warning					
	Scientific Instruments: WFC3/UVIS					
	Special Requirements: ORIENT 30D TO 180D FROM 01; AFTER 10 BY 10 D TO 1000 D					
Diagnostics	(D1 (11)) Warning (Orbit Planner): GS ACQ SCENARIO REQUESTED INCONSISTENT WITH VISIT GYRO MODE					
	(D1 (11)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN					
	(D1 (11)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN					
	(Exposure 1 (Pattern 1, Exps 1-1 in D1 (11))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser					
	(Exposure 1 (Pattern 1, Exps 1-1 in D1 (11)) special requirements) Warning (Form): The specified GS Acq Scenario is not in the current list of valid scenarios.					
(D1 (11)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.						
Patterns	#	Primary Pattern			Secondary Pattern	Exposures
	(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)
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	CD-40-8434	RA: 14 08 10.1137 (212.0421404d) Dec: -41 23 52.95 (-41.39804d) Equinox: J2000	Proper Motion RA: -0.0026360634619137357 sec of time/yr Proper Motion Dec: -0.02382299996952497 arcsec/yr Epoch of Position: 2015.5	V=12.18	Reference Frame: SIMBAD
	Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.					
	Category=STAR					
	Description=[EXTRA-SOLAR PLANETARY SYSTEM, K V-IV, T TAURI STAR]					
Extended=NO						

Proposal 17427 - D1 (11) - Monitoring the H-alpha Emission from the PDS 70 Planets

	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	(1888734)	(1) CD-40-8434	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N		GS ACQ SCENARI O BASE1BE	Pattern 1, Exps 1-1 i n D1 (11) (1)	65 Secs X 6 (1560 Secs)	
									[==>(Pattern 1, Copy 1)]	[1]
									[==>(Pattern 1, Copy 2)]	
									[==>(Pattern 1, Copy 3)]	
									[==>(Pattern 1, Copy 4)]	
									[==>(Pattern 1, Copy 5)]	
									[==>(Pattern 1, Copy 6)]	
									[==>(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 3, Copy 1)]	
									[==>(Pattern 3, Copy 2)]	
									[==>(Pattern 3, Copy 3)]	
									[==>(Pattern 3, Copy 4)]	
									[==>(Pattern 3, Copy 5)]	
									[==>(Pattern 3, Copy 6)]	
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									[==>(Pattern 4, Copy 5)]	
									[==>(Pattern 4, Copy 6)]	

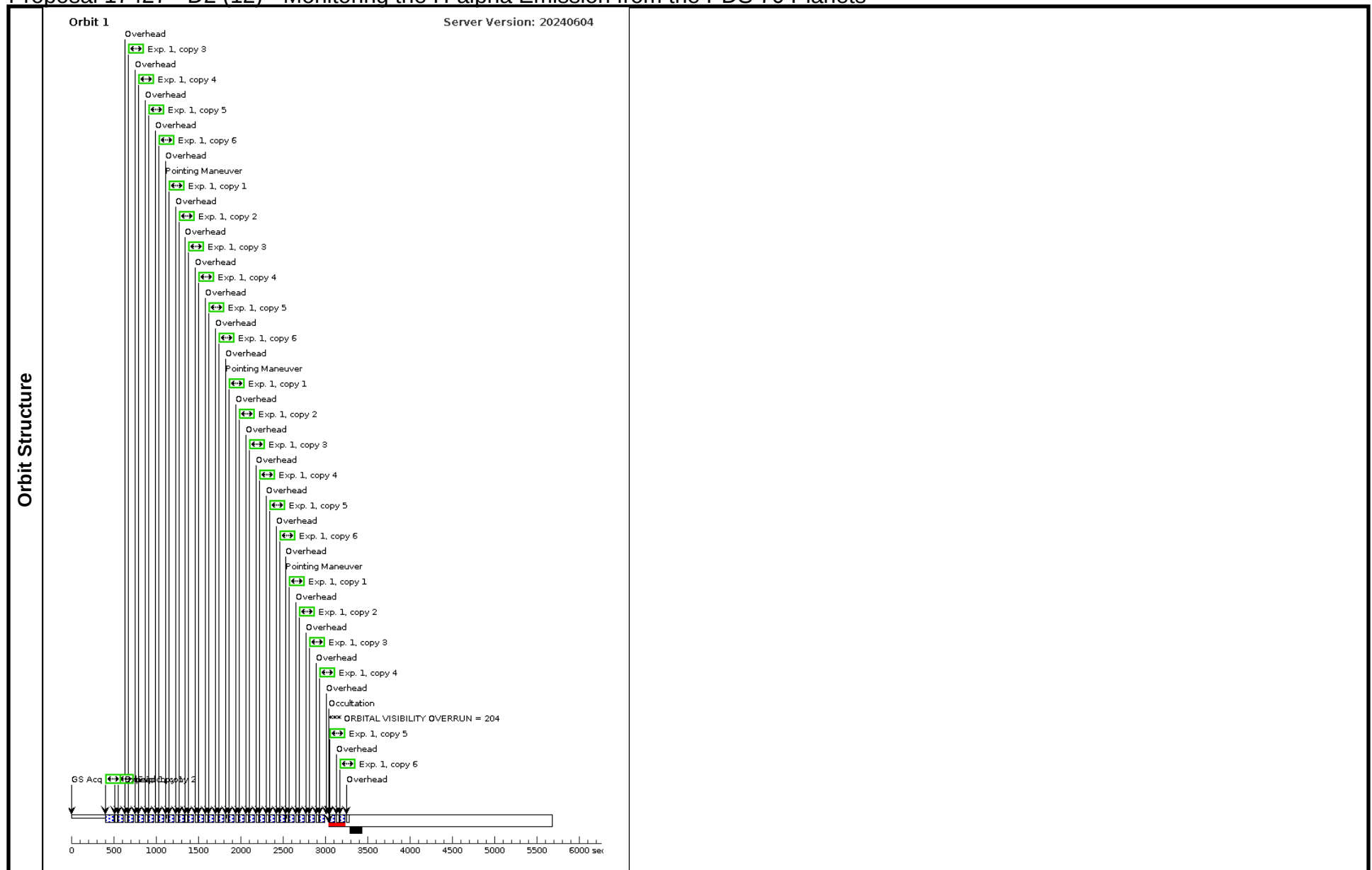


Proposal 17427 - D2 (12) - Monitoring the H-alpha Emission from the PDS 70 Planets

Visit	Proposal 17427, D2 (12), completed					Mon Jul 15 18:01:12 GMT 2024
	Diagnostic Status: Warning					
	Scientific Instruments: WFC3/UVIS					
	Special Requirements: ORIENT 10D TO 35D FROM 11; AFTER 11 BY 0.5 Orbits TO 1.5 Orbits					
Diagnostics	(D2 (12)) Warning (Orbit Planner): GS ACQ SCENARIO REQUESTED INCONSISTENT WITH VISIT GYRO MODE					
	(D2 (12)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN					
	(D2 (12)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN					
	(Exposure 1 (Pattern 1, Exps 1-1 in D2 (12))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser					
	(Exposure 1 (Pattern 1, Exps 1-1 in D2 (12)) special requirements) Warning (Form): The specified GS Acq Scenario is not in the current list of valid scenarios.					
(D2 (12)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.						
Patterns	#	Primary Pattern			Secondary Pattern	Exposures
	(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)
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	CD-40-8434	RA: 14 08 10.1137 (212.0421404d) Dec: -41 23 52.95 (-41.39804d) Equinox: J2000	Proper Motion RA: -0.0026360634619137357 sec of time/yr Proper Motion Dec: -0.02382299996952497 arcsec/yr Epoch of Position: 2015.5	V=12.18	Reference Frame: SIMBAD
	Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.					
	Category=STAR					
	Description=[EXTRA-SOLAR PLANETARY SYSTEM, K V-IV, T TAURI STAR] Extended=NO					

Proposal 17427 - D2 (12) - Monitoring the H-alpha Emission from the PDS 70 Planets

	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	(1888734)	(1) CD-40-8434	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N		GS ACQ SCENARI O BASE1BE	Pattern 1, Exps 1-1 i n D2 (12) (1)	65 Secs X 6 (1560 Secs)	
									[==>(Pattern 1, Copy 1)]	[1]
									[==>(Pattern 1, Copy 2)]	
									[==>(Pattern 1, Copy 3)]	
									[==>(Pattern 1, Copy 4)]	
									[==>(Pattern 1, Copy 5)]	
									[==>(Pattern 1, Copy 6)]	
									[==>(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 3, Copy 5)]	
									[==>(Pattern 3, Copy 6)]	
									[==>(Pattern 4, Copy 1)]	
									[==>(Pattern 4, Copy 2)]	
									[==>(Pattern 4, Copy 3)]	
									[==>(Pattern 4, Copy 4)]	
									[==>(Pattern 4, Copy 5)]	
									[==>(Pattern 4, Copy 6)]	

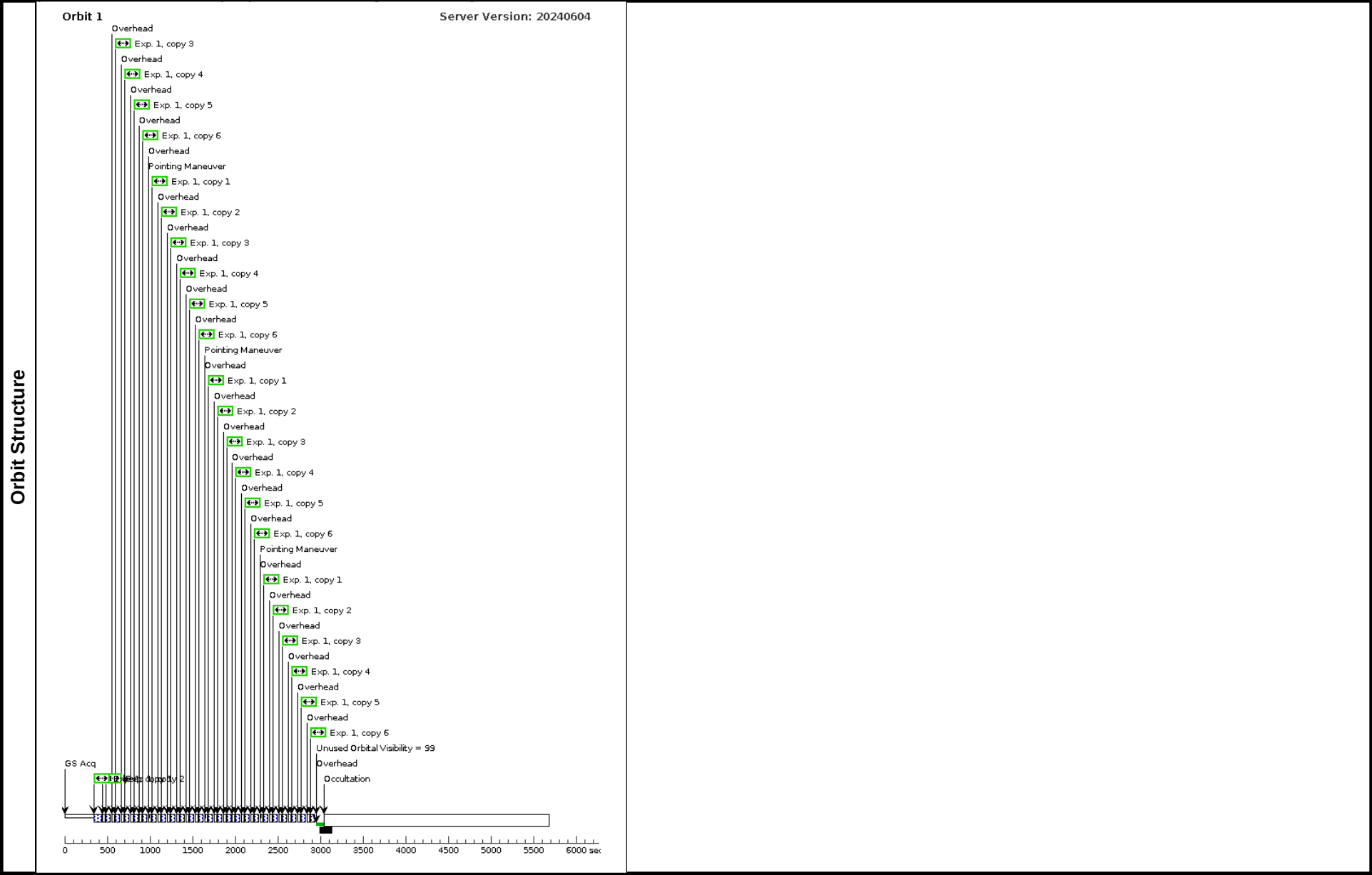


Proposal 17427 - E1 (13) - Monitoring the H-alpha Emission from the PDS 70 Planets

Visit	Proposal 17427, E1 (13), implementation Mon Jul 15 18:01:13 GMT 2024			
	Diagnostic Status: Warning Scientific Instruments: WFC3/UVIS Special Requirements: (none)			
Diagnosics	(Exposure 1 (Pattern 1, Exps 1-1 in E1 (13))) 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 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)
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections
	(1)	CD-40-8434	RA: 14 08 10.1137 (212.0421404d) Dec: -41 23 52.95 (-41.39804d) Equinox: J2000	Proper Motion RA: -0.0026360634619137357 V=12.18 sec of time/yr Proper Motion Dec: -0.02382299996952497 arcsec/yr Epoch of Position: 2015.5
Fluxes Miscellaneous Reference Frame: SIMBAD Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. Category=STAR Description=[EXTRA-SOLAR PLANETARY SYSTEM, K V-IV, T TAURI STAR] Extended=NO				

Proposal 17427 - E1 (13) - Monitoring the H-alpha Emission from the PDS 70 Planets

	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	(1888734)	(1) CD-40-8434	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N			Pattern 1, Exps 1-1 i n E1 (13) (1)	55 Secs X 6 (1320 Secs)	
									[==>(Pattern 1, Copy 1)]	[1]
									[==>(Pattern 1, Copy 2)]	
									[==>(Pattern 1, Copy 3)]	
									[==>(Pattern 1, Copy 4)]	
									[==>(Pattern 1, Copy 5)]	
									[==>(Pattern 1, Copy 6)]	
									[==>(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 3, Copy 1)]	
									[==>(Pattern 3, Copy 2)]	
									[==>(Pattern 3, Copy 3)]	
									[==>(Pattern 3, Copy 4)]	
									[==>(Pattern 3, Copy 5)]	
									[==>(Pattern 3, Copy 6)]	
									[==>(Pattern 4, Copy 1)]	
									[==>(Pattern 4, Copy 2)]	
									[==>(Pattern 4, Copy 3)]	
									[==>(Pattern 4, Copy 4)]	
									[==>(Pattern 4, Copy 5)]	
									[==>(Pattern 4, Copy 6)]	



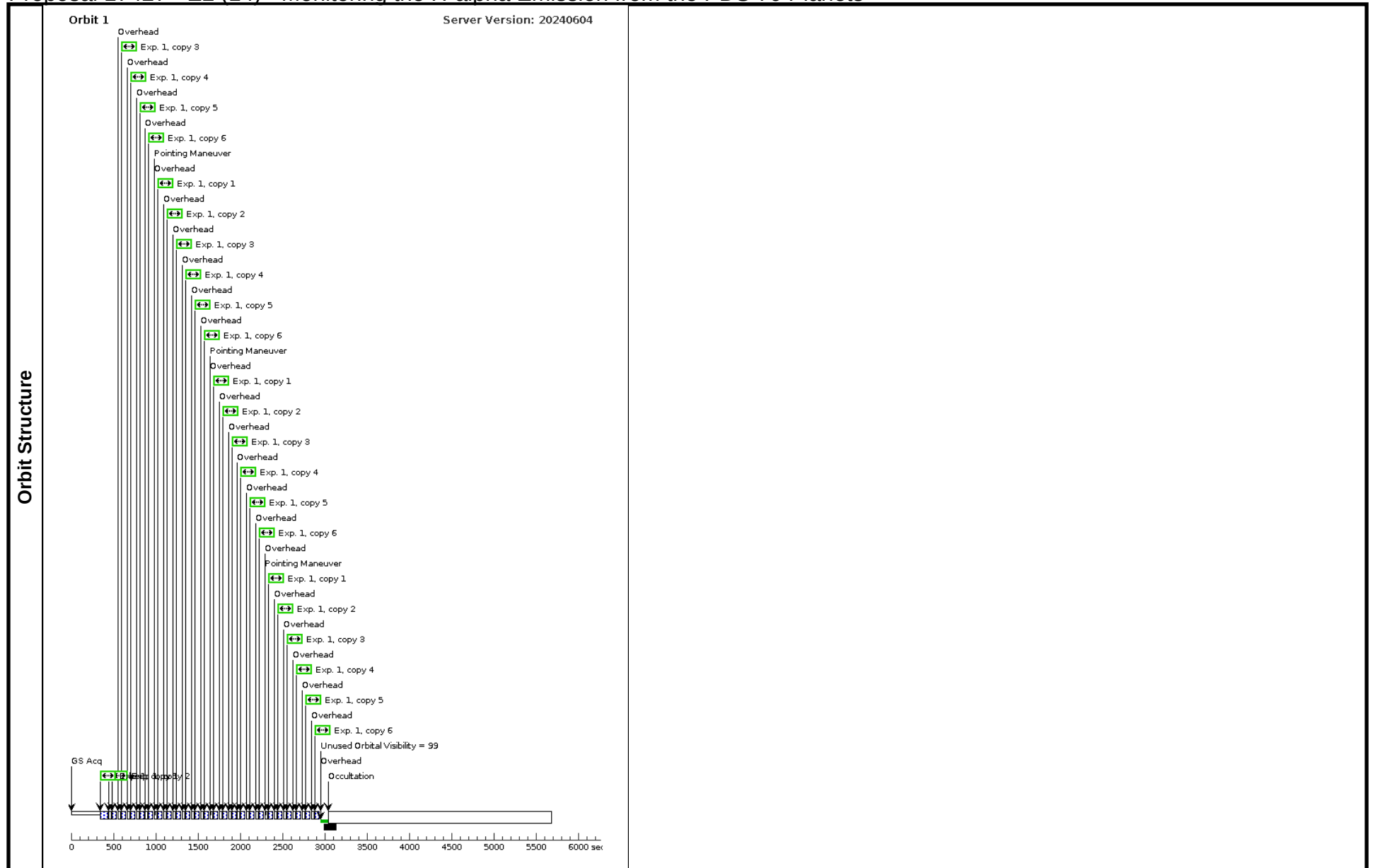
Proposal 17427 - E2 (14) - Monitoring the H-alpha Emission from the PDS 70 Planets

Visit	Proposal 17427, E2 (14), implementation				Mon Jul 15 18:01:13 GMT 2024	
	Diagnostic Status: Warning					
	Scientific Instruments: WFC3/UVIS					
	Special Requirements: ORIENT 25D TO 35D FROM 13; AFTER 13 BY 0.5 Orbits TO 1.5 Orbits					
Diagnostics	(Exposure 1 (Pattern 1, Exps 1-1 in E2 (14))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser					
	(E2 (14)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.					
Patterns	#	Primary Pattern		Secondary Pattern	Exposures	
	(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)	
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	CD-40-8434	RA: 14 08 10.1137 (212.0421404d) Dec: -41 23 52.95 (-41.39804d) Equinox: J2000	Proper Motion RA: -0.0026360634619137357 sec of time/yr Proper Motion Dec: -0.02382299996952497 arcsec/yr Epoch of Position: 2015.5	V=12.18	Reference Frame: SIMBAD
	Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. Category=STAR Description=[EXTRA-SOLAR PLANETARY SYSTEM, K V-IV, T TAURI STAR] Extended=NO					

Proposal 17427 - E2 (14) - Monitoring the H-alpha Emission from the PDS 70 Planets

Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	(1888734)	(1) CD-40-8434	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N			Pattern 1, Exps 1-1 i n E2 (14) (1)	55 Secs X 6 (1320 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 2, Copy 1)] [==>(Pattern 2, Copy 2)] [==>(Pattern 2, Copy 3)] [==>(Pattern 2, Copy 4)] [==>(Pattern 2, Copy 5)] [==>(Pattern 2, Copy 6)] [==>(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 4, Copy 1)] [==>(Pattern 4, Copy 2)] [==>(Pattern 4, Copy 3)] [==>(Pattern 4, Copy 4)] [==>(Pattern 4, Copy 5)] [==>(Pattern 4, Copy 6)]	[1]

Proposal 17427 - E2 (14) - Monitoring the H-alpha Emission from the PDS 70 Planets

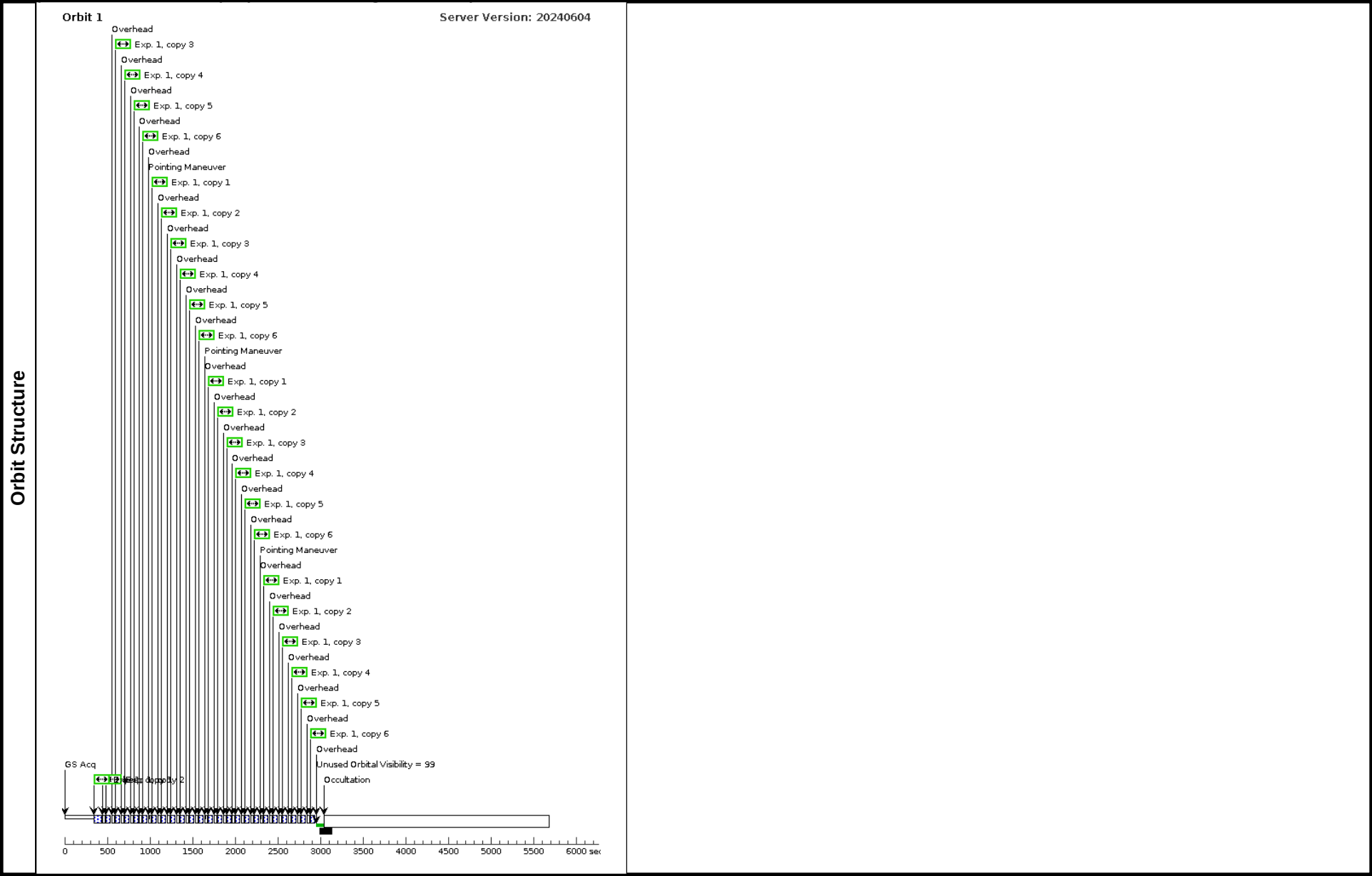


Proposal 17427 - Z1 (15) - Monitoring the H-alpha Emission from the PDS 70 Planets

Visit	Proposal 17427, Z1 (15), implementation				Mon Jul 15 18:01:13 GMT 2024	
	Diagnostic Status: Warning					
	Scientific Instruments: WFC3/UVIS					
	Special Requirements: (none)					
Comments: Visits Z1 to Z6 are repeat of visits A1 to A6 (failed).						
Diagnosics	(Exposure 1 (Pattern 1, Exps 1-1 in Z1 (15))) 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 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)	
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	CD-40-8434	RA: 14 08 10.1137 (212.0421404d) Dec: -41 23 52.95 (-41.39804d) Equinox: J2000	Proper Motion RA: -0.0026360634619137357 sec of time/yr Proper Motion Dec: -0.02382299996952497 arcsec/yr Epoch of Position: 2015.5	V=12.18	Reference Frame: SIMBAD
	Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.					
Category=STAR						
Description=[EXTRA-SOLAR PLANETARY SYSTEM, K V-IV, T TAURI STAR]						
Extended=NO						

Proposal 17427 - Z1 (15) - Monitoring the H-alpha Emission from the PDS 70 Planets

	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	(1888734)	(1) CD-40-8434	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N			Pattern 1, Exps 1-1 i n Z1 (15) (1)	55 Secs X 6 (1320 Secs)	
									[==>(Pattern 1, Copy 1)]	[1]
									[==>(Pattern 1, Copy 2)]	
									[==>(Pattern 1, Copy 3)]	
									[==>(Pattern 1, Copy 4)]	
									[==>(Pattern 1, Copy 5)]	
									[==>(Pattern 1, Copy 6)]	
									[==>(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 3, Copy 1)]	
									[==>(Pattern 3, Copy 2)]	
									[==>(Pattern 3, Copy 3)]	
									[==>(Pattern 3, Copy 4)]	
									[==>(Pattern 3, Copy 5)]	
									[==>(Pattern 3, Copy 6)]	
									[==>(Pattern 4, Copy 1)]	
									[==>(Pattern 4, Copy 2)]	
									[==>(Pattern 4, Copy 3)]	
									[==>(Pattern 4, Copy 4)]	
									[==>(Pattern 4, Copy 5)]	
									[==>(Pattern 4, Copy 6)]	

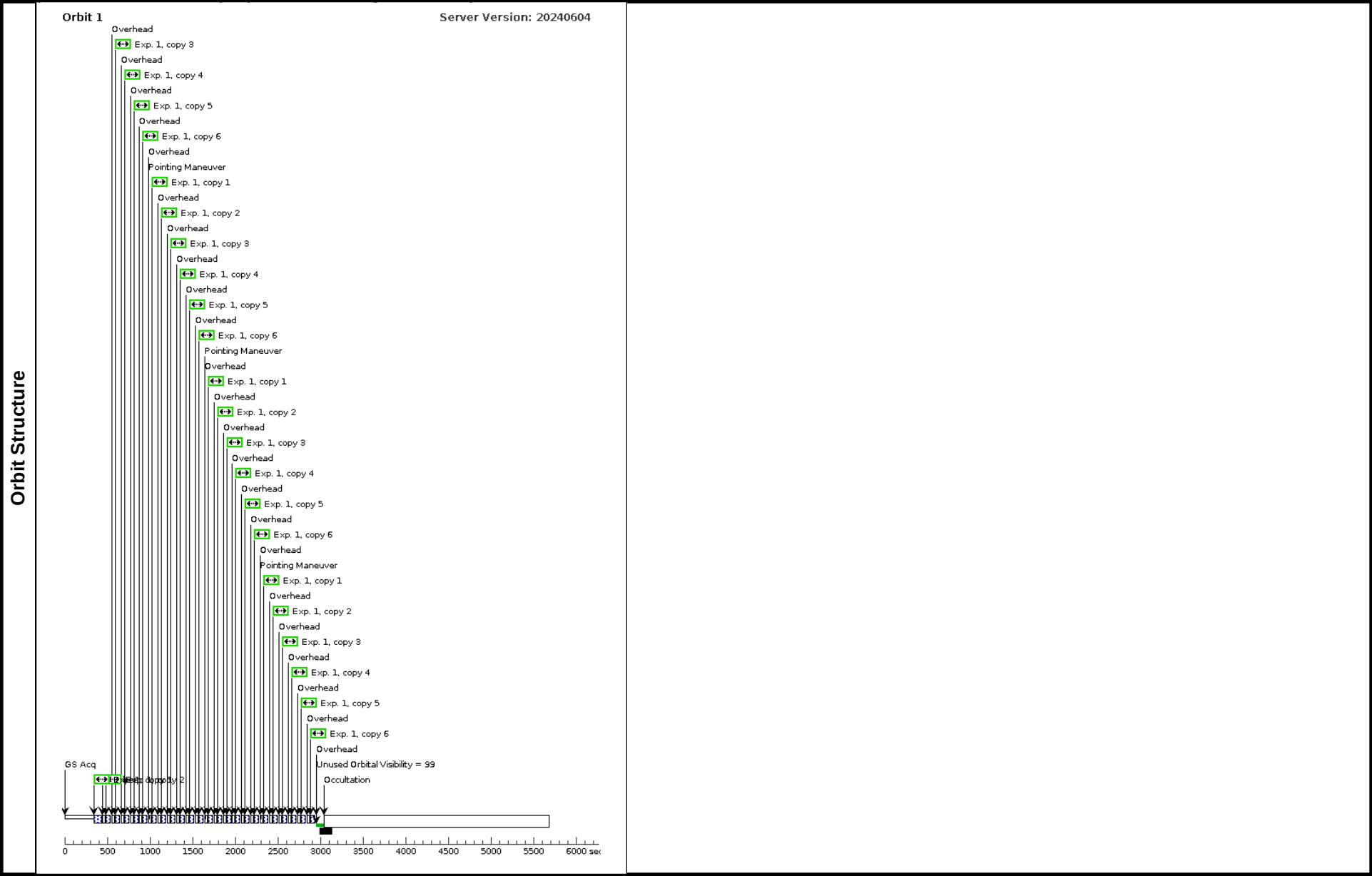


Proposal 17427 - Z2 (16) - Monitoring the H-alpha Emission from the PDS 70 Planets

Visit	Proposal 17427, Z2 (16), implementation				Mon Jul 15 18:01:13 GMT 2024	
	Diagnostic Status: Warning Scientific Instruments: WFC3/UVIS Special Requirements: ORIENT 10D TO 35D FROM 15; AFTER 15 BY 0.5 Orbits TO 1.5 Orbits Comments: Visits Z1 to Z6 are repeat of visits A1 to A6 (failed).					
Diagnostics	(Exposure 1 (Pattern 1, Exps 1-1 in Z2 (16))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser (Z2 (16)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.					
Patterns	#	Primary Pattern		Secondary Pattern	Exposures	
	(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)	
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	CD-40-8434	RA: 14 08 10.1137 (212.0421404d) Dec: -41 23 52.95 (-41.39804d) Equinox: J2000	Proper Motion RA: -0.0026360634619137357 sec of time/yr Proper Motion Dec: -0.02382299996952497 arcsec/yr Epoch of Position: 2015.5	V=12.18	Reference Frame: SIMBAD
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. Category=STAR Description=[EXTRA-SOLAR PLANETARY SYSTEM, K V-IV, T TAURI STAR] Extended=NO						

Proposal 17427 - Z2 (16) - Monitoring the H-alpha Emission from the PDS 70 Planets

	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	(1888734)	(1) CD-40-8434	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N			Pattern 1, Exps 1-1 i n Z2 (16) (1)	55 Secs X 6 (1320 Secs)	
									[==>(Pattern 1, Copy 1)]	[1]
									[==>(Pattern 1, Copy 2)]	
									[==>(Pattern 1, Copy 3)]	
									[==>(Pattern 1, Copy 4)]	
									[==>(Pattern 1, Copy 5)]	
									[==>(Pattern 1, Copy 6)]	
									[==>(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 3, Copy 1)]	
									[==>(Pattern 3, Copy 2)]	
									[==>(Pattern 3, Copy 3)]	
									[==>(Pattern 3, Copy 4)]	
									[==>(Pattern 3, Copy 5)]	
									[==>(Pattern 3, Copy 6)]	
									[==>(Pattern 4, Copy 1)]	
									[==>(Pattern 4, Copy 2)]	
									[==>(Pattern 4, Copy 3)]	
									[==>(Pattern 4, Copy 4)]	
									[==>(Pattern 4, Copy 5)]	
									[==>(Pattern 4, Copy 6)]	

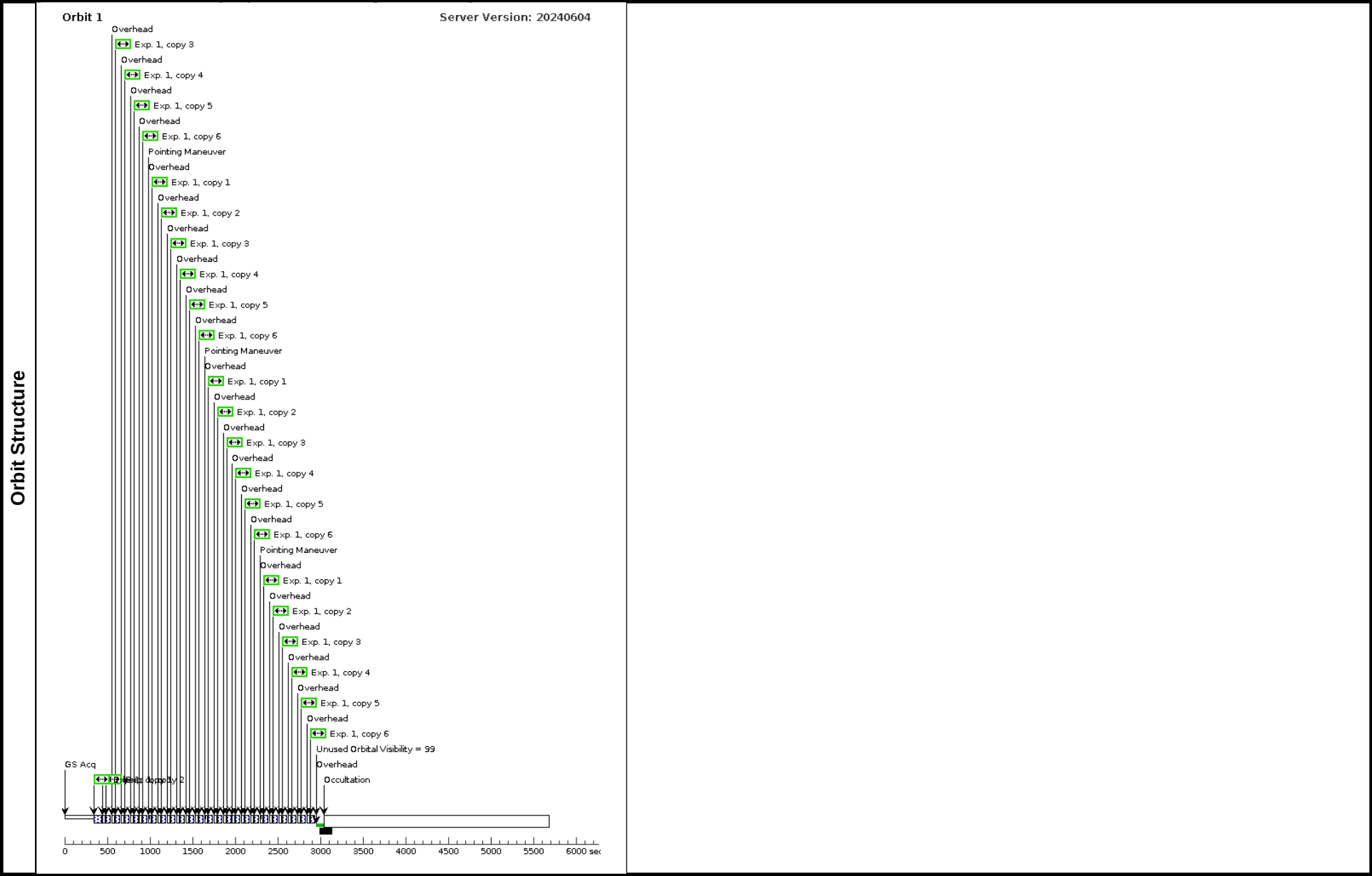


Proposal 17427 - Z3 (17) - Monitoring the H-alpha Emission from the PDS 70 Planets

Visit	Proposal 17427, Z3 (17), implementation				Mon Jul 15 18:01:13 GMT 2024	
	Diagnostic Status: Warning Scientific Instruments: WFC3/UVIS Special Requirements: SAME ORIENT AS 15; AFTER 16 BY 0.5 Orbits TO 1.5 Orbits Comments: Visits Z1 to Z6 are repeat of visits A1 to A6 (failed).					
Diagnostics	(Exposure 1 (Pattern 1, Exps 1-1 in Z3 (17))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser (Z3 (17)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.					
Patterns	#	Primary Pattern		Secondary Pattern	Exposures	
	(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)	
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	CD-40-8434	RA: 14 08 10.1137 (212.0421404d) Dec: -41 23 52.95 (-41.39804d) Equinox: J2000	Proper Motion RA: -0.0026360634619137357 sec of time/yr Proper Motion Dec: -0.02382299996952497 arcsec/yr Epoch of Position: 2015.5	V=12.18	Reference Frame: SIMBAD
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. Category=STAR Description=[EXTRA-SOLAR PLANETARY SYSTEM, K V-IV, T TAURI STAR] Extended=NO						

Proposal 17427 - Z3 (17) - Monitoring the H-alpha Emission from the PDS 70 Planets

	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	(1888734)	(1) CD-40-8434	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N			Pattern 1, Exps 1-1 i n Z3 (17) (1)	55 Secs X 6 (1320 Secs)	
									[==>(Pattern 1, Copy 1)]	[1]
									[==>(Pattern 1, Copy 2)]	
									[==>(Pattern 1, Copy 3)]	
									[==>(Pattern 1, Copy 4)]	
									[==>(Pattern 1, Copy 5)]	
									[==>(Pattern 1, Copy 6)]	
									[==>(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 3, Copy 1)]	
									[==>(Pattern 3, Copy 2)]	
									[==>(Pattern 3, Copy 3)]	
									[==>(Pattern 3, Copy 4)]	
									[==>(Pattern 3, Copy 5)]	
									[==>(Pattern 3, Copy 6)]	
									[==>(Pattern 4, Copy 1)]	
									[==>(Pattern 4, Copy 2)]	
									[==>(Pattern 4, Copy 3)]	
									[==>(Pattern 4, Copy 4)]	
									[==>(Pattern 4, Copy 5)]	
									[==>(Pattern 4, Copy 6)]	

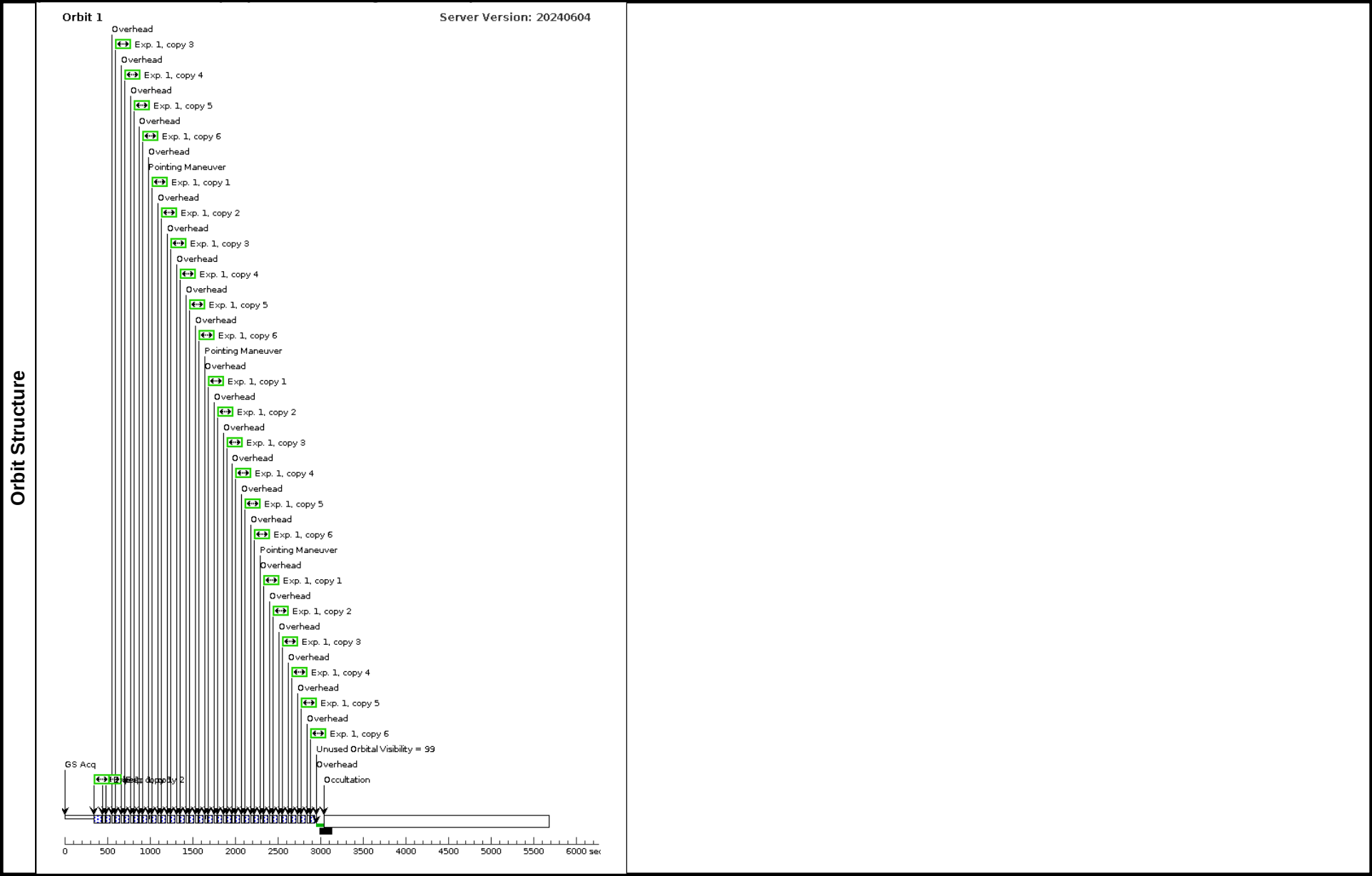


Proposal 17427 - Z4 (18) - Monitoring the H-alpha Emission from the PDS 70 Planets

Visit	Proposal 17427, Z4 (18), implementation				Mon Jul 15 18:01:13 GMT 2024	
	Diagnostic Status: Warning Scientific Instruments: WFC3/UVIS Special Requirements: SAME ORIENT AS 16; AFTER 17 BY 0.5 Orbits TO 1.5 Orbits Comments: Visits Z1 to Z6 are repeat of visits A1 to A6 (failed).					
Diagnostics	(Exposure 1 (Pattern 1, Exps 1-1 in Z4 (18))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser (Z4 (18)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.					
Patterns	#	Primary Pattern		Secondary Pattern	Exposures	
	(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)	
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	CD-40-8434	RA: 14 08 10.1137 (212.0421404d) Dec: -41 23 52.95 (-41.39804d) Equinox: J2000	Proper Motion RA: -0.0026360634619137357 sec of time/yr Proper Motion Dec: -0.02382299996952497 arcsec/yr Epoch of Position: 2015.5	V=12.18	Reference Frame: SIMBAD
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. Category=STAR Description=[EXTRA-SOLAR PLANETARY SYSTEM, K V-IV, T TAURI STAR] Extended=NO						

Proposal 17427 - Z4 (18) - Monitoring the H-alpha Emission from the PDS 70 Planets

	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	(1888734)	(1) CD-40-8434	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N			Pattern 1, Exps 1-1 i n Z4 (18) (1)	55 Secs X 6 (1320 Secs)	
									[==>(Pattern 1, Copy 1)]	[1]
									[==>(Pattern 1, Copy 2)]	
									[==>(Pattern 1, Copy 3)]	
									[==>(Pattern 1, Copy 4)]	
									[==>(Pattern 1, Copy 5)]	
									[==>(Pattern 1, Copy 6)]	
									[==>(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 3, Copy 1)]	
									[==>(Pattern 3, Copy 2)]	
									[==>(Pattern 3, Copy 3)]	
									[==>(Pattern 3, Copy 4)]	
									[==>(Pattern 3, Copy 5)]	
									[==>(Pattern 3, Copy 6)]	
									[==>(Pattern 4, Copy 1)]	
									[==>(Pattern 4, Copy 2)]	
									[==>(Pattern 4, Copy 3)]	
									[==>(Pattern 4, Copy 4)]	
									[==>(Pattern 4, Copy 5)]	
									[==>(Pattern 4, Copy 6)]	

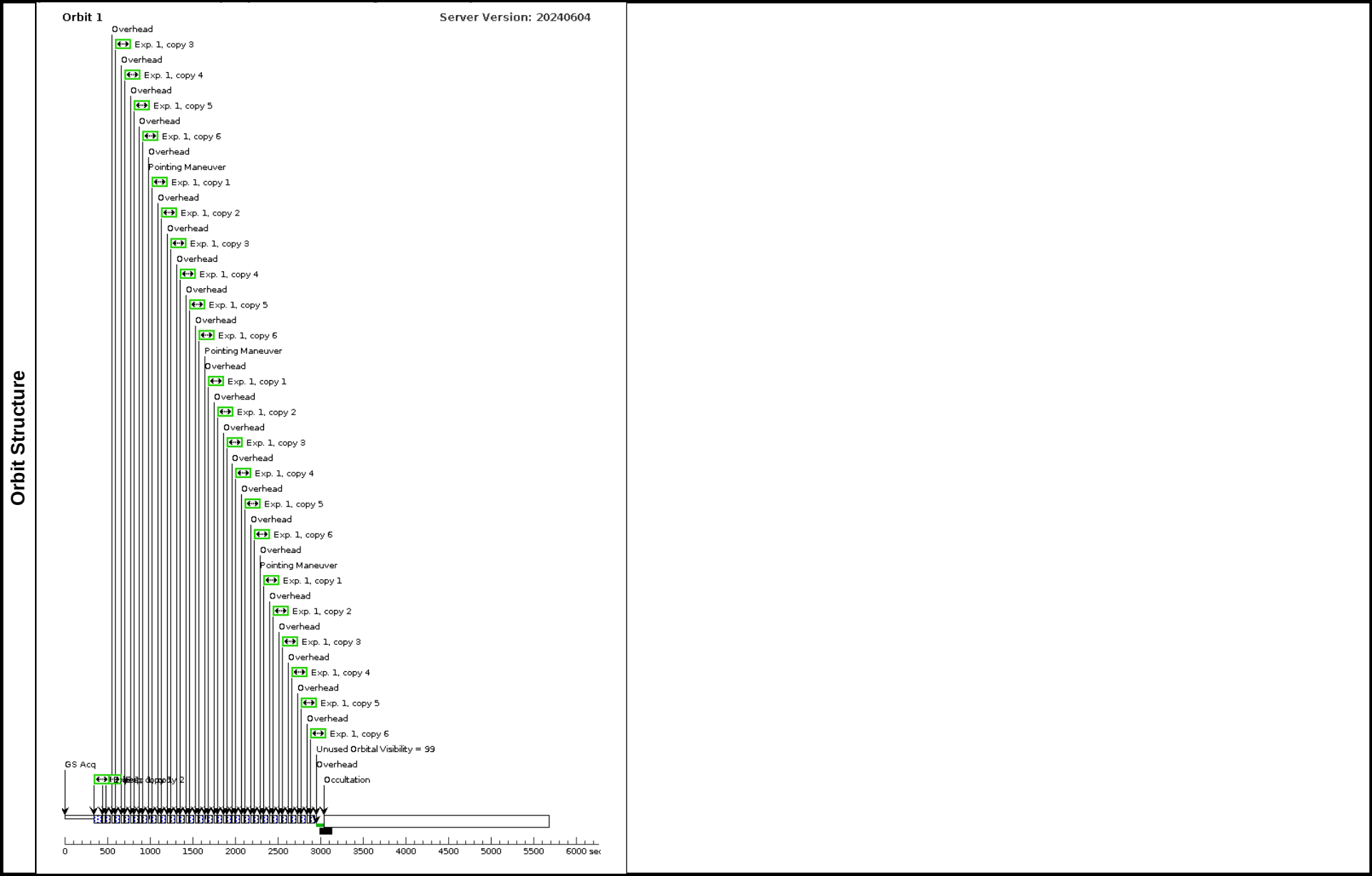


Proposal 17427 - Z5 (19) - Monitoring the H-alpha Emission from the PDS 70 Planets

Visit	Proposal 17427, Z5 (19), implementation				Mon Jul 15 18:01:13 GMT 2024	
	Diagnostic Status: Warning Scientific Instruments: WFC3/UVIS Special Requirements: SAME ORIENT AS 15; AFTER 18 BY 0.5 Orbits TO 1.5 Orbits Comments: Visits Z1 to Z6 are repeat of visits A1 to A6 (failed).					
Diagnostics	(Exposure 1 (Pattern 1, Exps 1-1 in Z5 (19))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser (Z5 (19)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.					
Patterns	#	Primary Pattern		Secondary Pattern	Exposures	
	(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)	
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	CD-40-8434	RA: 14 08 10.1137 (212.0421404d) Dec: -41 23 52.95 (-41.39804d) Equinox: J2000	Proper Motion RA: -0.0026360634619137357 sec of time/yr Proper Motion Dec: -0.02382299996952497 arcsec/yr Epoch of Position: 2015.5	V=12.18	Reference Frame: SIMBAD
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database. Category=STAR Description=[EXTRA-SOLAR PLANETARY SYSTEM, K V-IV, T TAURI STAR] Extended=NO						

Proposal 17427 - Z5 (19) - Monitoring the H-alpha Emission from the PDS 70 Planets

	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	(1888734)	(1) CD-40-8434	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N			Pattern 1, Exps 1-1 i n Z5 (19) (1)	55 Secs X 6 (1320 Secs)	
									[==>(Pattern 1, Copy 1)]	[1]
									[==>(Pattern 1, Copy 2)]	
									[==>(Pattern 1, Copy 3)]	
									[==>(Pattern 1, Copy 4)]	
									[==>(Pattern 1, Copy 5)]	
									[==>(Pattern 1, Copy 6)]	
									[==>(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 3, Copy 1)]	
									[==>(Pattern 3, Copy 2)]	
									[==>(Pattern 3, Copy 3)]	
									[==>(Pattern 3, Copy 4)]	
									[==>(Pattern 3, Copy 5)]	
									[==>(Pattern 3, Copy 6)]	
									[==>(Pattern 4, Copy 1)]	
									[==>(Pattern 4, Copy 2)]	
									[==>(Pattern 4, Copy 3)]	
									[==>(Pattern 4, Copy 4)]	
									[==>(Pattern 4, Copy 5)]	
									[==>(Pattern 4, Copy 6)]	



Proposal 17427 - Z6 (20) - Monitoring the H-alpha Emission from the PDS 70 Planets

Visit	Proposal 17427, Z6 (20), implementation				Mon Jul 15 18:01:13 GMT 2024	
	Diagnostic Status: Warning					
Diagnostics	Scientific Instruments: WFC3/UVIS					
	Special Requirements: SAME ORIENT AS 16; AFTER 19 BY 0.5 Orbits TO 1.5 Orbits					
Patterns	Comments: Visits Z1 to Z6 are repeat of visits A1 to A6 (failed).					
	(Exposure 1 (Pattern 1, Exps 1-1 in Z6 (20))) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser					
Fixed Targets	(Z6 (20)) Informational (Form): The Visit Planner and Spike may produce different schedulability results.					
	#	Primary Pattern		Secondary Pattern	Exposures	
Fixed Targets	(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)	CD-40-8434	RA: 14 08 10.1137 (212.0421404d) Dec: -41 23 52.95 (-41.39804d) Equinox: J2000	Proper Motion RA: -0.0026360634619137357 sec of time/yr Proper Motion Dec: -0.02382299996952497 arcsec/yr Epoch of Position: 2015.5	V=12.18	Reference Frame: SIMBAD
	Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.					
Fixed Targets	Category=STAR					
	Description=[EXTRA-SOLAR PLANETARY SYSTEM, K V-IV, T TAURI STAR]					
Fixed Targets	Extended=NO					

Proposal 17427 - Z6 (20) - Monitoring the H-alpha Emission from the PDS 70 Planets

	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	(1888734)	(1) CD-40-8434	WFC3/UVIS, ACCUM, UVIS2-C512C-SUB	F656N			Pattern 1, Exps 1-1 i n Z6 (20) (1)	55 Secs X 6 (1320 Secs)	
									[==>(Pattern 1, Copy 1)]	[1]
									[==>(Pattern 1, Copy 2)]	
									[==>(Pattern 1, Copy 3)]	
									[==>(Pattern 1, Copy 4)]	
									[==>(Pattern 1, Copy 5)]	
									[==>(Pattern 1, Copy 6)]	
									[==>(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 3, Copy 1)]	
									[==>(Pattern 3, Copy 2)]	
									[==>(Pattern 3, Copy 3)]	
									[==>(Pattern 3, Copy 4)]	
									[==>(Pattern 3, Copy 5)]	
									[==>(Pattern 3, Copy 6)]	
									[==>(Pattern 4, Copy 1)]	
									[==>(Pattern 4, Copy 2)]	
									[==>(Pattern 4, Copy 3)]	
									[==>(Pattern 4, Copy 4)]	
									[==>(Pattern 4, Copy 5)]	
									[==>(Pattern 4, Copy 6)]	

