

How to Get an Accepted ALMA Proposal

[or at least write a good one]



Megan Ansdell
UC Berkeley

Atacama Large Millimeter/submillimeter Array
Karl G. Jansky Very Large Array
Very Long Baseline Array



Proposal Checklist

- ✓ Create ALMA account via the Science Portal
- ✓ Read the relevant documentation
- ✓ Prepare your Science Case
- ✓ Download the Observing Tool
- ✓ Prepare your Technical Justification within the OT
- ✓ Make use of the Helpdesk & Knowledgebase

The ALMA Science Portal

Atacama Large Millimeter/submillimeter Array
In search of our Cosmic Origins

ALMA

ESO

About Science Proposing Observing Data Processing Tools Documentation Help

Search Site

Log in
Register
Reset Password
Forgot Account

Observatory News

ALMA Cycle 7 Call for Proposals is Now OPEN!
Mar 19, 2019

The ALMA Configuration Schedule for Cycles 7, 8, and 9
Feb 15, 2019

Announcement of 3mm VLBI in Cycle 7
Jan 07, 2019

More...

EU ARC News

ARC Astronomer position at ESO
Dec 19, 2018

Two permanent staff scientist positions at the Nordic ARC node (now filled)
Aug 20, 2018

Interferometric Data Processing Workshop in Dublin
Jul 01, 2018

More...

Status

Cycle 7 Call for Proposals
Configuration Schedule for Cycles 7-9

Refereed publications: 1367
Last observed source: G28
Current configuration: C43-2

More...

[<http://almascience.eso.org>]



The ALMA Science Portal

Reasons to register an ALMA account:

- *You need an account to submit a proposal
[all co-I's need an account; make sure they do early!]*
- *You need an account to submit a Helpdesk Ticket
[you should be using this amazing resource]*

Please fill out [optional] demographic info!

[helps tracks career stage + gender in proposal outcomes]



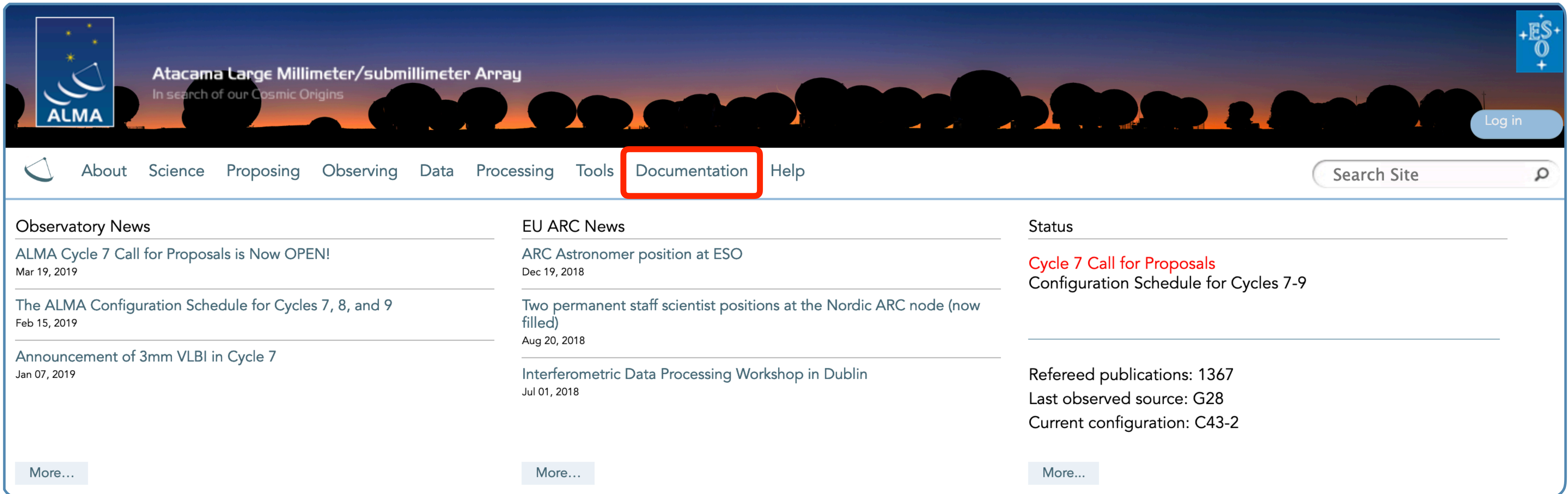
The screenshot shows the 'New Account Registration' page on the ALMA Science Portal. At the top, there is the ALMA logo and the text 'Atacama Large Millimeter/submillimeter Array' with the tagline 'In search of our Cosmic Origins'. Below this are navigation links for 'ESO', 'NRAO', and 'NAOJ'. The main content area has three tabs: 'Account info' (selected), 'Demographics', and 'Confirm'. The registration form includes the following fields: 'First name', 'Middle initials', 'Surname', 'Gender', 'E-mail', 'Re-type E-mail', 'Receive optional emails' (checkbox), 'Account name', 'Password', 'Re-type password', and 'Institution'. The 'Institution' field consists of two dropdown menus labeled 'Choose country...' and 'Choose Institution...'. Information icons (i) and mandatory field indicators (red dots) are present next to most text input fields. At the bottom of the form, there is a note: 'In case of problems with the registration, please use this Web form to contact us. You may find a solution to your problem in the Support Center/Knowledgebase'. Footer links include 'Site Map', 'Accessibility', 'Contact', and 'Privacy Statement'.

[<https://asa.alma.cl/UserRegistration/newAccount.jsp>]

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ALMA Cycle 7 Documentation



The screenshot shows the ALMA website's navigation menu with 'Documentation' highlighted in a red box. The page content is organized into three columns: Observatory News, EU ARC News, and Status. The 'Observatory News' column lists three articles: 'ALMA Cycle 7 Call for Proposals is Now OPEN!' (Mar 19, 2019), 'The ALMA Configuration Schedule for Cycles 7, 8, and 9' (Feb 15, 2019), and 'Announcement of 3mm VLBI in Cycle 7' (Jan 07, 2019). The 'EU ARC News' column lists: 'ARC Astronomer position at ESO' (Dec 19, 2018), 'Two permanent staff scientist positions at the Nordic ARC node (now filled)' (Aug 20, 2018), and 'Interferometric Data Processing Workshop in Dublin' (Jul 01, 2018). The 'Status' column displays: 'Cycle 7 Call for Proposals Configuration Schedule for Cycles 7-9', 'Refereed publications: 1367', 'Last observed source: G28', and 'Current configuration: C43-2'. Each column has a 'More...' button at the bottom.

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[<http://almascience.eso.org>]



ALMA Cycle 7 Documentation

Date	Milestone
19 March 2019 (15:00 UT)	Release of Cycle 7 Call for Proposals, Observing Tool & supporting documents and opening of the Archive for proposal submission
17 April 2019 (15:00 UT)	Proposal submission deadline for Cycle 7 Call for Proposals
End of July 2019	Announcement of the outcome of the proposal review process process
August - 5 September 2019	Submission of Phase 2 material for Cycle 7 accepted proposals
October 2019	Start of ALMA Cycle 7 Science Observations
September 2020	End of ALMA Cycle 7

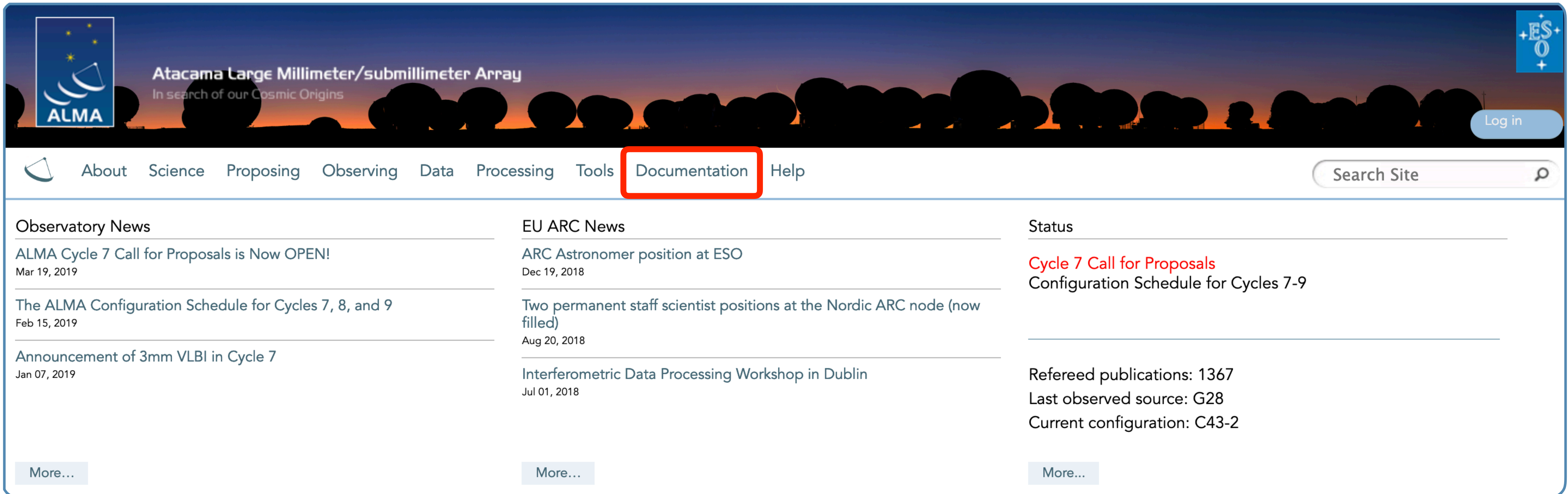
8AM PST

Now a hard deadline!

[<https://almascience.eso.org/news/alma-cycle-7-call-for-proposals-is-now-open>]



ALMA Cycle 7 Documentation



The screenshot shows the ALMA website's documentation page. At the top, there is a header with the ALMA logo on the left and the ESO logo on the right. The main title is "Atacama Large Millimeter/submillimeter Array" with the tagline "In search of our Cosmic Origins". Below the header is a navigation menu with links for "About", "Science", "Proposing", "Observing", "Data", "Processing", "Tools", "Documentation" (highlighted with a red box), and "Help". A search bar labeled "Search Site" is located on the right side of the navigation menu. The main content area is divided into three columns: "Observatory News", "EU ARC News", and "Status". Each column contains several news items with dates and "More..." links.

ALMA
Atacama Large Millimeter/submillimeter Array
In search of our Cosmic Origins

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More... More... More...

[<http://almascience.eso.org>]



ALMA Cycle 7 Documentation

Atacama Large Millimeter/submillimeter Array
In search of our Cosmic Origins

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About Science Proposing Observing Data Processing Tools **Documentation** Help

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Documentation

Call for Proposals

Documentation supporting the current ALMA Call for Proposals – **Cycle 7**. Documents from previous Cycles are provided [here](#).

Document	Description
ALMA Proposer's Guide	Contains all pertinent information regarding the ALMA Call for Proposals
ALMA Technical Handbook	A comprehensive description of the ALMA observatory and its components
ALMA Users' Policies	The long-term core policies for use of the ALMA and ALMA data by the science community
Observing With ALMA - A Primer	Introduction to interferometry and how to use ALMA
ALMA Proposal Template	LaTeX format. Recommended but not mandatory
ALMA Proposal Review Process	The latest version of the ALMA Principles of the ALMA Proposal Review Process

all proposers

new proposers

Contents

- [1. Call for Proposals](#)
- [2. Phase 1 & 2](#)
- [3. Guides to the ALMA Regional Centers](#)
- [4. ALMA Science Data Tracking, Data Processing and Pipeline, Archive and QA2 Data Products](#)
- [5. ALMA Reports, Memos and Newsletters](#)

[<https://almascience.eso.org/documents-and-tools>]



ALMA Cycle 7 Documentation

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use ctrl+F

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Proposal Science Case

You **MUST** include:

- *Astronomical importance*
- *Estimate of intensity of targets*
- *Justification of requested SNR*
- *Size of target sample*

You may include:

- *Figures & tables*
- *References (must be self-contained)*
- *Simulations (see afternoon tutorial)*

Using proposal template (as-is!) is strongly encouraged

Proposal Template

A proposal template is a LaTeX file that can be used to prepare the scientific justification of an ALMA proposal. It is not mandatory to use LaTeX: other formats, such as Word, Pages, etc can also be used as long as they can be turned into a pdf file and **use at least 12pt characters**. The pdf format is required to attach the justification to the proposal prepared in the Observing Tool (OT).

Regardless of format, the justification has to adhere to the **maximum total number of pages, which is 4 for Regular, DDT, ToO, Solar and mm-VLBI proposals, and 6 for Large Program proposals**, as these should contain additional sections on management and data products. Both page limits include **figures, tables** and **references**. For more information, please see the [ALMA Proposers Guide](#).

For clarity, we provide two templates, corresponding to each of the page limits:

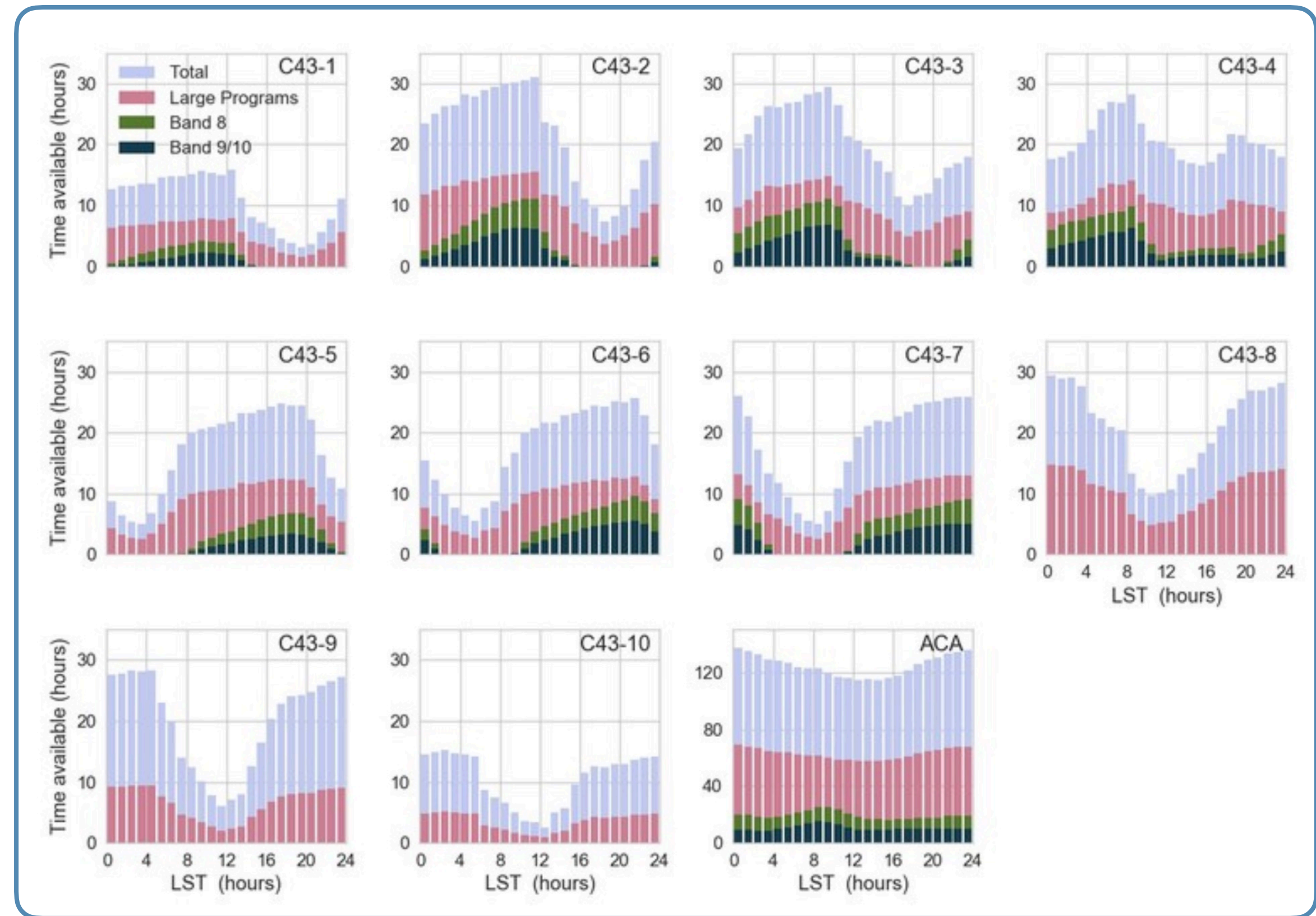
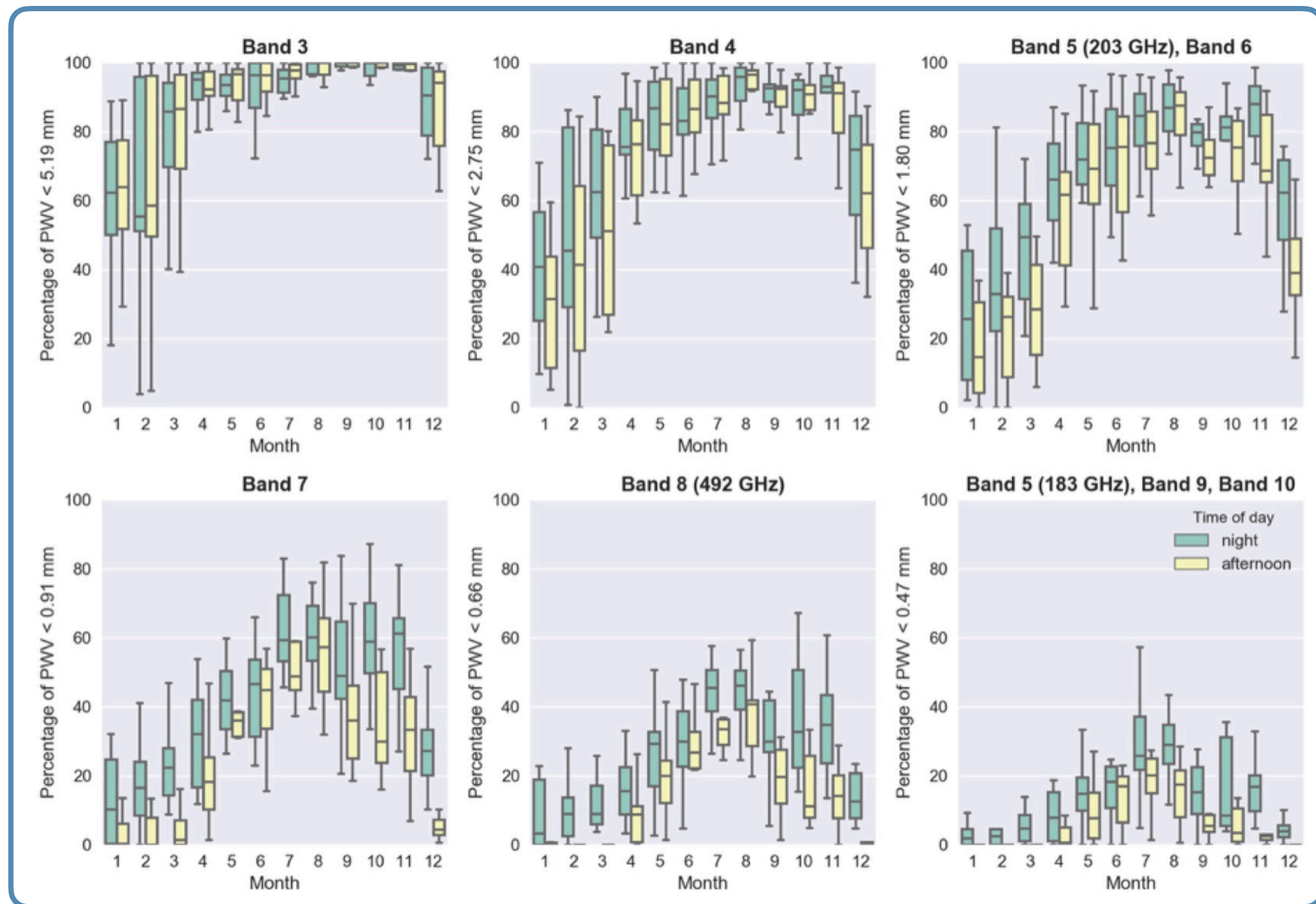
[Download 4-page Template](#) for Regular, DDT, ToO, Solar, or mm-VLBI proposals

[Download 6-page Template](#) for Large Program proposals only

[<https://almascience.eso.org/documents-and-tools/proposing/proposal-template>]

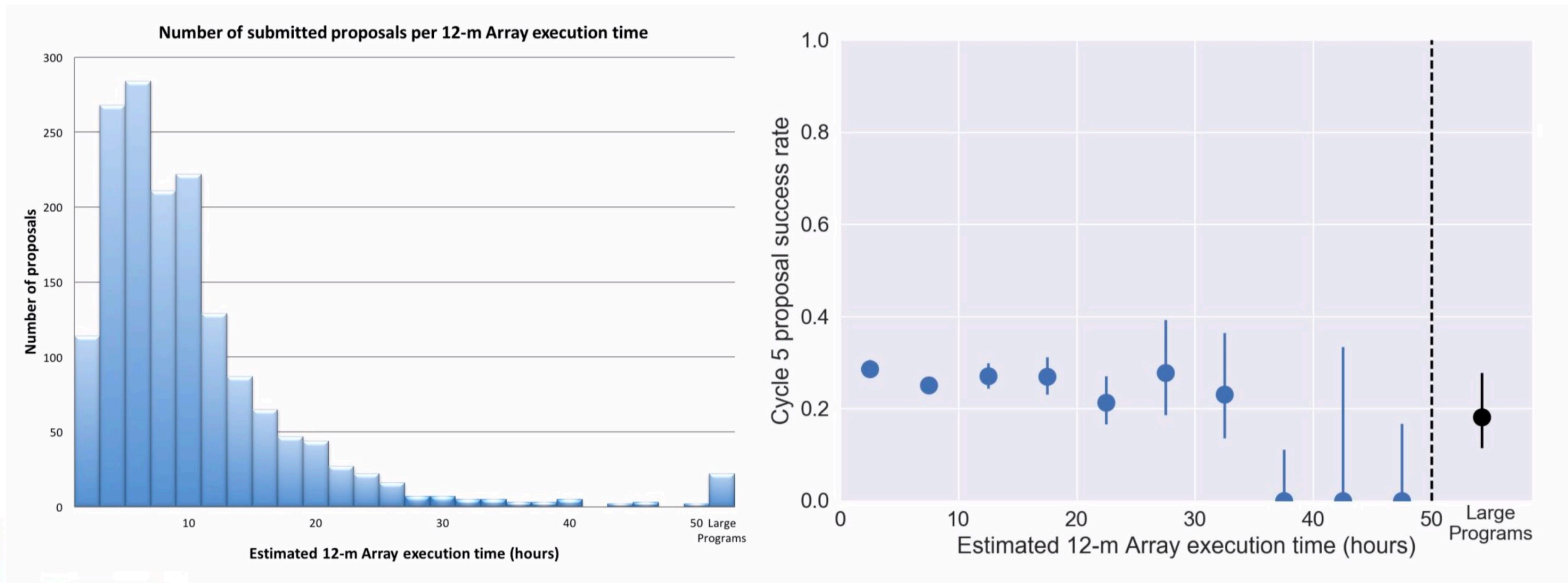
Proposal Science Case

Observing strategies are important [see first afternoon talk on Cycle 7]



Proposal Science Case

Acceptance rate does *NOT* depend on time request (out to ~30 hours)



Proposal Checklist

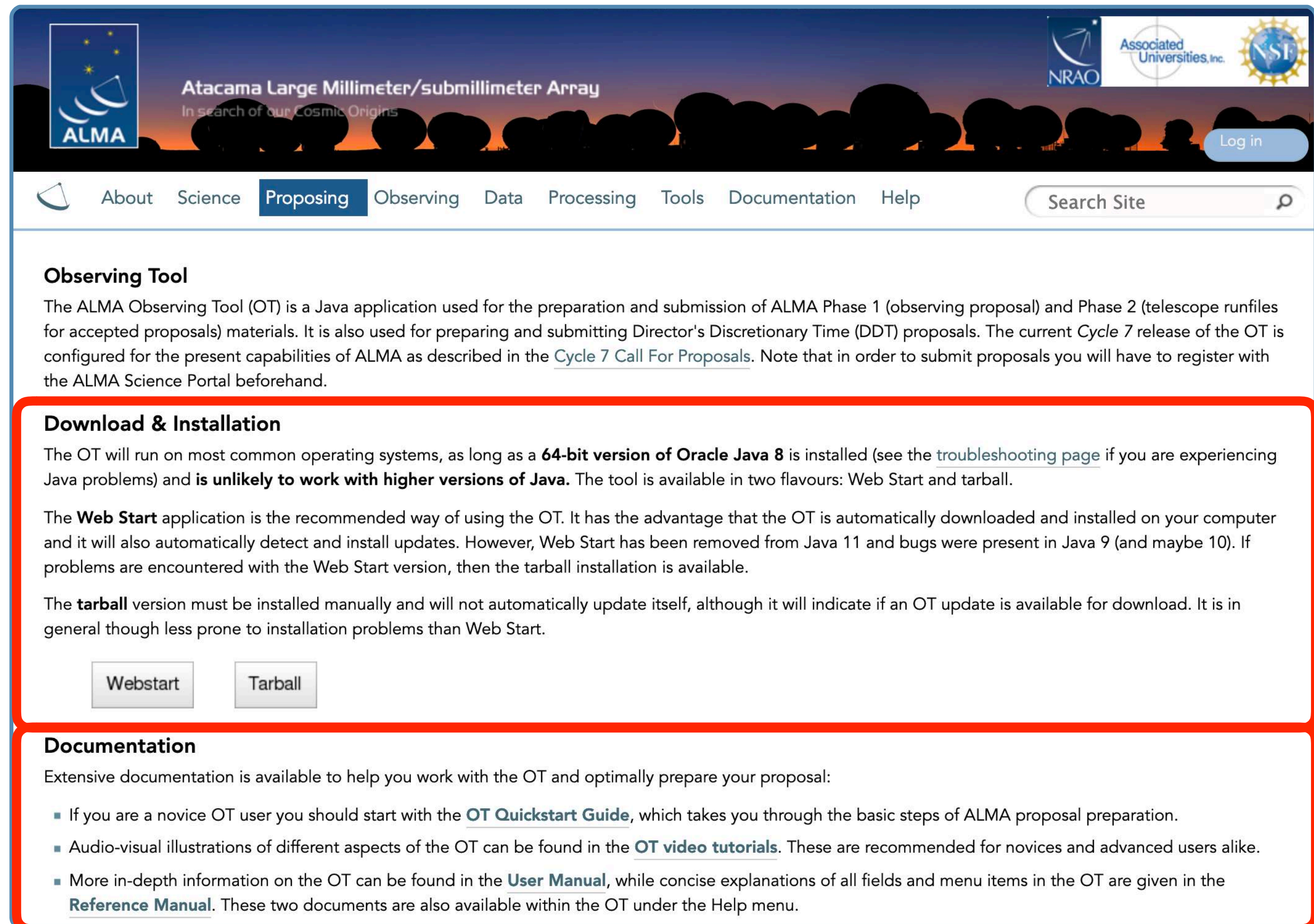
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The ALMA Observing Tool [OT]

*Download during lunch break
if you haven't already!*

**Use the Web Start version
[will update automatically]**

**Lots of documentation available
[hands-on tutorial this afternoon]**



The screenshot shows the ALMA Observing Tool website. The header features the ALMA logo, the text "Atacama Large Millimeter/submillimeter Array" and "In search of our Cosmic Origins", and logos for NRAO, Associated Universities, Inc., and NSF. A "Log in" button is in the top right. The navigation menu includes "About", "Science", "Proposing", "Observing", "Data", "Processing", "Tools", "Documentation", and "Help". A search bar is labeled "Search Site".

Observing Tool

The ALMA Observing Tool (OT) is a Java application used for the preparation and submission of ALMA Phase 1 (observing proposal) and Phase 2 (telescope runfiles for accepted proposals) materials. It is also used for preparing and submitting Director's Discretionary Time (DDT) proposals. The current Cycle 7 release of the OT is configured for the present capabilities of ALMA as described in the [Cycle 7 Call For Proposals](#). Note that in order to submit proposals you will have to register with the ALMA Science Portal beforehand.

Download & Installation

The OT will run on most common operating systems, as long as a **64-bit version of Oracle Java 8** is installed (see the [troubleshooting page](#) if you are experiencing Java problems) and **is unlikely to work with higher versions of Java**. The tool is available in two flavours: Web Start and tarball.

The **Web Start** application is the recommended way of using the OT. It has the advantage that the OT is automatically downloaded and installed on your computer and it will also automatically detect and install updates. However, Web Start has been removed from Java 11 and bugs were present in Java 9 (and maybe 10). If problems are encountered with the Web Start version, then the tarball installation is available.

The **tarball** version must be installed manually and will not automatically update itself, although it will indicate if an OT update is available for download. It is in general though less prone to installation problems than Web Start.

[Webstart](#) [Tarball](#)

Documentation

Extensive documentation is available to help you work with the OT and optimally prepare your proposal:

- If you are a novice OT user you should start with the [OT Quickstart Guide](#), which takes you through the basic steps of ALMA proposal preparation.
- Audio-visual illustrations of different aspects of the OT can be found in the [OT video tutorials](#). These are recommended for novices and advanced users alike.
- More in-depth information on the OT can be found in the [User Manual](#), while concise explanations of all fields and menu items in the OT are given in the [Reference Manual](#). These two documents are also available within the OT under the Help menu.

[<https://almascience.nrao.edu/proposing/observing-tool>]



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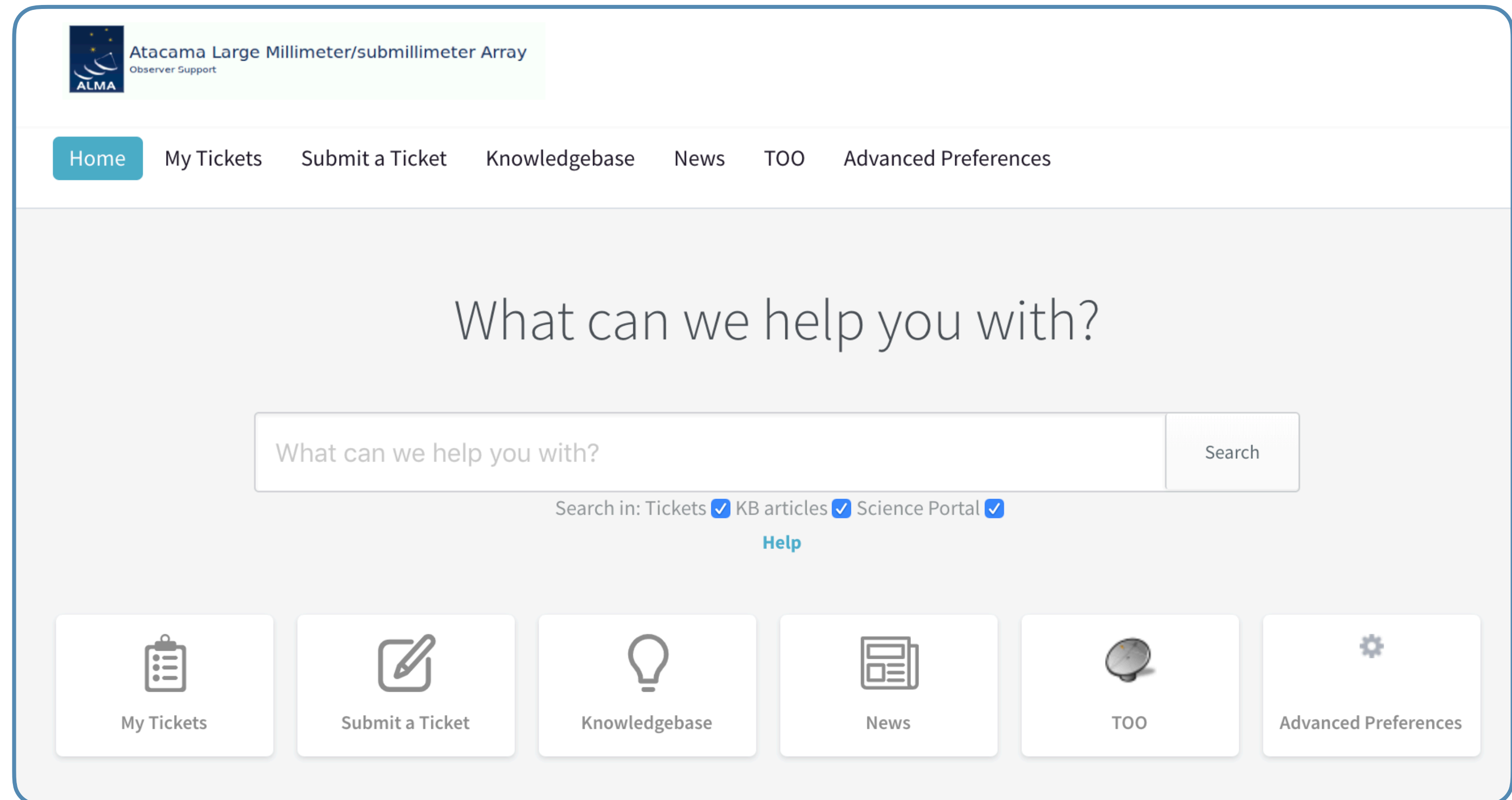
Helpdesk & Knowledgebase

Helpdesk

- *ALMA experts answer your questions*
- *Responses < 48 hr (usually faster)*
- *Staffed 24/7 near proposal deadline*
- *Used for Phase 2 & ToO triggers*

Knowledgebase

- *Bank of useful articles & how-tos*
- *Check first before contacted Helpdesk*



The screenshot shows the ALMA Observer Support website. At the top, there is a header with the ALMA logo and the text "Atacama Large Millimeter/submillimeter Array Observer Support". Below the header is a navigation menu with links: Home, My Tickets, Submit a Ticket, Knowledgebase, News, TOO, and Advanced Preferences. The main content area features a large heading "What can we help you with?" and a search bar with the same text inside. To the right of the search bar is a "Search" button. Below the search bar, there are search filters: "Search in: Tickets" (checked), "KB articles" (checked), and "Science Portal" (checked). A "Help" link is also present. At the bottom, there is a row of six icons with labels: My Tickets, Submit a Ticket, Knowledgebase, News, TOO, and Advanced Preferences.

[<https://help.almascience.org>]



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Submitting Your Proposal

Upload Science Case
[recommended to use template]

ALMA Observing Tool (Cycle7) - Megan's Awesome Proposal

File Edit View Tool Search Help

Perspective 1

Project Structure

Proposal Program

Unsubmitted Proposal

- Megan's Awesome Proposal
 - Proposal

Editors

Spectral Spatial Proposal

Investigators

Type	Full name	Email	Affiliation	ALMA ID	Executive
PI	Megan Ansdell	ansdell@berkeley.edu	Department of Astro...	mansdell	North America

Select PI Add CoPI Add Col Remove Collaborator Add from Proposal

Science Case

Science Case (Mandatory, PDF, 4 pages max.) Attach... Detach View...

Duplicate observations

Briefly justify any new observations that duplicate archival data or accepted programs.
Information regarding the ALMA Duplication Policy and how to search archival data and accepted programs can be found at:

Feedback

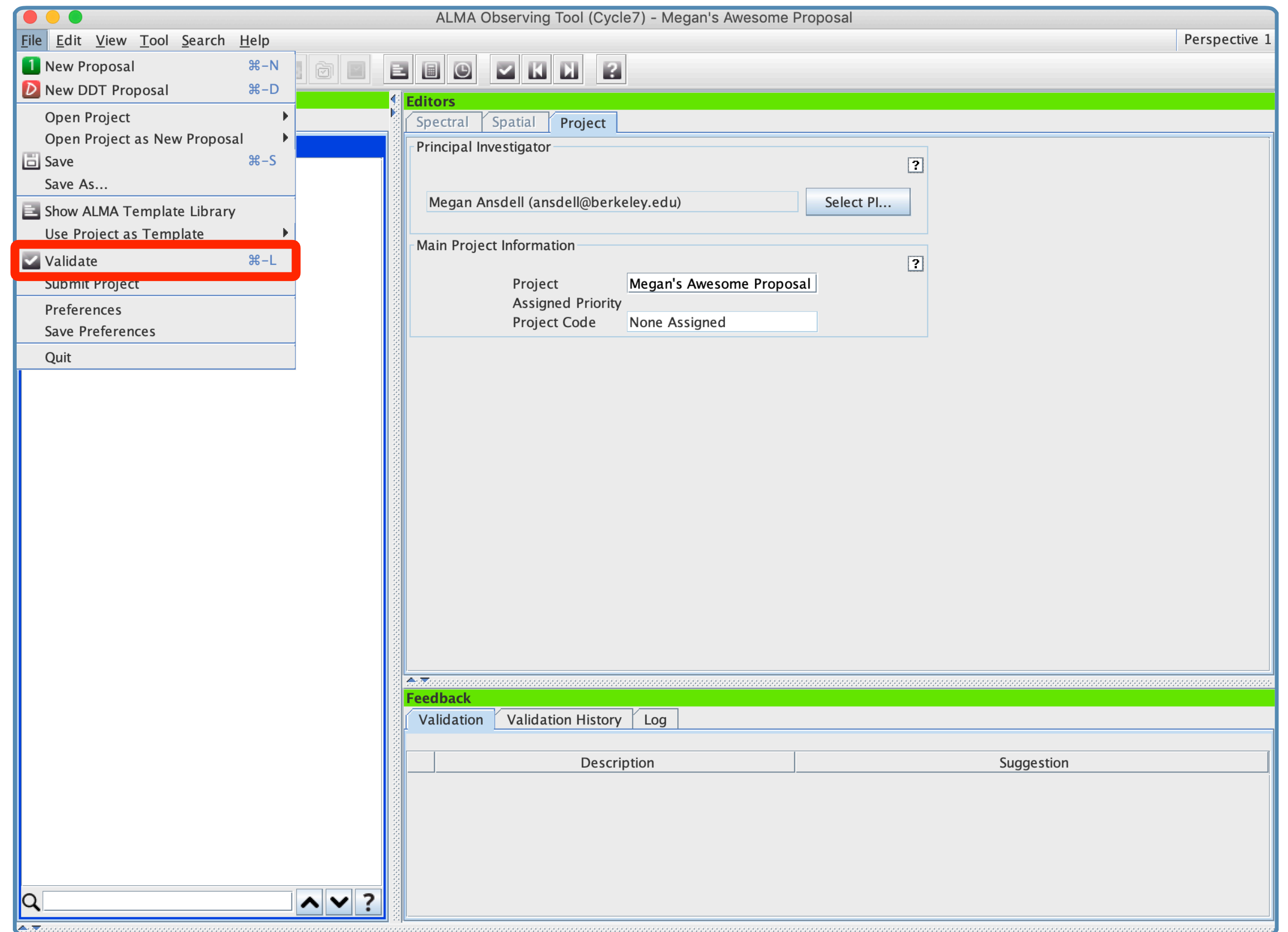
Validation Validation History Log

Description	Suggestion
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Submitting Your Proposal

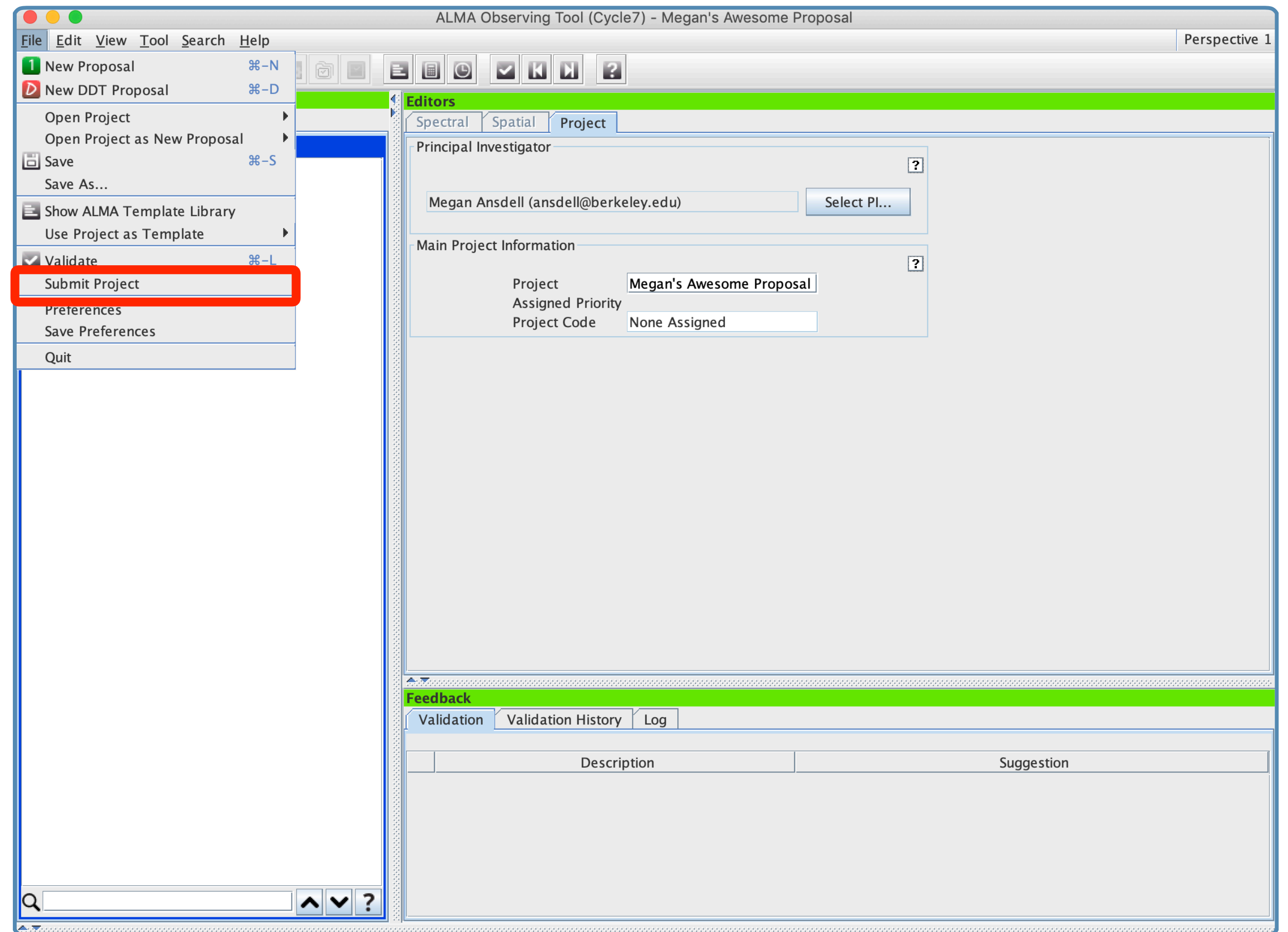
Use 'validate' (often + early) to make sure you can submit your proposal



Submitting Your Proposal

Use 'submit' (often + early) to make sure you can submit your proposal

- You can submit as often as needed [server gets busy near deadline]
- Proposals reviewed by panels on basis of scientific merit [+ technical review]



ALMA Review Process

Competitive Peer Review

- Reviewers consist of scientists selected from the international astronomical community
- Reviewers are assigned to ALMA Review Panels in a specialized scientific category (e.g., Planet Formation)

Randomize names (first initial + surname only) of team members

- Reviewers can still see team behind proposal, but won't know who is PI
- First year trying this; attempt to reduce bias affecting outcomes of proposal process

Evaluated based on scientific merit

- Possible to change technical aspects of proposal to enable execution (within reason)
- Major changes (e.g., additional bands) unlikely to be approved
- Large Programs subject to additional evaluation factors (scheduling, data products, management plan)



Resources for Successful Proposals

ALMA Help Desk

Questions answered within 48 hours (24/7 near proposal deadline)
[<https://help.almascience.org/>]

Student Support

Up to \$35k support for (under)graduates involved in ALMA proposals
[<https://science.nrao.edu/opportunities/student-programs/sos>]

Page Charges

Upon request for authors from US institutions reporting ALMA/VLA results
[<https://library.nrao.edu/pubsup.shtml>]

Face-to-Face Visits

Travel for teams to visit NAASC for data reduction/analysis support
[<https://science.nrao.edu/facilities/alma/visitors-shortterm>]

