

2022-10-19 TSO WG Meeting notes

Date

05 Oct 2022

Attendees

- [Sarah Kendrew](#)
- [Brian Brooks](#)
- [Leonardo Ubeda](#)
- [Nikolay Nikolov](#)
- [Nestor Espinoza](#)
- [Everett Schlawin](#)
- [Unknown User \(birkmann\)](#)

Meeting agenda:

1. News & Announcements.
2. Status of TSO Commissioning papers.
3. Cycle 2 preparation status.
4. Instrument round-table check-in.
5. Closing remarks.

Discussion items

Time	Item	Who	Notes
5 mins	1. News & announcements		<ul style="list-style-type: none">▪ Nestor Espinoza submitted an abstract to the AAS session on the HAT-P-14b data, not sure if he will be going so someone else can take over the speaking slot▪ Nestor Espinoza : we have access to proprietary TSO data. it works. we are allowed to use these data for calibration or other technical study purposes.
10min	2. Status on TSO commissioning papers		
	NIRCam	Nikolay Nikolov	<ul style="list-style-type: none">▪ SW: no feedback or report yet▪ LW: no news, slow progress
	NIRISS	Loic Albert	
	NIRSpec	Nestor Espinoza	<ul style="list-style-type: none">▪ got the referee report for the paper. very positive and shouldn't be too difficult to address.
	MIRI	Sarah Kendrew	<ul style="list-style-type: none">▪ still tying up a final issue
	Joint?	Nestor Espinoza	<ul style="list-style-type: none">• see slides: slightly higher noise level than expected• also: saw some peaks in residuals for certain frequencies & also in trace position. have investigated this further & very interesting. One timescale returns in PSD for all measurements (trace, flux, FWHM) - 3.4 min. Subtracted the astrophysical component and persists for NIRISS, not other instruments. Also strong peak at 6.5 min. Timescales seem comparable to the heaters frequency that the wavefront sensor team sees.<ul style="list-style-type: none">◦ IEC heaters are in the ISIM, on the cold side, but they are heated◦ Everett suggests mnemonic SI_GZFGPT2AK◦ not all datasets show it. does not appear to depend on brightness or SNR.◦ Nikolay mentions similar issue in Spitzer, where battery heater timescale was adjusted to allow for better decorrelation◦ Nikolay also makes a parallel with some work on WFC3 where pre-flashing was used◦ would be good to identify the mnemonics that best allow users to decorrelate against this; as well as possibly identify ways to mitigate◦ SK will send the rateints file of the MIRI commissioining data to Nestor

5min	3. TSO JDox discussion	Nestor Espinoza	<ul style="list-style-type: none"> • see slides • SOSS: angle of pupil wheel position changes the wavelength solution slightly. have someone working on this effect to try and quantify better & update JDox (can be up to 2-3 px). it is a simple translation so easy to correct, just have to figure out how to correlate the pupil wheel pos with the data • SOSS: want to relax the requirements on the blocking filter exposure; this is not proving as useful as expected & will be updated in JDox. • NIRCcam: may reduce the recommend settling time, but perhaps this is something to discuss for all instruments – Nestor Espinoza top recommendation, this should go into the Roadmap pages + update the example science cases. • NIRCcam: wavelength solution for time series observations. the community seems to be struggling with finding the right wavelength solution & apply it to the data. Should be made easier for the users. would be better to provide a tool or notebook that does this automatically, rather than expecting users to become experts themselves • NIRCcam: graphical representation of the APT timeline. brought up by Stansberry recently. • NIRCcam: improved throughput curves for the grisms <p>Timing question: statistically, most exposures are taken at the started at the very beginning pf the window. This manifests as the transit not being centred in the exposure. We can add this to Jdcox.</p> <ul style="list-style-type: none"> • MIRI: mostly documenting pipeline issues rather than changes in roadmap/operational setup. Slitless LRS has been well behaved. also updating PCEs and sat limits/sensitivities • NIRSpec: updating sat limits. as the aperture is small there have been some coordinate issues and the target misses the TA aperture. also as the blind pointing is good , perhaps it's better to not do TA. have had some observations where that was the case. TA images saturate very easily • Maybe we need some extra warnings in APT to flag that people should add proper motions or even parallaxes • Coordinate issues are not TSO specific so don't really fall under our work - but good to perhaps flag to our community.
10min	3. Instrument roundtable check-in		No time for check-ins today
	NIRCcam	Nikolay Nikolov , Everett Schlawin , Brian Brooks	
	NIRISS	Nestor Espinoza , Loic Albert	
	NIRSpec	Unknown User (birkmann) , Nestor Espinoza	
	MIRI	Sarah Kendrew , Jeroen Bouwman	
2 mins	4. Closing Remarks		<p>Nikolay: submitted an abstract for the AAS session but based more onWFC3 observations (update to trexolist)</p> <p>stsci.edu/~WFC3/trexolists/trexolists.html</p>