

# 2021-11-03 TSO WG Meeting notes

## Date

03 Nov 2021

## Attendees

- [Sarah Kendrew](#)
- [Nestor Espinoza](#)
- [Unknown User \(aroy\)](#)
- [Stephan Birkmann](#)
- [Knicole Colon](#)
- [Everett Schlawin](#)
- [Leonardo Ubeda](#)
- [Brian Brooks](#)
- [Loic Albert](#)

## Apologies:

## Meeting agenda:

1. News & announcements.
2. TSO JWWebinar.
3. TSO Pipeline discussion.
4. General updates: NIRSpec pipeline validation, non-linearity, 1/f noise.
5. Closing remarks.

## Meeting slides

Meeting slides can be found [here](#) (available on innerspace; external folks, please contact [Nestor Espinoza](#) if interested).

## Discussion items

Time	Item	Who	Notes
5 mins	<b>1. News &amp; announcements</b>	Everyone	<ul style="list-style-type: none"><li>▪ <a href="#">Nestor Espinoza</a> received email from Scott Friedman that our HAT-P-14b observations will not be approved as the timeline is basically frozen. But we have the opportunity to bring the observation forward at the JWST Daily Briefing (JDB), where it is likely to be approved. Sounds like this will be relatively "easy". Should bring this forward a few weeks ahead of the time of execution. Suggested that we could write a 1-page summary for the different instruments giving the arguments for these observations, which we can share. Has there been any progress on that?<ul style="list-style-type: none"><li>▪ No progress so far but we can make a start on it. Everett will discuss with Tom.</li><li>▪ SK: concerns about the JDB</li><li>▪ Knicole: Scott &amp; Randy expressed concerns about the planning constraints given the transit periods. Might be good to add in backup targets to mitigate that difficulty.</li></ul></li><li>▪ <a href="#">Loic Albert</a> good progress on extract1d for NIRISS SOSS. pushing working version of extract1d to STScI next week, which would get it ready in time for commissioning. datamodel changes that were needed for the output product all done on the STScI side. hope goes smoothly once the code is delivered to SCSB.</li></ul>
25min	<b>2. TSO JWWebinar</b>		

		<a href="#">Nestor Espinoza</a> , <a href="#">Sarah Kendrew</a>	<ul style="list-style-type: none"> <li>• Taking place on Nov 30th (am), Dec 3rd (pm) - good time zone coverage</li> <li>• Content: <ul style="list-style-type: none"> <li>◦ 2 hour session - but content will cover more like 90 mins to keep time for discussion</li> <li>◦ general info to TSOs (NE) - slides</li> <li>◦ first approach to TSO products (SK) - notebook + slides</li> <li>◦ exploring TSO data products in more detail (NE) - notebook</li> </ul> </li> <li>• Comments: <ul style="list-style-type: none"> <li>◦ KC: provide overview of the targets that will be observed. can we have a running list on JDocs of the exoplanets that have been observed. <ul style="list-style-type: none"> <li>▪ NE: have approached Mission Office (Klaus) about this in the past but not enthusiastic; will try again</li> <li>▪ We need community requests for this; encourage people to request it via the helpdesk and/or JSTUC</li> </ul> </li> </ul> </li> <li>• Please send comments in the JWebinar content asap as has to be ready by mid-Nov.</li> </ul>
25min	<b>3. TSO Pipeline</b>		
		<a href="#">Nestor Espinoza</a>	<ul style="list-style-type: none"> <li>▪ Had a request from CalWG re. pipeline development priorities. Was on the agenda for last CalWG meeting (<a href="#">Notes</a>).</li> <li>▪ Reviewing JIRA tickets or open TSO items</li> <li>▪ Questions: <ul style="list-style-type: none"> <li>▪ which of all tickets needs to be prioritised for work?</li> <li>▪ what are we missing?</li> </ul> </li> <li>▪ Please review the tickets and address these questions!</li> <li>▪ We have to circle back to the CalWG by January to provide feedback. Will try to have a discussion in our group in early Dec (TBD) to discuss. Nestor will create a table of his suggested issues and reach out for further discussion to instrument experts.</li> </ul>
10 mins	<b>4. General updates (NIRSpec pipeline validation, non-linearity, 1/f noise, JDOx)</b>		
			<ul style="list-style-type: none"> <li>▪ NIRSpec pipeline validation (<a href="#">Leonardo Ubeda</a> , <a href="#">Nestor Espinoza</a> ) <ul style="list-style-type: none"> <li>▪ have a dedicated (restricted) page for the meeting notes on these progress meetings, for those who can't attend</li> <li>▪ have gone all the way through non-linearity step</li> <li>▪ working on the dark step; bit more complicated than expected. dark file has both negative and positive values, puzzling. <ul style="list-style-type: none"> <li>▪ SB: darks averaged at frame level. will change how we produce the darks in commissioning; instead of averaging over all frames, will compute average dark current and apply that to good pixels. this method will get rid of the near-zero values</li> <li>▪ ES: do we want to subtract this, does it just add noise?</li> <li>▪ SB: not really as the subtracted value is always the same. in new method will have a time-constant value to the good pixels. those with time variable dark current will usually be masked.</li> <li>▪ LA: similar for SOSS; NIRSpec's strategy should probably also be applied to NIRISS</li> <li>▪ ES: NIRCam not using this but sounds like a good idea</li> <li>▪ SK: suspect similar for MIRI, have heard that darks strategy has evolved</li> </ul> </li> <li>▪ next: jump step. open questions on how to validate this step. <ul style="list-style-type: none"> <li>▪ SK: a MIRI GTO science team has found some odd behaviour in the jump step - this was not TSOs but MRS high-z simulations so very different data, but quite odd behaviour so may will need further work</li> </ul> </li> </ul> </li> <li>▪ Non-linearity work: reports in progress.</li> <li>▪ 1/f noise (Nestor) <ul style="list-style-type: none"> <li>▪ Nestor is very proud of his 1/f fits to darks</li> <li>▪ currently simulating 1/f frames with those models and exploring how slope estimates and errors behave in different subarrays</li> </ul> </li> </ul>
2 mins	<b>5. Closing Remarks</b>		
		<a href="#">Nestor Espinoza</a>	<ul style="list-style-type: none"> <li>• <a href="#">Sarah Kendrew</a> perhaps we should discuss at a future meeting how we plan to work during commissioning. Cadence of meetings, etc.</li> </ul>