



**STScI** | SPACE TELESCOPE  
SCIENCE INSTITUTE

EXPANDING THE FRONTIERS OF SPACE ASTRONOMY

# **Cycle 1 Observer Support**

Patrick Ogle

Deputy Project Scientist for JWST User Support

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## JWST User Support Activities

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- This presentation: Observer Support
  - Program Reviews (Ogle, INS)
  - Telescope Time Review Board (Blair ; INS, SMO, OPB, SCOPE)
  - Help Desk (Bright, INS)
- Additional system-wide user support together with:
  - JDox (Henry, INS)
  - Proposal Tools (PPS)
  - TAC support (SMO, INS)
  - Training materials, JWST Observer (JWMO)
  - Data system, analysis tools, notebooks (MAST, DMS, JDAT)







## Cycle 1 Program Reviews

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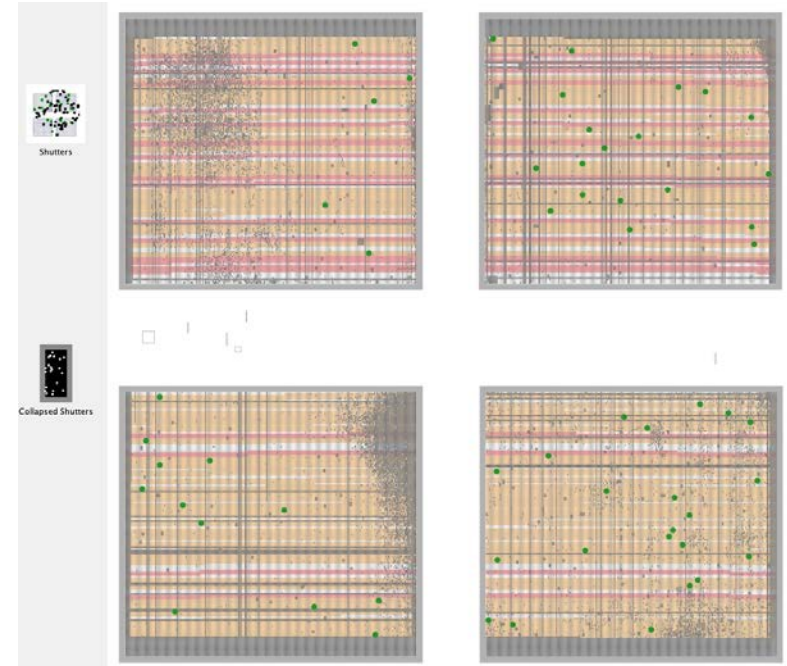
- **GTO/ERS/GO program reviews**
  - Instrument scientists conducted 637 reviews of 407 programs (2021)
- **MOS program updates**
  - Instrument scientists and PCs work closely with observers; rapid turn-around
  - 4 early MOS program visits executed (June-Aug 2022)
  - 15 more to go in 2022 (8 requiring rapid turnaround following astrometric update)
- **Observing lien reviews:**
  - Instrument scientists contact observers for lien mitigation or waiver
  - 15 flavors of lien require action to clear, modify, or put visits on hold
  - ~200 lien reviews of 123 programs submitted so far.



## MOS Program Updates

- 51 Cycle 1 MOS programs
  - Observers contacted 6 weeks before plan window
  - aperture position angle (APA) tied to window
    - Re-plan required for missed windows
  - Shutter operability map updates
  - Observer uses MPT to design configurations
  - NIRCcam or HST-derived target coordinates
    - *must* be aligned to Gaia (offset and roll)
  - IS reviews configurations and MSATA

*Process accelerated (2-4 weeks) for ~5 Early MOS Programs and 8 more in the October-Nov timeframe.*

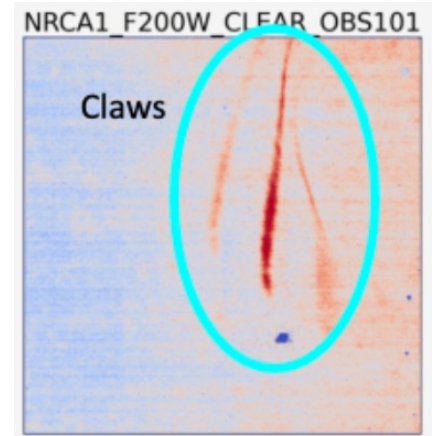




## Cycle 1 liens

### Impactful Liens for User Support

- Saturation from higher than expected throughput
  - Check visits with NGROUPS<3
- MIRI backgrounds recommended
  - Requests to TTRB for additional time in excess of 5%
- NIRCcam claws, NIRISS lightsaber
  - Screening for bright sources in susceptibility area
- NIRSpec IFU 0.2" astrometric offset affects all IFU visits
  - Remove WATA if precision pointing not required; otherwise put on hold





## Telescope Time Review Board (TTRB)

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- TTRB reviews program change requests and problem reports
- Observers automatically notified of skipped visits
  - Guide star acquisition failures
  - Missed scheduling window
  - Need to make formal request to TTRB to repeat visits
- Observers discover and report problems to Help Desk and TTRB
  - Failed target acquisition
  - Bad coordinates
  - Persistence
  - Scattered light
- TTRB recommends to SMO/DO to approve or reject requests



## Telescope Time Review Board (TTRB)

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- TTRB received 14 change requests and 19 problem reports in the period 2022 June 1 – Aug 22
- Request rate now 1.5 per day and increasing

<b>Request</b>	<b>June</b>	<b>July</b>	<b>Aug 1-22</b>
PCR	3	9	14
WOPR	1	4	19
Total	4	13	33



## Webb Operations Problem Report (WOPR) statistics

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- Skipped visits (13)
  - Guide star acquisition failure (8)
  - Unknown (3)
  - Guiding failure (1)
  - Safe mode (1)
- Failed TA (2)
- Bad observer coordinates (2)—repeats not granted
- NIRCcam ghosts or persistence (2)
- NIRSpec target group lien (1)
- MIRI 4-point-set dither lien (1)



## Frequent Program Change Requests

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- Change, remove, or add target
- Filter, grating, or aperture change
- Plan window change
- Add backgrounds
- Orientation constraint change
- Background-limited SR
- Add PSF reference
- Dither change
- Add pre-imaging
- Add second roll angle...