



# 1530 - LRS Dispersion Correction

Cycle: 1, Proposal Category: CAL/MIRI

## INVESTIGATORS

<i>Name</i>	<i>Institution</i>	<i>E-Mail</i>
<b>Sarah Kendrew (PI)</b>	<b>Space Telescope Science Institute - ESA - JWST</b>	<b>skendrew@stsci.edu</b>
Greg Sloan (CoI) (CoPI) (Contact)	Space Telescope Science Institute	gcsloan@stsci.edu

## OBSERVATIONS

<i>Folder</i>	<i>Observation</i>	<i>Label</i>	<i>Observing Template</i>	<i>Science Target</i>
Observation Folder				
	1	VFTS 822 Epoch 1	MIRI Low Resolution Spectroscopy	(1) VFTS822
	2	HD 50083 Epoch 1	MIRI Low Resolution Spectroscopy	(2) HD50083
	4	HD 50083 Epoch 2	MIRI Low Resolution Spectroscopy	(2) HD50083
Observation Folder				
	5	HD 76534 slit	MIRI Low Resolution Spectroscopy	(4) HD76534
	6	SMP LMC-58 slit	MIRI Low Resolution Spectroscopy	(5) IRAS-05248-7007

## ABSTRACT

This activity will measure the dispersion solution for the LRS (slit and slitless) by observing Be stars, which have spectra full of hydrogen recombination lines. The Cycle 1 Cal observations build on observations during Commissioning and will be especially helpful at longer wavelengths where the sensitivity of the LRS is limited.

This calibration program is provisional and may change in response to system developments and the final science program.

## OBSERVING DESCRIPTION

## JWST Proposal 1530 (Created: Monday, November 21, 2022 at 2:01:44 PM Eastern Standard Time) - Overview

This APT file includes four observations, each with one visit, two for VFTS 822, which will be observed in the LRS slit, and two for HD 50083, which will be observed in the LRS slitless mode.

### TIMING CONSTRAINTS:

All timing constraints assume a launch date of 25 Dec 2021 and the beginning of Cycle 1 six months later.

VFTS 822 should be observed in Months 2 and 8 of Cycle 1 (Obs. 1 and 3, respectively). If necessary, Obs. 1 could occur in Month 1 (but not Month 3). Obs. 3 could occur one month early or late (Months 7-9). VFTS 822 is in the southern CVZ.

HD 50083 is visible in two 53-day windows each year, and it should be observed once in each window, regardless of when Cycle 1 begins. The timing constraints assume the launch date given above.

Missed or failed observations should be repeated within the originally requested observing window.

### TARGETS:

JWST Astr 2 is a backup target for VFTS 822.

# Proposal 1530 - Targets - LRS Dispersion Correction

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	VFTS822	RA: 05 39 38.4780 (84.9103250d) Dec: -69 09 0.52 (-69.15014d) Equinox: J2000	Proper Motion RA: 1.566 mas/yr Proper Motion Dec: 0.716 mas/yr Parallax: 0.0" Epoch of Position: 2000.00	
<i>Comments: Gaia DR2 coordinates</i> Category=Star Description=[B stars] Extended=NO				
(2)	HD50083	RA: 06 51 45.7533 (102.9406388d) Dec: +05 05 3.86 (5.08441d) Equinox: J2000	Proper Motion RA: -0.412 mas/yr Proper Motion Dec: -1.791 mas/yr Parallax: 0.000897" Epoch of Position: 2000.0	
<i>Comments: Gaia DR2 coordinates</i> Category=Star Description=[B stars] Extended=NO				
(3)	JWSTASTR2	RA: 05 21 30.2020 (80.3758417d) Dec: -69 31 54.45 (-69.53179d) Equinox: J2000		
<i>Comments: 2MASS coordinates - should be updated</i> Category=Star Description=[B stars] Extended=NO				
(4)	HD76534	RA: 08 55 8.7067 (133.7862779d) Dec: -43 27 59.89 (-43.46664d) Equinox: J2000	Proper Motion RA: -6.98 mas/yr Proper Motion Dec: 4.03 mas/yr Parallax: 0.00102" Epoch of Position: 2000.0	
<i>Comments: Hipparcos coordinates (which are the most current in SIMBAD)</i> Category=Star Description=[B stars] Extended=NO				
(5)	IRAS-05248-7007	RA: 05 24 20.7521 (81.0864671d) Dec: -70 05 1.60 (-70.08378d) Equinox: J2000	Proper Motion RA: 3.458137752944413E-4 sec of time/yr Proper Motion Dec: 2.45E-4 arcsec/yr Epoch of Position: 2015.5	
<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i> Category=ISM Description=[Planetary nebulae]				
(6)	HH211-KNOT	RA: 03 44 0.0000 (56.0000000d) Dec: +32 00 32.95 (32.00915d) Equinox: J2000	Epoch of Position: 2000.0	
<i>Comments:</i> Category=ISM Description=[Herbig-Haro objects] Extended=NO				

Fixed Targets

## Proposal 1530 - Targets - LRS Dispersion Correction

(7)	HH211-OFFTARGET	RA: 03 43 59.7090 (55.9987875d) Dec: +32 00 50.19 (32.01394d) Equinox: J2000
-----	-----------------	--

*Comments:*

*Category=ISM*

*Description=[Herbig-Haro objects]*

*Extended=YES*

Proposal 1530 - Observation 1 - LRS Dispersion Correction

Mon Nov 21 19:01:44 GMT 2022

<b>Observation</b>	<p><b>Proposal 1530, Observation 1: VFTS 822 Epoch 1</b></p> <p><b>Diagnostic Status: Warning</b></p> <p>Observing Template: MIRI Low Resolution Spectroscopy</p>								
<b>Diagnostics</b>	(Visit 1:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.								
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>			<b>Miscellaneous</b>		
	(1)	VFTS822	RA: 05 39 38.4780 (84.9103250d) Dec: -69 09 0.52 (-69.15014d) Equinox: J2000	Proper Motion RA: 1.566 mas/yr Proper Motion Dec: 0.716 mas/yr Parallax: 0.0" Epoch of Position: 2000.00					
	<p><i>Comments: Gaia DR2 coordinates</i></p> <p><i>Category=Star</i></p> <p><i>Description=[B stars]</i></p> <p><i>Extended=NO</i></p>								
<b>Acquisition</b>	<b>#</b>	<b>Target</b>	<b>Filter</b>	<b>Readout Pattern</b>	<b>Groups/Int</b>	<b>Integrations/Exp</b>	<b>Total Integrations</b>	<b>Total Exposure Time</b>	<b>ETC Wkbk.Calc ID</b>
	1	SAME	FND	FAST	10	1	1	27.75	86063.13
<b>Template</b>	<b>Subarray</b>				<b>Obtain Verification Image?</b>				
	FULL				true				
<b>Dithers</b>	<b>#</b>	<b>Dither Type</b>	<b>No. Spectral Steps</b>	<b>Spectral Step Offset</b>	<b>No. Spatial Steps</b>	<b>Spatial Step Offset</b>			
	1	ALONG SLIT NOD							
<b>Pointing Verification</b>	<b>#</b>	<b>Readout Pattern</b>	<b>Groups/Int</b>	<b>Integrations/Exp</b>	<b>Total Integrations</b>	<b>Total Exposure Time</b>	<b>ETC Wkbk.Calc ID</b>		
	1	FAST	10	1	1	27.75	86063.13		

Proposal 1530 - Observation 1 - LRS Dispersion Correction

Spectral Elements	#	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Exposures/Dith	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
	Special Requirements	1	FASTR1	8	12	24	1	2	593.859
	Between Dates 22-JUL-2022 and 21-AUG-2022								

Proposal 1530 - Observation 2 - LRS Dispersion Correction

Mon Nov 21 19:01:44 GMT 2022

<b>Observation</b>	<b>Proposal 1530, Observation 2: HD 50083 Epoch 1</b> <b>Diagnostic Status: Warning</b> Observing Template: MIRI Low Resolution Spectroscopy									
<b>Diagnostics</b>	(Visit 2:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.									
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>			<b>Miscellaneous</b>			
	(2)	HD50083	RA: 06 51 45.7533 (102.9406388d) Dec: +05 05 3.86 (5.08441d) Equinox: J2000	Proper Motion RA: -0.412 mas/yr Proper Motion Dec: -1.791 mas/yr Parallax: 0.000897" Epoch of Position: 2000.0						
	<i>Comments: Gaia DR2 coordinates</i> <i>Category=Star</i> <i>Description=[B stars]</i> <i>Extended=NO</i>									
<b>Acquisition</b>	<b>#</b>	<b>Target</b>	<b>Filter</b>	<b>Readout Pattern</b>	<b>Groups/Int</b>	<b>Integrations/Exp</b>	<b>Total Integrations</b>	<b>Total Exposure Time</b>	<b>ETC Wkbk.Calc ID</b>	
	1	SAME	F1500W	FAST	4	1	1	0.636	86063.03	
<b>Template</b>	<b>Subarray</b>				<b>Obtain Verification Image?</b>					
	SLITLESSPRISM				true					
<b>Dithers</b>	<b>#</b>	<b>Dither Type</b>	<b>No. Spectral Steps</b>	<b>Spectral Step Offset</b>	<b>No. Spatial Steps</b>	<b>Spatial Step Offset</b>				
	1	NONE								
<b>Pointing Verification</b>	<b>#</b>	<b>Readout Pattern</b>	<b>Groups/Int</b>	<b>Integrations/Exp</b>	<b>Total Integrations</b>	<b>Total Exposure Time</b>	<b>ETC Wkbk.Calc ID</b>			
	1	FAST	4	1	1	0.636	86063.03			

Proposal 1530 - Observation 2 - LRS Dispersion Correction

Spectral Elements	#	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Exposures/Dith	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
	Special Requirements	1	FASTR1	5	16	16	1	1	15.109
	Before Date 31-DEC-2022								

Proposal 1530 - Observation 4 - LRS Dispersion Correction

Mon Nov 21 19:01:44 GMT 2022

<b>Observation</b>	<b>Proposal 1530, Observation 4: HD 50083 Epoch 2</b> <b>Diagnostic Status: Warning</b> Observing Template: MIRI Low Resolution Spectroscopy									
<b>Diagnostics</b>	(Visit 4:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.									
<b>Fixed Targets</b>	#	Name	Target Coordinates	Targ. Coord. Corrections			Miscellaneous			
	(2)	HD50083	RA: 06 51 45.7533 (102.9406388d) Dec: +05 05 3.86 (5.08441d) Equinox: J2000	Proper Motion RA: -0.412 mas/yr Proper Motion Dec: -1.791 mas/yr Parallax: 0.000897" Epoch of Position: 2000.0						
	Comments: Gaia DR2 coordinates Category=Star Description=[B stars] Extended=NO									
<b>Acquisition</b>	#	Target	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID	
	1	SAME	F1500W	FAST	4	1	1	0.636	86063.03	
<b>Template</b>	Subarray				Obtain Verification Image?					
	SLITLESSPRISM				true					
<b>Dithers</b>	#	Dither Type	No. Spectral Steps	Spectral Step Offset	No. Spatial Steps	Spatial Step Offset				
	1	NONE								
<b>Pointing Verification</b>	#	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID			
	1	FAST	4	1	1	0.636	86063.03			

Proposal 1530 - Observation 4 - LRS Dispersion Correction

Spectral Elements	#	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Exposures/Dith	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
	Special Requirements	1	FASTR1	5	16	16	1	1	15.109
	Between Dates 31-DEC-2022 and 21-JUN-2023								

# Proposal 1530 - Observation 5 - LRS Dispersion Correction

Mon Nov 21 19:01:44 GMT 2022

<b>Observation</b>	<b>Proposal 1530, Observation 5: HD 76534 slit</b> <b>Diagnostic Status: Warning</b> Observing Template: MIRI Low Resolution Spectroscopy									
<b>Diagnostics</b>	(HD 76534 slit (Obs 5)) Warning (Form): Record ETC Wkbk.Calc ID used to verify target acquisition. (Exposure) Warning (Form): Record ETC Wkbk.Calc ID used to verify target acquisition. (Visit 5:1) Warning (Form): Overheads are provisional until the Visit Planner has been run. (Visit 5:1) Warning (Form): Visit schedulable, but most scheduling windows are when JWST is pointed in direction of greatest micrometeoroid impact risk. This is likely due to scheduling special requirements.									
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>			<b>Miscellaneous</b>			
	(4)	HD76534	RA: 08 55 8.7067 (133.7862779d) Dec: -43 27 59.89 (-43.46664d) Equinox: J2000	Proper Motion RA: -6.98 mas/yr Proper Motion Dec: 4.03 mas/yr Parallax: 0.00102" Epoch of Position: 2000.0						
	<i>Comments: Hipparcos coordinates (which are the most current in SIMBAD)</i> <i>Category=Star</i> <i>Description=[B stars]</i> <i>Extended=NO</i>									
<b>Acquisition</b>	<b>#</b>	<b>Target</b>	<b>Filter</b>	<b>Readout Pattern</b>	<b>Groups/Int</b>	<b>Integrations/Exp</b>	<b>Total Integrations</b>	<b>Total Exposure Time</b>	<b>ETC Wkbk.Calc ID</b>	
	1	4 HD76534	FND	FAST	4	1	1	11.1		
<b>Template</b>	<b>Subarray</b>				<b>Obtain Verification Image?</b>					
	FULL				true					
<b>Dithers</b>	<b>#</b>	<b>Dither Type</b>	<b>No. Spectral Steps</b>	<b>Spectral Step Offset</b>	<b>No. Spatial Steps</b>	<b>Spatial Step Offset</b>				
	1	ALONG SLIT NOD								
<b>Pointing Verification</b>	<b>#</b>	<b>Readout Pattern</b>	<b>Groups/Int</b>	<b>Integrations/Exp</b>	<b>Total Integrations</b>	<b>Total Exposure Time</b>	<b>ETC Wkbk.Calc ID</b>			
	1	FAST	4	1	1	11.1				

Proposal 1530 - Observation 5 - LRS Dispersion Correction

Spectral Elements	#	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Exposures/Dith	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
	Special Requirements	1	FASTR1	5	5	10	1	2	160.952
	Between Dates 20-NOV-2022:00:00:00 and 15-DEC-2022:00:00:00								

Proposal 1530 - Observation 6 - LRS Dispersion Correction

Mon Nov 21 19:01:44 GMT 2022

<b>Observation</b>	<p><b>Proposal 1530, Observation 6: SMP LMC-58 slit</b></p> <p><b>Diagnostic Status: Warning</b></p> <p>Observing Template: MIRI Low Resolution Spectroscopy</p>								
<b>Diagnostics</b>	<p>(SMP LMC-58 slit (Obs 6)) Warning (Form): Record ETC Wkbk.Calc ID used to verify target acquisition.</p> <p>(Exposure) Warning (Form): Record ETC Wkbk.Calc ID used to verify target acquisition.</p> <p>(Visit 6:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.</p>								
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>			<b>Miscellaneous</b>		
	(5)	IRAS-05248-7007	RA: 05 24 20.7521 (81.0864671d) Dec: -70 05 1.60 (-70.08378d) Equinox: J2000	Proper Motion RA: 3.458137752944413E-4 sec of time/yr Proper Motion Dec: 2.45E-4 arcsec/yr Epoch of Position: 2015.5					
	<p><i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i></p> <p><i>Category=ISM</i></p> <p><i>Description=[Planetary nebulae]</i></p>								
<b>Acquisition</b>	<b>#</b>	<b>Target</b>	<b>Filter</b>	<b>Readout Pattern</b>	<b>Groups/Int</b>	<b>Integrations/Exp</b>	<b>Total Integrations</b>	<b>Total Exposure Time</b>	<b>ETC Wkbk.Calc ID</b>
	1	SAME	FND	FAST	4	1	1	11.1	
<b>Template</b>	<b>Subarray</b>				<b>Obtain Verification Image?</b>				
	FULL				false				
<b>Dithers</b>	<b>#</b>	<b>Dither Type</b>	<b>No. Spectral Steps</b>	<b>Spectral Step Offset</b>	<b>No. Spatial Steps</b>	<b>Spatial Step Offset</b>			
	1	ALONG SLIT NOD							
<b>Spectral Elements</b>	<b>#</b>	<b>Readout Pattern</b>	<b>Groups/Int</b>	<b>Integrations/Exp</b>	<b>Total Integrations</b>	<b>Exposures/Dith</b>	<b>Total Dithers</b>	<b>Total Exposure Time</b>	<b>ETC Wkbk.Calc ID</b>
	1	FASTR1	8	1	2	1	2	44.401	

Proposal 1530 - Observation 6 - LRS Dispersion Correction

Special Requirements

Before Date 01-NOV-2022:00:00:00