



15944 - The Coolest Sample of Brown Dwarf Dynamical Masses

Cycle: 27, Proposal Category: GO

(Availability Mode: SUPPORTED)

INVESTIGATORS

<i>Name</i>	<i>Institution</i>
Dr. Trent J. Dupuy (PI) (ESA Member) (Contact)	University of Edinburgh, Institute for Astronomy
Dr. Michael C. Liu (CoI)	University of Hawaii
Dr. Mark S. Marley (CoI)	University of Arizona
Dr. William Best (CoI)	University of Texas at Austin

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) WISEJ014656.66+423410.0	ACS/WFC	1	18-Apr-2023 10:00:14.0	yes
02	(2) WISEJ090649.35+473538.5	ACS/WFC	1	18-Apr-2023 10:00:14.0	yes
03	(2) WISEJ090649.35+473538.5	ACS/WFC	1	18-Apr-2023 10:00:15.0	yes
04	(3) WISEJ095259.29+195508.1	ACS/WFC	1	18-Apr-2023 10:00:15.0	yes
05	(4) CFBDSIRJ1458+10AB	ACS/WFC	1	18-Apr-2023 10:00:16.0	yes
06	(5) WISEJ162208.93-095934.4	ACS/WFC	1	18-Apr-2023 10:00:16.0	yes
07	(6) WISEJ201547.05+664646.0	ACS/WFC	1	18-Apr-2023 10:00:17.0	yes
09	(6) WISEJ201547.05+664646.0	ACS/WFC	1	18-Apr-2023 10:00:17.0	yes
10	(6) WISEJ201547.05+664646.0	ACS/WFC	1	18-Apr-2023 10:00:17.0	yes
08	(6) WISEJ201547.05+664646.0	ACS/WFC	1	18-Apr-2023 10:00:18.0	yes
11	(7) WISEPCJ201546.27+664645.1	ACS/WFC	1	18-Apr-2023 10:00:18.0	yes

<i>Visit</i>	<i>Targets used in Visit</i>	<i>Configurations used in Visit</i>	<i>Orbits Used</i>	<i>Last Orbit Planner Run</i>	<i>OP Current with Visit?</i>
12	(7) WISEPCJ201546.27+664645.1	ACS/WFC	1	18-Apr-2023 10:00:19.0	yes

12 Total Orbits Used

ABSTRACT

We propose a 3-year orbit monitoring program to measure the first dynamical masses for brown dwarfs below 1100 K. With projected separations of only 1-2 AU, our targets are among the tightest substellar visual binaries ever found and are amenable to orbit determinations within only a few years. When combined with our parallax determinations, these data will yield dynamical masses with <10% uncertainties. Our targets have been discovered at the limits of existing facilities and thus promise to be the only viable objects in this temperature regime (350-1000 K) for direct mass measurements during the JWST era.

OBSERVING DESCRIPTION

The goal of our observations is to obtain precise relative astrometry (~3-5 mas) for six brown dwarf binaries. Our data spanning 3 cycles will allow us to determine their orbits and thereby measure their dynamical masses. ACS/WFC enables a finer pixel scale than WFC3/IR and better sensitivity than WFC3/UVIS, both of which (high SNR, and better deblending of our tight 0.07"-0.11" binaries) are key to achieving our science goals.

We use a standard 3-position dither sequence to guard against cosmic rays and to sample different parts of the detector in case our target lands on a bad pixel in a single pointing. We set the exposure times to fill the time available in each visit, which will yield SNR of ~30 for our faintest target (WISE0146, J=20.7) and will still be far from saturating any other of our sources in F850LP (the brightest is J=16.4).

Proposal 15944 - WISE0146 Epoch 3 (01) - The Coolest Sample of Brown Dwarf Dynamical Masses

Tue Apr 18 14:00:19 GMT 2023

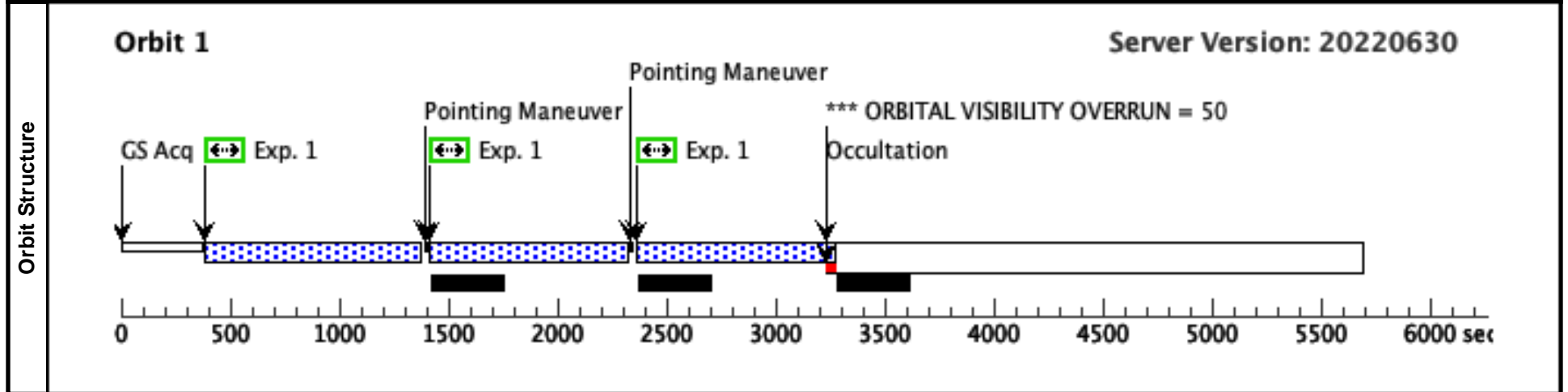
Visit	Proposal 15944, WISE0146 Epoch 3 (01), completed Diagnostic Status: Warning Scientific Instruments: ACS/WFC Special Requirements: AFTER 01-JUL-2020:00:00:00
	(WISE0146 Epoch 3 (01)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Diagnosics	(WISE0146 Epoch 3 (01)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN
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#	Primary Pattern	Secondary Pattern	Exposures
(1)	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=3 Point Spacing=3.011 Line Spacing= Coordinate Frame=POS-TARG Pattern Orientation=85.28 Angle Between Sides= Center Pattern=false		(1)

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	WISEJ014656.66+423410.0	RA: 01 46 56.6400 (26.7360000d) Dec: +42 34 9.05 (42.56918d) Equinox: J2000		V=(?) J=20.7 mag	Reference Frame: ICRS
<i>Comments:</i> Category=STAR Description=[BROWN DWARF, T]					

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(1) WISEJ014656.66+423410.0	ACS/WFC, ACCUM, WFC1-CTE	F850LP			Pattern 1, Exps 1-1 in WISE0146 Epoch 3 (01) (1)	700 Secs (2361 Secs) [=>787.0 Secs (Pattern 1)] [=>787.0 Secs (Pattern 2)] [=>787.0 Secs (Pattern 3)]	[1]



Proposal 15944 - WISE0906 Epoch 5 (02) - The Coolest Sample of Brown Dwarf Dynamical Masses

Tue Apr 18 14:00:19 GMT 2023

Visit	Proposal 15944, WISE0906 Epoch 5 (02), completed Diagnostic Status: Warning Scientific Instruments: ACS/WFC Special Requirements: BETWEEN 15-NOV-2019:00:00:00 AND 30-JAN-2020:00:00:00									
	(WISE0906 Epoch 5 (02)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN									
Diagnosics										
Patterns	#	Primary Pattern		Secondary Pattern	Exposures					
	(1)	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=3 Point Spacing=3.011 Line Spacing=		Coordinate Frame=POS-TARG Pattern Orientation=85.28 Angle Between Sides= Center Pattern=false	(1)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(2)	WISEJ090649.35+473538.5	RA: 09 06 49.3310 (136.7055458d) Dec: +47 35 38.11 (47.59392d) Equinox: J2000	Epoch of Position: 2010.5589	V=(?) J=18.2 mag	Reference Frame: ICRS				
Comments: Category=STAR Description=[BROWN DWARF, T]										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(2) WISEJ090649.35+473538.5	ACS/WFC, ACCUM, WFC1-CTE	F850LP				Pattern 1, Exps 1-1 in WISE0906 Epoch 5 (02) (1) 700 Secs (2406 Secs) [=>802.0 Secs (Pattern 1)] [=>802.0 Secs (Pattern 2)] [=>802.0 Secs (Pattern 3)]	[1]
Orbit Structure	Server Version: 20220630 ORBITAL VISIBILITY OVERRUN = 48									
	<p>Orbit 1</p> <p>GS Acq → Exp. 1 → Pointing Maneuver → Exp. 1 → Pointing Maneuver*** → Occultation</p> <p>Timeline (sec): 0, 500, 1000, 1500, 2000, 2500, 3000, 3500, 4000, 4500, 5000, 5500, 6000</p>									

Proposal 15944 - WISE0906 Epoch 6 (03) - The Coolest Sample of Brown Dwarf Dynamical Masses

Tue Apr 18 14:00:19 GMT 2023

Visit	Proposal 15944, WISE0906 Epoch 6 (03), completed Diagnostic Status: Warning Scientific Instruments: ACS/WFC Special Requirements: AFTER 15-NOV-2020:00:00:00									
	(WISE0906 Epoch 6 (03)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN									
Diagnosics										
Patterns	#	Primary Pattern		Secondary Pattern	Exposures					
	(1)	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=3 Point Spacing=3.011 Line Spacing=		Coordinate Frame=POS-TARG Pattern Orientation=85.28 Angle Between Sides= Center Pattern=false	(1)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(2)	WISEJ090649.35+473538.5	RA: 09 06 49.3310 (136.7055458d) Dec: +47 35 38.11 (47.59392d) Equinox: J2000	Epoch of Position: 2010.5589	V=(?) J=18.2 mag	Reference Frame: ICRS				
Comments: Category=STAR Description=[BROWN DWARF, T]										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(2) WISEJ090649.35+473538.5	ACS/WFC, ACCUM, WFC1-CTE	F850LP				Pattern 1, Exps 1-1 in WISE0906 Epoch 6 (03) (1) 700 Secs (2406 Secs) [=>802.0 Secs (Pattern 1)] [=>802.0 Secs (Pattern 2)] [=>802.0 Secs (Pattern 3)]	[1]
Orbit Structure	Orbit 1 Server Version: 20220630									
	<p>The diagram shows a timeline from 0 to 6000 seconds. Key events include: GS Acq at ~400s, three exposures (Exp. 1) at ~450s, ~1450s, and ~2450s, pointing maneuvers at ~1450s and ~2450s, and an occultation starting at ~3300s. A red vertical line marks the start of the occultation, and a text label indicates '*** ORBITAL VISIBILITY OVERRUN = 48'.</p>									

Proposal 15944 - WISE0952 Epoch 3 (04) - The Coolest Sample of Brown Dwarf Dynamical Masses

Tue Apr 18 14:00:19 GMT 2023

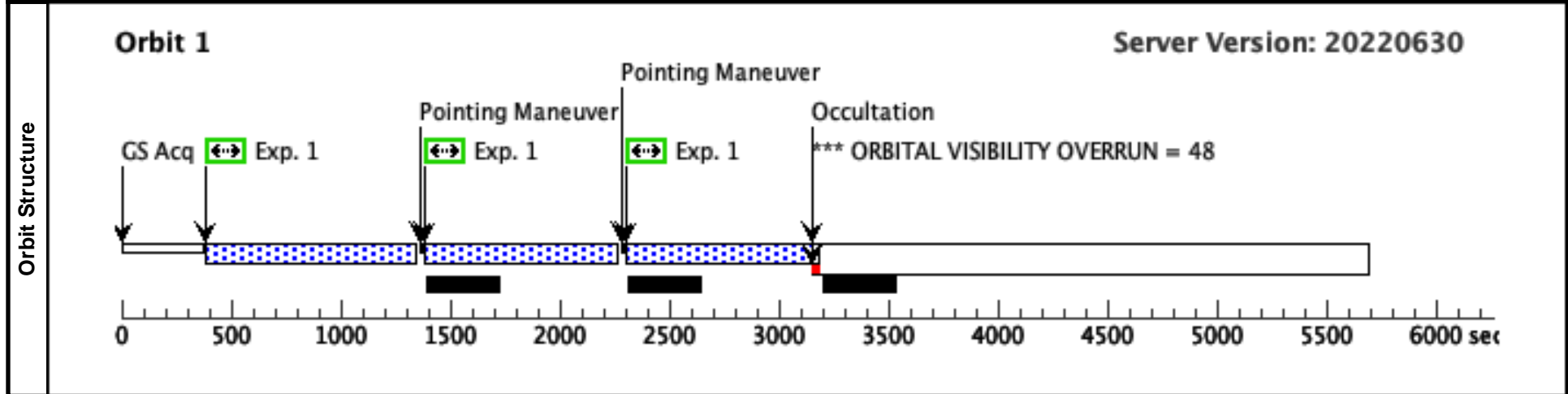
Visit	Proposal 15944, WISE0952 Epoch 3 (04), completed Diagnostic Status: Warning Scientific Instruments: ACS/WFC Special Requirements: AFTER 01-MAR-2020:00:00:00

Diagnostics	(WISE0952 Epoch 3 (04)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN
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Patterns	#	Primary Pattern	Secondary Pattern	Exposures
	(1)	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=3 Point Spacing=3.011 Line Spacing= Coordinate Frame=POS-TARG Pattern Orientation=85.28 Angle Between Sides= Center Pattern=false		(1)

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(3)	WISEJ095259.29+195508.1	RA: 09 52 59.2927 (148.2470529d) Dec: +19 55 8.20 (19.91894d) Equinox: J2000	Epoch of Position: 2010.5589	V=(?) J=17.1 mag	Reference Frame: ICRS
	<i>Comments:</i> Category=STAR Description=[BROWN DWARF, T]					

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(3) WISEJ095259.29+195508.1	ACS/WFC, ACCUM, WFC1-CTE	F850LP			Pattern 1, Exps 1-1 in WISE0952 Epoch 3 (04) (1)	700 Secs (2277 Secs) [=>759.0 Secs (Pattern 1)] [=>759.0 Secs (Pattern 2)] [=>759.0 Secs (Pattern 3)]	[1]



Proposal 15944 - CFBDSIR1458 Epoch 3 (05) - The Coolest Sample of Brown Dwarf Dynamical Masses

Tue Apr 18 14:00:19 GMT 2023

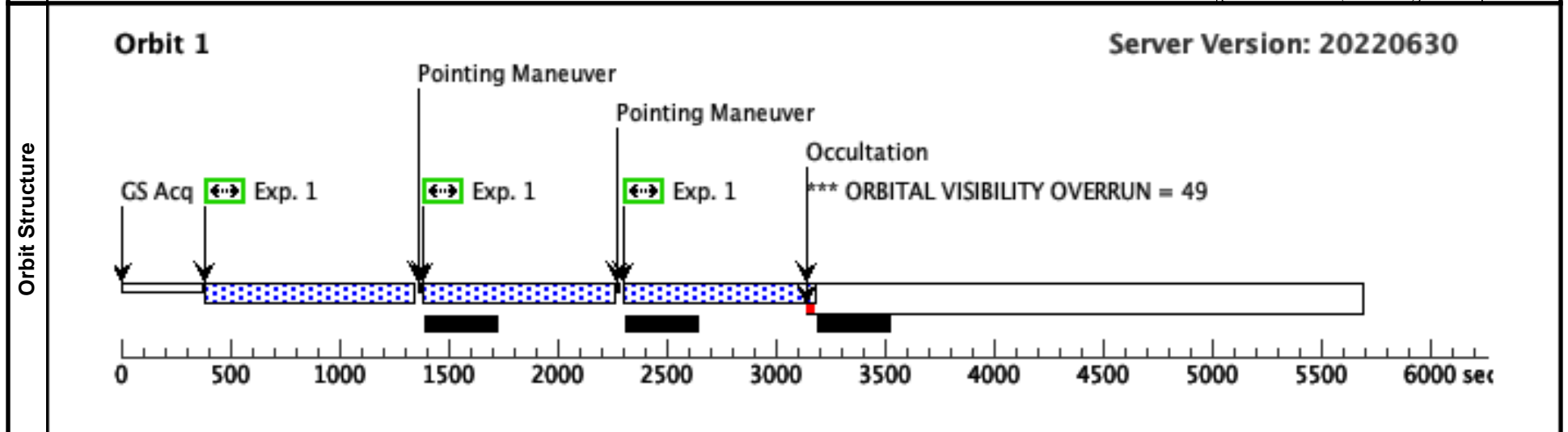
Visit	Proposal 15944, CFBDSIR1458 Epoch 3 (05), completed Diagnostic Status: Warning Scientific Instruments: ACS/WFC Special Requirements: AFTER 15-JUN-2020:00:00:00

Diagnostics	(CFBDSIR1458 Epoch 3 (05)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN
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Patterns	#	Primary Pattern	Secondary Pattern	Exposures
	(1)	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=3 Point Spacing=3.011 Line Spacing= Coordinate Frame=POS-TARG Pattern Orientation=85.28 Angle Between Sides= Center Pattern=false		(1)

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(4)	CFBDSIRJ1458+10AB	RA: 14 58 29.3963 (224.6224846d) Dec: +10 13 41.65 (10.22824d) Equinox: J2000	Epoch of Position: 2010.5589	V=(?) z'(AB)=23.6 mag, J=19.7 mag	Reference Frame: ICRS
	<i>Comments:</i> Category=STAR Description=[BROWN DWARF, T]					

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(4) CFBDSIRJ1458+10AB	ACS/WFC, ACCUM, WFC1-CTE	F850LP			Pattern 1, Exps 1-1 in CFBDSIR1458 Epoch 3 (05) (1)	700 Secs (2271 Secs) [=>757.0 Secs (Pattern 1)] [=>757.0 Secs (Pattern 2)] [=>757.0 Secs (Pattern 3)]	[1]



Proposal 15944 - WISE1622 Epoch 3 (06) - The Coolest Sample of Brown Dwarf Dynamical Masses

Tue Apr 18 14:00:20 GMT 2023

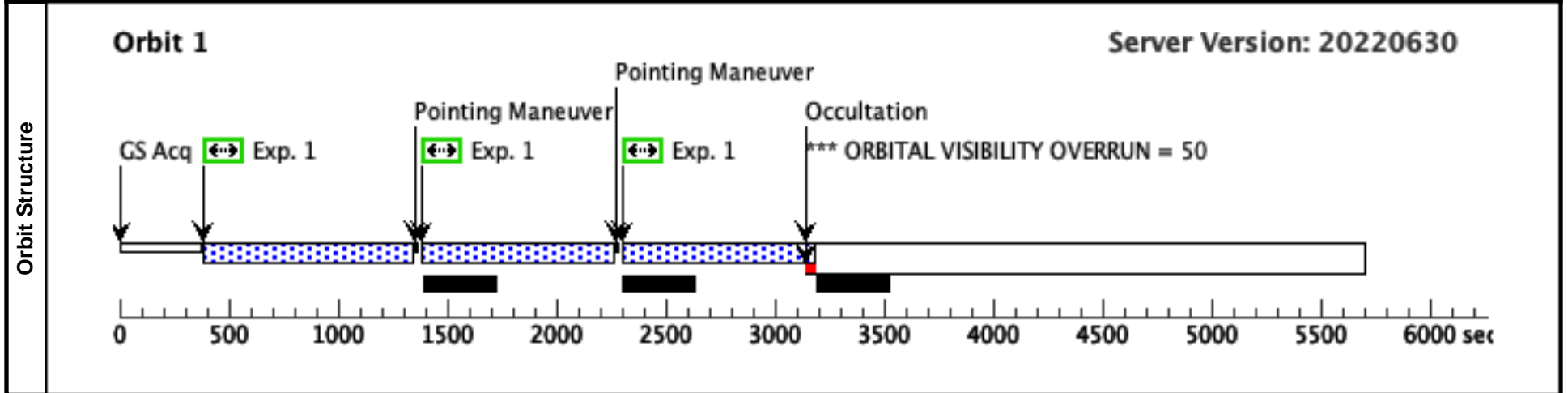
Visit	Proposal 15944, WISE1622 Epoch 3 (06), completed Diagnostic Status: Warning Scientific Instruments: ACS/WFC Special Requirements: AFTER 15-JUN-2020:00:00:00
	(WISE1622 Epoch 3 (06)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Diagnostics	(WISE1622 Epoch 3 (06)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN

Patterns	#	Primary Pattern	Secondary Pattern	Exposures
	(1)	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=3 Point Spacing=3.011 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=85.28 Angle Between Sides= Center Pattern=false	

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(5)	WISEJ162208.93-095934.4	RA: 16 22 8.9377 (245.5372404d) Dec: -09 59 34.77 (-9.99299d) Equinox: J2000	Epoch of Position: 2010.5589	V=(?) J=16.4 mag	Reference Frame: ICRS
<i>Comments:</i> Category=STAR Description=[BROWN DWARF, T]						

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(5) WISEJ162208.93-095934.4	ACS/WFC, ACCUM, WFC1-CTE	F850LP				Pattern 1, Exps 1-1 in WISE1622 Epoch 3 (06) (1)	700 Secs (2268 Secs) [=>756.0 Secs (Pattern 1)] [=>756.0 Secs (Pattern 2)] [=>756.0 Secs (Pattern 3)]



Proposal 15944 - WISE2015 Epoch 5 (07) - The Coolest Sample of Brown Dwarf Dynamical Masses

Tue Apr 18 14:00:20 GMT 2023

Visit	Proposal 15944, WISE2015 Epoch 5 (07), failed Diagnostic Status: Warning Scientific Instruments: ACS/WFC Special Requirements: BETWEEN 08-FEB-2020:00:00:00 AND 02-MAR-2020:00:00:00									
	(WISE2015 Epoch 5 (07)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN									
Diagnosics										
Patterns	#	Primary Pattern		Secondary Pattern	Exposures					
	(1)	Pattern Type=ACS-WFC-DITHER- LINE Purpose=DITHER Number Of Points=3 Point Spacing=3.011 Line Spacing=		Coordinate Frame=POS-TARG Pattern Orientation=85.28 Angle Between Sides= Center Pattern=false	(1)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(6)	WISEJ201547.05+664646.0	RA: 20 15 46.4493 (303.9435387d) Dec: +66 46 45.19 (66.77922d) Equinox: J2000	Epoch of Position: 2010.5589	V=(?) J=16.9 mag	Reference Frame: ICRS				
Comments: Category=STAR Description=[BROWN DWARF, T]										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(6) WISEJ201547.05+664646.0	ACS/WFC, ACCUM, WFC1-CTE	F850LP				Pattern 1, Exps 1-1 i n WISE2015 Epoch 5 (07) (1)	700 Secs (2607 Secs) [=>869.0 Secs (Pattern 1)] [=>869.0 Secs (Pattern 2)] [=>869.0 Secs (Pattern 3)]
Orbit Structure	Server Version: 20220630									
	<p>Orbit 1</p> <p> GS Acq → Exp. 1 → Pointing Maneuver → Exp. 1 → Pointing Maneuver → Exp. 1 → Occultation → *** ORBITAL VISIBILITY OVERRUN = 48 </p> <p>The diagram shows a horizontal timeline from 0 to 6000 seconds. A blue checkered bar represents the observation period, starting at approximately 400s and ending at 3500s. Three green boxes labeled 'Exp. 1' are positioned at approximately 400s, 1500s, and 2500s. Two black bars labeled 'Pointing Maneuver' are located at approximately 1500s and 2500s. A red bar labeled 'Occultation' is at approximately 3500s. A red bar at the end of the timeline, from 3500s to 3900s, is labeled '*** ORBITAL VISIBILITY OVERRUN = 48'.</p>									

Proposal 15944 - WISE2015 Epoch 5 (09) - The Coolest Sample of Brown Dwarf Dynamical Masses

Tue Apr 18 14:00:20 GMT 2023

Visit	Proposal 15944, WISE2015 Epoch 5 (09), failed Diagnostic Status: Warning Scientific Instruments: ACS/WFC Special Requirements: BEFORE 10-AUG-2020:00:00:00									
	(WISE2015 Epoch 5 (09)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN									
Diagnosics										
Patterns	#	Primary Pattern		Secondary Pattern	Exposures					
	(1)	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=3 Point Spacing=3.011 Line Spacing=		Coordinate Frame=POS-TARG Pattern Orientation=85.28 Angle Between Sides= Center Pattern=false	(1)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(6)	WISEJ201547.05+664646.0	RA: 20 15 46.4493 (303.9435387d) Dec: +66 46 45.19 (66.77922d) Equinox: J2000	Epoch of Position: 2010.5589	V=(?) J=16.9 mag	Reference Frame: ICRS				
Comments: Category=STAR Description=[BROWN DWARF, T]										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(6) WISEJ201547.05+664646.0	ACS/WFC, ACCUM, WFC1-CTE	F850LP				Pattern 1, Exps 1-1 in WISE2015 Epoch 5 (09) (1) 700 Secs (2607 Secs) [==>869.0 Secs (Pattern 1)] [==>869.0 Secs (Pattern 2)] [==>869.0 Secs (Pattern 3)]	[1]
Orbit Structure	Server Version: 20220630									
	<p>Orbit 1</p> <p>GS Acq → Exp. 1 → Pointing Maneuver → Exp. 1 → Pointing Maneuver → Exp. 1 → Occultation → *** ORBITAL VISIBILITY OVERRUN = 48</p> <p>The diagram shows a horizontal timeline from 0 to 6000 seconds. Key events are marked with arrows: GS Acq at ~400s, three 'Exp. 1' exposures at ~450s, ~1500s, and ~2500s, two 'Pointing Maneuver' events at ~1500s and ~2500s, and an 'Occultation' event at ~3500s. A red bar at the end of the timeline from ~3500s to ~3900s is labeled '*** ORBITAL VISIBILITY OVERRUN = 48'. The timeline is divided into segments by vertical lines, and the x-axis is labeled '0', '500', '1000', '1500', '2000', '2500', '3000', '3500', '4000', '4500', '5000', '5500', '6000 sec'.</p>									

Proposal 15944 - WISE2015 Epoch 5 (10) - The Coolest Sample of Brown Dwarf Dynamical Masses

Tue Apr 18 14:00:20 GMT 2023

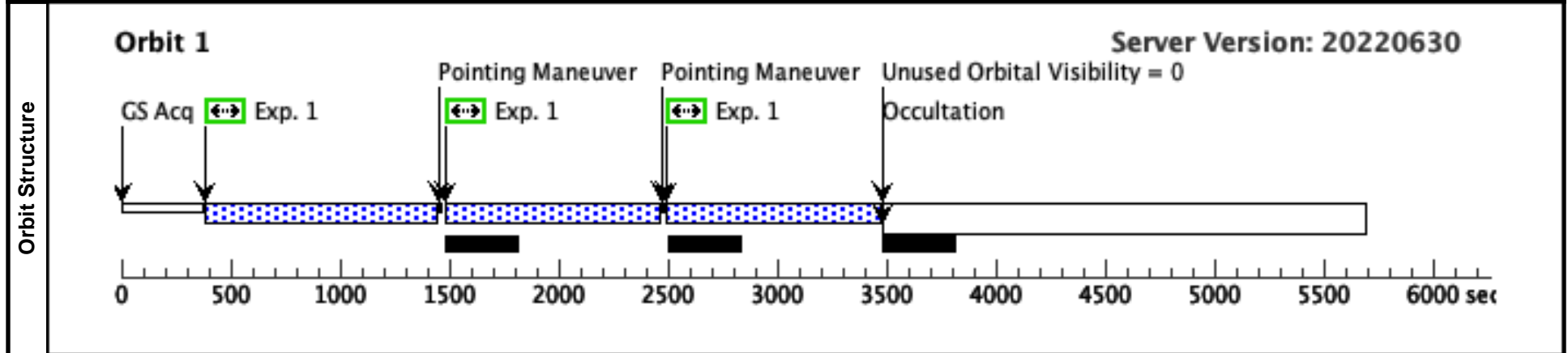
Visit	Proposal 15944, WISE2015 Epoch 5 (10), completed		
	Diagnostic Status: No Diagnostics		
	Scientific Instruments: ACS/WFC		
	Special Requirements: (none)		

Patterns	#	Primary Pattern	Secondary Pattern	Exposures
	(1)	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=3 Point Spacing=3.011 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=85.28 Angle Between Sides= Center Pattern=false	

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(6)	WISEJ201547.05+664646.0	RA: 20 15 46.4493 (303.9435387d) Dec: +66 46 45.19 (66.77922d) Equinox: J2000	Epoch of Position: 2010.5589	V=(?) J=16.9 mag	Reference Frame: ICRS

Comments:
 Category=STAR
 Description=[BROWN DWARF, T]

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(6) WISEJ201547.05+664646.0	ACS/WFC, ACCUM, WFC1-CTE	F850LP				Pattern 1, Exps 1-1 in WISE2015 Epoch 5 (10) (1)	700 Secs (2559 Secs) [=>853.0 Secs (Pattern 1)] [=>853.0 Secs (Pattern 2)] [=>853.0 Secs (Pattern 3)]



Proposal 15944 - WISE2015 Epoch 6 (08) - The Coolest Sample of Brown Dwarf Dynamical Masses

Tue Apr 18 14:00:20 GMT 2023

Visit	Proposal 15944, WISE2015 Epoch 6 (08), failed Diagnostic Status: Warning Scientific Instruments: ACS/WFC Special Requirements: AFTER 10 BY 365 D TO 999 D									
	(WISE2015 Epoch 6 (08)) Warning (Orbit Planner): ORBITAL VISIBILITY OVERRUN									
Diagnosics										
Patterns	#	Primary Pattern		Secondary Pattern	Exposures					
	(1)	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=3 Point Spacing=3.011 Line Spacing=		Coordinate Frame=POS-TARG Pattern Orientation=85.28 Angle Between Sides= Center Pattern=false	(1)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(6)	WISEJ201547.05+664646.0	RA: 20 15 46.4493 (303.9435387d) Dec: +66 46 45.19 (66.77922d) Equinox: J2000	Epoch of Position: 2010.5589	V=(?) J=16.9 mag	Reference Frame: ICRS				
Comments: Category=STAR Description=[BROWN DWARF, T]										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(6) WISEJ201547.05+664646.0	ACS/WFC, ACCUM, WFC1-CTE	F850LP				Pattern 1, Exps 1-1 in WISE2015 Epoch 6 (08) (1) 700 Secs (2607 Secs) [=>869.0 Secs (Pattern 1)] [=>869.0 Secs (Pattern 2)] [=>869.0 Secs (Pattern 3)]	[1]
Orbit Structure	Server Version: 20220630									
	<p>Orbit 1</p> <p>Timeline labels: GS Acq, Exp. 1, Pointing Maneuver, Exp. 1, Pointing Maneuver, Exp. 1, Occultation, *** ORBITAL VISIBILITY OVERRUN = 48</p> <p>X-axis: 0, 500, 1000, 1500, 2000, 2500, 3000, 3500, 4000, 4500, 5000, 5500, 6000 sec</p>									

Proposal 15944 - WISE2015 Epoch 6 Repeat (11) - The Coolest Sample of Brown Dwarf Dynamical Masses

Tue Apr 18 14:00:20 GMT 2023

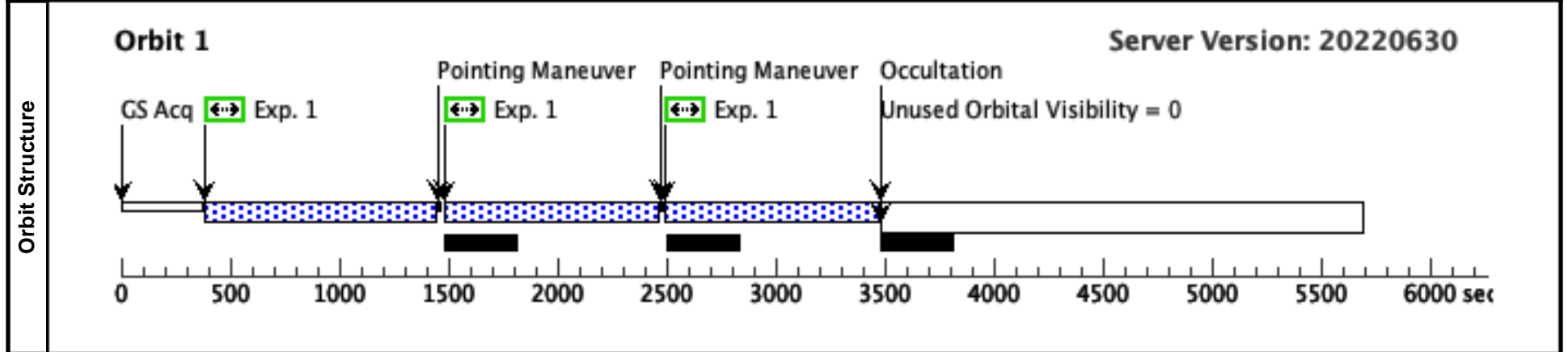
Visit	Proposal 15944, WISE2015 Epoch 6 Repeat (11), failed Diagnostic Status: No Diagnostics Scientific Instruments: ACS/WFC Special Requirements: AFTER 10 BY 365 D TO 999 D		
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Patterns	#	Primary Pattern	Secondary Pattern	Exposures
	(1)	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=3 Point Spacing=3.011 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=85.28 Angle Between Sides= Center Pattern=false	

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(7)	WISEPCJ201546.27+664645.1	RA: 20 15 46.5384 (303.9439100d) Dec: +66 46 48.90 (66.78025d) Equinox: J2000	Proper Motion RA: 0.290 arcsec/yr Proper Motion Dec: 0.428 arcsec/yr Parallax: 0.43" Epoch of Position: 2020.435	V=(?) J = 16.91	Reference Frame: ICRS

*Comments: Astrometry measured from je4o09010_drz.fits;
 Proper motion and parallax from 2019ApJS..240...19K
 Category=STAR
 Description=[BROWN DWARF, T]
 Extended=NO*

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(7) WISEPCJ201546.27+664645.1	ACS/WFC, ACCUM, WFC1-CTE	F850LP				Pattern 1, Exps 1-1 in WISE2015 Epoch 6 Repeat (11) (1)	700 Secs (2559 Secs) [==>853.0 Secs (Pattern 1)] [==>853.0 Secs (Pattern 2)] [==>853.0 Secs (Pattern 3)]



Proposal 15944 - WISE2015 Epoch 6 Repeat (12) - The Coolest Sample of Brown Dwarf Dynamical Masses

Tue Apr 18 14:00:20 GMT 2023

Visit	Proposal 15944, WISE2015 Epoch 6 Repeat (12)		
	Diagnostic Status: No Diagnostics		
	Scientific Instruments: ACS/WFC		
	Special Requirements: (none)		

Patterns	#	Primary Pattern	Secondary Pattern	Exposures
	(1)	Pattern Type=ACS-WFC-DITHER-LINE Purpose=DITHER Number Of Points=3 Point Spacing=3.011 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=85.28 Angle Between Sides= Center Pattern=false	

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(7)	WISEPCJ201546.27+664645.1	RA: 20 15 46.5384 (303.9439100d) Dec: +66 46 48.90 (66.78025d) Equinox: J2000	Proper Motion RA: 0.290 arcsec/yr Proper Motion Dec: 0.428 arcsec/yr Parallax: 0.43" Epoch of Position: 2020.435	V=(?) J = 16.91	Reference Frame: ICRS

*Comments: Astrometry measured from je4o09010_drz.fits;
 Proper motion and parallax from 2019ApJS..240...19K
 Category=STAR
 Description=[BROWN DWARF, T]
 Extended=NO*

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(7) WISEPCJ201546.27+664645.1	ACS/WFC, ACCUM, WFC1-CTE	F850LP				Pattern 1, Exps 1-1 in WISE2015 Epoch 6 Repeat (12) (1)	700 Secs (2559 Secs) [==>853.0 Secs (Pattern 1)] [==>853.0 Secs (Pattern 2)] [==>853.0 Secs (Pattern 3)]

