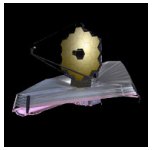

1280 - MIRI Transiting Observation of WASP-107b

Cycle: 1, Proposal Category: GTO

INVESTIGATORS

Name	*Institution*	*E-Mail*
Dr. Pierre-Olivier Lagage (PI) (ESA Member)	**Commissariat a l'Energie Atomique (CEA)**	**pierre-olivier.lagage@cea.fr**
Dr. Jeroen Bouwman (CoI) (ESA Member) (Contact)	Max-Planck-Institut fur Astronomie, Heidelberg	bouwman@mpia.de

OBSERVATIONS

Folder	*Observation*	*Label*	*Observing Template*	*Science Target*
Observation Folder				
	1	WASP-107 b transit LRS	MIRI Low Resolution Spectroscopy	(1) WASP-107

ABSTRACT

We plan to characterize the atmosphere (molecular content, hazes, pressure - temperature profile) of WASP-107 b, an exoplanet in the transition region between the gas giants and ice giants by observing spectroscopically the star light transmitted through the atmosphere during a transit of the exoplanet in front of its host star.

OBSERVING DESCRIPTION

We want to observe a transit of the WASP107-b exoplanet with MIRI in the Slitless Low Resolution Spectroscopic mode.

The observations have to be done as time-series.

The observations are time constrained; they have to start phased for transit of the exoplanet.

We do not allow for parallel observations given the high level of stability required.

Proposal 1280 - Targets - MIRI Transiting Observation of WASP-107b

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	WASP-107	RA: 12 33 32.8480 (188.3868667d)	Proper Motion RA: -96.1 mas/yr	
		Dec: -10 08 46.14 (-10.14615d)	Proper Motion Dec: -9.6 mas/yr	
		Equinox: J2000	Epoch of Position: 2000	

Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=Star
Description=[K dwarfs, K stars]
Extended=NO

Observation

Proposal 1280, Observation 1: WASP-107 b transit LRS Mon Feb 15 19:00:10 GMT 2021

Diagnostic Status: Warning

Observing Template: MIRI Low Resolution Spectroscopy

Comments: Time-series mode with precision target acquisition and no dithers.
But if the pointing precision become better than the present number (0.1 arcsec, 1-, per axis), we may want to skip target acquisition and increase the science time.

Diagnostics

(WASP-107 b transit LRS (Obs 1)) Warning (Form): Exposure Duration exceeds the limit of 10000.0 seconds. Above this limit it is possible that a High Gain Antenna move may occur during the exposure.

(Visit 1:1) Warning (Form): Overheads are provisional until the Visit Planner has been run.

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous
(1)	WASP-107	RA: 12 33 32.8480 (188.3868667d)	Proper Motion RA: -96.1 mas/yr	
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Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.
Category=Star
Description=[K dwarfs, K stars]
Extended=NO

Acquisition

#	Target	Filter	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	SAME	F1500W	FAST	6	1	1	0.954	12459.9

Template

Subarray	Obtain Verification Image?
SLITLESSPRISM	true

Dithers

#	Dither Type	No. Spectral Steps	Spectral Step Offset	No. Spatial Steps	Spatial Step Offset
1	NONE				

Pointing Verification

#	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Total Exposure Time	ETC Wkbk.Calc ID
1	FAST	6	1	1	0.954	12459.9

Spectral Elements

#	Readout Pattern	Groups/Int	Integrations/Exp	Total Integrations	Exposures/Dith	Total Dithers	Total Exposure Time	ETC Wkbk.Calc ID
1	FAST	40	4546	4546	1	1	28919.834	12459.10

Special Requirements

Phase 0.96413 to 0.97142 with period 5.72149242 Days and zero-phase 2457584.329746 HJD
Aperture PA Range 15 to 342 Degrees (V3 10.16574676 to 337.16574676)
Time Series Observation
No Parallel