Scientific Community Engagement Planning

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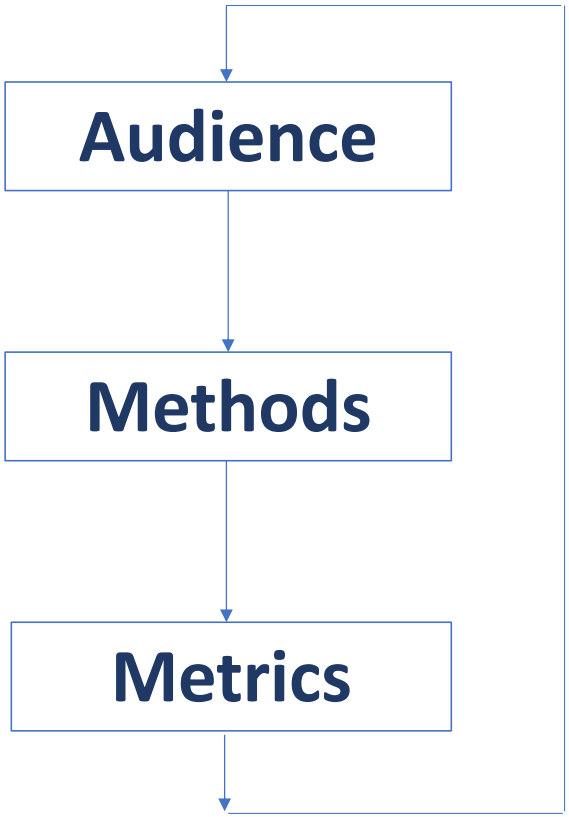
JWST Project Scientist, STScI

SWG Meeting, April 2019

Scientific Community Engagement Plan forecasts activities out to FY21

Training the JWST User Community



1. 3000 - 5000 unique JWST users
2. Observer experience from other wavelengths and observatories.

1. Workshops and Events
2. Proposal Planning Resources
3. JWST Observer Ecosystem

1. Experience
2. Postponed GO Cy1 CfP
3. User Survey
4. Analytics of websites and online tools.

Documentation and Support

Master Proposer Kit

- Compilation of materials and presentations used in Master Class workshop and those for use in local training events.

JWST Pocket Guide

- Update the JWST Observer Pocket Guide twice per year coincident with summer and winter AAS meetings.
- Includes basic properties of the JWST instruments in a booklet form.

JWST Helpdesk

JDox *(See Pontoppidan's presentation)*

JWSTObserver *(more info coming up in this presentation)*

JWST Observer Ecosystem

JWST OBSERVER
JWST.STSCI.EDU

Website

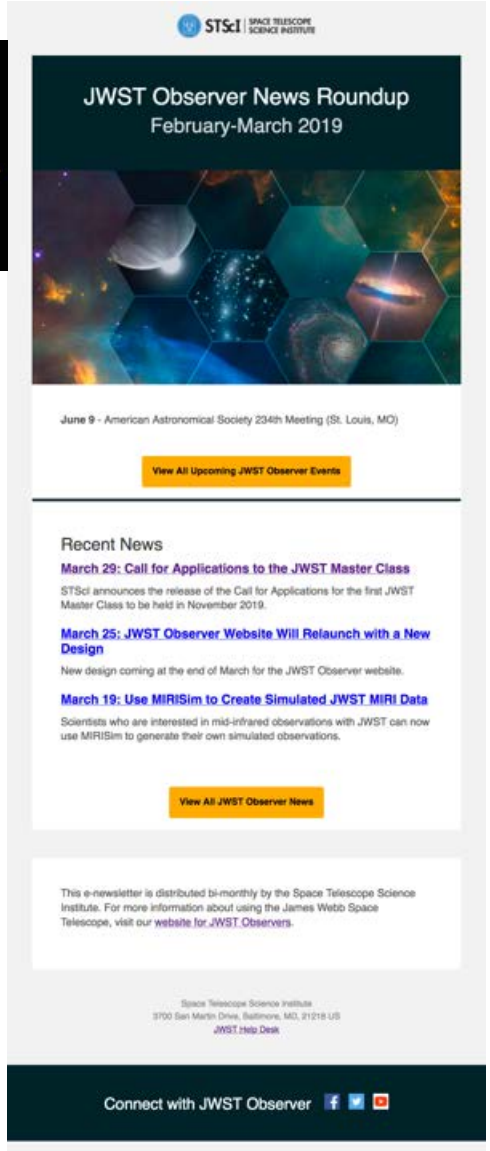
- Fresh look, debuted March 28, 2019

News and Roundup

- News items on topics of interest to JWST user community, published as needed
- Bimonthly email digest of recent news items

Social Media

- Posts (to Facebook and Twitter) were released in support of each news item and current/upcoming events (workshops).
- We anticipate future growth of viewership as we get closer to the GO1 deadline. For instance, we expect Youtube views will increase with release of new video tutorials and GO1 call for proposals.



Proposal Planning Resources: Video Tutorials

Methods:

- **Short** (2-5 minutes), topical
- **Guides users through the process** of learning the tools and resources available.
- Tailored to **various levels of audience**:
  - Each major tool has multiple videos, including introductory videos.
  - More advanced videos for more experienced users about more complex aspects of the tools.
- **Building user awareness/access**: Properly integrating the video help into other JWST resources (e.g. JDox) and advertising its availability.

Metrics:

- **User Feedback Survey** in response to postponed GO1 CfP:
  - initial set of video tutorials well received
  - Visibility/awareness of availability of the video help was lacking.
- **Experience:** years of positive feedback for similar videos for HST.
- **Ongoing feedback**: will seek additional feedback after the JWST Cycle 1 proposal round to assess the effectiveness of the video tutorial help.

Example Introductory and Overview Videos:
Intro to JDox
Building Sources and Scenes in the ETC
How to Set Up a Calculation in the JWST ETC
Getting Started with JWST APT
APT GUI Overview

Example More Advanced Videos:
Using Batch Expansion in ETC
Reviewing Errors and Warnings in APT
Adding Special Requirements in APT
Using Aladin and the APT Visit Planner Together

Tutorial example (https://stsci.app.box.com/folder/84380804574)

Workshops and Events

Rethinking in-person workshops:

- Evidence considered:
  - [October 2016 through September 2018]: STScI hosted or provided staffing support to more than a dozen JWST-centric workshops/events. **Attendance, staffing support, attendee feedback**
  - [April 2018]: A user survey commissioned after the delay garnered lessons learned. **workshops were held too far in advance** for attendees to implement their learning gains and that the **workshops did not effectively disseminate information** to a geographically (and otherwise)-diverse user community.
- Response to audience needs:
  - **Do not host workshops** months or years in advance of the CfP.
  - STScI will instead focus resources on **online tutorials**, **train-the-trainer** activities, and engagement at **professional society meetings** in FY19.
  - STScI will create a **long-term plan** that includes phased approach to community engagement.

Workshops and Events: Conferences and Professional Meetings

Pre-CfP:

- AAS 233, 234; DPS 2019;
  - Develop evergreen and virtual resources.
  - Meeting support: STScI exhibit booth, JWST Town Hall/Info sessions

Post-CfP/ pre-deadline:

- AAS 235 (January 2020):
  - Major JWST presence in support of GO1
  - JWST Town Hall
  - Proposal Planning Workshop
  - Tutorials
  - STScI booth, with expanded focus on JWST

Workshops and Events: Planning for next 3 years

Post-GO1 deadline/ pre-launch:

- No interest in proposal-planning
- Beginning interest in data analysis tools
  - Develop evergreen/virtual training support
- Professional meeting support limited to updates/status:
  - AAS 236 (summer 2020), possibly AAS 237, DPS 2020

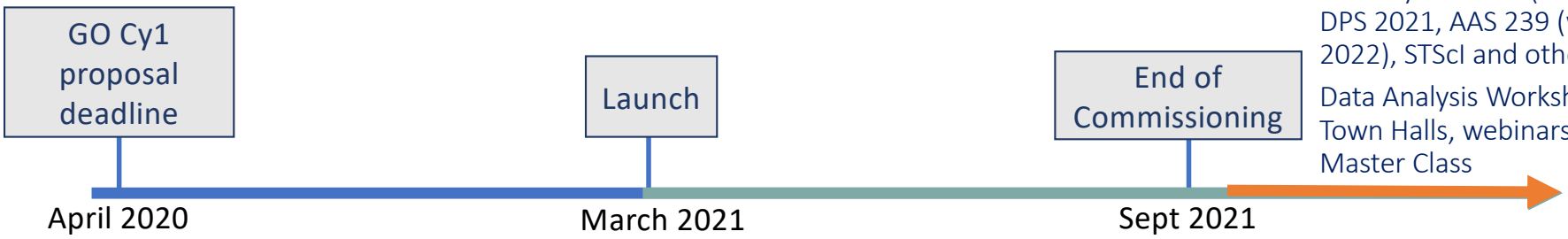
Commissioning:

- No interest in proposal-planning
- Interest in data analysis tools growing
  - Advertise evergreen/virtual training support for those interested in learning early.
- Professional meeting support limited to updates/status and intro data analysis workshop:
  - Possibly AAS 237 (Winter 2021), possibly AAS 238 (summer)

Science Operations →:

- No interest in proposal-planning until GO2
- Big interest in data analysis tools because data are in hand!
  - Virtual webinars
  - Evergreen resources/documentation available
  - Strategically-located and accessible in-person workshops??
- Support via multiple mechanisms at various venues:
  - Possibly AAS 238 (summer), DPS 2021, AAS 239 (winter 2022), STScI and other venues

Data Analysis Workshops, Town Halls, webinars, GO2 Master Class



Workshops and Events: expanding access to all audiences

Partnerships: *STScI support offered to international events of partner agencies*

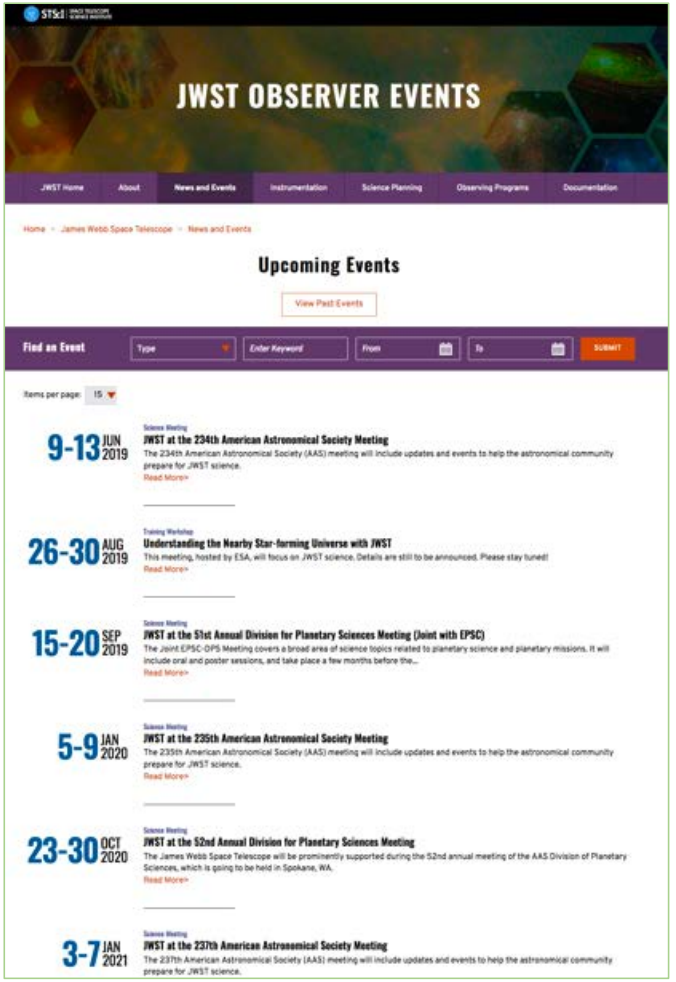
- ESA events
  - "Understanding the Nearby Star-forming Universe with JWST" [Aug 2019, Italy]
- CSA events
  - TBD

Virtual Events and Webinars:

- Support as need arises, in CfP open period (Jan –Apr 2020)
- Biweekly series for general observer over 12 weeks
- Possibly supplement with "office hours", specific science needs, etc. in off-weeks.

Assets:

- JWST Observer website hosts virtual/asynchronous resources for the community, including recordings of in-person events.
- "Events" section: event calendar, event specific details, and event assets (such as slides, training materials, links to archived recordings, etc.)



Training Events: Master Class

Use a train-the-trainer model in response to audience needs and lessons learned:

- **Train, enable, and support a cohort of JWST proposal planning experts** who are geographically and institutionally dispersed (e.g., soft-money, universities, government labs, etc.), to ensure local access to a large percentage of the JWST user base between the Cycle 1 General Observer Call for Proposals at the end of 2019 and the proposal deadline in spring of 2020.
- Develop a community of JWST Master Class graduates who are able to **transfer knowledge** via local training workshops to proposers who in turn will be able to propose effectively and enhance the science return from JWST.
- **Increase engagement of the broader user community** with STScI tools and user support at the optimum time in the proposal preparation process.

Master Class: *increasing community impact*

Master Class Cohort

Master Class Workshop:

- 28 participants, 4.5 days in Baltimore, MD on November 18-22, 2019.
- In-depth JWST proposal planning curriculum.

Master Class participants will receive:

- Full travel support to workshop.
- Local travel support needed for hosting regional training activities.
- Live support from STScI expert staff on the day of their local event(s).

Local Event Attendees:

Master Class Graduates are expected to give back to the JWST user community:

1. Host at *least 1* proposal-preparation training activity open to their local community in timeframe between CfP and Deadline.
2. Serve as a local expert for colleagues, available to answer questions and provide guidance to general proposers in their region, outside of their official events and up until the proposal deadline.
3. Provide an impact estimate via evaluation questionnaires provided by STScI, which will help STScI improve the *Master Class* program for future JWST proposal cycles

28 Master Class Attendees
→ At least 28 local training events

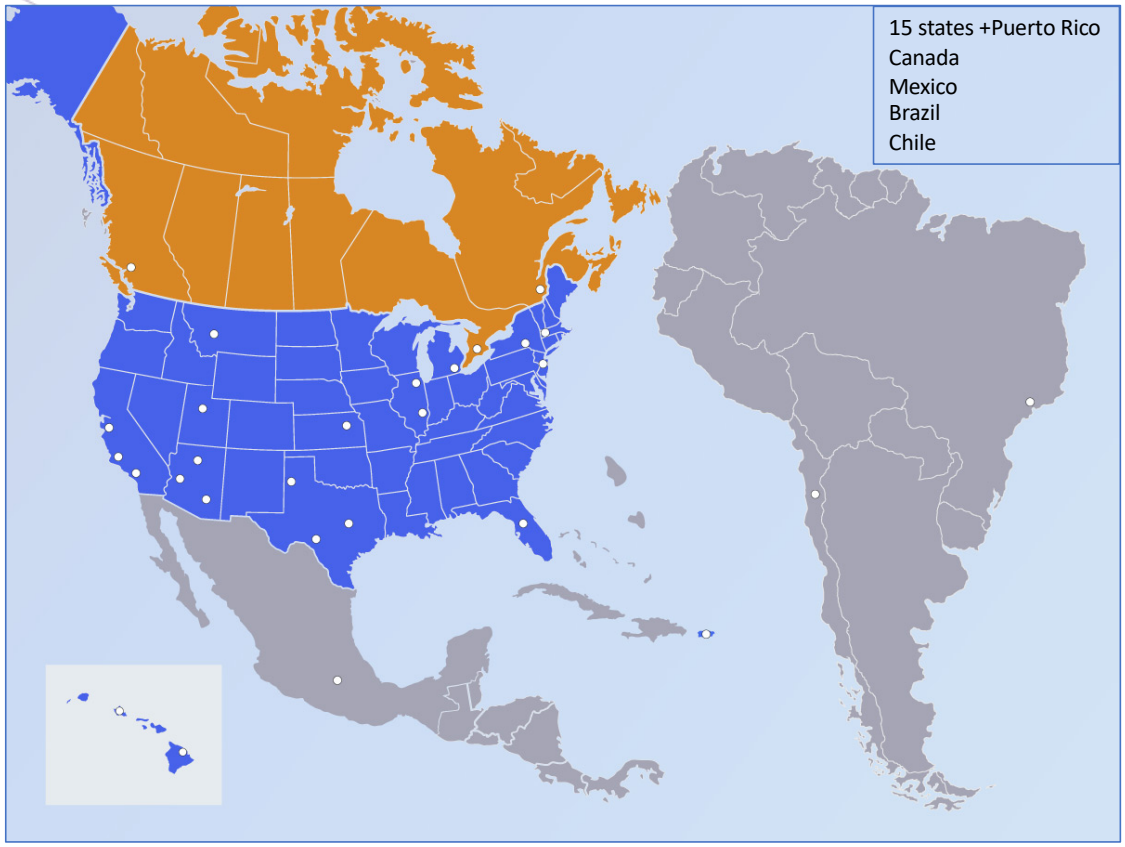
Average 28 attendees/local event

Total number of trained users: **700**

Trained users submit 1 proposal each, with 2 collaborators → Total number of users impacted: **2100**

Percentage of JWST user community impacted: **42 – 70 %**

Master Class: *meet the Cy1 cohort*



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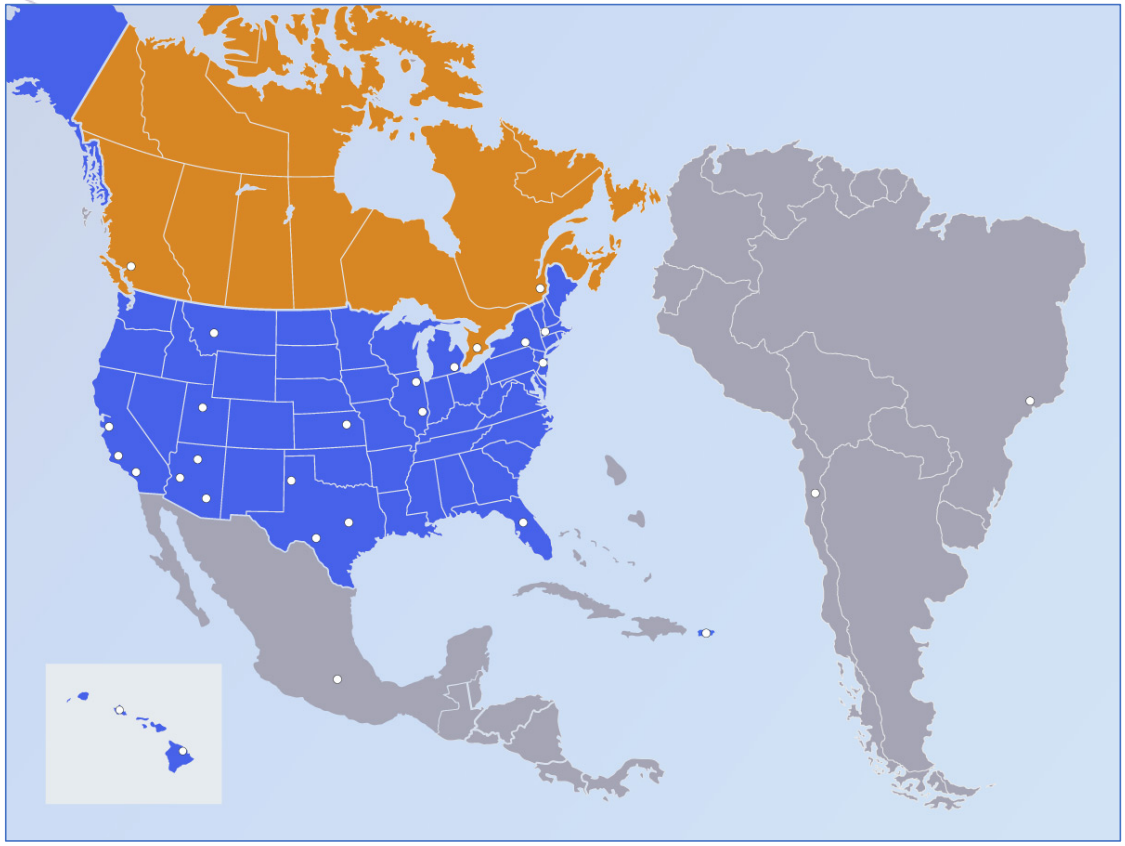

Last name	First name	Affiliation	Location(s) of workshops
Adams	Arthur	University of Michigan	Ann Arbor, MI
Ashley	Trisha	STScI / University of Maryland at Baltimore County	Baltimore, MD
Bagley / Matharu	Micaela / Jasleen	University of Texas Austin / Texas A&M	Austin, TX / College Station, TX
Bergner	Jennifer	University of Chicago	Chicago, IL
Canning	Rebecca	Stanford University	Palo Alto, CA
Cook	Neil	University of Montreal	Montreal, QC
Cooke	Kevin	University of Kansas	Lawrence, KS
Eistrup	Christian	University of Virginia	Charlottesville, VA
Fernández-Valenzuela	Estela	University of Central Florida	Orlando, FL / Aricebo Observatory, Puerto Rico
Follette / Salyk	Katherine / Colette	Vassar College / Amherst College	Poughkeepsie, NY / Amherst, MA
Goncalves	Thiago	Valongo Observatory, Federal University of Rio de Janeiro	Rio de Janeiro, Brazil
Heyl	Jeremy	University of British Columbia	Vancouver, BC
Keane	Jacqueline	University of Hawaii Manoa, Institute for Astronomy (IfA)	Honolulu, HI
Maragkoudakis	Alexandros	University of Western Ontario	London, ON
McGraw / Martin	Lauren / Audrey	Northern Arizona University	Flagstaff, AZ
Molina	Mallory	Montana State University	Bozeman, MT
Nataf	David	Johns Hopkins University	Baltimore, MD
Nayyeri / U	Hooshang / Vivian	University of California - Irvine	Irvine, CA
Patience	Jenny	Arizona State University	Tempe, AZ
Phadke	Kedar	University of Illinois	Champaign-Urbana, IL
Rivera Sandoval	Liliana	Texas Tech University	Lubbock, TX
Shivaei	Irene	University of Arizona	Tucson, AZ
Stephens	Denise	Brigham Young University	Provo, UT
Telford	Grace	Rutgers University	New Brunswick, NJ
Tregloan-Reed	Jeremy	Universidad de Antofagasta	Antofagasta, Chile
Wang	Xin	University of California – Los Angeles	Los Angeles, CA
Wofford	Aida	Instituto de Astronomía, Universidad Nacional Autonoma de Mexico	Mexico City, Mexico / remote broadcast to Ensenada and Morelia
Xu	Siyi	Gemini Observatory (Big Island)	Hilo, HI

Master Class: curriculum

Before the workshop:
Homework!

Topics:

- Familiarizing yourself with the tools an software

Goal: everyone starts at same place

During Workshop:

plenaries and breakouts, lots of hands on activities and demos

Topics:

- APT, ETC
- Documentation
- Detectors
- Observation modes
- Ancillary tools

Goal: mastery of broad set of topics and tools

After Workshop:

Host local training events & complete evaluations

Goal: educate the community