JWST Cycle 1 Proposal Checklist and Resources

JWST Cycle 1 proposers are encouraged to follow this checklist for writing and submitting proposals for the James Webb Space Telescope (JWST).

✅ Know the deadlines

Based on recommendations made by the JWST Standing Review Board, NASA is re-scheduling JWST's launch window for 2021. Given those circumstances, STScI will delay the Cycle 1 GO/AR proposal deadline until no earlier than **February 1, 2020**.

A revised proposal schedule will be developed in consultation with the JWST Users Committee, the JWST Project and representatives from the European and Canadian Space Agencies. Proposals already submitted in response to the Cycle 1 Call will not be carried over and will need to be resubmitted.

✅ Know where to find the JWST User Documentation

JWST General Science Policies

JWST Observatory and Instrumentation Documentation

> JWST Observatory Overview
>
> Mid Infrared Instrument (Old)
>
> Near Infrared Camera
>
> Near Infrared Spectrograph
>
> Near Infrared Imager and Slitless Spectrograph

JWST Observation Planning Documentation

JWST Data Calibration and Analysis Documentation

✅ Learn the JWST observation planning tools

- *Proposers should assume nominal performance from JWST, as described in the JWST User Documentation, and as assumed by the JWST Exposure Time Calculator (ETC).*

- JWST Exposure Time Calculator (ETC) – The JWST ETC is a web-based tool for estimating how much exposure (science) time will be required for different JWST instrument modes and configurations to achieve the desired science goals. Users may save and share their calculations in workbooks.

- Astronomer's Proposal Tool (APT) – APT is a stand-alone software package required for preparing JWST observations and submitting JWST Cycle 1 proposals. Training material on APT can be found here. The JWST NIRSpec MSA Planning Tool, JWST Visit Planner, and Aladin visualization tool are included in APT. Download APT here.

- Target Visibility Tools – The entire sky is available to JWST observations over the course of a year, but only approximately 40% is accessible at any given time. Targets that need to be observed at a particular time, time separation, or aperture position angle on the sky may have significantly constrained visibility or may even be unschedulable. There is a simple tool to perform a quick assessment of schedulability of proposal targets prior to developing an APT proposal. Much of this is already integrated into APT, so accessing the separate tool may be unnecessary for most users. There are more specialized tools to help users plan coronagraphy observations and Pre-imaging observations for NIRSpec MOS mode, and there is also a tool to compute and visualize the background levels versus date for a given target.

- WebbPSF – Stand-alone software calculates the JWST Point Spread Function for a range of instrument modes and assumptions. Stock PSFs are also available. However, the JWST ETC uses a pre-computed library of PSFs, rendered by WebbPSF, and so accessing the separate tool may be unnecessary for most users. Download WebbPSF here.

- JWST Background Model - The JWST Backgrounds page describes the various forms of background emission, both from astrophysical sources and from the telescope itself, that users should familiarize themselves with when planning a proposal. This page also discusses how these backgrounds are handled in the ETC.

Design a JWST observing program in APT

- Download and install the latest version of APT.
- Create a New JWST proposal in APT and fill out the Proposal Information section
- Enter your target or targets
- Create a new Observation Folder and a new Observation with an observation template or with the NIRSpec MSA Planning Tool.
- View an Observation with the Aladin visualizer tool.
- Run the Visit Planner for one or more Observations.
- Resolve any errors or warnings in APT.

- When all observations have been entered and run successfully through the Visit Planner, run Smart Accounting for the full proposal to compute your total time allocation request.
- Check for duplicate observations with the list of approved GTO Observations and ERS observations.
- In some cases it may not be possible to fully specify a proposal at the time of submission (e.g. to resolve all errors and warnings in APT). Proposals that may be exempted from the nominal single-stream process will be described in the special submission requirements section of each call for proposals.

Write your science proposal

Create the PDF attachment of the proposal narrative, which includes a number of required text sections such as the Scientific Justification and Technical Justification.

Submit your JWST proposal

- Attach the PDF of your scientific proposal to the APT program on Proposal Information form.
- Preview the entire proposal by selecting the APT PDF Preview tool. This view will merge the information provided in APT along with the PDF attachment, and is what the Telescope Allocation Committee (TAC) will review.
- Submit your completed proposal with APT. Select the APT Submission Tool in the top tool bar and follow the instructions. In the **Submission Log** window you will see a message giving the time of the submission, the assigned proposal ID (if a new proposal), and the submission status.
- After the initial submission, proposals can be re-submitted as needed (up to the stated deadline). Resubmitting does not change the proposal number received upon the initial submission.

Wait

After you submit your proposal, all investigators will receive an automatic email acknowledgment that the submission was received successfully. If you do not receive that email within minutes of your submission, please check the APT Submission Log Window for a problem. In addition, all investigators will receive an additional email indicating whether your proposal was successfully processed after the submission deadline. If you do not receive this acknowledgement within **72 hours** of the deadline, please submit an incident to the JWST Help Desk, http://jwsthelp.stsci.edu/, as your submission was **NOT RECEIVED** and the TAC **WILL NOT** see your proposal; please provide the submission ID information from the APT Submission Log window. If there are any problems associated with your PDF attachment or APT information submitted, you will be contacted by email separately.

Notification of your proposal's status (approved or rejected) generally occurs within ~3 weeks of the Telescope Allocation Committee meeting.

Next steps for approved programs

U.S. investigators with approved JWST programs are eligible for funding. See JWST Cycle 1 Proposal Policies and Funding Support for further details. Successful JWST observing proposals will be reviewed by a STScI instrument scientist and program coordinator. Programs may require adjustments or revisions after the award. Proposers should submit programs that are executable, but STScI expects iterative optimization between the institute and the PI of accepted Cycle 1 programs. The Instrument Scientist and Program Coordinator will iterate with proposers to finalize the observations in accordance with the TAC recommendations, under the approval of the STScI Director.

Next: JWST Cycle 1 Proposal Policies and Funding Support