



17923 - Correcting for the Effects of the Optical/Near-Infrared Interstellar Extinction Toward the Roman Galactic Exoplanet Survey Fields

Cycle: 32, Proposal Category: GO
(Availability Mode: SUPPORTED)

INVESTIGATORS

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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) GBTDS-HD143	WFC3/IR	1	05-Mar-2025 10:00:15.0	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>
02	(2) GBTDS-HD121	WFC3/IR	1	05-Mar-2025 10:00:16.0	yes
03	(3) GBTDS-LD7	WFC3/IR	1	05-Mar-2025 10:00:17.0	yes
04	(4) GBTDS-LD14	WFC3/IR	1	05-Mar-2025 10:00:17.0	yes
05	(5) GBTDS-LD6	WFC3/IR	1	05-Mar-2025 10:00:18.0	yes
06	(6) GBTDS-HD41	WFC3/IR	1	05-Mar-2025 10:00:19.0	yes
07	(7) GBTDS-LD8	WFC3/IR	1	05-Mar-2025 10:00:19.0	yes
08	(8) GBTDS-HD66	WFC3/IR	1	05-Mar-2025 10:00:20.0	yes
09	(9) GBTDS-HD43	WFC3/IR	1	05-Mar-2025 10:00:20.0	yes
10	(10) GBTDS-HD78	WFC3/IR	1	05-Mar-2025 10:00:21.0	yes
11	(11) GBTDS-HD113	WFC3/IR	1	05-Mar-2025 10:00:21.0	yes
12	(12) GBTDS-HD110	WFC3/IR	1	05-Mar-2025 10:00:22.0	yes
13	(13) GBTDS-HD93	WFC3/IR	1	05-Mar-2025 10:00:23.0	yes
14	(14) GBTDS-LD26	WFC3/IR	1	05-Mar-2025 10:00:24.0	yes

14 Total Orbits Used

ABSTRACT

The upcoming Roman Galactic Exoplanet Survey will revolutionize exoplanet studies: expected detections of up to 200,000 transiting and microlensing planets, including sensitivity to planets with masses as low as Mars for orbital radii of 3 AU. Meaningful interpretation of this bounty will require knowing the properties of the planet-host stars. But, as these stars lie toward the inner Galaxy, foreground extinction will typically be $>10x$ higher than it is toward either of the Kepler or TESS fields. Worryingly, in addition to the high total extinction, the wavelength dependence of the extinction toward the inner Milky Way is known to be both spatially variable and different from the "standard" extinction curve. These factors necessitate a robust three dimensional mapping of the interstellar extinction and the interstellar extinction curve toward the inner Milky Way. We request 7 orbits to measure the interstellar extinction curve for a representative sample of 14 of these sightlines. To break the degeneracies that have previously limited study of this phenomenon, we propose to study the extinction in two bands that are not accessible from the ground (F098M, F139M), complemented with three other bands selected for efficiency and calibration purposes (F127M, F153M, F167N). We select sightlines that will already have deep optical photometry in Hubble's F606W and F814W filters.

This program cannot be implemented with JWST due to numerous bright sources in these sightlines that will severely saturate the detectors, including our preferred targets. The results of this program will enable more robust preparation for observations with Roman.

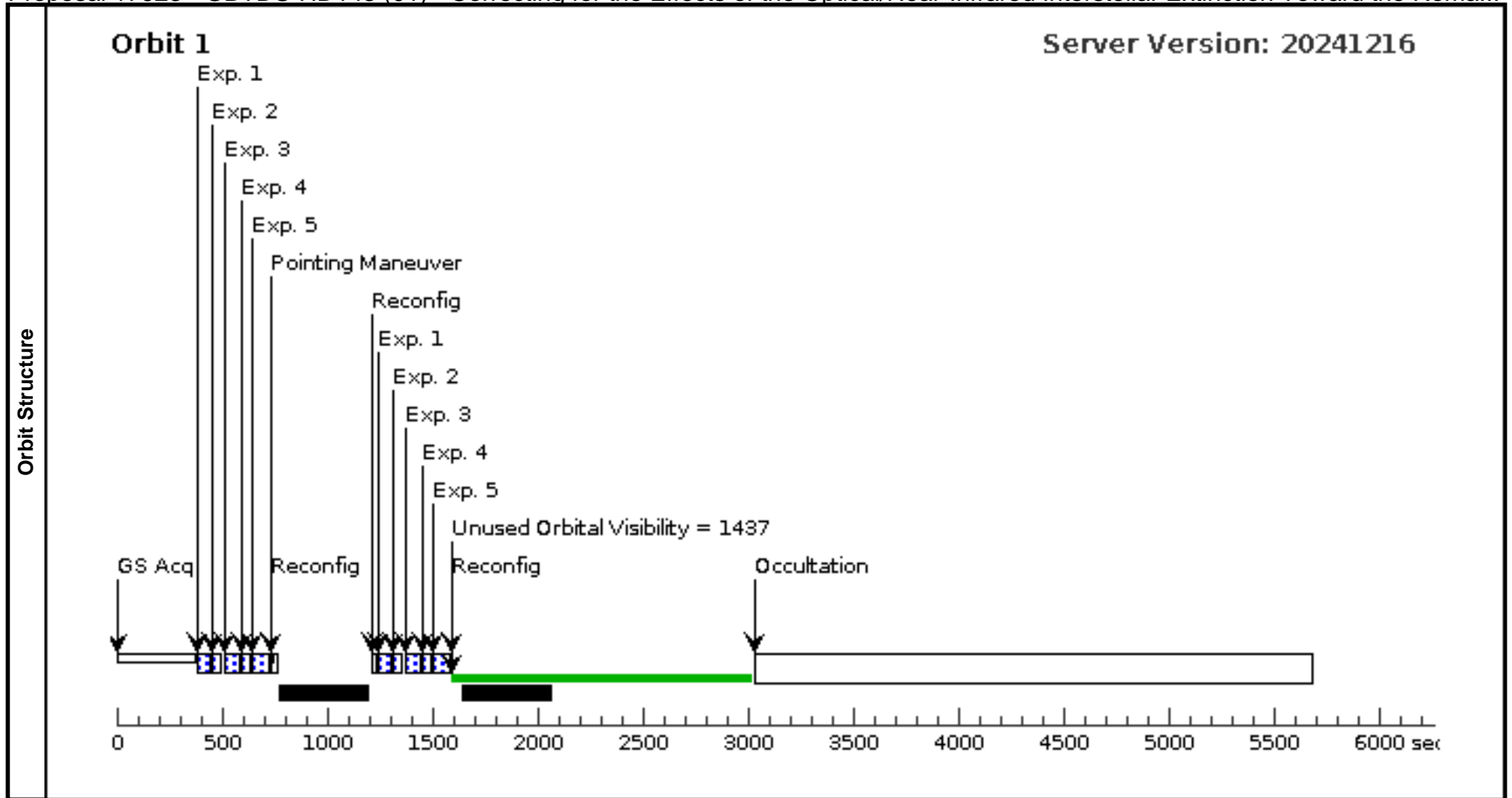
OBSERVING DESCRIPTION

2 observations per orbit

Proposal 17923 - GBTDS-HD143 (01) - Correcting for the Effects of the Optical/Near-Infrared Interstellar Extinction Toward the Roma...

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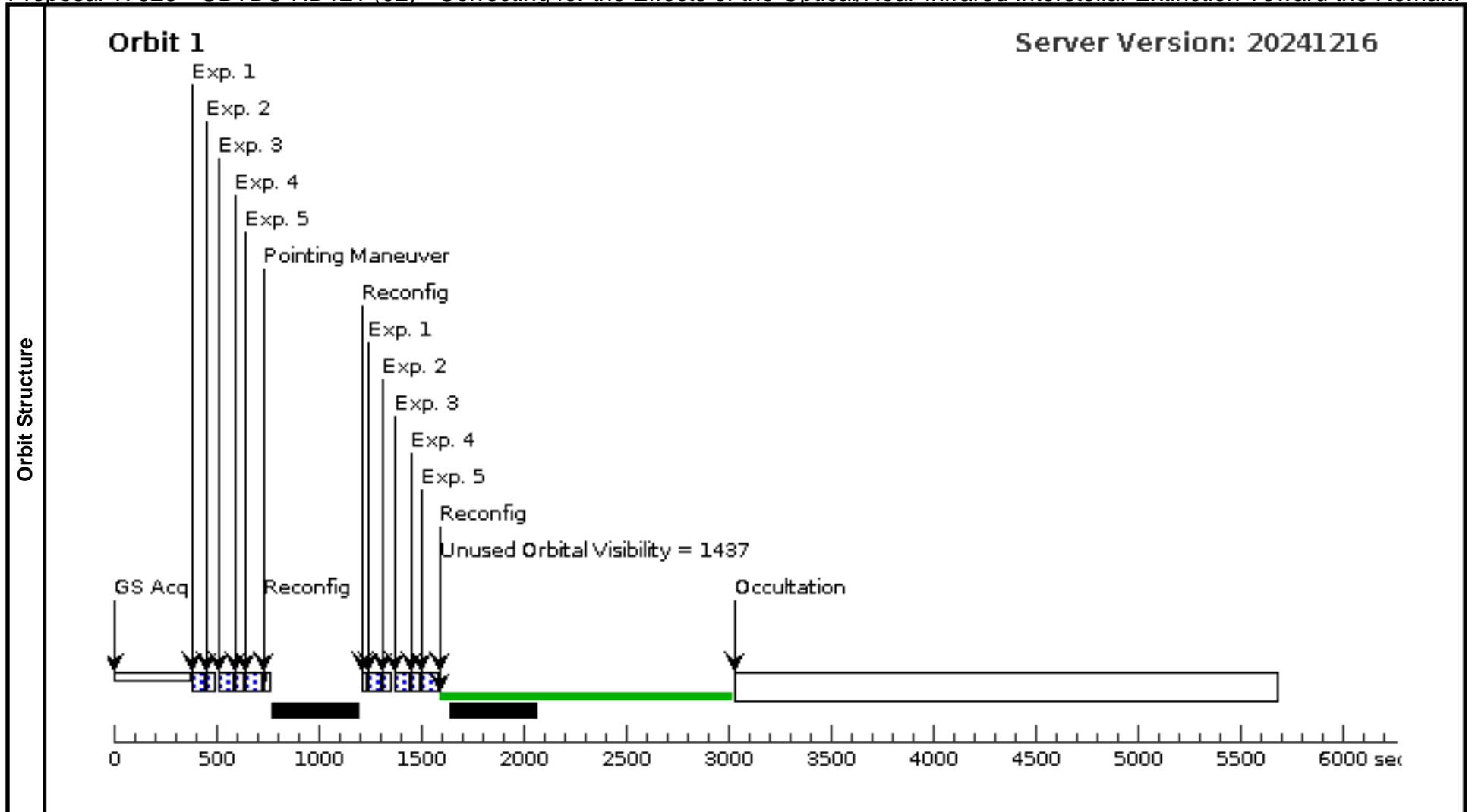
Visit	Proposal 17923, GBTDS-HD143 (01), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: (none) <i>Comments: E(J-Ks)=0.986 (all values from Surot et al., 2020A%26A...644A.140S)</i>									
	Patterns	#	Primary Pattern			Secondary Pattern			Exposures	
		(5)	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false					(1-5)	
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(1)	GBTDS-HD143	RA: 17 49 31.0556 (267.3793983d) Dec: -30 19 19.01 (-30.32195d) Equinox: J2000		V=22	Reference Frame: ICRS				
	<i>Comments: Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO</i>									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	F098M expo sure	(1) GBTDS-HD143	WFC3/IR, MULTIACCUM, IR	F098M	SAMP-SEQ=SPARS 10; NSAMP=4		Pattern 5, Exps 1-5 in GBTDS-HD143 (01) (5)	32.93518 Secs (65.87 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	2	F127M expo sure	(1) GBTDS-HD143	WFC3/IR, MULTIACCUM, IR	F127M	SAMP-SEQ=SPARS 10; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-HD143 (01) (5)	22.934217 Secs (45.868 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	3	F139M expo sure	(1) GBTDS-HD143	WFC3/IR, MULTIACCUM, IR	F139M	SAMP-SEQ=SPARS 25; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-HD143 (01) (5)	52.933321 Secs (105.867 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	4	F153M expo sure	(1) GBTDS-HD143	WFC3/IR, MULTIACCUM, IR	F153M	SAMP-SEQ=SPARS 10; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-HD143 (01) (5)	22.934217 Secs (45.868 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	5	F167N expo sure	(1) GBTDS-HD143	WFC3/IR, MULTIACCUM, IR	F167N	SAMP-SEQ=SPARS 25; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-HD143 (01) (5)	52.933321 Secs (105.867 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]



Proposal 17923 - GBTDS-HD121 (02) - Correcting for the Effects of the Optical/Near-Infrared Interstellar Extinction Toward the Roma...

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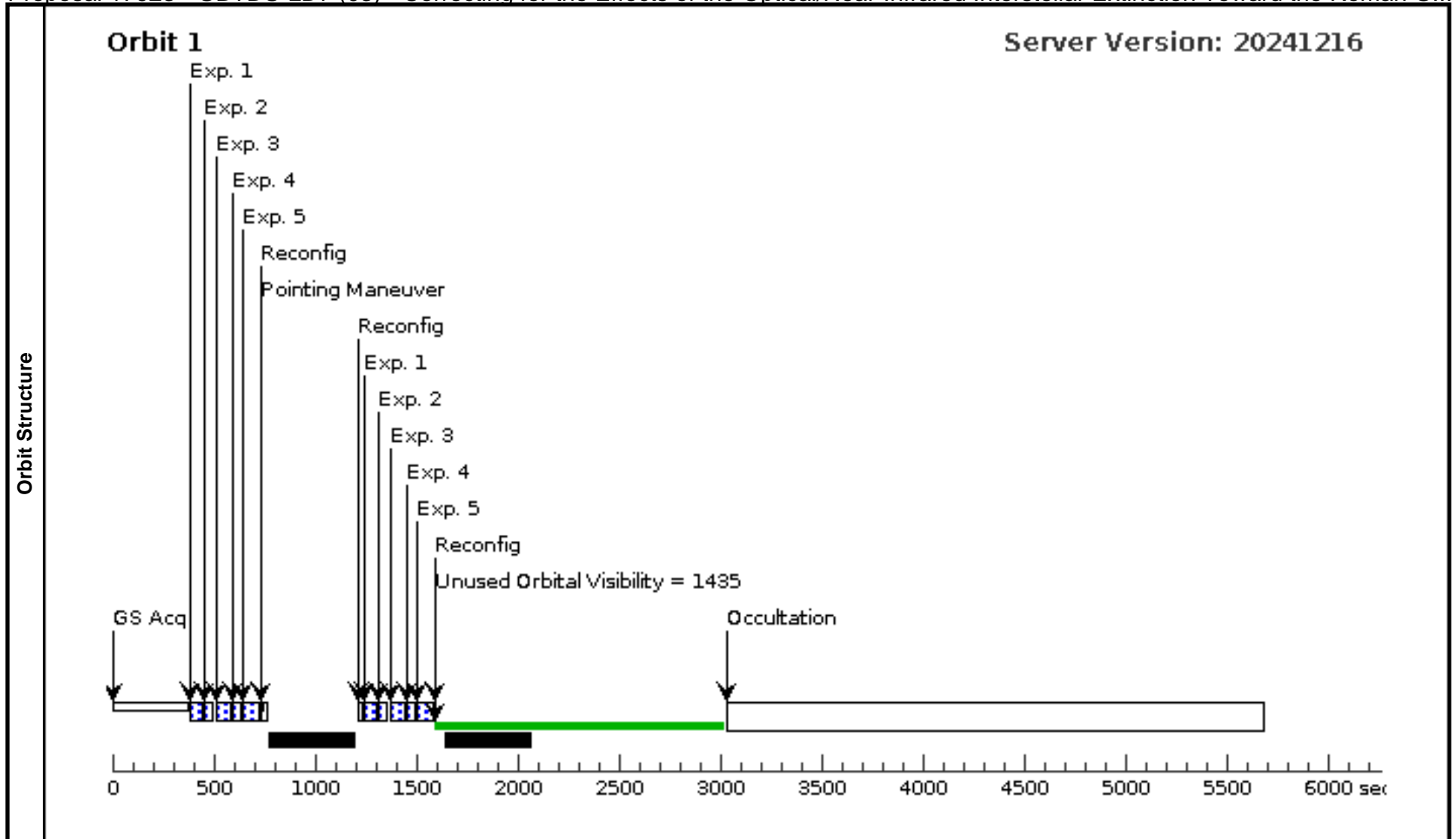
Visit	Proposal 17923, GBTDS-HD121 (02), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: (none) Comments: <i>E(J-Ks)=1.17</i>									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(5)	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false		(1-5)				
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(2)	GBTDS-HD121	RA: 17 49 31.3351 (267.3805629d) Dec: -30 09 13.53 (-30.15376d) Equinox: J2000		V=22	Reference Frame: ICRS				
	Comments: Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	F098M expo sure	(2) GBTDS-HD121	WFC3/IR, MULTIACCUM, IR	F098M	SAMP-SEQ=SPARS 10; NSAMP=4		Pattern 5, Exps 1-5 in GBTDS-HD121 (02) (5)	32.93518 Secs (65.87 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	2	F127M expo sure	(2) GBTDS-HD121	WFC3/IR, MULTIACCUM, IR	F127M	SAMP-SEQ=SPARS 10; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-HD121 (02) (5)	22.934217 Secs (45.868 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	3	F139M expo sure	(2) GBTDS-HD121	WFC3/IR, MULTIACCUM, IR	F139M	SAMP-SEQ=SPARS 25; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-HD121 (02) (5)	52.933321 Secs (105.867 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	4	F153M expo sure	(2) GBTDS-HD121	WFC3/IR, MULTIACCUM, IR	F153M	SAMP-SEQ=SPARS 10; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-HD121 (02) (5)	22.934217 Secs (45.868 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	5	F167N expo sure	(2) GBTDS-HD121	WFC3/IR, MULTIACCUM, IR	F167N	SAMP-SEQ=SPARS 25; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-HD121 (02) (5)	52.933321 Secs (105.867 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]



Proposal 17923 - GBTDS-LD7 (03) - Correcting for the Effects of the Optical/Near-Infrared Interstellar Extinction Toward the Roman G...

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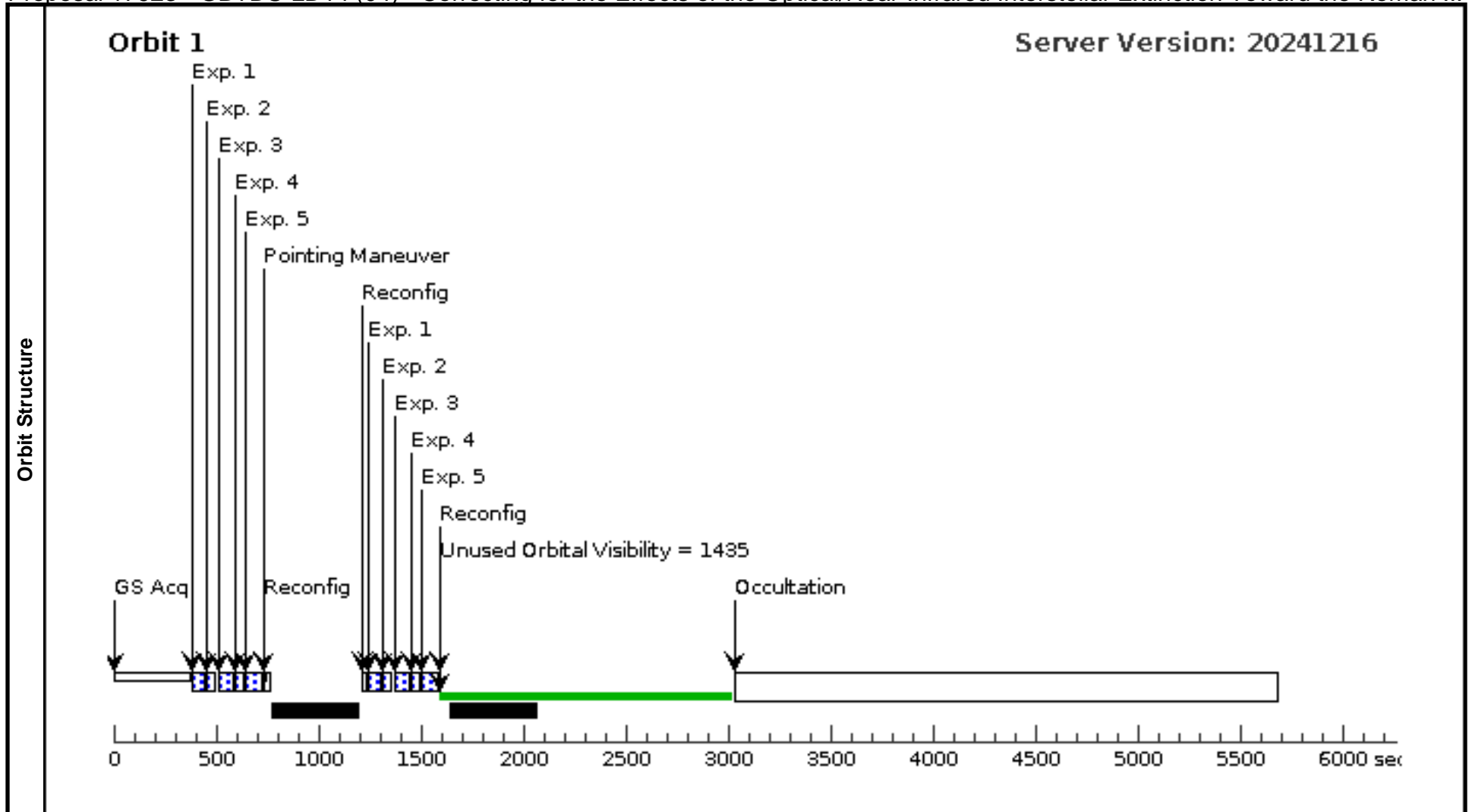
Visit	Proposal 17923, GBTDS-LD7 (03), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: (none) Comments: $E(J-Ks)=1.468$									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(5)	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false		(1-5)				
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(3)	GBTDS-LD7	RA: 17 48 45.4294 (267.1892892d) Dec: -29 54 4.93 (-29.90137d) Equinox: J2000		V=22	Reference Frame: ICRS				
	Comments: Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	F098M expo sure	(3) GBTDS-LD7	WFC3/IR, MULTIACCUM, IR	F098M	SAMP-SEQ=SPARS 10; NSAMP=4		Pattern 5, Exps 1-5 in GBTDS-LD7 (03) (5)	32.93518 Secs (65.87 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	2	F127M expo sure	(3) GBTDS-LD7	WFC3/IR, MULTIACCUM, IR	F127M	SAMP-SEQ=SPARS 10; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-LD7 (03) (5)	22.934217 Secs (45.868 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	3	F139M expo sure	(3) GBTDS-LD7	WFC3/IR, MULTIACCUM, IR	F139M	SAMP-SEQ=SPARS 25; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-LD7 (03) (5)	52.933321 Secs (105.867 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	4	F153M expo sure	(3) GBTDS-LD7	WFC3/IR, MULTIACCUM, IR	F153M	SAMP-SEQ=SPARS 10; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-LD7 (03) (5)	22.934217 Secs (45.868 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	5	F167N expo sure	(3) GBTDS-LD7	WFC3/IR, MULTIACCUM, IR	F167N	SAMP-SEQ=SPARS 25; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-LD7 (03) (5)	52.933321 Secs (105.867 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]



Proposal 17923 - GBTDS-LD14 (04) - Correcting for the Effects of the Optical/Near-Infrared Interstellar Extinction Toward the Roman ...

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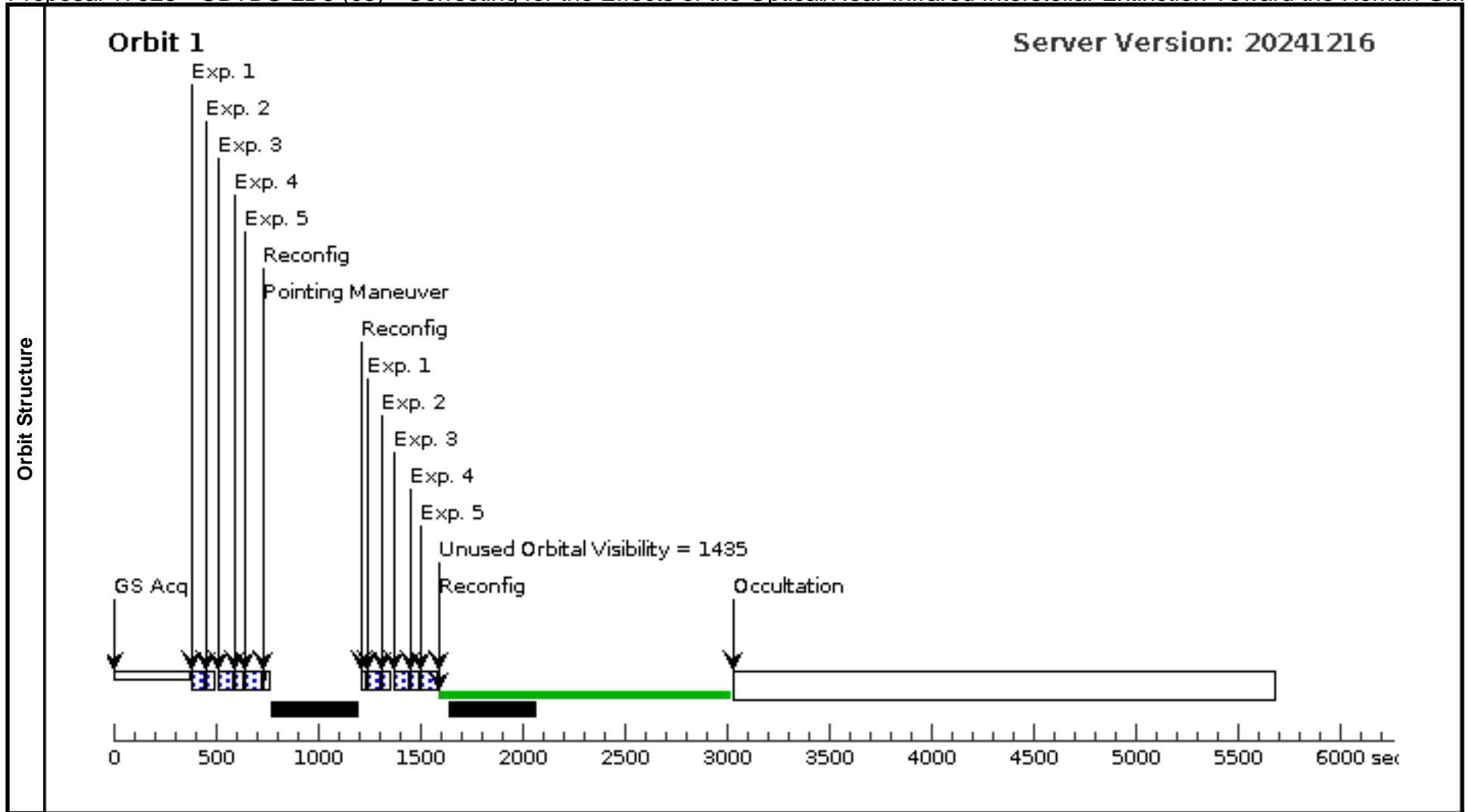
Visit	Proposal 17923, GBTDS-LD14 (04), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: (none) Comments: <i>E(J-Ks)=1.248</i>									
	Patterns	#	Primary Pattern			Secondary Pattern			Exposures	
		(5)	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false						
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(4)	GBTDS-LD14	RA: 17 49 5.4939 (267.2728913d) Dec: -29 53 38.93 (-29.89415d) Equinox: J2000		V=22	Reference Frame: ICRS				
	Comments: Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	F098M expo sure	(4) GBTDS-LD14	WFC3/IR, MULTIACCUM, IR	F098M	SAMP-SEQ=SPARS 10; NSAMP=4		Pattern 5, Exps 1-5 in GBTDS-LD14 (04) (5)	32.93518 Secs (65.87 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	2	F127M expo sure	(4) GBTDS-LD14	WFC3/IR, MULTIACCUM, IR	F127M	SAMP-SEQ=SPARS 10; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-LD14 (04) (5)	22.934217 Secs (45.868 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	3	F139M expo sure	(4) GBTDS-LD14	WFC3/IR, MULTIACCUM, IR	F139M	SAMP-SEQ=SPARS 25; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-LD14 (04) (5)	52.933321 Secs (105.867 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	4	F153M expo sure	(4) GBTDS-LD14	WFC3/IR, MULTIACCUM, IR	F153M	SAMP-SEQ=SPARS 10; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-LD14 (04) (5)	22.934217 Secs (45.868 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	5	F167N expo sure	(4) GBTDS-LD14	WFC3/IR, MULTIACCUM, IR	F167N	SAMP-SEQ=SPARS 25; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-LD14 (04) (5)	52.933321 Secs (105.867 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]



Proposal 17923 - GBTDS-LD6 (05) - Correcting for the Effects of the Optical/Near-Infrared Interstellar Extinction Toward the Roman G...

Wed Mar 05 15:00:24 GMT 2025

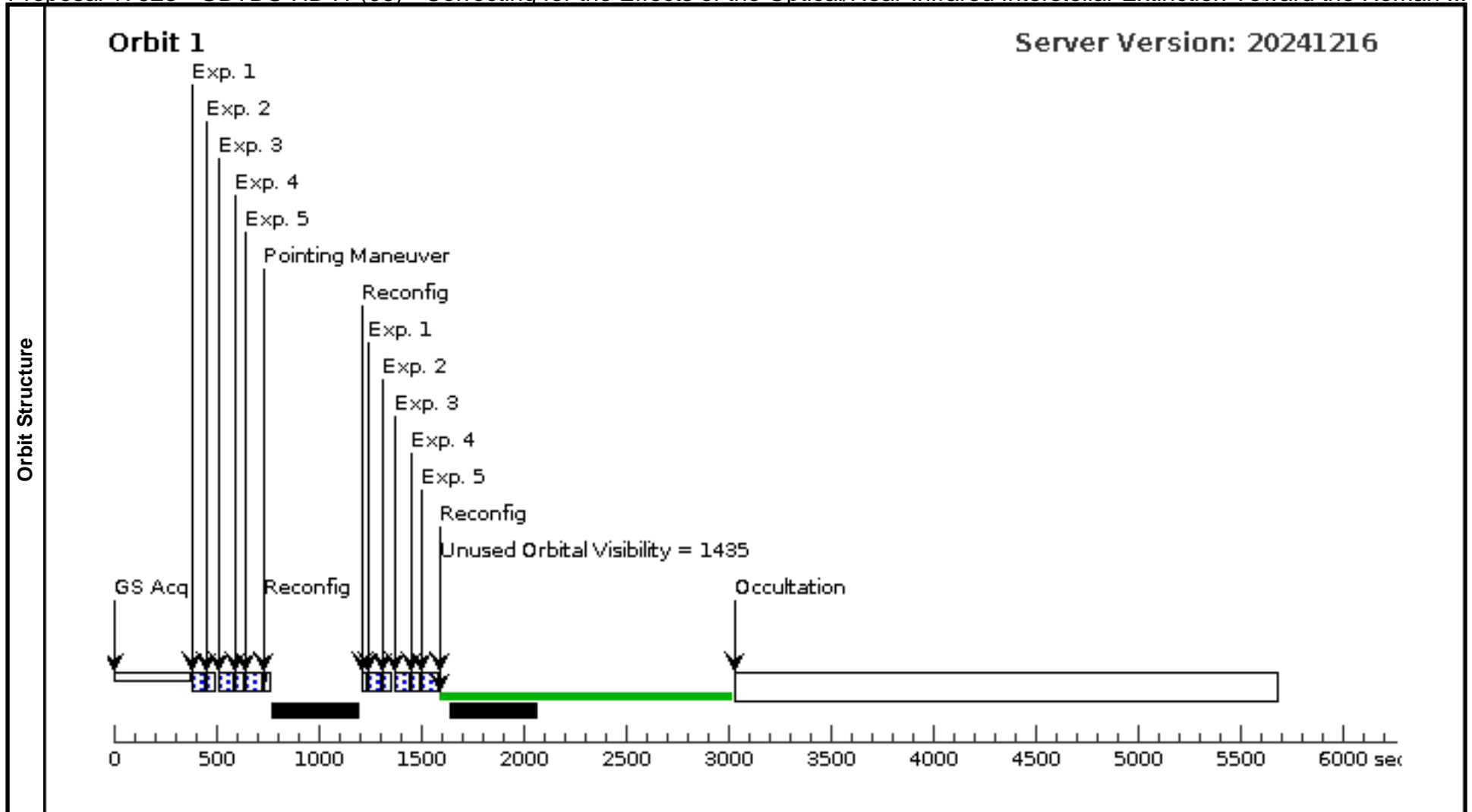
Visit	Proposal 17923, GBTDS-LD6 (05), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: (none) Comments: <i>E(J-Ks)=1.502</i>									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(5)	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false		(1-5)				
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(5)	GBTDS-LD6	RA: 17 49 33.7853 (267.3907721d) Dec: -29 32 35.09 (-29.54308d) Equinox: J2000		V=22	Reference Frame: ICRS				
	Comments: Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	F098M expo sure	(5) GBTDS-LD6	WFC3/IR, MULTIACCUM, IR	F098M	SAMP-SEQ=SPARS 10; NSAMP=4		Pattern 5, Exps 1-5 in GBTDS-LD6 (05) (5)	32.93518 Secs (65.87 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	2	F127M expo sure	(5) GBTDS-LD6	WFC3/IR, MULTIACCUM, IR	F127M	SAMP-SEQ=SPARS 10; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-LD6 (05) (5)	22.934217 Secs (45.868 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	3	F139M expo sure	(5) GBTDS-LD6	WFC3/IR, MULTIACCUM, IR	F139M	SAMP-SEQ=SPARS 25; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-LD6 (05) (5)	52.933321 Secs (105.867 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	4	F153M expo sure	(5) GBTDS-LD6	WFC3/IR, MULTIACCUM, IR	F153M	SAMP-SEQ=SPARS 10; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-LD6 (05) (5)	22.934217 Secs (45.868 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	5	F167N expo sure	(5) GBTDS-LD6	WFC3/IR, MULTIACCUM, IR	F167N	SAMP-SEQ=SPARS 25; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-LD6 (05) (5)	52.933321 Secs (105.867 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]



Proposal 17923 - GBTDS-HD41 (06) - Correcting for the Effects of the Optical/Near-Infrared Interstellar Extinction Toward the Roman ...

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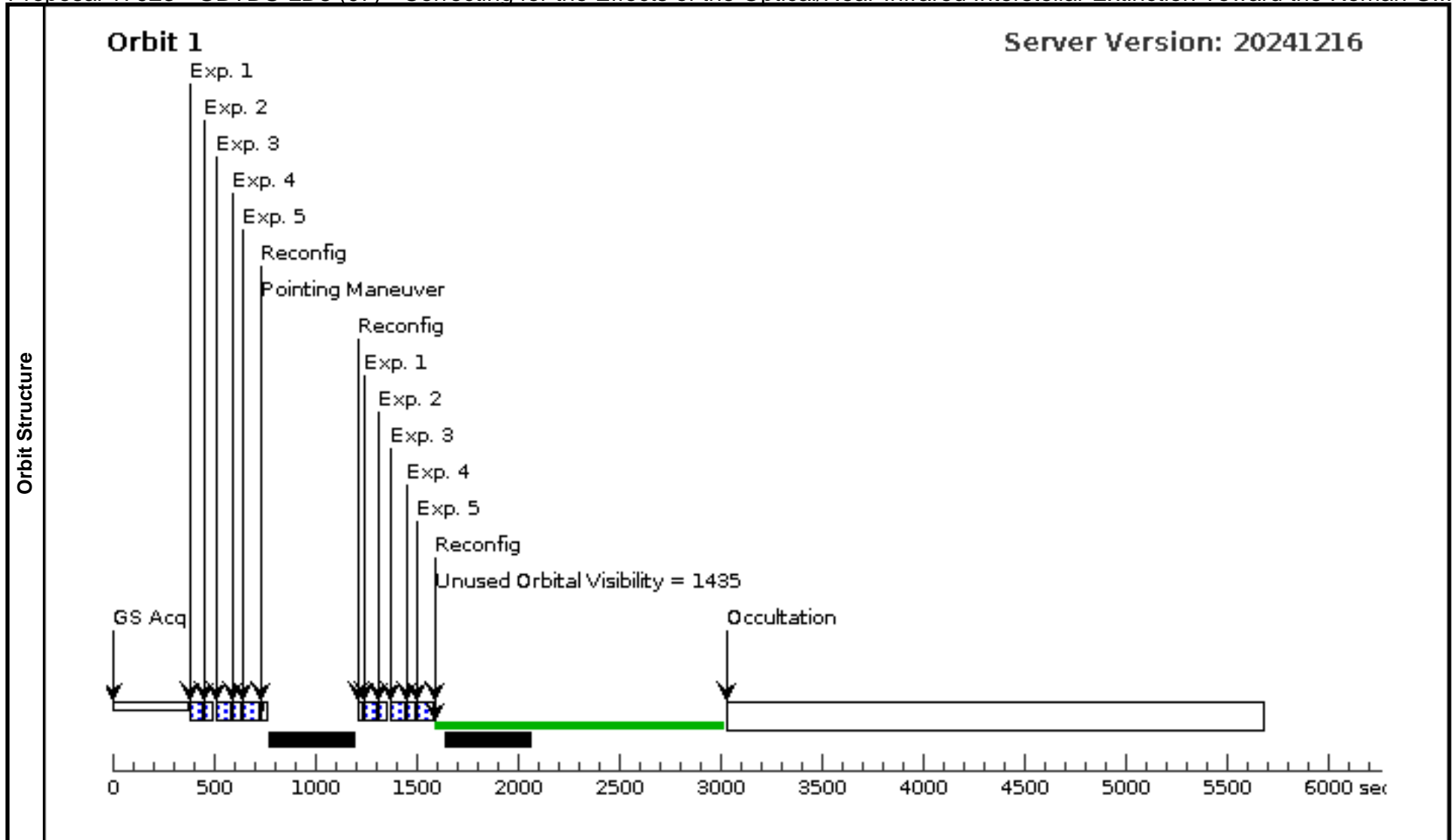
Visit	Proposal 17923, GBTDS-HD41 (06), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: (none) Comments: $E(J-Ks)=0.874$									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(5)	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false		(1-5)				
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(6)	GBTDS-HD41	RA: 17 50 23.2626 (267.5969275d) Dec: -29 36 35.34 (-29.60982d) Equinox: J2000		V=22	Reference Frame: ICRS				
	Comments: Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	F098M expo sure	(6) GBTDS-HD41	WFC3/IR, MULTIACCUM, IR	F098M	SAMP-SEQ=SPARS 10; NSAMP=4		Pattern 5, Exps 1-5 in GBTDS-HD41 (06) (5)	32.93518 Secs (65.87 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	2	F127M expo sure	(6) GBTDS-HD41	WFC3/IR, MULTIACCUM, IR	F127M	SAMP-SEQ=SPARS 10; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-HD41 (06) (5)	22.934217 Secs (45.868 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	3	F139M expo sure	(6) GBTDS-HD41	WFC3/IR, MULTIACCUM, IR	F139M	SAMP-SEQ=SPARS 25; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-HD41 (06) (5)	52.933321 Secs (105.867 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	4	F153M expo sure	(6) GBTDS-HD41	WFC3/IR, MULTIACCUM, IR	F153M	SAMP-SEQ=SPARS 10; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-HD41 (06) (5)	22.934217 Secs (45.868 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	5	F167N expo sure	(6) GBTDS-HD41	WFC3/IR, MULTIACCUM, IR	F167N	SAMP-SEQ=SPARS 25; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-HD41 (06) (5)	52.933321 Secs (105.867 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]



Proposal 17923 - GBTDS-LD8 (07) - Correcting for the Effects of the Optical/Near-Infrared Interstellar Extinction Toward the Roman G...

Wed Mar 05 15:00:24 GMT 2025

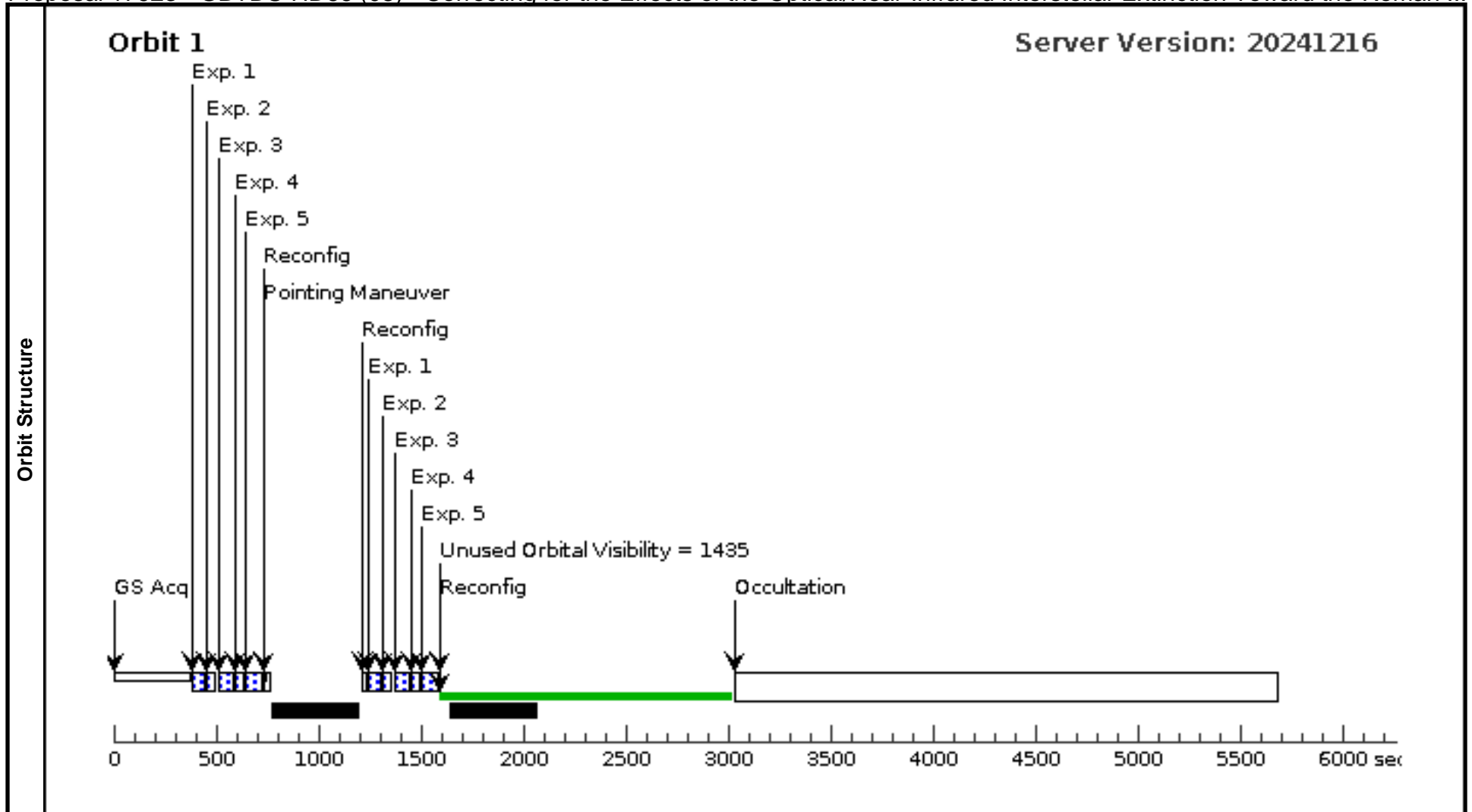
Visit	Proposal 17923, GBTDS-LD8 (07), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: (none) Comments: E(J-Ks)=1.21									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
	(5)	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false		(1-5)					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(7)	GBTDS-LD8	RA: 17 49 52.7656 (267.4698567d) Dec: -29 25 34.30 (-29.42619d) Equinox: J2000		V=22	Reference Frame: ICRS				
	Comments: Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	F098M expo sure	(7) GBTDS-LD8	WFC3/IR, MULTIACCUM, IR	F098M	SAMP-SEQ=SPARS 10; NSAMP=4		Pattern 5, Exps 1-5 in GBTDS-LD8 (07) (5)	32.93518 Secs (65.87 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	2	F127M expo sure	(7) GBTDS-LD8	WFC3/IR, MULTIACCUM, IR	F127M	SAMP-SEQ=SPARS 10; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-LD8 (07) (5)	22.934217 Secs (45.868 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	3	F139M expo sure	(7) GBTDS-LD8	WFC3/IR, MULTIACCUM, IR	F139M	SAMP-SEQ=SPARS 25; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-LD8 (07) (5)	52.933321 Secs (105.867 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	4	F153M expo sure	(7) GBTDS-LD8	WFC3/IR, MULTIACCUM, IR	F153M	SAMP-SEQ=SPARS 10; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-LD8 (07) (5)	22.934217 Secs (45.868 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	5	F167N expo sure	(7) GBTDS-LD8	WFC3/IR, MULTIACCUM, IR	F167N	SAMP-SEQ=SPARS 25; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-LD8 (07) (5)	52.933321 Secs (105.867 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]



Proposal 17923 - GBTDS-HD66 (08) - Correcting for the Effects of the Optical/Near-Infrared Interstellar Extinction Toward the Roman ...

Wed Mar 05 15:00:24 GMT 2025

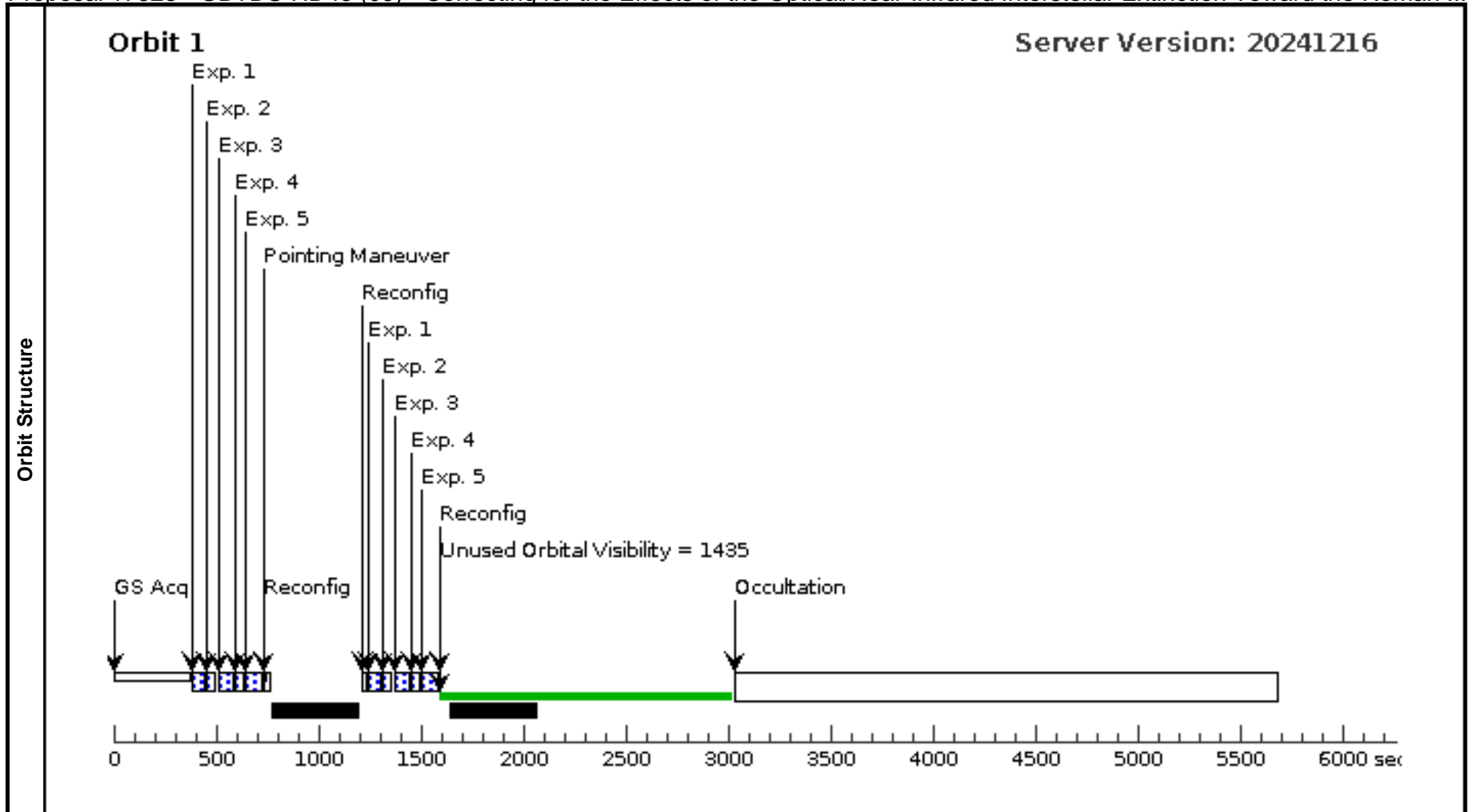
Visit	Proposal 17923, GBTDS-HD66 (08), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: (none) Comments: <i>E(J-Ks)=1.061</i>									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(5)	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false		(1-5)				
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(8)	GBTDS-HD66	RA: 17 52 33.4613 (268.1394221d) Dec: -29 16 46.12 (-29.27948d) Equinox: J2000		V=22	Reference Frame: ICRS				
	Comments: Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	F098M expo sure	(8) GBTDS-HD66	WFC3/IR, MULTIACCUM, IR	F098M	SAMP-SEQ=SPARS 10; NSAMP=4		Pattern 5, Exps 1-5 in GBTDS-HD66 (08) (5)	32.93518 Secs (65.87 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	2	F127M expo sure	(8) GBTDS-HD66	WFC3/IR, MULTIACCUM, IR	F127M	SAMP-SEQ=SPARS 10; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-HD66 (08) (5)	22.934217 Secs (45.868 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	3	F139M expo sure	(8) GBTDS-HD66	WFC3/IR, MULTIACCUM, IR	F139M	SAMP-SEQ=SPARS 25; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-HD66 (08) (5)	52.933321 Secs (105.867 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	4	F153M expo sure	(8) GBTDS-HD66	WFC3/IR, MULTIACCUM, IR	F153M	SAMP-SEQ=SPARS 10; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-HD66 (08) (5)	22.934217 Secs (45.868 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	5	F167N expo sure	(8) GBTDS-HD66	WFC3/IR, MULTIACCUM, IR	F167N	SAMP-SEQ=SPARS 25; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-HD66 (08) (5)	52.933321 Secs (105.867 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]



Proposal 17923 - GBTDS-HD43 (09) - Correcting for the Effects of the Optical/Near-Infrared Interstellar Extinction Toward the Roman ...

Wed Mar 05 15:00:24 GMT 2025

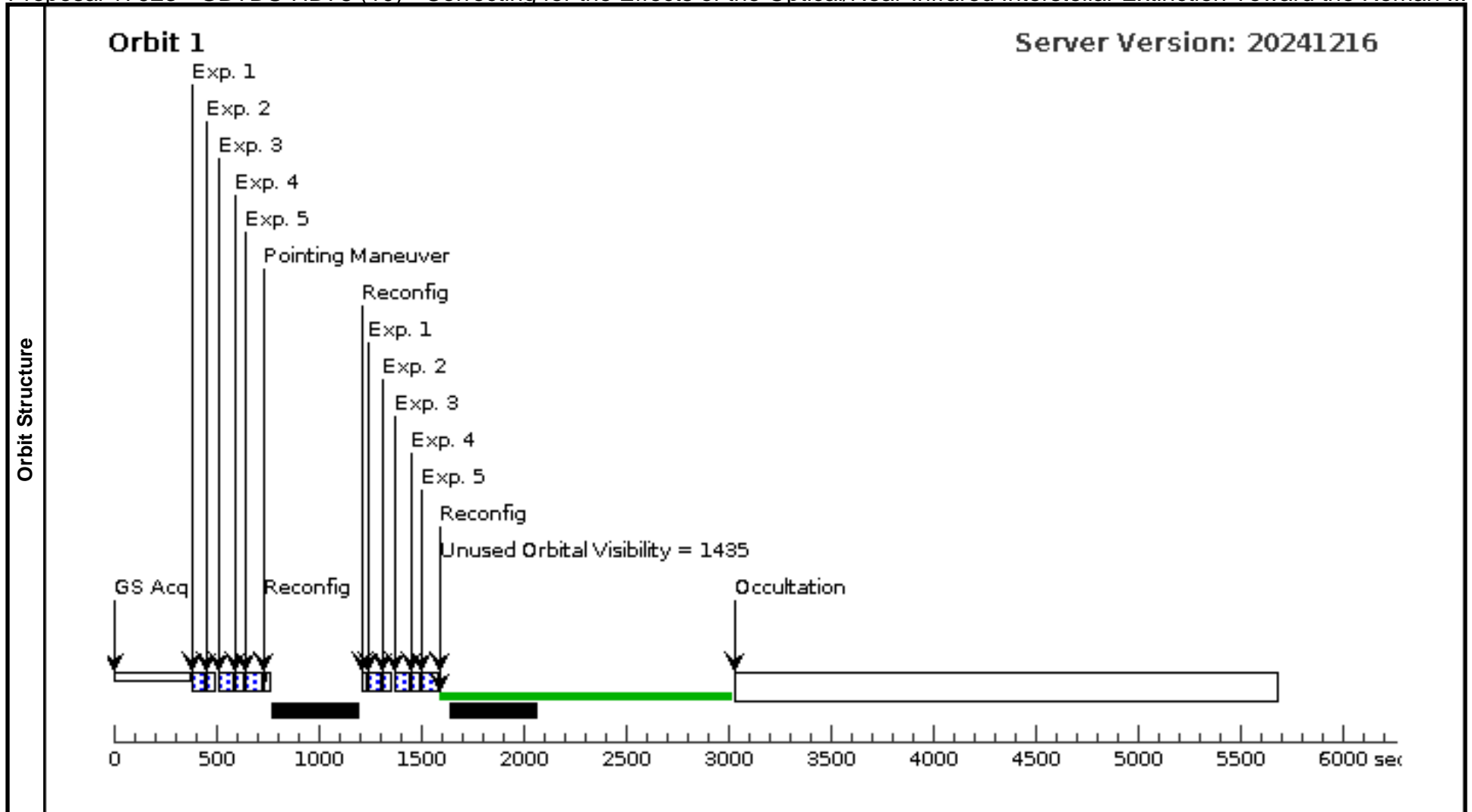
Visit	Proposal 17923, GBTDS-HD43 (09), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: (none) Comments: $E(J-Ks)=1.06$									
	Patterns	#	Primary Pattern			Secondary Pattern			Exposures	
		(5)	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false					(1-5)	
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(9)	GBTDS-HD43	RA: 17 50 58.4605 (267.7435854d) Dec: -29 03 36.13 (-29.06004d) Equinox: J2000		V=22	Reference Frame: ICRS				
	Comments: Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	F098M expo sure	(9) GBTDS-HD43	WFC3/IR, MULTIACCUM, IR	F098M	SAMP-SEQ=SPARS 10; NSAMP=4		Pattern 5, Exps 1-5 in GBTDS-HD43 (09) (5)	32.93518 Secs (65.87 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	2	F127M expo sure	(9) GBTDS-HD43	WFC3/IR, MULTIACCUM, IR	F127M	SAMP-SEQ=SPARS 10; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-HD43 (09) (5)	22.934217 Secs (45.868 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	3	F139M expo sure	(9) GBTDS-HD43	WFC3/IR, MULTIACCUM, IR	F139M	SAMP-SEQ=SPARS 25; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-HD43 (09) (5)	52.933321 Secs (105.867 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	4	F153M expo sure	(9) GBTDS-HD43	WFC3/IR, MULTIACCUM, IR	F153M	SAMP-SEQ=SPARS 10; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-HD43 (09) (5)	22.934217 Secs (45.868 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	5	F167N expo sure	(9) GBTDS-HD43	WFC3/IR, MULTIACCUM, IR	F167N	SAMP-SEQ=SPARS 25; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-HD43 (09) (5)	52.933321 Secs (105.867 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]



Proposal 17923 - GBTDS-HD78 (10) - Correcting for the Effects of the Optical/Near-Infrared Interstellar Extinction Toward the Roman ...

Wed Mar 05 15:00:24 GMT 2025

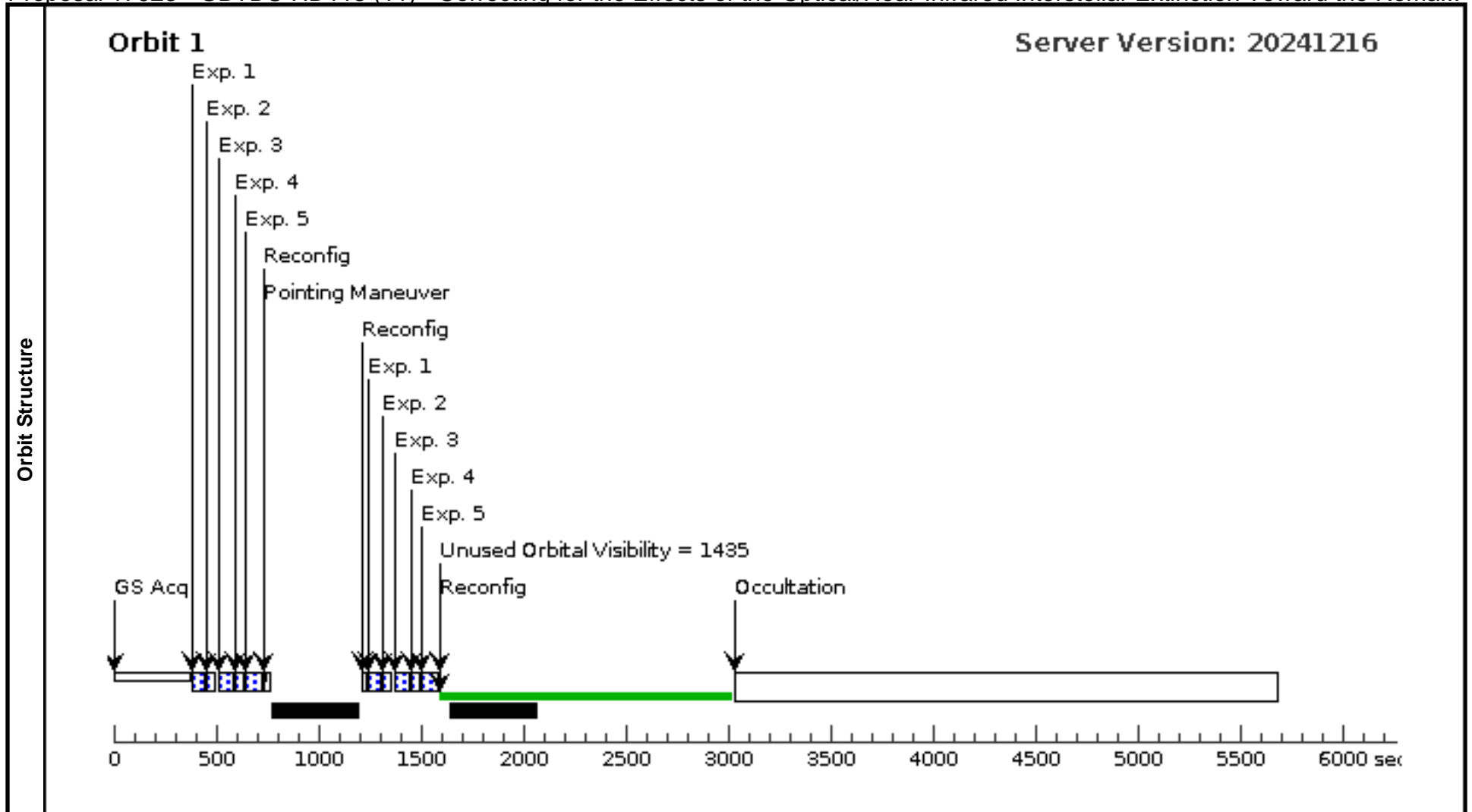
Visit	Proposal 17923, GBTDS-HD78 (10), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: (none) Comments: $E(J-Ks)=0.891$									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(5)	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false		(1-5)				
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(10)	GBTDS-HD78	RA: 17 52 3.9140 (268.0163083d) Dec: -29 07 36.81 (-29.12689d) Equinox: J2000		V=22	Reference Frame: ICRS				
	Comments: Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	F098M expo sure	(10) GBTDS-HD78	WFC3/IR, MULTIACCUM, IR	F098M	SAMP-SEQ=SPARS 10; NSAMP=4		Pattern 5, Exps 1-5 in GBTDS-HD78 (10) (5)	32.93518 Secs (65.87 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	2	F127M expo sure	(10) GBTDS-HD78	WFC3/IR, MULTIACCUM, IR	F127M	SAMP-SEQ=SPARS 10; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-HD78 (10) (5)	22.934217 Secs (45.868 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	3	F139M expo sure	(10) GBTDS-HD78	WFC3/IR, MULTIACCUM, IR	F139M	SAMP-SEQ=SPARS 25; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-HD78 (10) (5)	52.933321 Secs (105.867 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	4	F153M expo sure	(10) GBTDS-HD78	WFC3/IR, MULTIACCUM, IR	F153M	SAMP-SEQ=SPARS 10; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-HD78 (10) (5)	22.934217 Secs (45.868 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	5	F167N expo sure	(10) GBTDS-HD78	WFC3/IR, MULTIACCUM, IR	F167N	SAMP-SEQ=SPARS 25; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-HD78 (10) (5)	52.933321 Secs (105.867 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]



Proposal 17923 - GBTDS-HD113 (11) - Correcting for the Effects of the Optical/Near-Infrared Interstellar Extinction Toward the Roma...

Wed Mar 05 15:00:24 GMT 2025

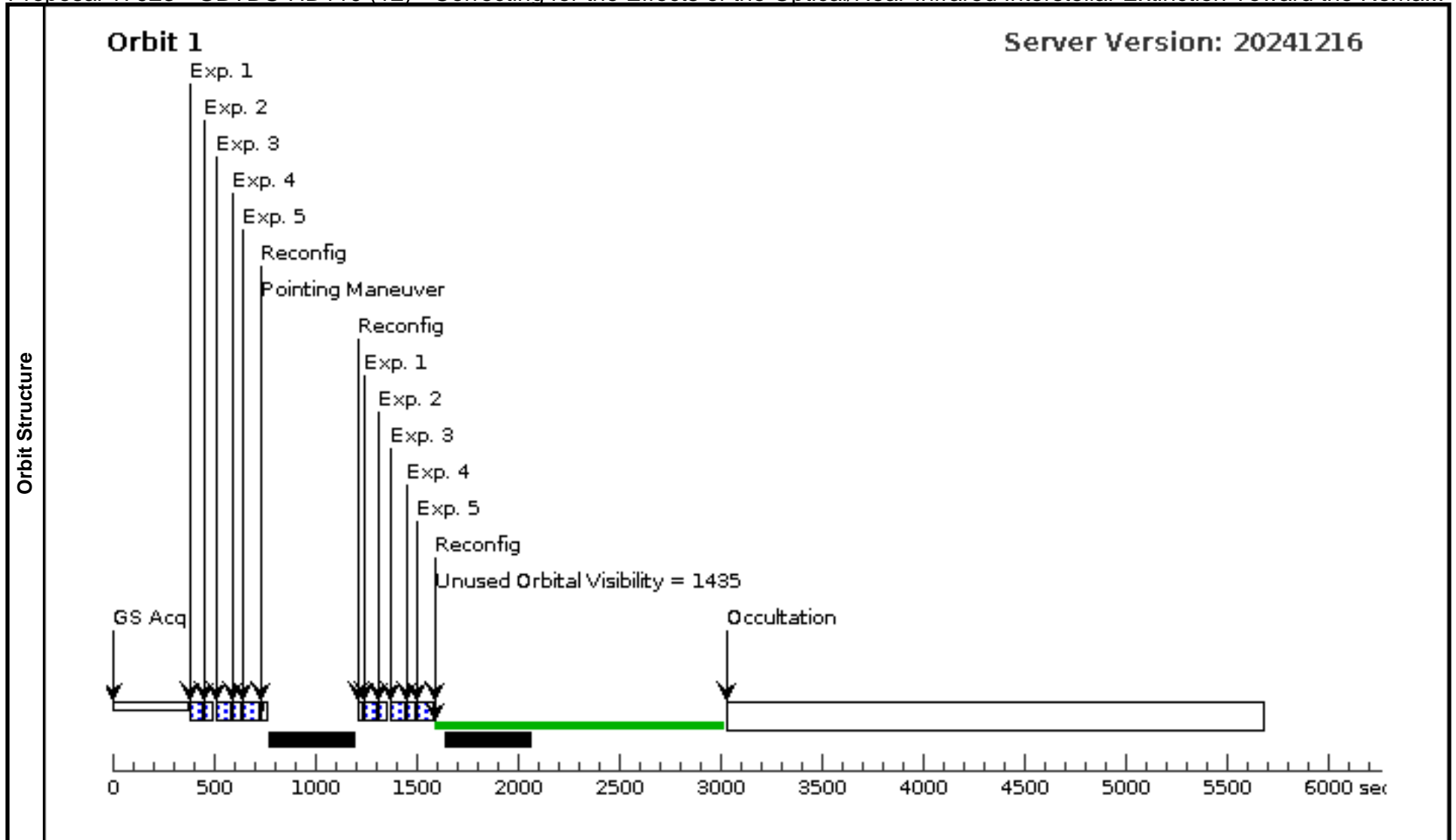
Visit	Proposal 17923, GBTDS-HD113 (11), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: (none) Comments: <i>E(J-Ks)=1.05</i>									
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures					
		(5)	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false		(1-5)				
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(11)	GBTDS-HD113	RA: 17 51 52.8686 (267.9702858d) Dec: -28 39 55.17 (-28.66532d) Equinox: J2000		V=22	Reference Frame: ICRS				
	Comments: Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	F098M expo sure	(11) GBTDS-HD113	WFC3/IR, MULTIACCUM, IR	F098M	SAMP-SEQ=SPARS 10; NSAMP=4		Pattern 5, Exps 1-5 in GBTDS-HD113 (1) (5)	32.93518 Secs (65.87 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	2	F127M expo sure	(11) GBTDS-HD113	WFC3/IR, MULTIACCUM, IR	F127M	SAMP-SEQ=SPARS 10; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-HD113 (1) (5)	22.934217 Secs (45.868 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	3	F139M expo sure	(11) GBTDS-HD113	WFC3/IR, MULTIACCUM, IR	F139M	SAMP-SEQ=SPARS 25; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-HD113 (1) (5)	52.933321 Secs (105.867 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	4	F153M expo sure	(11) GBTDS-HD113	WFC3/IR, MULTIACCUM, IR	F153M	SAMP-SEQ=SPARS 10; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-HD113 (1) (5)	22.934217 Secs (45.868 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	5	F167N expo sure	(11) GBTDS-HD113	WFC3/IR, MULTIACCUM, IR	F167N	SAMP-SEQ=SPARS 25; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-HD113 (1) (5)	52.933321 Secs (105.867 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]



Proposal 17923 - GBTDS-HD110 (12) - Correcting for the Effects of the Optical/Near-Infrared Interstellar Extinction Toward the Roma...

Wed Mar 05 15:00:24 GMT 2025

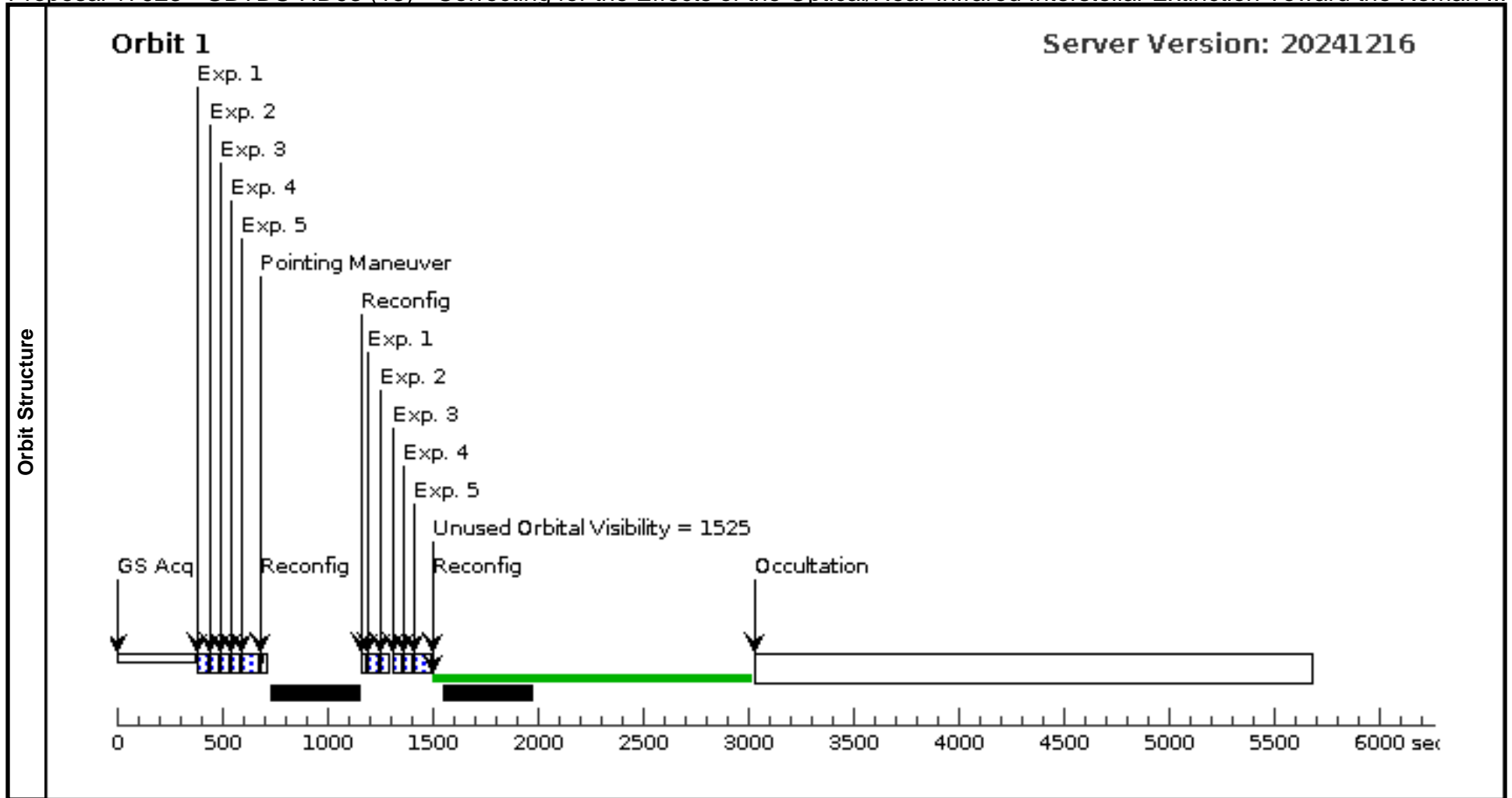
Visit	Proposal 17923, GBTDS-HD110 (12), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: (none) Comments: $E(J-Ks)=0.838$									
	Patterns	#	Primary Pattern			Secondary Pattern			Exposures	
		(5)	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false						(1-5)
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections	Fluxes	Miscellaneous			
	(12)	GBTDS-HD110	RA: 17 52 42.2338 (268.1759742d) Dec: -28 39 32.67 (-28.65907d) Equinox: J2000			V=22	Reference Frame: ICRS			
	Comments: Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	F098M expo sure	(12) GBTDS-HD110	WFC3/IR, MULTIACCUM, IR	F098M	SAMP-SEQ=SPARS 10; NSAMP=4		Pattern 5, Exps 1-5 in GBTDS-HD110 (1 2) (5)	32.93518 Secs (65.87 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	2	F127M expo sure	(12) GBTDS-HD110	WFC3/IR, MULTIACCUM, IR	F127M	SAMP-SEQ=SPARS 10; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-HD110 (1 2) (5)	22.934217 Secs (45.868 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	3	F139M expo sure	(12) GBTDS-HD110	WFC3/IR, MULTIACCUM, IR	F139M	SAMP-SEQ=SPARS 25; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-HD110 (1 2) (5)	52.933321 Secs (105.867 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	4	F153M expo sure	(12) GBTDS-HD110	WFC3/IR, MULTIACCUM, IR	F153M	SAMP-SEQ=SPARS 10; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-HD110 (1 2) (5)	22.934217 Secs (45.868 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	5	F167N expo sure	(12) GBTDS-HD110	WFC3/IR, MULTIACCUM, IR	F167N	SAMP-SEQ=SPARS 25; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-HD110 (1 2) (5)	52.933321 Secs (105.867 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]



Proposal 17923 - GBTDS-HD93 (13) - Correcting for the Effects of the Optical/Near-Infrared Interstellar Extinction Toward the Roman ...

Wed Mar 05 15:00:24 GMT 2025

Visit	Proposal 17923, GBTDS-HD93 (13), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: (none) <i>Comments: E(J-Ks)=0.392, low reddening configuration, 1507 seconds</i>									
Patterns	#	Primary Pattern		Secondary Pattern		Exposures				
	(5)	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false			(1-5)				
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(13)	GBTDS-HD93	RA: 17 54 31.5408 (268.6314200d) Dec: -28 47 41.44 (-28.79484d) Equinox: J2000		V=22	Reference Frame: ICRS				
<i>Comments: Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO</i>										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	F098M expo sure	(13) GBTDS-HD93	WFC3/IR, MULTIACCUM, IR	F098M	SAMP-SEQ=SPARS 5;		Pattern 5, Exps 1-5 in GBTDS-HD93 (13) (5)	17.934604 Secs (35.869 Secs)	
						NSAMP=4			[==>(Pattern 1)] [==>(Pattern 2)]	[1]
	2	F127M expo sure	(13) GBTDS-HD93	WFC3/IR, MULTIACCUM, IR	F127M	SAMP-SEQ=SPARS 10;		Pattern 5, Exps 1-5 in GBTDS-HD93 (13) (5)	22.934217 Secs (45.868 Secs)	
						NSAMP=3			[==>(Pattern 1)] [==>(Pattern 2)]	[1]
	3	F139M expo sure	(13) GBTDS-HD93	WFC3/IR, MULTIACCUM, IR	F139M	SAMP-SEQ=SPARS 10;		Pattern 5, Exps 1-5 in GBTDS-HD93 (13) (5)	22.934217 Secs (45.868 Secs)	
					NSAMP=3			[==>(Pattern 1)] [==>(Pattern 2)]	[1]	
4	F153M expo sure	(13) GBTDS-HD93	WFC3/IR, MULTIACCUM, IR	F153M	SAMP-SEQ=SPARS 10;		Pattern 5, Exps 1-5 in GBTDS-HD93 (13) (5)	22.934217 Secs (45.868 Secs)		
					NSAMP=3			[==>(Pattern 1)] [==>(Pattern 2)]	[1]	
5	F167N expo sure	(13) GBTDS-HD93	WFC3/IR, MULTIACCUM, IR	F167N	SAMP-SEQ=SPARS 25;		Pattern 5, Exps 1-5 in GBTDS-HD93 (13) (5)	52.933321 Secs (105.867 Secs)		
					NSAMP=3			[==>(Pattern 1)] [==>(Pattern 2)]	[1]	



Proposal 17923 - GBTDS-LD26 (14) - Correcting for the Effects of the Optical/Near-Infrared Interstellar Extinction Toward the Roman ...

Wed Mar 05 15:00:24 GMT 2025

Visit	Proposal 17923, GBTDS-LD26 (14), implementation Diagnostic Status: No Diagnostics Scientific Instruments: WFC3/IR Special Requirements: (none) Comments: $E(J-Ks)=0.787$									
	Patterns	#	Primary Pattern			Secondary Pattern			Exposures	
		(5)	Pattern Type=WFC3-IR-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.636 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=41.788 Angle Between Sides= Center Pattern=false					(1-5)	
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes	Miscellaneous		
	(14)	GBTDS-LD26	RA: 17 55 3.4424 (268.7643433d) Dec: -28 28 10.64 (-28.46962d) Equinox: J2000			V=22	Reference Frame: ICRS			
	Comments: Category=STAR Description=[HORIZONTAL BRANCH STAR] Extended=NO									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	F098M expo sure	(14) GBTDS-LD26	WFC3/IR, MULTIACCUM, IR	F098M	SAMP-SEQ=SPARS 10; NSAMP=4		Pattern 5, Exps 1-5 in GBTDS-LD26 (14) (5)	32.93518 Secs (65.87 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	2	F127M expo sure	(14) GBTDS-LD26	WFC3/IR, MULTIACCUM, IR	F127M	SAMP-SEQ=SPARS 10; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-LD26 (14) (5)	22.934217 Secs (45.868 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	3	F139M expo sure	(14) GBTDS-LD26	WFC3/IR, MULTIACCUM, IR	F139M	SAMP-SEQ=SPARS 25; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-LD26 (14) (5)	52.933321 Secs (105.867 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	4	F153M expo sure	(14) GBTDS-LD26	WFC3/IR, MULTIACCUM, IR	F153M	SAMP-SEQ=SPARS 10; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-LD26 (14) (5)	22.934217 Secs (45.868 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]
	5	F167N expo sure	(14) GBTDS-LD26	WFC3/IR, MULTIACCUM, IR	F167N	SAMP-SEQ=SPARS 25; NSAMP=3		Pattern 5, Exps 1-5 in GBTDS-LD26 (14) (5)	52.933321 Secs (105.867 Secs) [=>(Pattern 1)] [=>(Pattern 2)]	[1]

