



# 17173 - Correcting for the Effects of Interstellar Extinction Toward the Roman Galactic Exoplanet Survey Fields

Cycle: 30, Proposal Category: GO

(Availability Mode: SUPPORTED)

## INVESTIGATORS

<i>Name</i>	<i>Institution</i>
<b>Dr. David Moise Nataf (PI) (Contact)</b>	<b>The Johns Hopkins University</b>
Dr. Mario Gennaro (CoI) (Contact)	Space Telescope Science Institute
Dr. Thomas M. Brown (CoI)	Space Telescope Science Institute
Dr. Gail Zasowski (CoI)	University of Utah
Dr. Rosemary F. Wyse (CoI)	The Johns Hopkins University
Dr. Kailash C. Sahu (CoI)	Space Telescope Science Institute
Dr. Luca Casagrande (CoI)	Australian National University
Dr. Matthew Penny (CoI)	Louisiana State University and A & M College
Dr. Daniel Scolnic (CoI)	Duke University
Dr. Radoslaw Poleski (CoI) (ESA Member)	Warsaw University
Prof. Keivan G. Stassun (CoI)	Vanderbilt University
Dr. David P. Bennett (CoI)	University of Maryland
Dr. Roberta Paladini (CoI)	California Institute of Technology
Dr. Robert A. Benjamin (CoI)	University of Wisconsin - Whitewater

## 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) BULGEFIELD1 (2) BULGEFIELD2	WFC3/IR	1	27-Mar-2023 14:00:16.0	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	(3) BULGEFIELD3 (4) BULGEFIELD4	WFC3/IR	1	27-Mar-2023 14:00:18.0	yes
03	(5) BULGEFIELD5 (6) BULGEFIELD6	WFC3/IR	1	27-Mar-2023 14:00:19.0	yes
04	(7) BULGEFIELD7 (8) BULGEFIELD8	WFC3/IR	1	27-Mar-2023 14:00:21.0	yes
05	(9) BULGEFIELD9 (10) BULGEFIELD10	WFC3/IR	1	27-Mar-2023 14:00:22.0	yes
06	(11) BULGEFIELD11- HIGHEXTINCTION (12) BULGEFIELD12- HIGHEXTINCTION	WFC3/IR	1	27-Mar-2023 14:00:24.0	yes
07	(13) BULGEFIELD13- HIGHEXTINCTION (14) BULGEFIELD14- HIGHEXTINCTION	WFC3/IR	1	27-Mar-2023 14:00:25.0	yes

7 Total Orbits Used

## **ABSTRACT**

The upcoming Roman Galactic Exoplanet Survey will revolutionize exoplanet studies: expected detections of 100,000 transiting planets and 2000 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 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 (F130N, F153M, F167N). These observations, when combined with a preexisting suite of measurements at other wavelengths, will enable a full characterization of the extinction curve and its variations toward the sightlines of the Roman Galactic Exoplanet Survey, enabling both improved forward modelling of the survey and, crucially, more robust

Proposal 17173 (STScI Edit Number: 0, Created: Monday, March 27, 2023 at 1:00:26 PM Eastern Standard Time) - Overview  
estimates of the stellar parameters of transiting and microlensing planet host stars.

## **OBSERVING DESCRIPTION**

2 observations per orbit

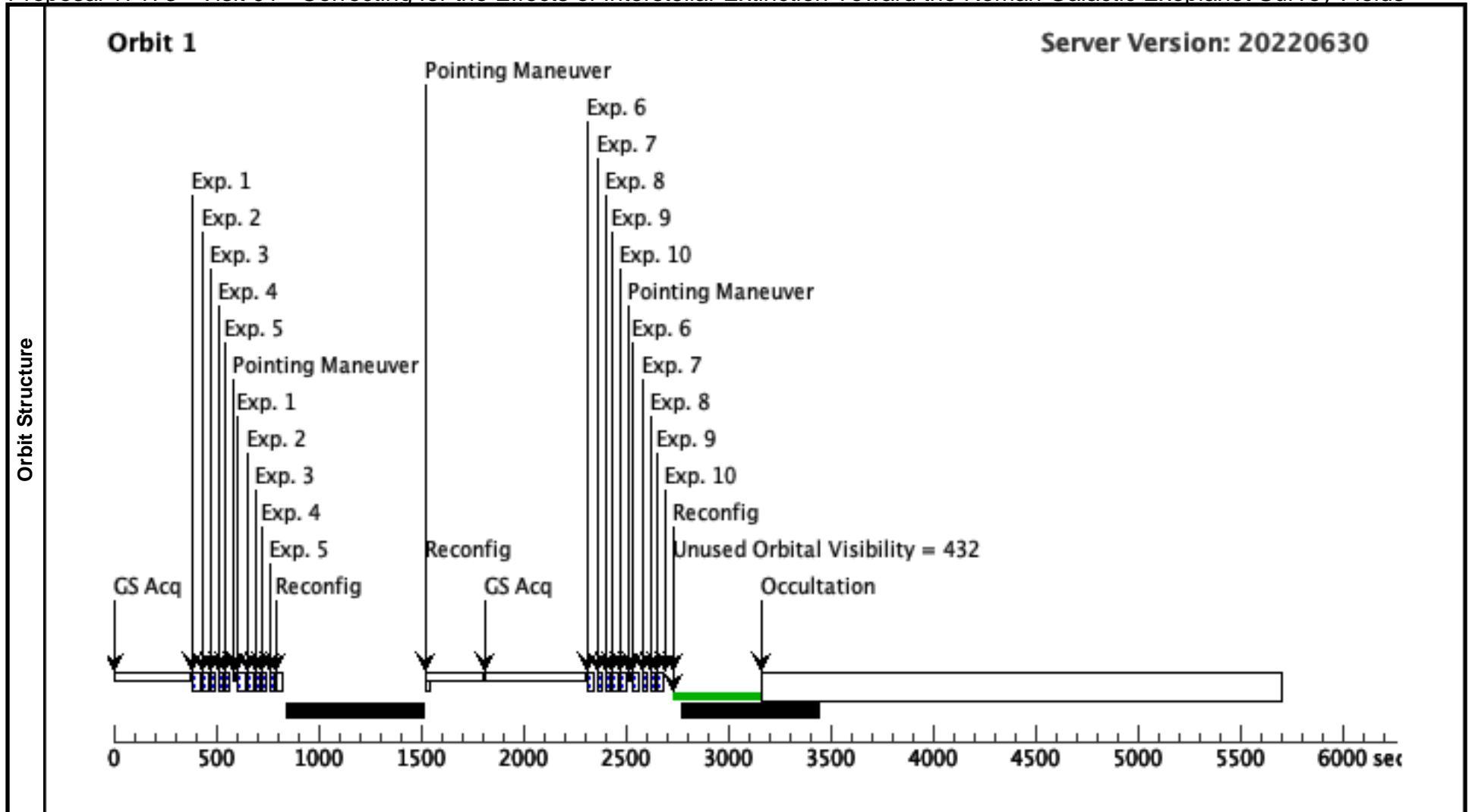
Proposal 17173 - Visit 01 - Correcting for the Effects of Interstellar Extinction Toward the Roman Galactic Exoplanet Survey Fields

Mon Mar 27 18:00:26 GMT 2023

Visit	<b>Proposal 17173, Visit 01, scheduling</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/IR Special Requirements: (none)					
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures	
	(1)	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), (6-10)	
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	BULGEFIELD1 Alt Name1: C1	RA: 18 02 3.0665 (270.5127771d) Dec: -27 40 38.27 (-27.67730d) Equinox: J2000		V=17.75+/-0.50	Reference Frame: ICRS
		<i>Comments:</i> Category=STAR Description=[K III-I] Extended=NO				
(2)	BULGEFIELD2 Alt Name1: C3	RA: 18 03 30.7404 (270.8780850d) Dec: -27 38 25.29 (-27.64036d) Equinox: J2000		V=17.90+/-0.50	Reference Frame: ICRS	
		<i>Comments:</i> Category=STAR Description=[K III-I] Extended=NO				

Proposal 17173 - Visit 01 - Correcting for the Effects of Interstellar Extinction Toward the Roman Galactic Exoplanet Survey Fields

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	F167N expo sure	(1) BULGEFIELD1	WFC3/IR, MULTIACCUM, IR	F167N	SAMP-SEQ=STEP2 5; NSAMP=3	Sequence 1-10 Non-Int in Visit 01 Pattern 1, Exps 1-5 in Sequence 1-10 Non-Int in Visit 01 (1)	8.796873 Secs (17.594 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	2	F130N expo sure	(1) BULGEFIELD1	WFC3/IR, MULTIACCUM, IR	F130N	SAMP-SEQ=STEP2 5; NSAMP=3	Sequence 1-10 Non-Int in Visit 01 Pattern 1, Exps 1-5 in Sequence 1-10 Non-Int in Visit 01 (1)	8.796873 Secs (17.594 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	3	F139M expo sure	(1) BULGEFIELD1	WFC3/IR, MULTIACCUM, IR	F139M	SAMP-SEQ=STEP2 5; NSAMP=2	Sequence 1-10 Non-Int in Visit 01 Pattern 1, Exps 1-5 in Sequence 1-10 Non-Int in Visit 01 (1)	5.864582 Secs (11.729 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	4	F153M expo sure	(1) BULGEFIELD1	WFC3/IR, MULTIACCUM, IR	F153M	SAMP-SEQ=STEP2 5; NSAMP=2	Sequence 1-10 Non-Int in Visit 01 Pattern 1, Exps 1-5 in Sequence 1-10 Non-Int in Visit 01 (1)	5.864582 Secs (11.729 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	5	F098M expo sure	(1) BULGEFIELD1	WFC3/IR, MULTIACCUM, IR	F098M	SAMP-SEQ=STEP2 5; NSAMP=2	Sequence 1-10 Non-Int in Visit 01 Pattern 1, Exps 1-5 in Sequence 1-10 Non-Int in Visit 01 (1)	5.864582 Secs (11.729 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	6	F098M expo sure	(2) BULGEFIELD2	WFC3/IR, MULTIACCUM, IR	F098M	SAMP-SEQ=STEP2 5; NSAMP=2	Sequence 1-10 Non-Int in Visit 01 Pattern 1, Exps 6-10 in Sequence 1-10 Non-Int in Visit 01 (1)	5.864582 Secs (11.729 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	7	F153M expo sure	(2) BULGEFIELD2	WFC3/IR, MULTIACCUM, IR	F153M	SAMP-SEQ=STEP2 5; NSAMP=2	Sequence 1-10 Non-Int in Visit 01 Pattern 1, Exps 6-10 in Sequence 1-10 Non-Int in Visit 01 (1)	5.864582 Secs (11.729 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	8	F139M expo sure	(2) BULGEFIELD2	WFC3/IR, MULTIACCUM, IR	F139M	SAMP-SEQ=STEP2 5; NSAMP=2	Sequence 1-10 Non-Int in Visit 01 Pattern 1, Exps 6-10 in Sequence 1-10 Non-Int in Visit 01 (1)	5.864582 Secs (11.729 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	9	F130N expo sure	(2) BULGEFIELD2	WFC3/IR, MULTIACCUM, IR	F130N	SAMP-SEQ=STEP2 5; NSAMP=3	Sequence 1-10 Non-Int in Visit 01 Pattern 1, Exps 6-10 in Sequence 1-10 Non-Int in Visit 01 (1)	8.796873 Secs (17.594 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	10	F167N expo sure	(2) BULGEFIELD2	WFC3/IR, MULTIACCUM, IR	F167N	SAMP-SEQ=STEP2 5; NSAMP=3	Sequence 1-10 Non-Int in Visit 01 Pattern 1, Exps 6-10 in Sequence 1-10 Non-Int in Visit 01 (1)	8.796873 Secs (17.594 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]



Proposal 17173 - Visit 02 - Correcting for the Effects of Interstellar Extinction Toward the Roman Galactic Exoplanet Survey Fields

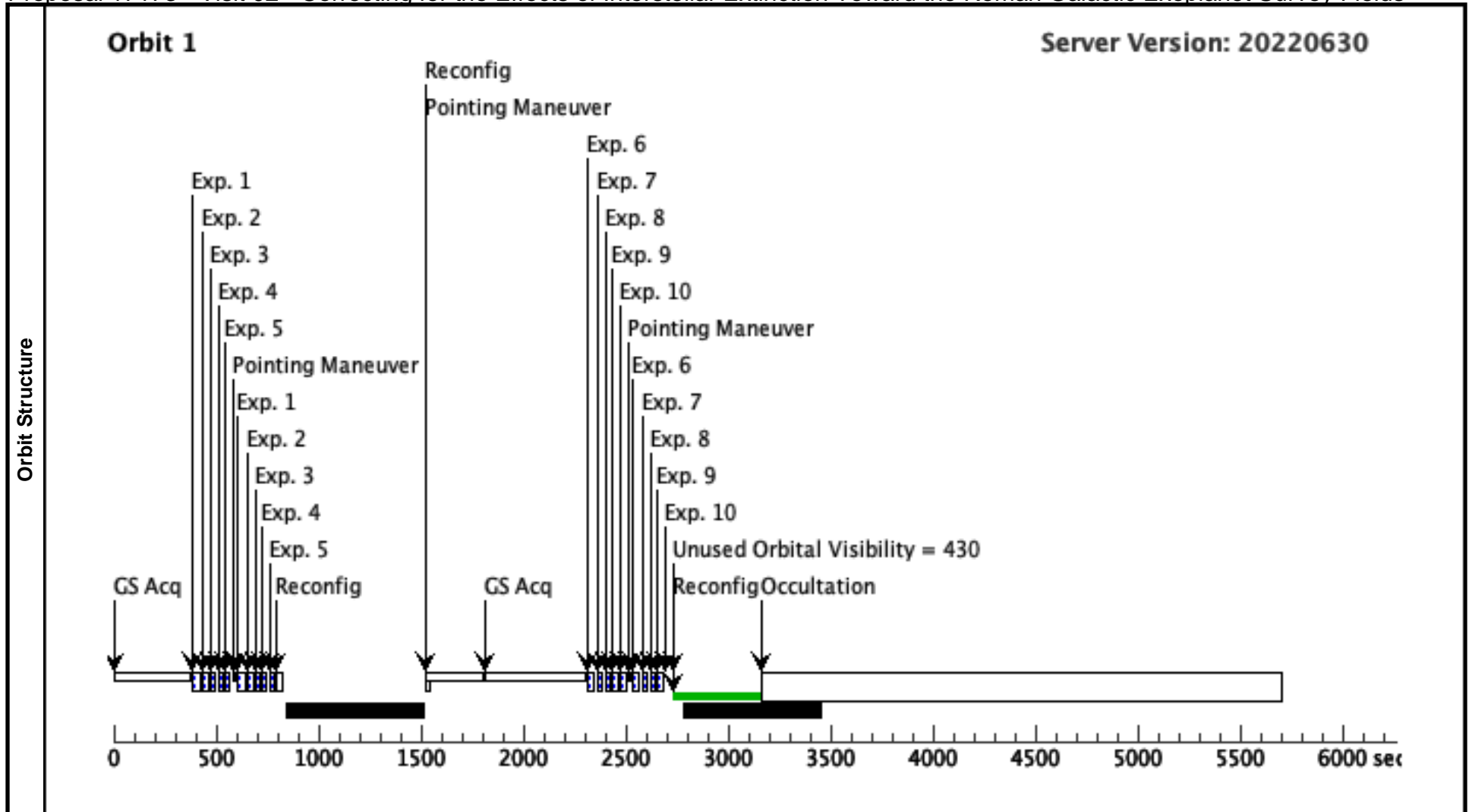
Mon Mar 27 18:00:26 GMT 2023

<b>Visit</b>	<b>Proposal 17173, Visit 02, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/IR Special Requirements: (none)					
	<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>	
	(1)	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), (6-10)	
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>
	(3)	BULGEFIELD3 Alt Name1: C1	RA: 17 41 11.3702 (265.2973758d) Dec: -24 49 31.70 (-24.82547d) Equinox: J2000		V=17.75+/-0.50	Reference Frame: ICRS
		Comments: Category=STAR Description=[K III-I] Extended=NO				
	(4)	BULGEFIELD4 Alt Name1: C3	RA: 17 42 30.7279 (265.6280329d) Dec: -25 12 19.44 (-25.20540d) Equinox: J2000		V=17.90+/-0.50	Reference Frame: ICRS
	Comments: Category=STAR Description=[K III-I] Extended=NO					

Proposal 17173 - Visit 02 - Correcting for the Effects of Interstellar Extinction Toward the Roman Galactic Exoplanet Survey Fields

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	F167N expo sure	(3) BULGEFIELD3	WFC3/IR, MULTIACCUM, IR	F167N	SAMP-SEQ=STEP2 5; NSAMP=3	Sequence 1-10 Non-Int in Visit 02 Pattern 1, Exps 1-5 in Sequence 1-10 Non-Int in Visit 02 (1)	8.796873 Secs (17.594 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	2	F130N expo sure	(3) BULGEFIELD3	WFC3/IR, MULTIACCUM, IR	F130N	SAMP-SEQ=STEP2 5; NSAMP=3	Sequence 1-10 Non-Int in Visit 02 Pattern 1, Exps 1-5 in Sequence 1-10 Non-Int in Visit 02 (1)	8.796873 Secs (17.594 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	3	F139M expo sure	(3) BULGEFIELD3	WFC3/IR, MULTIACCUM, IR	F139M	SAMP-SEQ=STEP2 5; NSAMP=2	Sequence 1-10 Non-Int in Visit 02 Pattern 1, Exps 1-5 in Sequence 1-10 Non-Int in Visit 02 (1)	5.864582 Secs (11.729 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	4	F153M expo sure	(3) BULGEFIELD3	WFC3/IR, MULTIACCUM, IR	F153M	SAMP-SEQ=STEP2 5; NSAMP=2	Sequence 1-10 Non-Int in Visit 02 Pattern 1, Exps 1-5 in Sequence 1-10 Non-Int in Visit 02 (1)	5.864582 Secs (11.729 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	5	F098M expo sure	(3) BULGEFIELD3	WFC3/IR, MULTIACCUM, IR	F098M	SAMP-SEQ=STEP2 5; NSAMP=2	Sequence 1-10 Non-Int in Visit 02 Pattern 1, Exps 1-5 in Sequence 1-10 Non-Int in Visit 02 (1)	5.864582 Secs (11.729 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	6	F098M expo sure	(4) BULGEFIELD4	WFC3/IR, MULTIACCUM, IR	F098M	SAMP-SEQ=STEP2 5; NSAMP=2	Sequence 1-10 Non-Int in Visit 02 Pattern 1, Exps 6-10 in Sequence 1-10 Non-Int in Visit 02 (1)	5.864582 Secs (11.729 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	7	F153M expo sure	(4) BULGEFIELD4	WFC3/IR, MULTIACCUM, IR	F153M	SAMP-SEQ=STEP2 5; NSAMP=2	Sequence 1-10 Non-Int in Visit 02 Pattern 1, Exps 6-10 in Sequence 1-10 Non-Int in Visit 02 (1)	5.864582 Secs (11.729 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	8	F139M expo sure	(4) BULGEFIELD4	WFC3/IR, MULTIACCUM, IR	F139M	SAMP-SEQ=STEP2 5; NSAMP=2	Sequence 1-10 Non-Int in Visit 02 Pattern 1, Exps 6-10 in Sequence 1-10 Non-Int in Visit 02 (1)	5.864582 Secs (11.729 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	9	F130N expo sure	(4) BULGEFIELD4	WFC3/IR, MULTIACCUM, IR	F130N	SAMP-SEQ=STEP2 5; NSAMP=3	Sequence 1-10 Non-Int in Visit 02 Pattern 1, Exps 6-10 in Sequence 1-10 Non-Int in Visit 02 (1)	8.796873 Secs (17.594 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	10	F167N expo sure	(4) BULGEFIELD4	WFC3/IR, MULTIACCUM, IR	F167N	SAMP-SEQ=STEP2 5; NSAMP=3	Sequence 1-10 Non-Int in Visit 02 Pattern 1, Exps 6-10 in Sequence 1-10 Non-Int in Visit 02 (1)	8.796873 Secs (17.594 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]





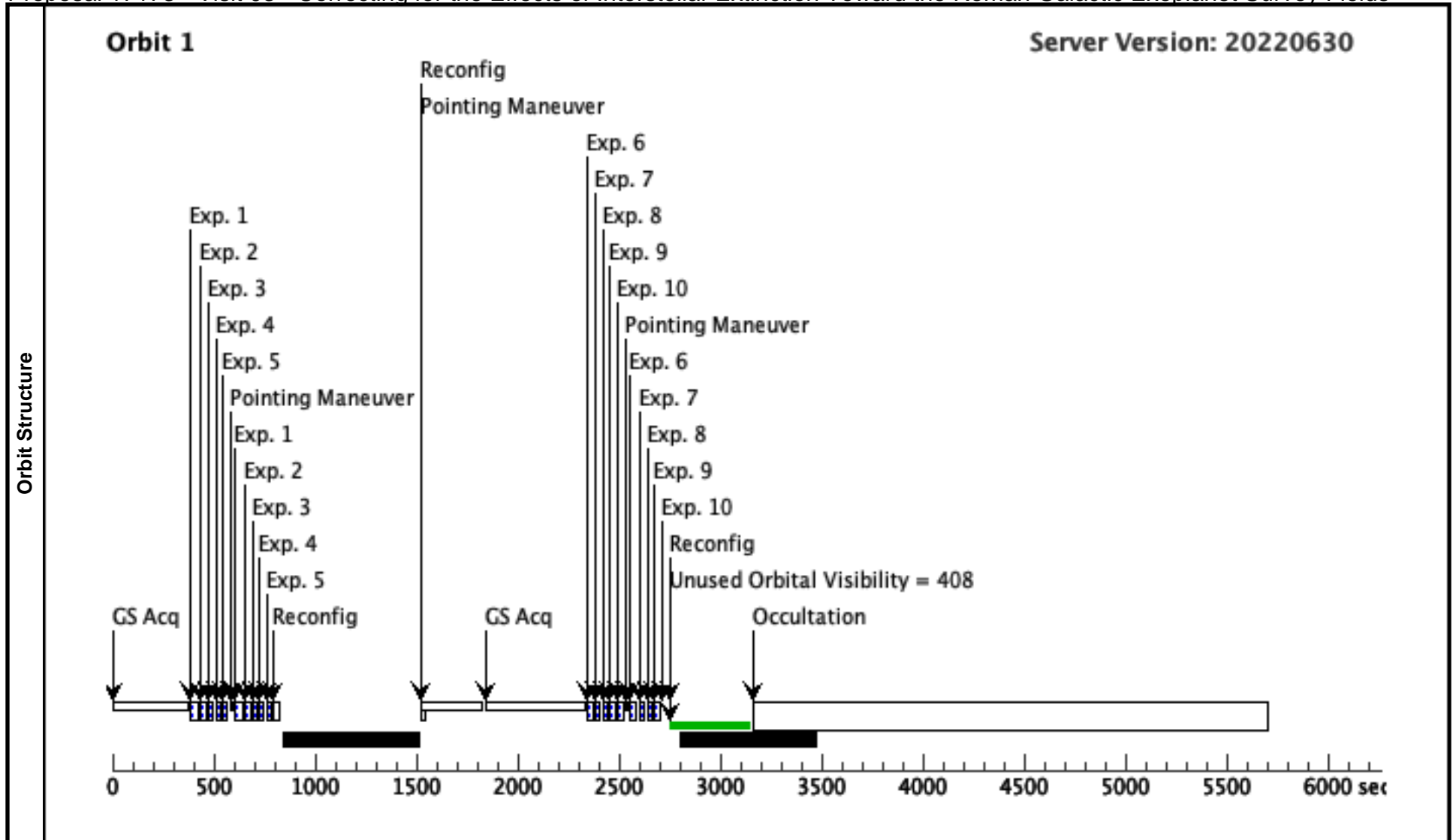
Proposal 17173 - Visit 03 - Correcting for the Effects of Interstellar Extinction Toward the Roman Galactic Exoplanet Survey Fields

Mon Mar 27 18:00:26 GMT 2023

<b>Visit</b>	<b>Proposal 17173, Visit 03, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/IR Special Requirements: (none)					
	<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>	
	(1)	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), (6-10)	
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>
	(5)	BULGEFIELD5 Alt Name1: C1	RA: 18 03 16.6270 (270.8192792d) Dec: -29 51 19.69 (-29.85547d) Equinox: J2000		V=16.5+/-0.50	Reference Frame: ICRS
		Comments: Category=STAR Description=[K III-I] Extended=NO				
	(6)	BULGEFIELD6 Alt Name1: C3	RA: 18 01 46.3390 (270.4430792d) Dec: -29 17 52.63 (-29.29795d) Equinox: J2000		V=17.90+/-0.50	Reference Frame: ICRS
	Comments: Category=STAR Description=[K III-I] Extended=NO					

Proposal 17173 - Visit 03 - Correcting for the Effects of Interstellar Extinction Toward the Roman Galactic Exoplanet Survey Fields

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	F167N expo sure	(5) BULGEFIELD5	WFC3/IR, MULTIACCUM, IR	F167N	SAMP-SEQ=STEP2 5; NSAMP=3	Sequence 1-10 Non-Int in Visit 03 Pattern 1, Exps 1-5 in Sequence 1-10 Non-Int in Visit 03 (1)	8.796873 Secs (17.594 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	2	F130N expo sure	(5) BULGEFIELD5	WFC3/IR, MULTIACCUM, IR	F130N	SAMP-SEQ=STEP2 5; NSAMP=3	Sequence 1-10 Non-Int in Visit 03 Pattern 1, Exps 1-5 in Sequence 1-10 Non-Int in Visit 03 (1)	8.796873 Secs (17.594 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	3	F139M expo sure	(5) BULGEFIELD5	WFC3/IR, MULTIACCUM, IR	F139M	SAMP-SEQ=STEP2 5; NSAMP=2	Sequence 1-10 Non-Int in Visit 03 Pattern 1, Exps 1-5 in Sequence 1-10 Non-Int in Visit 03 (1)	5.864582 Secs (11.729 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	4	F153M expo sure	(5) BULGEFIELD5	WFC3/IR, MULTIACCUM, IR	F153M	SAMP-SEQ=STEP2 5; NSAMP=2	Sequence 1-10 Non-Int in Visit 03 Pattern 1, Exps 1-5 in Sequence 1-10 Non-Int in Visit 03 (1)	5.864582 Secs (11.729 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	5	F098M expo sure	(5) BULGEFIELD5	WFC3/IR, MULTIACCUM, IR	F098M	SAMP-SEQ=STEP2 5; NSAMP=2	Sequence 1-10 Non-Int in Visit 03 Pattern 1, Exps 1-5 in Sequence 1-10 Non-Int in Visit 03 (1)	5.864582 Secs (11.729 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	6	F098M expo sure	(6) BULGEFIELD6	WFC3/IR, MULTIACCUM, IR	F098M	SAMP-SEQ=STEP2 5; NSAMP=2	Sequence 1-10 Non-Int in Visit 03 Pattern 1, Exps 6-10 in Sequence 1-10 Non-Int in Visit 03 (1)	5.864582 Secs (11.729 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	7	F153M expo sure	(6) BULGEFIELD6	WFC3/IR, MULTIACCUM, IR	F153M	SAMP-SEQ=STEP2 5; NSAMP=2	Sequence 1-10 Non-Int in Visit 03 Pattern 1, Exps 6-10 in Sequence 1-10 Non-Int in Visit 03 (1)	5.864582 Secs (11.729 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	8	F139M expo sure	(6) BULGEFIELD6	WFC3/IR, MULTIACCUM, IR	F139M	SAMP-SEQ=STEP2 5; NSAMP=2	Sequence 1-10 Non-Int in Visit 03 Pattern 1, Exps 6-10 in Sequence 1-10 Non-Int in Visit 03 (1)	5.864582 Secs (11.729 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	9	F130N expo sure	(6) BULGEFIELD6	WFC3/IR, MULTIACCUM, IR	F130N	SAMP-SEQ=STEP2 5; NSAMP=3	Sequence 1-10 Non-Int in Visit 03 Pattern 1, Exps 6-10 in Sequence 1-10 Non-Int in Visit 03 (1)	8.796873 Secs (17.594 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	10	F167N expo sure	(6) BULGEFIELD6	WFC3/IR, MULTIACCUM, IR	F167N	SAMP-SEQ=STEP2 5; NSAMP=3	Sequence 1-10 Non-Int in Visit 03 Pattern 1, Exps 6-10 in Sequence 1-10 Non-Int in Visit 03 (1)	8.796873 Secs (17.594 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]



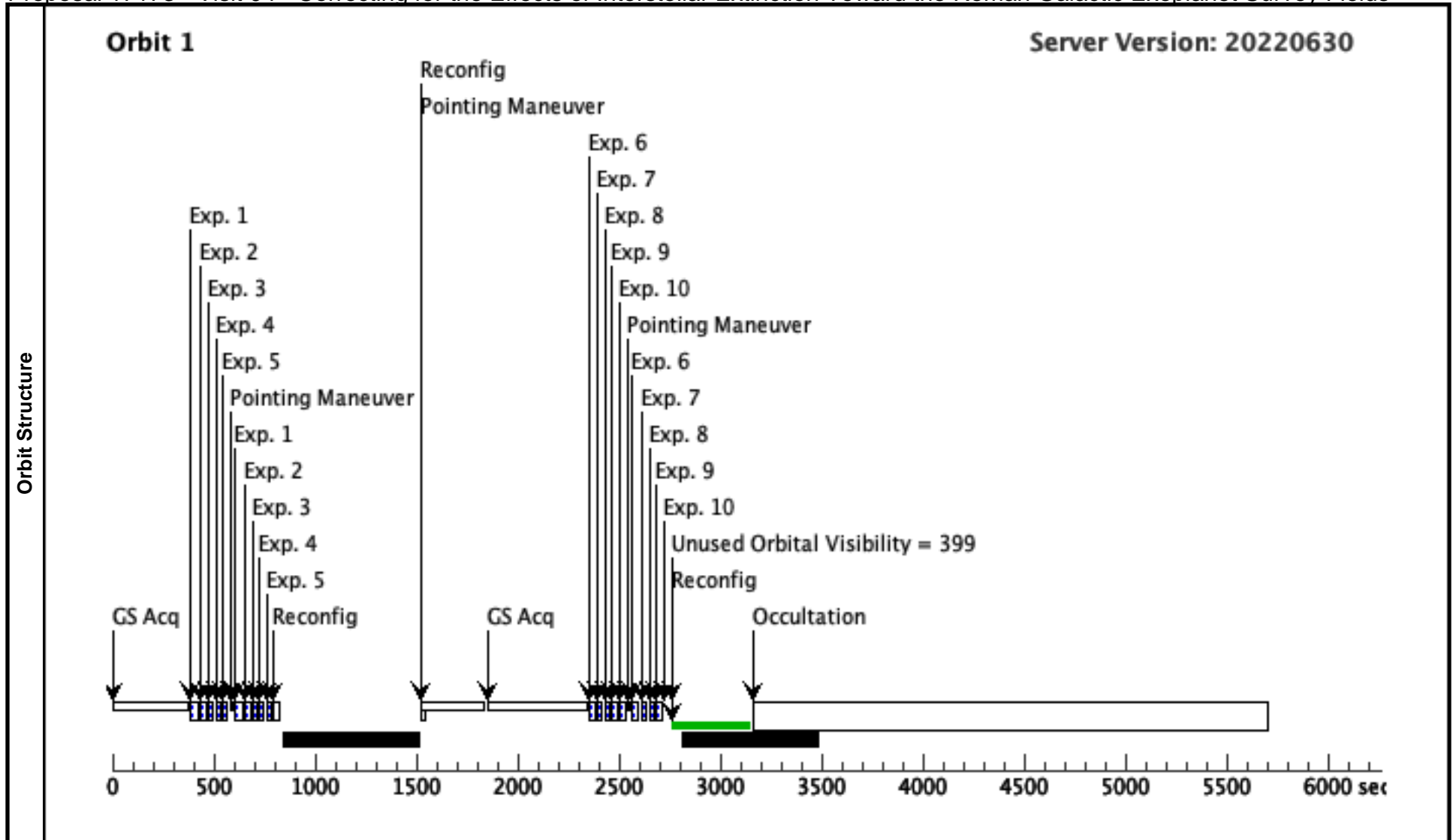
Proposal 17173 - Visit 04 - Correcting for the Effects of Interstellar Extinction Toward the Roman Galactic Exoplanet Survey Fields

Mon Mar 27 18:00:26 GMT 2023

<b>Visit</b>	<b>Proposal 17173, Visit 04, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/IR Special Requirements: (none)					
	<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>	<b>Secondary Pattern</b>	<b>Exposures</b>	
	(1)	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), (6-10)	
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>
	(7)	BULGEFIELD7 Alt Name1: C1	RA: 17 53 29.1480 (268.3714500d) Dec: -30 04 35.80 (-30.07661d) Equinox: J2000		V=16.5+/-0.50	Reference Frame: ICRS
		<i>Comments:</i> Category=STAR Description=[K III-I] Extended=NO				
	(8)	BULGEFIELD8 Alt Name1: C3	RA: 17 56 31.2653 (269.1302721d) Dec: -29 45 33.44 (-29.75929d) Equinox: J2000		V=17.90+/-0.50	Reference Frame: ICRS
	<i>Comments:</i> Category=STAR Description=[K III-I] Extended=NO					

Proposal 17173 - Visit 04 - Correcting for the Effects of Interstellar Extinction Toward the Roman Galactic Exoplanet Survey Fields

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	F167N expo sure	(7) BULGEFIELD7	WFC3/IR, MULTIACCUM, IR	F167N	SAMP-SEQ=STEP2 5; NSAMP=3	Sequence 1-10 Non-Int in Visit 04 Pattern 1, Exps 1-5 in Sequence 1-10 Non-Int in Visit 04 (1)	8.796873 Secs (17.594 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	2	F130N expo sure	(7) BULGEFIELD7	WFC3/IR, MULTIACCUM, IR	F130N	SAMP-SEQ=STEP2 5; NSAMP=3	Sequence 1-10 Non-Int in Visit 04 Pattern 1, Exps 1-5 in Sequence 1-10 Non-Int in Visit 04 (1)	8.796873 Secs (17.594 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	3	F139M expo sure	(7) BULGEFIELD7	WFC3/IR, MULTIACCUM, IR	F139M	SAMP-SEQ=STEP2 5; NSAMP=2	Sequence 1-10 Non-Int in Visit 04 Pattern 1, Exps 1-5 in Sequence 1-10 Non-Int in Visit 04 (1)	5.864582 Secs (11.729 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	4	F153M expo sure	(7) BULGEFIELD7	WFC3/IR, MULTIACCUM, IR	F153M	SAMP-SEQ=STEP2 5; NSAMP=2	Sequence 1-10 Non-Int in Visit 04 Pattern 1, Exps 1-5 in Sequence 1-10 Non-Int in Visit 04 (1)	5.864582 Secs (11.729 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	5	F098M expo sure	(7) BULGEFIELD7	WFC3/IR, MULTIACCUM, IR	F098M	SAMP-SEQ=STEP2 5; NSAMP=2	Sequence 1-10 Non-Int in Visit 04 Pattern 1, Exps 1-5 in Sequence 1-10 Non-Int in Visit 04 (1)	5.864582 Secs (11.729 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	6	F098M expo sure	(8) BULGEFIELD8	WFC3/IR, MULTIACCUM, IR	F098M	SAMP-SEQ=STEP2 5; NSAMP=2	Sequence 1-10 Non-Int in Visit 04 Pattern 1, Exps 6-10 in Sequence 1-10 Non-Int in Visit 04 (1)	5.864582 Secs (11.729 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	7	F153M expo sure	(8) BULGEFIELD8	WFC3/IR, MULTIACCUM, IR	F153M	SAMP-SEQ=STEP2 5; NSAMP=2	Sequence 1-10 Non-Int in Visit 04 Pattern 1, Exps 6-10 in Sequence 1-10 Non-Int in Visit 04 (1)	5.864582 Secs (11.729 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	8	F139M expo sure	(8) BULGEFIELD8	WFC3/IR, MULTIACCUM, IR	F139M	SAMP-SEQ=STEP2 5; NSAMP=2	Sequence 1-10 Non-Int in Visit 04 Pattern 1, Exps 6-10 in Sequence 1-10 Non-Int in Visit 04 (1)	5.864582 Secs (11.729 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	9	F130N expo sure	(8) BULGEFIELD8	WFC3/IR, MULTIACCUM, IR	F130N	SAMP-SEQ=STEP2 5; NSAMP=3	Sequence 1-10 Non-Int in Visit 04 Pattern 1, Exps 6-10 in Sequence 1-10 Non-Int in Visit 04 (1)	8.796873 Secs (17.594 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	10	F167N expo sure	(8) BULGEFIELD8	WFC3/IR, MULTIACCUM, IR	F167N	SAMP-SEQ=STEP2 5; NSAMP=3	Sequence 1-10 Non-Int in Visit 04 Pattern 1, Exps 6-10 in Sequence 1-10 Non-Int in Visit 04 (1)	8.796873 Secs (17.594 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]



Proposal 17173 - Visit 05 - Correcting for the Effects of Interstellar Extinction Toward the Roman Galactic Exoplanet Survey Fields

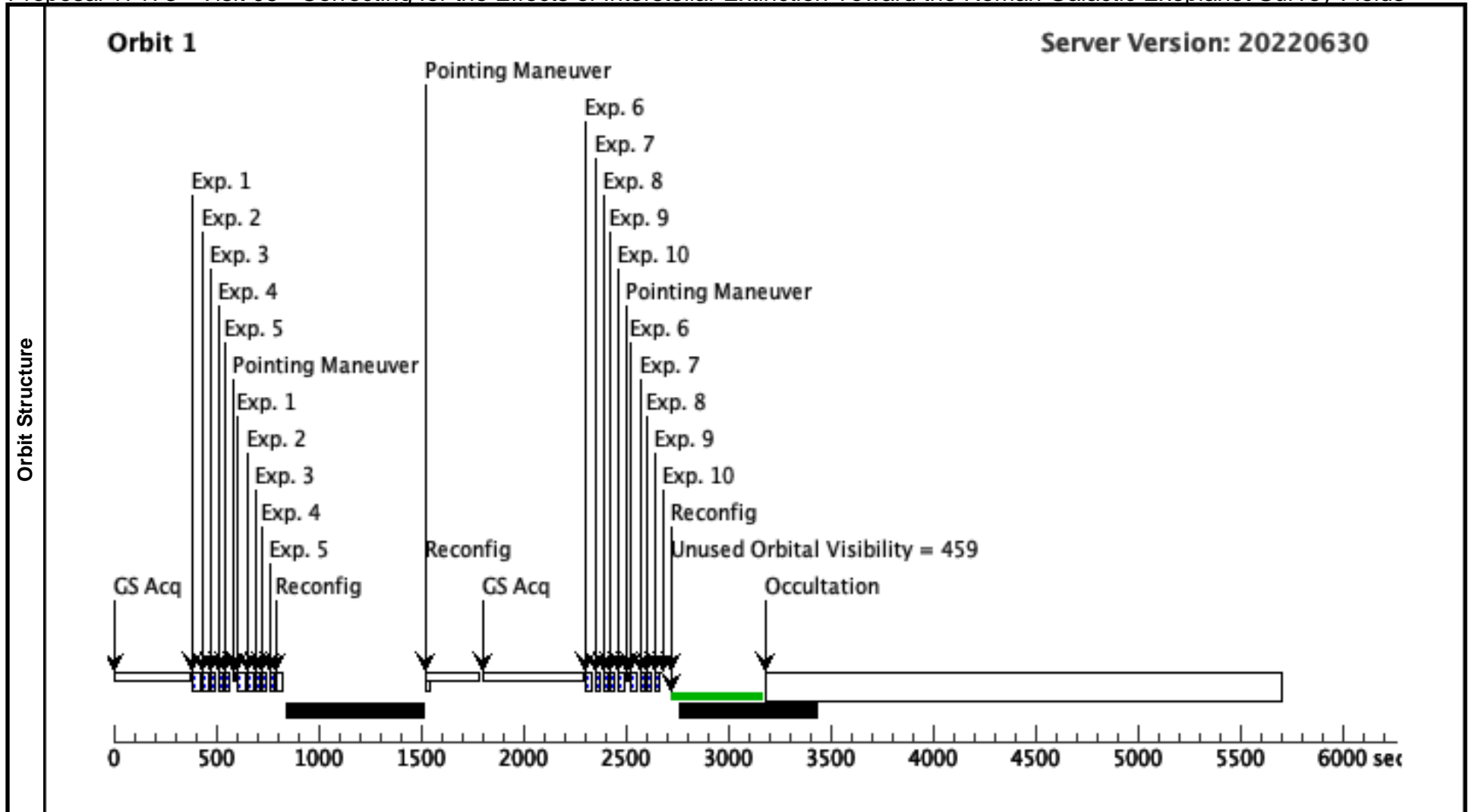
Mon Mar 27 18:00:26 GMT 2023

Visit	<b>Proposal 17173, Visit 05, pi</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/IR Special Requirements: (none)					
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures	
	(1)	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), (6-10)	
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(9)	BULGEFIELD9 Alt Name1: C1	RA: 17 53 2.8646 (268.2619358d) Dec: -31 40 20.20 (-31.67228d) Equinox: J2000		V=18+/-0.50	Reference Frame: ICRS
	<i>Comments:</i> Category=STAR Description=[K III-I] Extended=NO					
	(10)	BULGEFIELD10 Alt Name1: C3	RA: 17 53 22.7779 (268.3449079d) Dec: -31 55 44.80 (-31.92911d) Equinox: J2000		V=18+/-0.50	Reference Frame: ICRS
<i>Comments:</i> Category=STAR Description=[K III-I] Extended=NO						



Proposal 17173 - Visit 05 - Correcting for the Effects of Interstellar Extinction Toward the Roman Galactic Exoplanet Survey Fields

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	F167N expo sure	(9) BULGEFIELD9	WFC3/IR, MULTIACCUM, IR	F167N	SAMP-SEQ=STEP2 5; NSAMP=3	Sequence 1-10 Non-Int in Visit 05 Pattern 1, Exps 1-5 in Sequence 1-10 Non-Int in Visit 05 (1)	8.796873 Secs (17.594 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	2	F130N expo sure	(9) BULGEFIELD9	WFC3/IR, MULTIACCUM, IR	F130N	SAMP-SEQ=STEP2 5; NSAMP=3	Sequence 1-10 Non-Int in Visit 05 Pattern 1, Exps 1-5 in Sequence 1-10 Non-Int in Visit 05 (1)	8.796873 Secs (17.594 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	3	F139M expo sure	(9) BULGEFIELD9	WFC3/IR, MULTIACCUM, IR	F139M	SAMP-SEQ=STEP2 5; NSAMP=2	Sequence 1-10 Non-Int in Visit 05 Pattern 1, Exps 1-5 in Sequence 1-10 Non-Int in Visit 05 (1)	5.864582 Secs (11.729 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	4	F153M expo sure	(9) BULGEFIELD9	WFC3/IR, MULTIACCUM, IR	F153M	SAMP-SEQ=STEP2 5; NSAMP=2	Sequence 1-10 Non-Int in Visit 05 Pattern 1, Exps 1-5 in Sequence 1-10 Non-Int in Visit 05 (1)	5.864582 Secs (11.729 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	5	F098M expo sure	(9) BULGEFIELD9	WFC3/IR, MULTIACCUM, IR	F098M	SAMP-SEQ=STEP2 5; NSAMP=2	Sequence 1-10 Non-Int in Visit 05 Pattern 1, Exps 1-5 in Sequence 1-10 Non-Int in Visit 05 (1)	5.864582 Secs (11.729 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	6	F098M expo sure	(10) BULGEFIELD1 0	WFC3/IR, MULTIACCUM, IR	F167N	SAMP-SEQ=STEP2 5; NSAMP=2	Sequence 1-10 Non-Int in Visit 05 Pattern 1, Exps 6-10 in Sequence 1-10 Non-Int in Visit 05 (1)	5.864582 Secs (11.729 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	7	F153M expo sure	(10) BULGEFIELD1 0	WFC3/IR, MULTIACCUM, IR	F130N	SAMP-SEQ=STEP2 5; NSAMP=2	Sequence 1-10 Non-Int in Visit 05 Pattern 1, Exps 6-10 in Sequence 1-10 Non-Int in Visit 05 (1)	5.864582 Secs (11.729 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	8	F139M expo sure	(10) BULGEFIELD1 0	WFC3/IR, MULTIACCUM, IR	F139M	SAMP-SEQ=STEP2 5; NSAMP=2	Sequence 1-10 Non-Int in Visit 05 Pattern 1, Exps 6-10 in Sequence 1-10 Non-Int in Visit 05 (1)	5.864582 Secs (11.729 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	9	F130N expo sure	(10) BULGEFIELD1 0	WFC3/IR, MULTIACCUM, IR	F153M	SAMP-SEQ=STEP2 5; NSAMP=3	Sequence 1-10 Non-Int in Visit 05 Pattern 1, Exps 6-10 in Sequence 1-10 Non-Int in Visit 05 (1)	8.796873 Secs (17.594 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	10	F167N expo sure	(10) BULGEFIELD1 0	WFC3/IR, MULTIACCUM, IR	F098M	SAMP-SEQ=STEP2 5; NSAMP=3	Sequence 1-10 Non-Int in Visit 05 Pattern 1, Exps 6-10 in Sequence 1-10 Non-Int in Visit 05 (1)	8.796873 Secs (17.594 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]



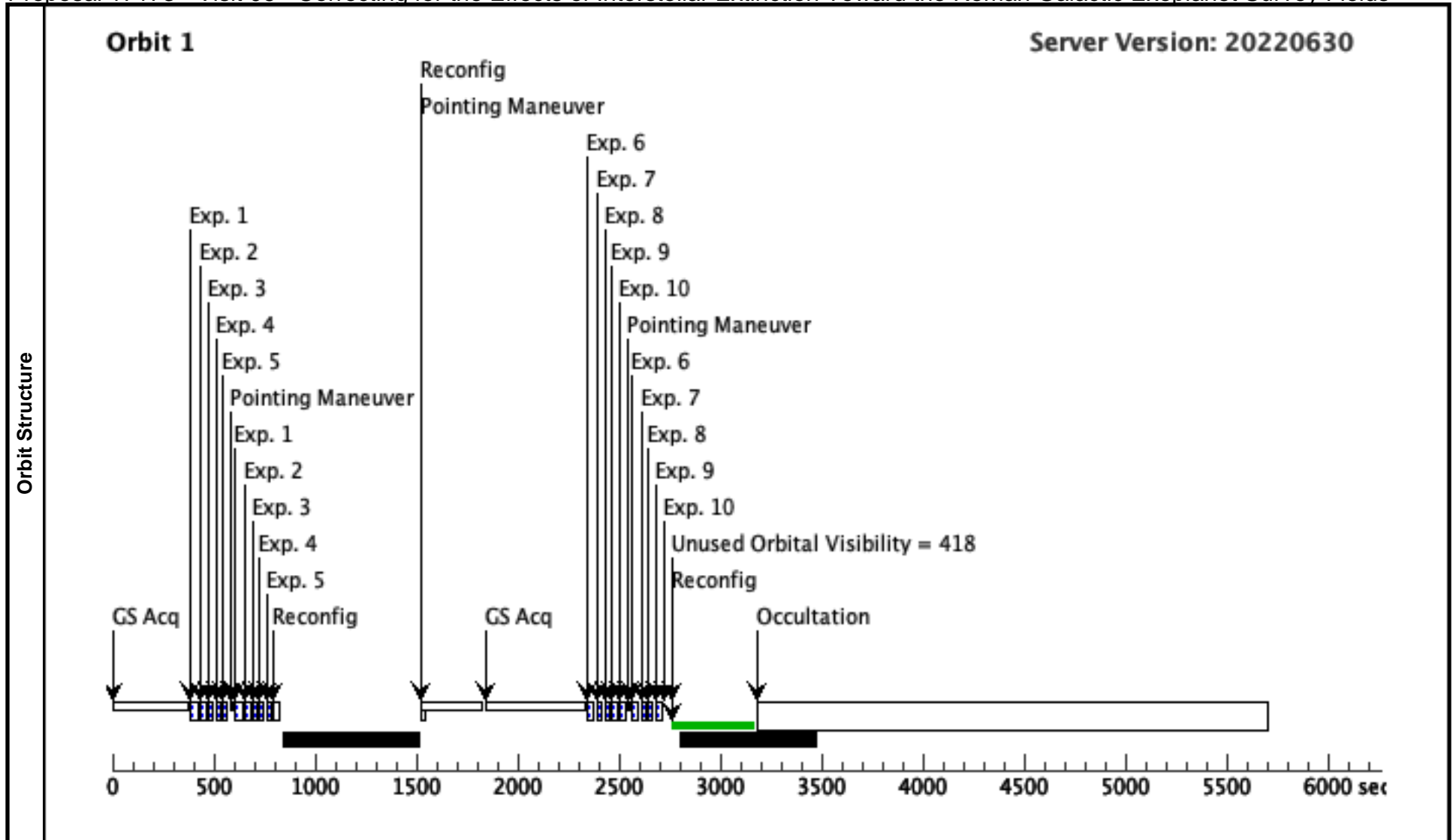
Proposal 17173 - Visit 06 - Correcting for the Effects of Interstellar Extinction Toward the Roman Galactic Exoplanet Survey Fields

Mon Mar 27 18:00:26 GMT 2023

Visit	<b>Proposal 17173, Visit 06, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/IR Special Requirements: (none)					
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures	
	(1)	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), (6-10)	
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(11)	BULGEFIELD11-HIGHEXTINCTION Alt Name1: C1	RA: 17 51 29.3729 (267.8723871d) Dec: -30 16 46.93 (-30.27970d) Equinox: J2000		V=19.3+/-0.50	Reference Frame: ICRS
		<i>Comments:</i> Category=STAR Description=[K III-I] Extended=NO				
(12)	BULGEFIELD12-HIGHEXTINCTION Alt Name1: C3	RA: 17 51 58.3558 (267.9931492d) Dec: -30 57 31.28 (-30.95869d) Equinox: J2000		V=19+/-0.50	Reference Frame: ICRS	
		<i>Comments:</i> Category=STAR Description=[K III-I] Extended=NO				

Proposal 17173 - Visit 06 - Correcting for the Effects of Interstellar Extinction Toward the Roman Galactic Exoplanet Survey Fields

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	F167N exposure	(11) BULGEFIELD1 1-HIGHEXTINCTION	WFC3/IR, MULTIACCUM, IR	F167N	SAMP-SEQ=STEP2 5; NSAMP=3	Sequence 1-10 Non-Int in Visit 06 Pattern 1, Exps 1-5 in Sequence 1-10 Non-Int in Visit 06 (1)	8.796873 Secs (17.594 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	2	F130N exposure	(11) BULGEFIELD1 1-HIGHEXTINCTION	WFC3/IR, MULTIACCUM, IR	F130N	SAMP-SEQ=STEP2 5; NSAMP=3	Sequence 1-10 Non-Int in Visit 06 Pattern 1, Exps 1-5 in Sequence 1-10 Non-Int in Visit 06 (1)	8.796873 Secs (17.594 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	3	F139M exposure	(11) BULGEFIELD1 1-HIGHEXTINCTION	WFC3/IR, MULTIACCUM, IR	F139M	SAMP-SEQ=STEP2 5; NSAMP=2	Sequence 1-10 Non-Int in Visit 06 Pattern 1, Exps 1-5 in Sequence 1-10 Non-Int in Visit 06 (1)	5.864582 Secs (11.729 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	4	F153M exposure	(11) BULGEFIELD1 1-HIGHEXTINCTION	WFC3/IR, MULTIACCUM, IR	F153M	SAMP-SEQ=STEP2 5; NSAMP=2	Sequence 1-10 Non-Int in Visit 06 Pattern 1, Exps 1-5 in Sequence 1-10 Non-Int in Visit 06 (1)	5.864582 Secs (11.729 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	5	F098M exposure	(11) BULGEFIELD1 1-HIGHEXTINCTION	WFC3/IR, MULTIACCUM, IR	F098M	SAMP-SEQ=STEP2 5; NSAMP=2	Sequence 1-10 Non-Int in Visit 06 Pattern 1, Exps 1-5 in Sequence 1-10 Non-Int in Visit 06 (1)	5.864582 Secs (11.729 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	6	F098M exposure	(12) BULGEFIELD1 2-HIGHEXTINCTION	WFC3/IR, MULTIACCUM, IR	F098M	SAMP-SEQ=STEP2 5; NSAMP=2	Sequence 1-10 Non-Int in Visit 06 Pattern 1, Exps 6-10 in Sequence 1-10 Non-Int in Visit 06 (1)	5.864582 Secs (11.729 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	7	F153M exposure	(12) BULGEFIELD1 2-HIGHEXTINCTION	WFC3/IR, MULTIACCUM, IR	F153M	SAMP-SEQ=STEP2 5; NSAMP=2	Sequence 1-10 Non-Int in Visit 06 Pattern 1, Exps 6-10 in Sequence 1-10 Non-Int in Visit 06 (1)	5.864582 Secs (11.729 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	8	F139M exposure	(12) BULGEFIELD1 2-HIGHEXTINCTION	WFC3/IR, MULTIACCUM, IR	F139M	SAMP-SEQ=STEP2 5; NSAMP=2	Sequence 1-10 Non-Int in Visit 06 Pattern 1, Exps 6-10 in Sequence 1-10 Non-Int in Visit 06 (1)	5.864582 Secs (11.729 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	9	F130N exposure	(12) BULGEFIELD1 2-HIGHEXTINCTION	WFC3/IR, MULTIACCUM, IR	F130N	SAMP-SEQ=STEP2 5; NSAMP=3	Sequence 1-10 Non-Int in Visit 06 Pattern 1, Exps 6-10 in Sequence 1-10 Non-Int in Visit 06 (1)	8.796873 Secs (17.594 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	10	F167N exposure	(12) BULGEFIELD1 2-HIGHEXTINCTION	WFC3/IR, MULTIACCUM, IR	F167N	SAMP-SEQ=STEP2 5; NSAMP=3	Sequence 1-10 Non-Int in Visit 06 Pattern 1, Exps 6-10 in Sequence 1-10 Non-Int in Visit 06 (1)	8.796873 Secs (17.594 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]



Proposal 17173 - Visit 07 - Correcting for the Effects of Interstellar Extinction Toward the Roman Galactic Exoplanet Survey Fields

Mon Mar 27 18:00:26 GMT 2023

Visit	<b>Proposal 17173, Visit 07, completed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/IR Special Requirements: (none)					
	Patterns	#	Primary Pattern	Secondary Pattern	Exposures	
	(1)	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), (6-10)	
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(13)	BULGEFIELD13-HIGHEXTINCTION Alt Name1: C1	RA: 17 51 22.0152 (267.8417300d) Dec: -29 34 34.54 (-29.57626d) Equinox: J2000		V=20+/-0.50	Reference Frame: ICRS
		<i>Comments:</i> Category=STAR Description=[K III-I] Extended=NO				
	(14)	BULGEFIELD14-HIGHEXTINCTION Alt Name1: C3	RA: 17 50 27.4613 (267.6144221d) Dec: -29 51 55.44 (-29.86540d) Equinox: J2000		V=20.4+/-0.50	Reference Frame: ICRS
		<i>Comments:</i> Category=STAR Description=[K III-I] Extended=NO				

Proposal 17173 - Visit 07 - Correcting for the Effects of Interstellar Extinction Toward the Roman Galactic Exoplanet Survey Fields

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
Exposures	1	F167N exposure	(13) BULGEFIELD1 3-HIGHEXTINCTION	WFC3/IR, MULTIACCUM, IR	F167N	SAMP-SEQ=STEP2 5; NSAMP=3	Sequence 1-10 Non-Int in Visit 07 Pattern 1, Exps 1-5 in Sequence 1-10 Non-Int in Visit 07 (1)	8.796873 Secs (17.594 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	2	F130N exposure	(13) BULGEFIELD1 3-HIGHEXTINCTION	WFC3/IR, MULTIACCUM, IR	F130N	SAMP-SEQ=STEP2 5; NSAMP=3	Sequence 1-10 Non-Int in Visit 07 Pattern 1, Exps 1-5 in Sequence 1-10 Non-Int in Visit 07 (1)	8.796873 Secs (17.594 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	3	F139M exposure	(13) BULGEFIELD1 3-HIGHEXTINCTION	WFC3/IR, MULTIACCUM, IR	F139M	SAMP-SEQ=STEP2 5; NSAMP=2	Sequence 1-10 Non-Int in Visit 07 Pattern 1, Exps 1-5 in Sequence 1-10 Non-Int in Visit 07 (1)	5.864582 Secs (11.729 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	4	F153M exposure	(13) BULGEFIELD1 3-HIGHEXTINCTION	WFC3/IR, MULTIACCUM, IR	F153M	SAMP-SEQ=STEP2 5; NSAMP=2	Sequence 1-10 Non-Int in Visit 07 Pattern 1, Exps 1-5 in Sequence 1-10 Non-Int in Visit 07 (1)	5.864582 Secs (11.729 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	5	F098M exposure	(13) BULGEFIELD1 3-HIGHEXTINCTION	WFC3/IR, MULTIACCUM, IR	F098M	SAMP-SEQ=STEP2 5; NSAMP=2	Sequence 1-10 Non-Int in Visit 07 Pattern 1, Exps 1-5 in Sequence 1-10 Non-Int in Visit 07 (1)	5.864582 Secs (11.729 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	6	F098M exposure	(14) BULGEFIELD1 4-HIGHEXTINCTION	WFC3/IR, MULTIACCUM, IR	F098M	SAMP-SEQ=STEP2 5; NSAMP=2	Sequence 1-10 Non-Int in Visit 07 Pattern 1, Exps 6-10 in Sequence 1-10 Non-Int in Visit 07 (1)	5.864582 Secs (11.729 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	7	F153M exposure	(14) BULGEFIELD1 4-HIGHEXTINCTION	WFC3/IR, MULTIACCUM, IR	F153M	SAMP-SEQ=STEP2 5; NSAMP=2	Sequence 1-10 Non-Int in Visit 07 Pattern 1, Exps 6-10 in Sequence 1-10 Non-Int in Visit 07 (1)	5.864582 Secs (11.729 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	8	F139M exposure	(14) BULGEFIELD1 4-HIGHEXTINCTION	WFC3/IR, MULTIACCUM, IR	F139M	SAMP-SEQ=STEP2 5; NSAMP=2	Sequence 1-10 Non-Int in Visit 07 Pattern 1, Exps 6-10 in Sequence 1-10 Non-Int in Visit 07 (1)	5.864582 Secs (11.729 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	9	F130N exposure	(14) BULGEFIELD1 4-HIGHEXTINCTION	WFC3/IR, MULTIACCUM, IR	F130N	SAMP-SEQ=STEP2 5; NSAMP=3	Sequence 1-10 Non-Int in Visit 07 Pattern 1, Exps 6-10 in Sequence 1-10 Non-Int in Visit 07 (1)	8.796873 Secs (17.594 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]
	10	F167N exposure	(14) BULGEFIELD1 4-HIGHEXTINCTION	WFC3/IR, MULTIACCUM, IR	F167N	SAMP-SEQ=STEP2 5; NSAMP=3	Sequence 1-10 Non-Int in Visit 07 Pattern 1, Exps 6-10 in Sequence 1-10 Non-Int in Visit 07 (1)	8.796873 Secs (17.594 Secs) [==>(Pattern 1)] [==>(Pattern 2)]	[1]

