



## 16408 - WFC3 IR Grisms: Flux/Trace Calibration

Cycle: 28, Proposal Category: CAL/WFC3

(Availability Mode: RESTRICTED)

### 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) GD-153	WFC3/IR	1	17-Dec-2020 11:00:36.0	yes
02	(2) GD-71	WFC3/IR	1	17-Dec-2020 11:00:38.0	yes
03	(3) GRW+70D5824	WFC3/IR	1	17-Dec-2020 11:00:40.0	yes

3 Total Orbits Used

### ABSTRACT

This program will observe GD-153 to verify the flux calibration near the center of the field and at a couple of new positions using the WFC3 IR G102 and G141 grisms. The data will be used also to calculate wavelength solutions for the grisms, and will be compared with those derived from previous programs:

15728

15587

15728

14994

14544

14386

14024

13579

13092

12702

12357

to check for any time evolution of the calibration.

This program will also observe GD-71 and GRW+70 to verify flux calibration and check time dependent sensitivity evolution of the G102 and G141 observing modes by comparing with previous observation (most recent programs being 14024 and 13575 for GD-71 and GRW+70, respectively).

### **OBSERVING DESCRIPTION**

Observations of GD-153 to verify the flux calibration near the center of the field and at a few other previously observed positions using the WFC3 IR G102 and G141 grisms. The data will be used to calculate wavelength solutions for the grisms, and will be compared with those derived from previous programs.

Observations will be taken with postargs of (-20,-0) (-20,+15) (-20,-15)

Observations of GD-71 to verify the flux calibration near the center of the field and at a few other previously observed positions using the WFC3 IR G102 and G141 grisms. The data will be used to calculate wavelength solutions for the grisms, and will be compared with those derived from previous programs. These data will also be used to check time dependant sensitivity of G102 and G141 observing modes

Observations will be taken with postargs of (-20,-0) (-20,+15) (-20,-15) (-40,+0)

Observations of GRW+70 to verify the flux calibration near the center of the field and at a few other previously observed positions using the WFC3 IR G102 and G141 grisms. The data will be used to calculate wavelength solutions for the grisms, and will be compared with those derived from previous programs. These data will also be used to check time dependant sensitivity of G102 and G141 observing modes

Observations will be taken with postargs of (-20,-0) (-20,+15) (-20,-15) (-40,+0)

Proposal 16408 - GD153 G102 and G141 (01) - WFC3 IR Grisms: Flux/Trace Calibration

Thu Dec 17 16:00:41 GMT 2020

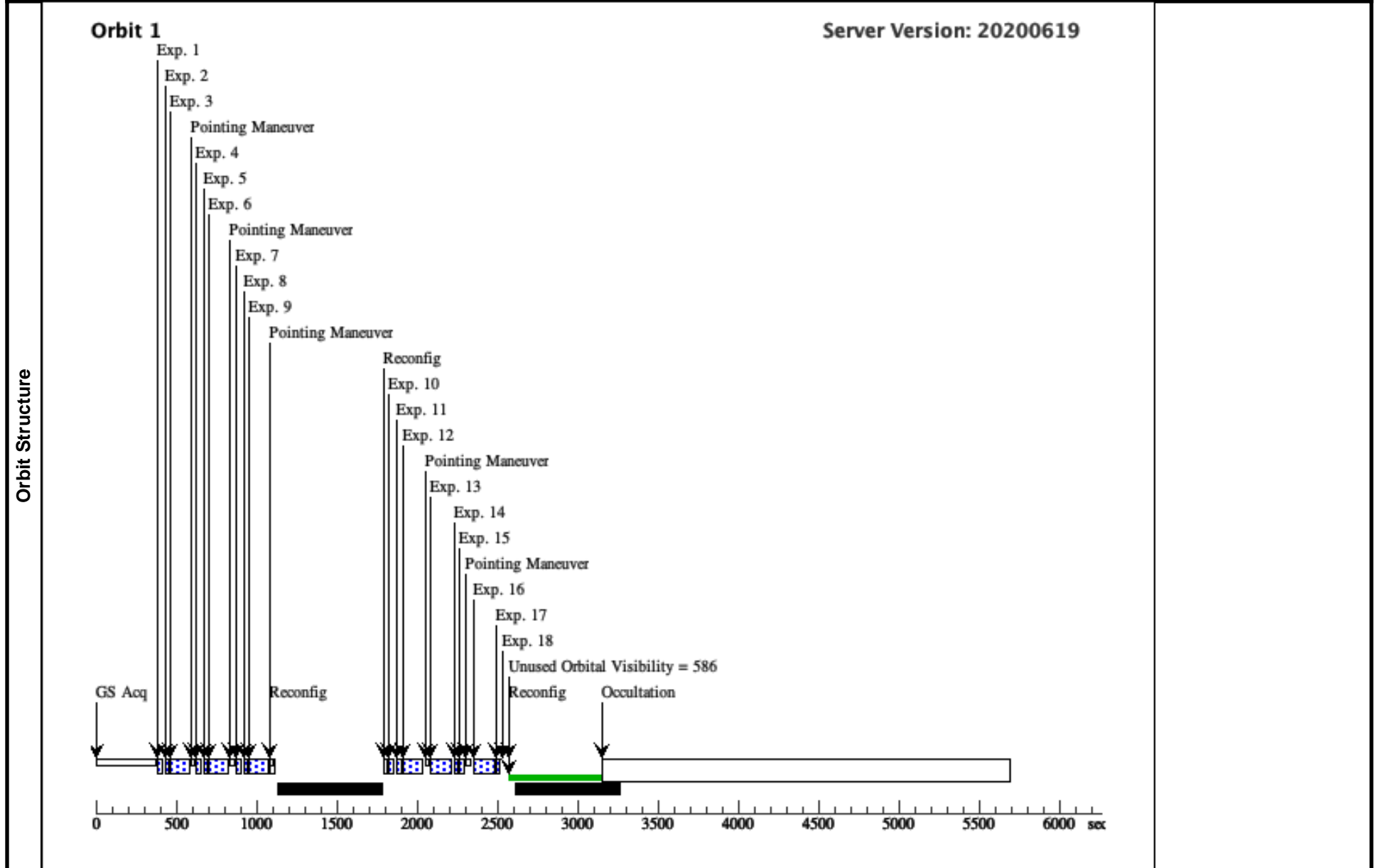
<b>Visit</b>	<p><b>Proposal 16408, GD153 G102 and G141 (01), scheduling</b></p> <p><b>Diagnostic Status: No Diagnostics</b></p> <p>Scientific Instruments: WFC3/IR</p> <p>Special Requirements: BETWEEN 01-MAR-2021:00:00:00 AND 01-JUN-2021:00:00:00</p> <p><i>Comments: Visit targetting GD153</i></p>												
	<b>Fixed Targets</b>	<table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Fluxes</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(1)</td> <td>GD-153</td> <td>RA: 12 57 2.3225 (194.2596771d) Dec: +22 01 52.63 (22.03129d) Equinox: J2000</td> <td>Proper Motion RA: -38.410 mas/yr Proper Motion Dec: -202.953 mas/yr Epoch of Position: 2000</td> <td>V=13.4</td> <td>Reference Frame: ICRS</td> </tr> </tbody> </table> <p><i>Comments: According to ISR WFC3-2011-05, GD-153 is used as the primary flux calibrator for the WFC3 IR grisms.</i></p> <p><i>Category=STAR</i></p> <p><i>Description=[DA]</i></p>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(1)	GD-153	RA: 12 57 2.3225 (194.2596771d) Dec: +22 01 52.63 (22.03129d) Equinox: J2000	Proper Motion RA: -38.410 mas/yr Proper Motion Dec: -202.953 mas/yr Epoch of Position: 2000	V=13.4
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous								
(1)	GD-153	RA: 12 57 2.3225 (194.2596771d) Dec: +22 01 52.63 (22.03129d) Equinox: J2000	Proper Motion RA: -38.410 mas/yr Proper Motion Dec: -202.953 mas/yr Epoch of Position: 2000	V=13.4	Reference Frame: ICRS								

Proposal 16408 - GD153 G102 and G141 (01) - WFC3 IR Grisms: Flux/Trace Calibration

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	In -20 -0 F0 98M	(1) GD-153	WFC3/IR, MULTIACCUM, GRISM1024	F098M	SAMP-SEQ=RAPID ; NSAMP=2	POS TARG -20,-0	Sequence 1-3 Non-Int in GD153 G102 and G141 (01)	5.864582 Secs (5.865 Secs) [==>]	[1]
	2	In -20 -0 F1 05W	(1) GD-153	WFC3/IR, MULTIACCUM, GRISM1024	F105W	SAMP-SEQ=RAPID ; NSAMP=1	POS TARG -20,-0	Sequence 1-3 Non-Int in GD153 G102 and G141 (01)	2.932291 Secs (2.932 Secs) [==>]	[1]
	3	In -20 -0 G1 02	(1) GD-153	WFC3/IR, MULTIACCUM, GRISM1024	G102	SAMP-SEQ=SPARS ; NSAMP=5	POS TARG -20,-0 25;	Sequence 1-3 Non-Int in GD153 G102 and G141 (01)	102.934351 Secs (102.934 Secs) [==>]	[1]
	4	In -20 +15 F 098M	(1) GD-153	WFC3/IR, MULTIACCUM, GRISM1024	F098M	SAMP-SEQ=RAPID ; NSAMP=2	POS TARG -20,+15	Sequence 4-6 Non-Int in GD153 G102 and G141 (01)	5.864582 Secs (5.865 Secs) [==>]	[1]
	5	In -20 +15 F 105W	(1) GD-153	WFC3/IR, MULTIACCUM, GRISM1024	F105W	SAMP-SEQ=RAPID ; NSAMP=1	POS TARG -20,+15	Sequence 4-6 Non-Int in GD153 G102 and G141 (01)	2.932291 Secs (2.932 Secs) [==>]	[1]
	6	In -20 +15 G102	(1) GD-153	WFC3/IR, MULTIACCUM, GRISM1024	G102	SAMP-SEQ=SPARS ; NSAMP=5	POS TARG -20,+15 25;	Sequence 4-6 Non-Int in GD153 G102 and G141 (01)	102.934351 Secs (102.934 Secs) [==>]	[1]
	7	In -20 -15 F 098M	(1) GD-153	WFC3/IR, MULTIACCUM, GRISM1024	F098M	SAMP-SEQ=RAPID ; NSAMP=2	POS TARG -20,-15	Sequence 7-9 Non-Int in GD153 G102 and G141 (01)	5.864582 Secs (5.865 Secs) [==>]	[1]
	8	In -20 -15 F 105W	(1) GD-153	WFC3/IR, MULTIACCUM, GRISM1024	F105W	SAMP-SEQ=RAPID ; NSAMP=1	POS TARG -20,-15	Sequence 7-9 Non-Int in GD153 G102 and G141 (01)	2.932291 Secs (2.932 Secs) [==>]	[1]
	9	In -20 -15 G 102	(1) GD-153	WFC3/IR, MULTIACCUM, GRISM1024	G102	SAMP-SEQ=SPARS ; NSAMP=5	POS TARG -20,-15 25;	Sequence 7-9 Non-Int in GD153 G102 and G141 (01)	102.934351 Secs (102.934 Secs) [==>]	[1]
	10	In -20 -0 F1 60W	(1) GD-153	WFC3/IR, MULTIACCUM, GRISM1024	F160W	SAMP-SEQ=RAPID ; NSAMP=2	POS TARG -20,-0	Sequence 10-12 Non-Int in GD153 G102 and G141 (01)	5.864582 Secs (5.865 Secs) [==>]	[1]
	11	In -20 -0 F1 40W	(1) GD-153	WFC3/IR, MULTIACCUM, GRISM1024	F140W	SAMP-SEQ=RAPID ; NSAMP=1	POS TARG -20,-0	Sequence 10-12 Non-Int in GD153 G102 and G141 (01)	2.932291 Secs (2.932 Secs) [==>]	[1]
	12	In -20 -0 G1 41	(1) GD-153	WFC3/IR, MULTIACCUM, GRISM1024	G141	SAMP-SEQ=SPARS ; NSAMP=5	POS TARG -20,-0 25;	Sequence 10-12 Non-Int in GD153 G102 and G141 (01)	102.934351 Secs (102.934 Secs) [==>]	[1]
	13	In -20 +15 G141	(1) GD-153	WFC3/IR, MULTIACCUM, GRISM1024	G141	SAMP-SEQ=SPARS ; NSAMP=5	POS TARG -20,+15 25;	Sequence 13-15 Non-Int in GD153 G102 and G141 (01)	102.934351 Secs (102.934 Secs) [==>]	[1]
	14	In -20 +15 F 160W	(1) GD-153	WFC3/IR, MULTIACCUM, GRISM1024	F160W	SAMP-SEQ=RAPID ; NSAMP=2	POS TARG -20,+15	Sequence 13-15 Non-Int in GD153 G102 and G141 (01)	5.864582 Secs (5.865 Secs) [==>]	[1]
	15	In -20 +15 F 140W	(1) GD-153	WFC3/IR, MULTIACCUM, GRISM1024	F140W	SAMP-SEQ=RAPID ; NSAMP=1	POS TARG -20,+15	Sequence 13-15 Non-Int in GD153 G102 and G141 (01)	2.932291 Secs (2.932 Secs) [==>]	[1]
16	In -20 -15 G 141	(1) GD-153	WFC3/IR, MULTIACCUM, GRISM1024	G141	SAMP-SEQ=SPARS ; NSAMP=5	POS TARG -20,-15 25;	Sequence 16-18 Non-Int in GD153 G102 and G141 (01)	102.934351 Secs (102.934 Secs) [==>]	[1]	

Proposal 16408 - GD153 G102 and G141 (01) - WFC3 IR Grisms: Flux/Trace Calibration

17	In -20 -15 F (1) GD-153 160W	WFC3/IR, MULTIACCUM, GRISM1024	F160W	SAMP-SEQ=RAPID POS TARG -20,-15 ; NSAMP=2	Sequence 16-18 Non-Int in GD153 G102 and G141 (01)	5.864582 Secs (5.865 Secs) [==>]	[1]
18	In -20 -15 F (1) GD-153 140W	WFC3/IR, MULTIACCUM, GRISM1024	F140W	SAMP-SEQ=RAPID POS TARG -20,-15 ; NSAMP=1	Sequence 16-18 Non-Int in GD153 G102 and G141 (01)	2.932291 Secs (2.932 Secs) [==>]	[1]



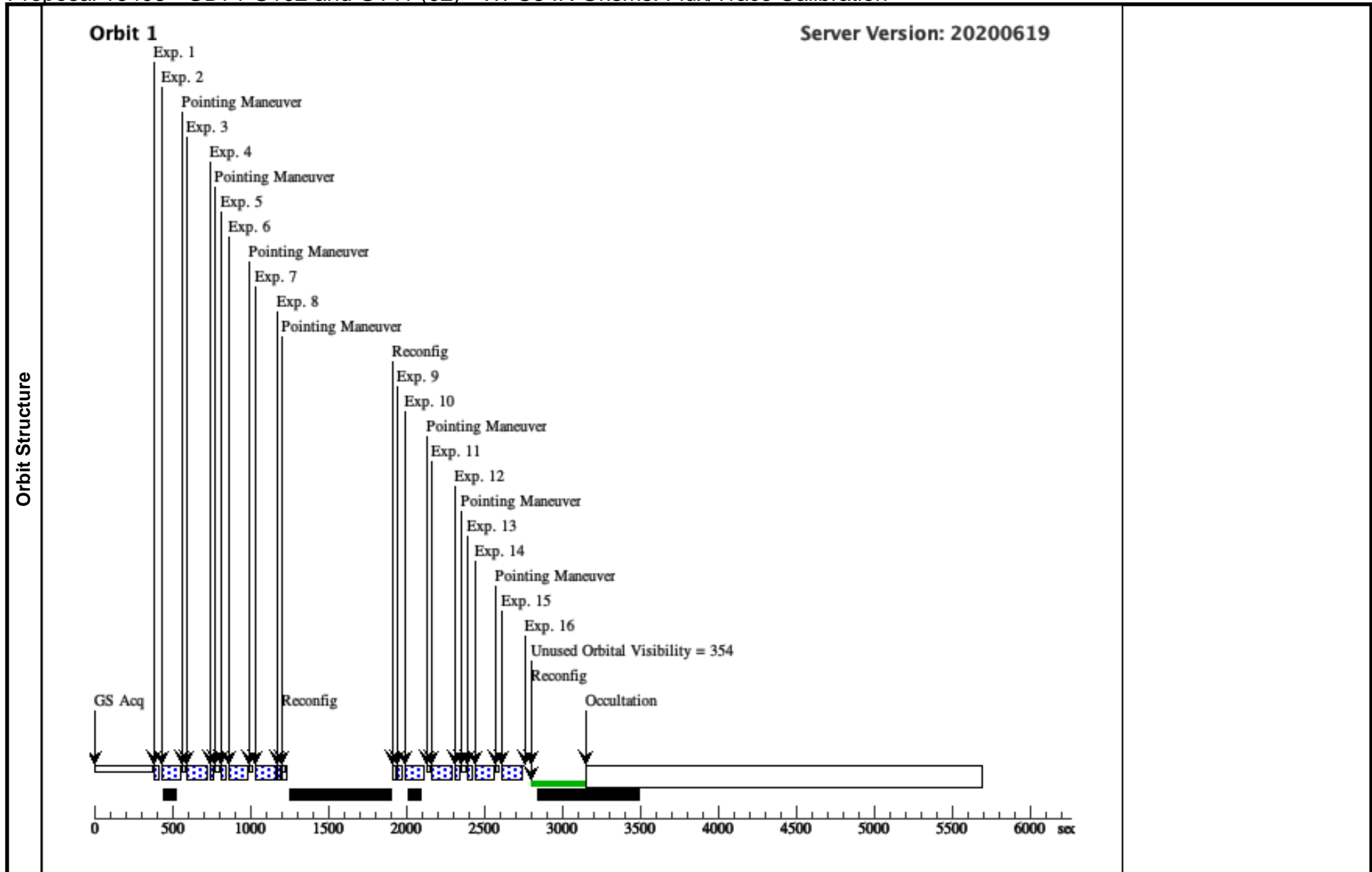
Proposal 16408 - GD71 G102 and G141 (02) - WFC3 IR Grisms: Flux/Trace Calibration

Thu Dec 17 16:00:41 GMT 2020

<b>Visit</b>	<p><b>Proposal 16408, GD71 G102 and G141 (02)</b></p> <p><b>Diagnostic Status: No Diagnostics</b></p> <p>Scientific Instruments: WFC3/IR</p> <p>Special Requirements: ORIENT 135D TO 154 D; ORIENT 197D TO 225 D; ORIENT 280D TO 310 D; ORIENT 26D TO 30 D; ORIENT 43D TO 55 D; BETWEEN 15-DEC-2020:00:00:00 AND 15-MAR-2021:00:00:00</p> <p><i>Comments: Visit targetting GD71</i></p>					
	<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>
(2)		GD-71	RA: 05 52 27.6197 (88.1150821d) Dec: +15 53 13.23 (15.88701d) Equinox: J2000	Proper Motion RA: 76.841 mas/yr Proper Motion Dec: -172.944 mas/yr Parallax: 0.019245" Epoch of Position: 2000	V=13.06	Reference Frame: ICRS
<p><i>Comments: GD-71 is a primary HST flux standard that has been used in the past to calibrate the NICMOS and ACS grism modes, which provides us with the ability to cross-calibrate between instruments. GD-71 is specifically chosen for the WFC3 IR grism calibration because it will provide an additional flux calibration target (GD-153 is used in SMOV for the IR grism calibration), so that the calibration is not based on a single target. An additional calibration target also minimizes the potential for problems from other nearby sources in the field.</i></p> <p>Category=STAR Description=[DA]</p>						

Proposal 16408 - GD71 G102 and G141 (02) - WFC3 IR Grisms: Flux/Trace Calibration

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
Exposures	1	In -20 -0 F0 98M (2) GD-71	WFC3/IR, MULTIACCUM, GRISM1024	F098M	SAMP-SEQ=RAPID ; NSAMP=2	POS TARG -20,-0	Sequence 1-2 Non-Int in GD71 G102 and G141 (02)	5.864582 Secs (5.865 Secs)	[==>]	[1]
	2	In -20 -0 G1 02 (2) GD-71	WFC3/IR, MULTIACCUM, GRISM1024	G102	SAMP-SEQ=SPARS 25; NSAMP=5	POS TARG -20,-0	Sequence 1-2 Non-Int in GD71 G102 and G141 (02)	102.934351 Secs (102.934 Secs)	[==>]	[1]
	3	In -20 +15 G102 (2) GD-71	WFC3/IR, MULTIACCUM, GRISM1024	G102	SAMP-SEQ=SPARS 25; NSAMP=5	POS TARG -20,+15	Sequence 3-4 Non-Int in GD71 G102 and G141 (02)	102.934351 Secs (102.934 Secs)	[==>]	[1]
	4	In -20 +15 F 098M (2) GD-71	WFC3/IR, MULTIACCUM, GRISM1024	F098M	SAMP-SEQ=RAPID ; NSAMP=2	POS TARG -20,+15	Sequence 3-4 Non-Int in GD71 G102 and G141 (02)	5.864582 Secs (5.865 Secs)	[==>]	[1]
	5	In -20 -15 F 098M (2) GD-71	WFC3/IR, MULTIACCUM, GRISM1024	F098M	SAMP-SEQ=RAPID ; NSAMP=2	POS TARG -20,-15	Sequence 5-6 Non-Int in GD71 G102 and G141 (02)	5.864582 Secs (5.865 Secs)	[==>]	[1]
	6	In -20 -15 G 102 (2) GD-71	WFC3/IR, MULTIACCUM, GRISM1024	G102	SAMP-SEQ=SPARS 25; NSAMP=5	POS TARG -20,-15	Sequence 5-6 Non-Int in GD71 G102 and G141 (02)	102.934351 Secs (102.934 Secs)	[==>]	[1]
	7	In -40 +0 G 102 (2) GD-71	WFC3/IR, MULTIACCUM, GRISM1024	G102	SAMP-SEQ=SPARS 25; NSAMP=5	POS TARG -40,+0	Sequence 7-8 Non-Int in GD71 G102 and G141 (02)	102.934351 Secs (102.934 Secs)	[==>]	[1]
	8	In -40 +0 F0 98M (2) GD-71	WFC3/IR, MULTIACCUM, GRISM1024	F098M	SAMP-SEQ=RAPID ; NSAMP=2	POS TARG -40,+0	Sequence 7-8 Non-Int in GD71 G102 and G141 (02)	5.864582 Secs (5.865 Secs)	[==>]	[1]
	9	In -20 -0 F1 40W (2) GD-71	WFC3/IR, MULTIACCUM, GRISM1024	F140W	SAMP-SEQ=RAPID ; NSAMP=2	POS TARG -20,-0	Sequence 9-10 Non-Int in GD71 G102 and G141 (02)	5.864582 Secs (5.865 Secs)	[==>]	[1]
	10	In -20 -0 G1 41 (2) GD-71	WFC3/IR, MULTIACCUM, GRISM1024	G141	SAMP-SEQ=SPARS 25; NSAMP=5	POS TARG -20,-0	Sequence 9-10 Non-Int in GD71 G102 and G141 (02)	102.934351 Secs (102.934 Secs)	[==>]	[1]
	11	In -20 +15 G141 (2) GD-71	WFC3/IR, MULTIACCUM, GRISM1024	G141	SAMP-SEQ=SPARS 25; NSAMP=5	POS TARG -20,+15	Sequence 11-12 Non-Int in GD71 G102 and G141 (02)	102.934351 Secs (102.934 Secs)	[==>]	[1]
	12	In -20 +15 F 140W (2) GD-71	WFC3/IR, MULTIACCUM, GRISM1024	F140W	SAMP-SEQ=RAPID ; NSAMP=2	POS TARG -20,+15	Sequence 11-12 Non-Int in GD71 G102 and G141 (02)	5.864582 Secs (5.865 Secs)	[==>]	[1]
	13	In -20 -15 F 140W (2) GD-71	WFC3/IR, MULTIACCUM, GRISM1024	F140W	SAMP-SEQ=RAPID ; NSAMP=2	POS TARG -20,-15	Sequence 13-14 Non-Int in GD71 G102 and G141 (02)	5.864582 Secs (5.865 Secs)	[==>]	[1]
	14	In -20 -15 G 141 (2) GD-71	WFC3/IR, MULTIACCUM, GRISM1024	G141	SAMP-SEQ=SPARS 25; NSAMP=5	POS TARG -20,-15	Sequence 13-14 Non-Int in GD71 G102 and G141 (02)	102.934351 Secs (102.934 Secs)	[==>]	[1]
	15	In -40 +0 G 141 (2) GD-71	WFC3/IR, MULTIACCUM, GRISM1024	G141	SAMP-SEQ=SPARS 25; NSAMP=5	POS TARG -40,+0	Sequence 15-16 Non-Int in GD71 G102 and G141 (02)	102.934351 Secs (102.934 Secs)	[==>]	[1]
	16	In -40 +0 F1 40W (2) GD-71	WFC3/IR, MULTIACCUM, GRISM1024	F140W	SAMP-SEQ=RAPID ; NSAMP=2	POS TARG -40,+0	Sequence 15-16 Non-Int in GD71 G102 and G141 (02)	5.864582 Secs (5.865 Secs)	[==>]	[1]



Proposal 16408 - GRW+70 G102 and G141 (03) - WFC3 IR Grisms: Flux/Trace Calibration

Thu Dec 17 16:00:41 GMT 2020

<b>Visit</b>	<b>Proposal 16408, GRW+70 G102 and G141 (03)</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: WFC3/IR Special Requirements: ORIENT 160D TO 315 D; ORIENT 340D TO 130 D; BETWEEN 15-DEC-2020:00:00:00 AND 15-MAR-2021:00:00:00 Comments: Visit targetting GRW+70																												
	<b>Fixed Targets</b>	<table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Fluxes</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(3)</td> <td>GRW+70D5824</td> <td>RA: 13 38 50.4781 (204.7103254d)</td> <td>Proper Motion RA: -402.093 mas/yr</td> <td>V=12.773</td> <td rowspan="3">Reference Frame: ICRS</td> </tr> <tr> <td></td> <td>Alt Name1: HIP-66578</td> <td>Dec: +70 17 7.64 (70.28546d)</td> <td>Proper Motion Dec: -24.608 mas/yr</td> <td>J = 13.25</td> </tr> <tr> <td></td> <td></td> <td>Equinox: J2000</td> <td>Parallax: 0.03771"</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td>Epoch of Position: 2000</td> <td></td> <td></td> </tr> </tbody> </table> <p>Comments: GRW+70 is a primary HST flux standard. GRW+70 is specifically chosen for the WFC3 IR grism calibration because it will provide an additional flux calibration target (GD-153 is used in SMOV for the IR grism calibration), so that the calibration is not based on a single target. An additional calibration target also minimizes the potential for problems from other nearby sources in the field.                  Category=CALIBRATION                  Description=[PHOTOMETRIC]</p>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(3)	GRW+70D5824	RA: 13 38 50.4781 (204.7103254d)	Proper Motion RA: -402.093 mas/yr	V=12.773	Reference Frame: ICRS		Alt Name1: HIP-66578	Dec: +70 17 7.64 (70.28546d)	Proper Motion Dec: -24.608 mas/yr	J = 13.25			Equinox: J2000	Parallax: 0.03771"					Epoch of Position: 2000	
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous																								
(3)	GRW+70D5824	RA: 13 38 50.4781 (204.7103254d)	Proper Motion RA: -402.093 mas/yr	V=12.773	Reference Frame: ICRS																								
	Alt Name1: HIP-66578	Dec: +70 17 7.64 (70.28546d)	Proper Motion Dec: -24.608 mas/yr	J = 13.25																									
		Equinox: J2000	Parallax: 0.03771"																										
			Epoch of Position: 2000																										

Proposal 16408 - GRW+70 G102 and G141 (03) - WFC3 IR Grisms: Flux/Trace Calibration

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	In -20 -0 F0 98M	(3) GRW+70D5824	WFC3/IR, MULTIACCUM, GRISM1024	F098M	SAMP-SEQ=RAPID ; NSAMP=2	POS TARG -20,-0	Sequence 1-2 Non-Int in GRW+70 G102 and G141 (03)	5.864582 Secs (5.865 Secs) [==>]	[1]
	2	In -20 -0 G1 02	(3) GRW+70D5824	WFC3/IR, MULTIACCUM, GRISM1024	G102	SAMP-SEQ=SPARS ; NSAMP=5	POS TARG -20,-0	Sequence 1-2 Non-Int in GRW+70 G102 and G141 (03)	102.934351 Secs (102.934 Secs) [==>]	[1]
	3	In -20 +15 G102	(3) GRW+70D5824	WFC3/IR, MULTIACCUM, GRISM1024	G102	SAMP-SEQ=SPARS ; NSAMP=5	POS TARG -20,+15	Sequence 3-4 Non-Int in GRW+70 G102 and G141 (03)	102.934351 Secs (102.934 Secs) [==>]	[1]
	4	In -20 +15 F 098M	(3) GRW+70D5824	WFC3/IR, MULTIACCUM, GRISM1024	F098M	SAMP-SEQ=RAPID ; NSAMP=2	POS TARG -20,+15	Sequence 3-4 Non-Int in GRW+70 G102 and G141 (03)	5.864582 Secs (5.865 Secs) [==>]	[1]
	5	In -20 -15 F 098M	(3) GRW+70D5824	WFC3/IR, MULTIACCUM, GRISM1024	F098M	SAMP-SEQ=RAPID ; NSAMP=2	POS TARG -20,-15	Sequence 5-6 Non-Int in GRW+70 G102 and G141 (03)	5.864582 Secs (5.865 Secs) [==>]	[1]
	6	In -20 -15 G 102	(3) GRW+70D5824	WFC3/IR, MULTIACCUM, GRISM1024	G102	SAMP-SEQ=SPARS ; NSAMP=5	POS TARG -20,-15	Sequence 5-6 Non-Int in GRW+70 G102 and G141 (03)	102.934351 Secs (102.934 Secs) [==>]	[1]
	7	In -40 +0 G 102	(3) GRW+70D5824	WFC3/IR, MULTIACCUM, GRISM1024	G102	SAMP-SEQ=SPARS ; NSAMP=5	POS TARG -40,+0	Sequence 7-8 Non-Int in GRW+70 G102 and G141 (03)	102.934351 Secs (102.934 Secs) [==>]	[1]
	8	In -40 +0 F0 98M	(3) GRW+70D5824	WFC3/IR, MULTIACCUM, GRISM1024	F098M	SAMP-SEQ=RAPID ; NSAMP=2	POS TARG -40,+0	Sequence 7-8 Non-Int in GRW+70 G102 and G141 (03)	5.864582 Secs (5.865 Secs) [==>]	[1]
	9	In -20 -0 F1 40W	(3) GRW+70D5824	WFC3/IR, MULTIACCUM, GRISM1024	F140W	SAMP-SEQ=RAPID ; NSAMP=2	POS TARG -20,-0	Sequence 9-10 Non-Int in GRW+70 G102 and G141 (03)	5.864582 Secs (5.865 Secs) [==>]	[1]
	10	In -20 -0 G1 41	(3) GRW+70D5824	WFC3/IR, MULTIACCUM, GRISM1024	G141	SAMP-SEQ=SPARS ; NSAMP=5	POS TARG -20,-0	Sequence 9-10 Non-Int in GRW+70 G102 and G141 (03)	102.934351 Secs (102.934 Secs) [==>]	[1]
	11	In -20 +15 G141	(3) GRW+70D5824	WFC3/IR, MULTIACCUM, GRISM1024	G141	SAMP-SEQ=SPARS ; NSAMP=5	POS TARG -20,+15	Sequence 11-12 Non-Int in GRW+70 G102 and G141 (03)	102.934351 Secs (102.934 Secs) [==>]	[1]
	12	In -20 +15 F 140W	(3) GRW+70D5824	WFC3/IR, MULTIACCUM, GRISM1024	F140W	SAMP-SEQ=RAPID ; NSAMP=2	POS TARG -20,+15	Sequence 11-12 Non-Int in GRW+70 G102 and G141 (03)	5.864582 Secs (5.865 Secs) [==>]	[1]
	13	In -20 -15 F 140W	(3) GRW+70D5824	WFC3/IR, MULTIACCUM, GRISM1024	F140W	SAMP-SEQ=RAPID ; NSAMP=2	POS TARG -20,-15	Sequence 13-14 Non-Int in GRW+70 G102 and G141 (03)	5.864582 Secs (5.865 Secs) [==>]	[1]
	14	In -20 -15 G 141	(3) GRW+70D5824	WFC3/IR, MULTIACCUM, GRISM1024	G141	SAMP-SEQ=SPARS ; NSAMP=5	POS TARG -20,-15	Sequence 13-14 Non-Int in GRW+70 G102 and G141 (03)	102.934351 Secs (102.934 Secs) [==>]	[1]
	15	In -40 +0 G 141	(3) GRW+70D5824	WFC3/IR, MULTIACCUM, GRISM1024	G141	SAMP-SEQ=SPARS ; NSAMP=5	POS TARG -40,+0	Sequence 15-16 Non-Int in GRW+70 G102 and G141 (03)	102.934351 Secs (102.934 Secs) [==>]	[1]
16	In -40 +0 F1 40W	(3) GRW+70D5824	WFC3/IR, MULTIACCUM, GRISM1024	F140W	SAMP-SEQ=RAPID ; NSAMP=2	POS TARG -40,+0	Sequence 15-16 Non-Int in GRW+70 G102 and G141 (03)	5.864582 Secs (5.865 Secs) [==>]	[1]	

