2018-10-01 TSO WG Meeting notes

Date

01 Oct 2018

Attendees

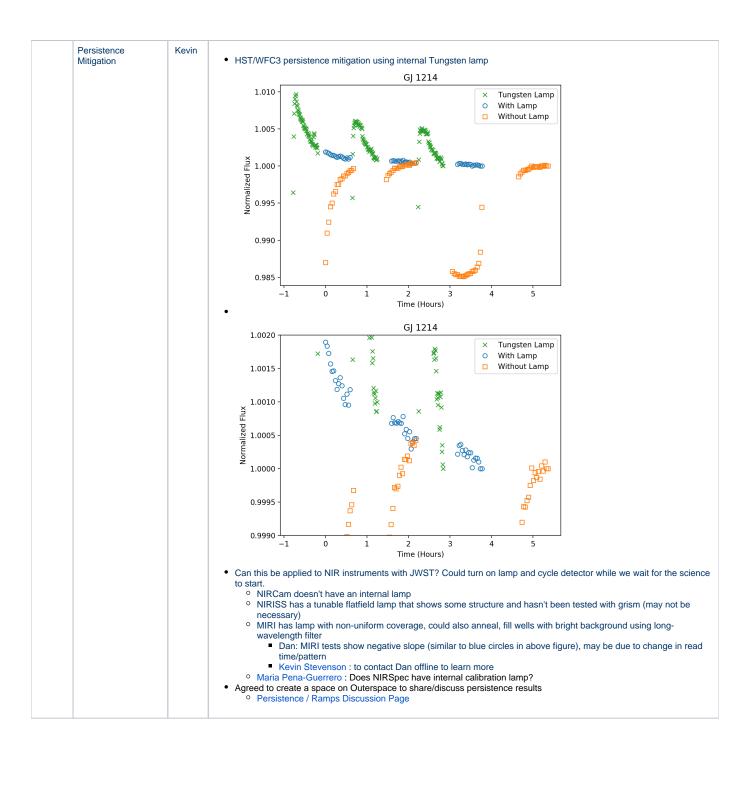
- Kevin Stevenson
- Brian Brooks
- Daniel Dicken
- Everett Schlawin
- Jeroen BouwmanLoic Albert
- Pierre-Olivier Lagage
- Sarah Kendrew
- John Stansberry

- Susan MullallyThomas BeattyThomas Greene

Goals

Discussion items

Time	Item	Who	Notes
	New group email list		JWST-TSOWG@maillist.stsc.iedu
	Detector Settling Times	Tom G.	 Tom: "I think it would be useful to compare info and to eventually give informed advice to observers about how much time the different instruments need to settle to XX ppm at the start of a TSO exposure." May not have sufficient info before commissioning Ramps in NIR instruments are short and are sometimes due to source variations MIRI group at JPL is continuing to test source of ramps (see discussion below)



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TSO Pipeline Status	Kevin	 CALWEBB_DETECTOR1 Data quality, saturation check, error initialization, NIR/MIR corrections, slope fitting Baseline: Complete Optimal: Build 7.2+ CALWEBB_SPEC2 WCS info, subwindow extraction, flat field correction, flux calibration, rectified 2D product Baseline: Complete Optimal: Build 7.2+ CALWEBB_TS03 Baseline (Outlier rejection, no BG subtraction, summation spectral extraction) Build 7.2 (to be delivered Oct 5, 2018) Optimal (Outlier rejection, col-by-col BG subtraction, optimal spectral extraction) Build 7.3+ (TBD) Observation planning (G&I, target overlap, PandExo)
TSO Pipeline Paper		We should write a paper describing the algorithms used in JWST TSO pipeline Timeline Initial version ready for ERS Simulated Data workshop in Summer 2020, could mostly describe the pipeline itself Follow-up version after commissioning/ERS data, could describe optimal procedures/parameter values Priority Low (at this point) Lead TBD Be sure to invite calibration pipeline group to participate
Observers Roadmap for JDox	Sarah	 Request from JDox to generate an observer roadmap by Oct 4th Goals: (1) Come up with a series of steps for observers to follow. (2) Identify pages that already exist to address each step and pages that are missing. (3) Ensure that the Science Use Cases follow the same steps. Proposed Observer Roadmap: I. Identify target (EXO.MAST, https://exo.mast.stsci.edu; exoplanets.org) 2. Pick instrument and mode (point to TSO JDox overview page?) 3. Create simulated planet spectrum (PandExo, https://exoctk.stsci.edu/pandexo/calculation/new) 4. Design observation (ExoCTK, https://exoctk.stsci.edu) a. Check for transits/eclipses within target visibility window b. Design target acquisition exposure (instrument/mode specific) c. Determine number of groups and integrations for science observation (instrument/mode specific) d. Calculate phase constraints (work in progress) 5. Fill out APT (point to JDox demo?) a. Check data volume
Precise Timing with FPE	John S.	Work in progress IEC = ISIM Electronics Components Comparing measured IEC panel temperature during heater cycling tests to measured temperature in FPE Both temperature sensors record similar (~30 K) swing in temperature IEC exhibits a deadzone of ~2 K FPE has a corresponding deadzone of ~0.2 K Need to see if any of the instruments were performing calibration programs during this time that could be used to assess flux stability Stansberry to email WG with dates More results at DMS_TSO meeting
JWST QuickLook	Kevin	What to include in TSO monitor: Spectroscopic flux Time in BJD_TDB PSF drift and shape Instrument (FPE?) temperatures Precision relative to photon limit Max target fluence More???

MIRI JPL Test Day Update	Previous tests used a blackbody light source, more recent tests use LED Previous results showed large ramp, attributed to BB source Currently conducting tests with LED Goals: Characterize and mitigate ramp Provide recommendation on fluence Will report back at Nov or Dec meeting with new results
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Action items

John Stansberr	y: Email JD start/end times of IEC heater cycling test to WG