

How to get your ALMA Proposal accepted

[or at least write a good one]



Toby Brown
McMaster University



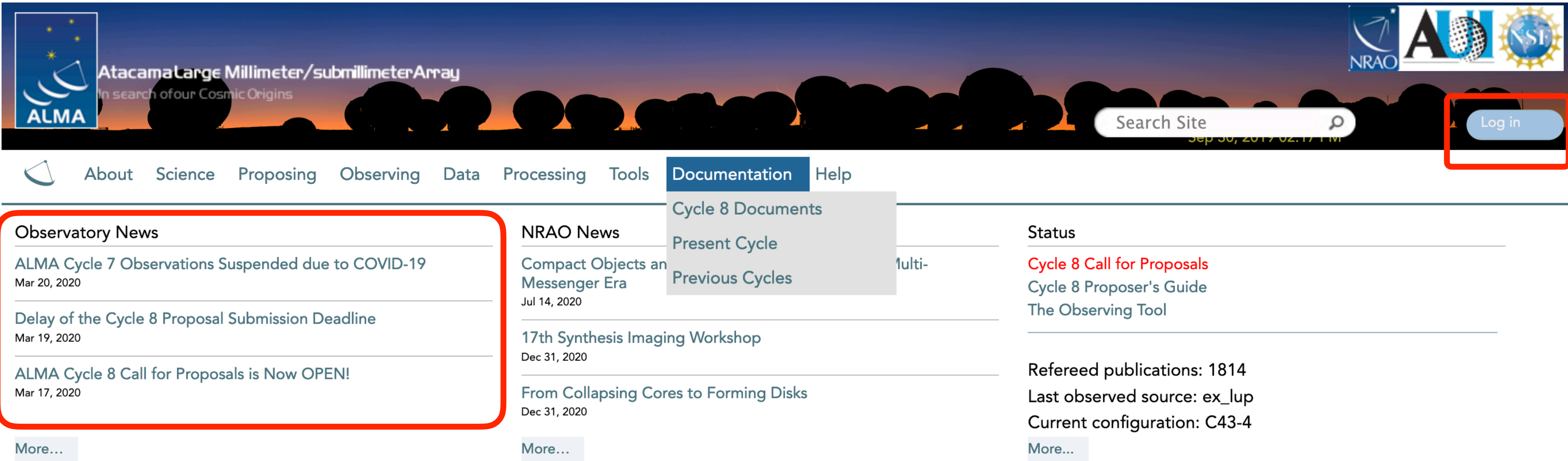
Atacama Large Millimeter/submillimeter Array
Karl G. Jansky Very Large Array
Very Long Baseline Array



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



The screenshot shows the ALMA Science Portal homepage. At the top, there is a header with the ALMA logo on the left, the text "Atacama Large Millimeter/submillimeter Array" and "In search of our Cosmic Origins" in the center, and logos for NRAO, AUI, and NSI on the right. Below the header is a navigation menu with items: About, Science, Proposing, Observing, Data, Processing, Tools, Documentation, and Help. The "Documentation" menu is open, showing "Cycle 8 Documents", "Present Cycle", and "Previous Cycles". On the right side of the header, there is a search bar labeled "Search Site" and a "Log in" button. The main content area is divided into three columns. The left column is titled "Observatory News" and contains three news items: "ALMA Cycle 7 Observations Suspended due to COVID-19" (Mar 20, 2020), "Delay of the Cycle 8 Proposal Submission Deadline" (Mar 19, 2020), and "ALMA Cycle 8 Call for Proposals is Now OPEN!" (Mar 17, 2020). The middle column is titled "NRAO News" and contains three items: "Compact Objects and the Messenger Era" (Jul 14, 2020), "17th Synthesis Imaging Workshop" (Dec 31, 2020), and "From Collapsing Cores to Forming Disks" (Dec 31, 2020). The right column is titled "Status" and contains "Cycle 8 Call for Proposals", "Cycle 8 Proposer's Guide", "The Observing Tool", "Refereed publications: 1814", "Last observed source: ex_lup", and "Current configuration: C43-4". Each column has a "More..." link at the bottom.

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

NRAO AUI NSI

Search Site

Log in

About Science Proposing Observing Data Processing Tools Documentation Help

Observatory News

ALMA Cycle 7 Observations Suspended due to COVID-19
Mar 20, 2020

Delay of the Cycle 8 Proposal Submission Deadline
Mar 19, 2020

ALMA Cycle 8 Call for Proposals is Now OPEN!
Mar 17, 2020

More...

NRAO News

Compact Objects and the Messenger Era
Jul 14, 2020

17th Synthesis Imaging Workshop
Dec 31, 2020

From Collapsing Cores to Forming Disks
Dec 31, 2020

More...

Documentation

Cycle 8 Documents
Present Cycle
Previous Cycles

Status

Cycle 8 Call for Proposals
Cycle 8 Proposer's Guide
The Observing Tool

Refereed publications: 1814
Last observed source: ex_lup
Current configuration: C43-4

More...

[\[http://almascience.nrao.edu\]](http://almascience.nrao.edu)



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. The page has a dark blue header with the ALMA logo and the text 'Atacama Large Millimeter/submillimeter Array In search of our Cosmic Origins'. Below the header 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 (mandatory)
- Middle initials (optional)
- Surname (mandatory)
- Gender (optional)
- E-mail (mandatory)
- Re-type E-mail (mandatory)
- Receive optional emails (checkbox)
- Account name (optional)
- Password (mandatory)
- Re-type password (mandatory)
- Institution (mandatory), with dropdowns for 'Choose country...' and 'Choose Institution...'

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](#)'. At the very bottom right, there are links for 'Site Map', 'Accessibility', 'Contact', and 'Privacy Statement'.

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

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ALMA Cycle 8 Documentation



Navigation menu: [About](#) [Science](#) [Proposing](#) [Observing](#) [Data](#) [Processing](#) [Tools](#) **Documentation** [Help](#)

Observatory News

- [ALMA Cycle 7 Observations Suspended due to COVID-19](#)
Mar 20, 2020
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[More...](#)

Documentation

- [Cycle 8 Documents](#)
- [Present Cycle](#)
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Status

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(COVID-19) ALMA Cycle 8 Timeline

Date	Milestone
17 March 2020 (15:00 UT)	Release of Cycle 8 Call for Proposals, Observing Tool, and supporting documents and opening of the Archive for proposal submission
15 April 2020 (15:00 UT)	Proposal submission deadline for Cycle 8 proposals
End of July 2020	Announcement of the outcome of the proposal review process
9 September 2020	Deadline for submission of Phase 2 material for Cycle 8 accepted proposals
October 2020	Start of ALMA Cycle 8 science observations
September 2021	End of ALMA Cycle 8

**NO EARLIER
than
15:00 UT
19 May 2020.**

**Likely to be
affected...**



ALMA Cycle 8 Documentation



 [About](#) [Science](#) [Proposing](#) [Observing](#) [Data](#) [Processing](#) [Tools](#) **[Documentation](#)** [Help](#)

Cycle 8 Documents

Call for Proposals

Documentation supporting the current ALMA Call for Proposals – **Cycle 8**. 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

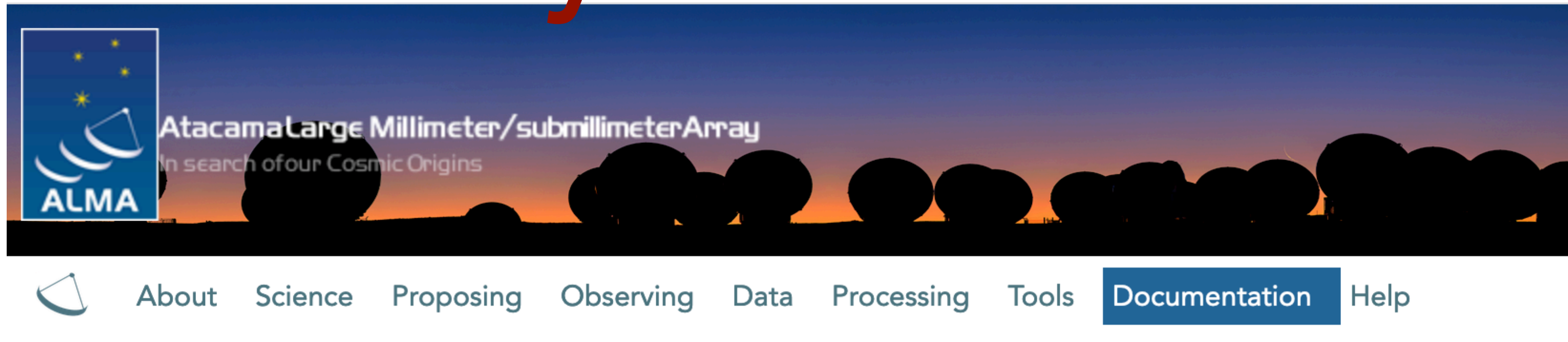
all proposers

new proposers

[\[https://almascience.nrao.edu/documents-and-tools/cycle-8-documents\]](https://almascience.nrao.edu/documents-and-tools/cycle-8-documents)



ALMA Cycle 8 Documentation



Cycle 8 Documents

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use ctrl+F

[\[https://almascience.nrao.edu/documents-and-tools/cycle-8-documents\]](https://almascience.nrao.edu/documents-and-tools/cycle-8-documents)



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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:

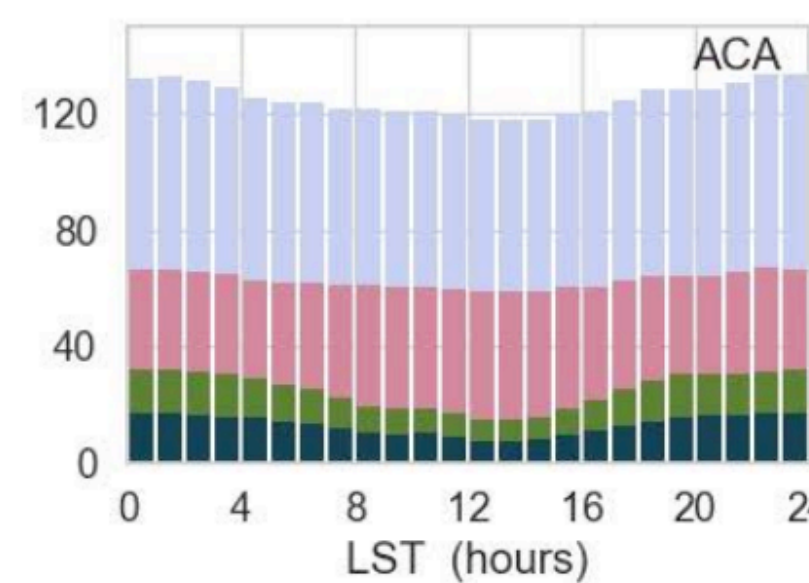
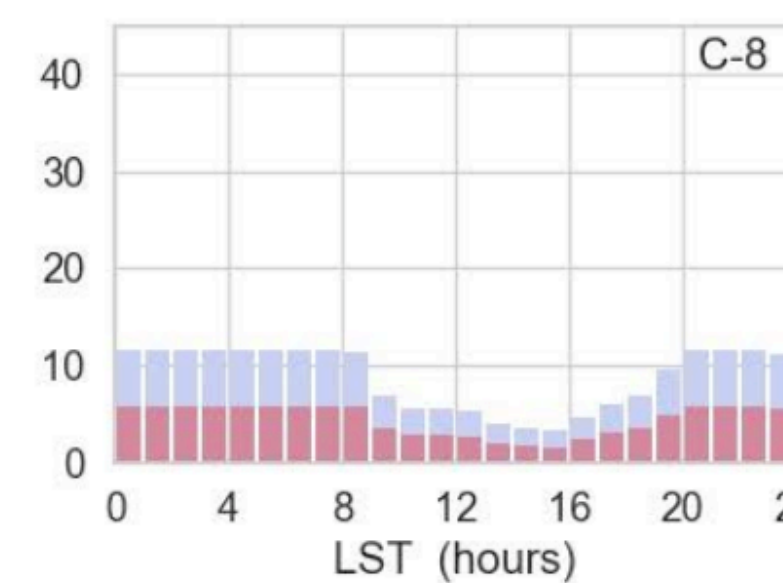
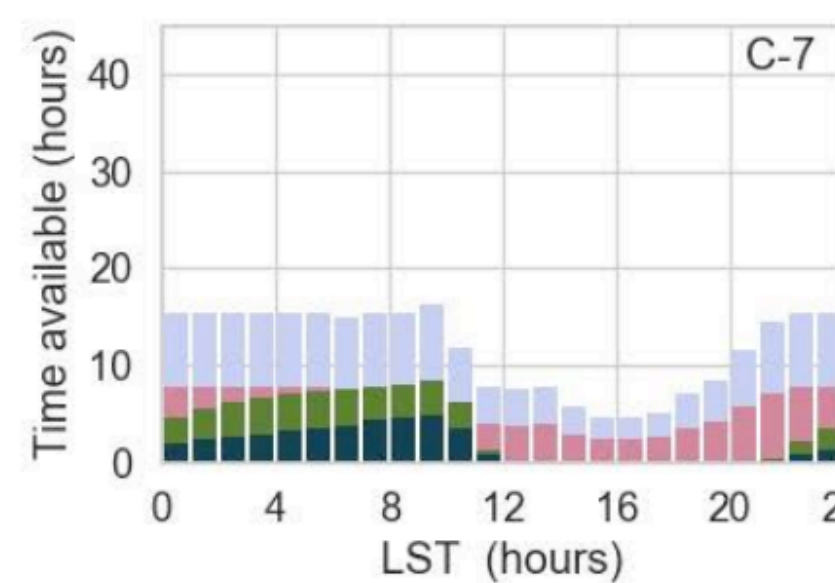
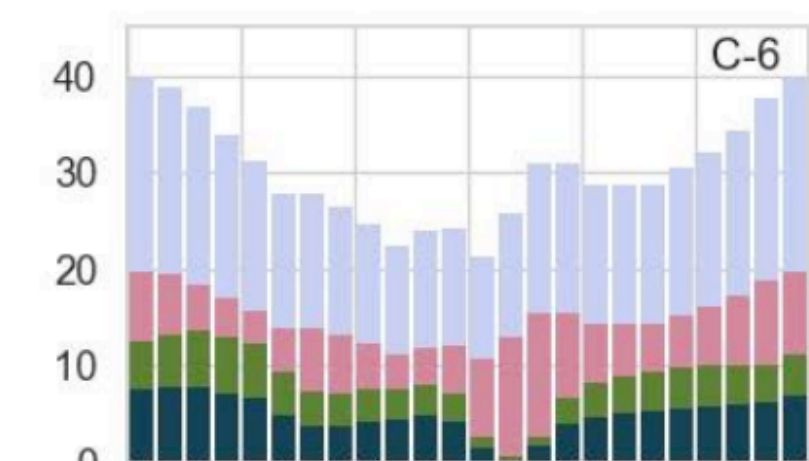
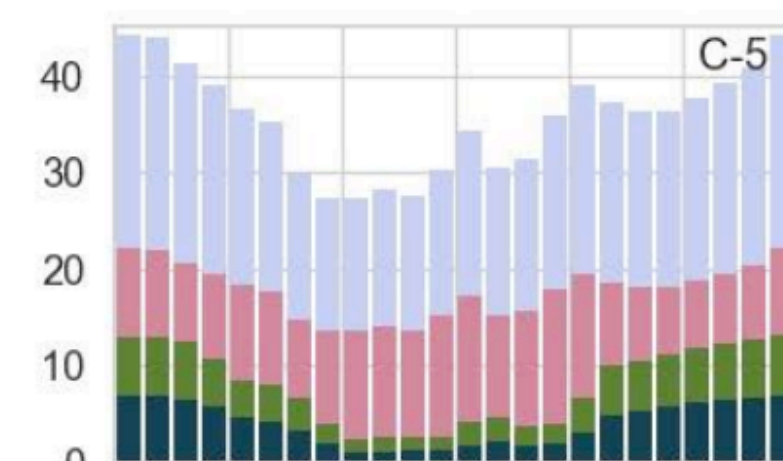
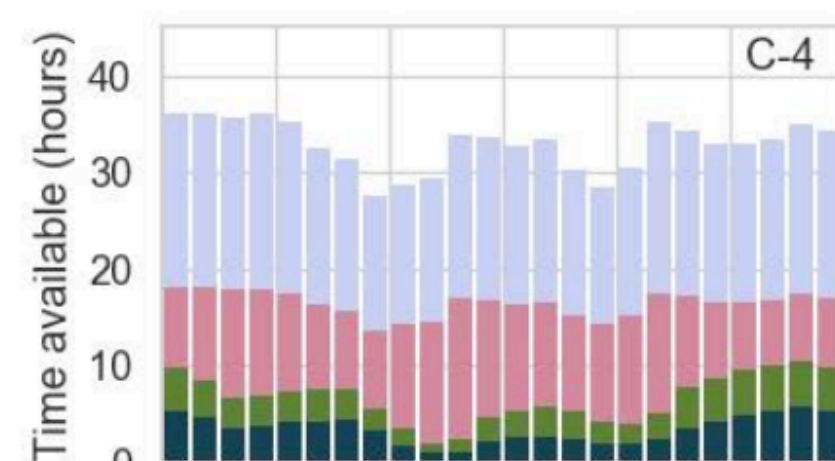
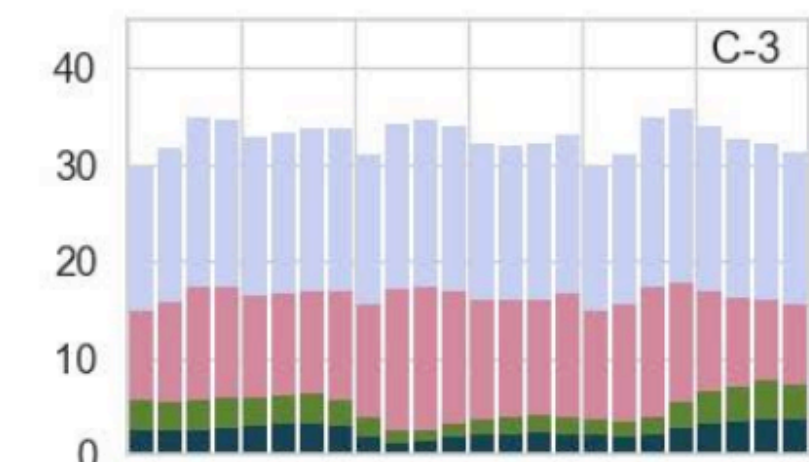
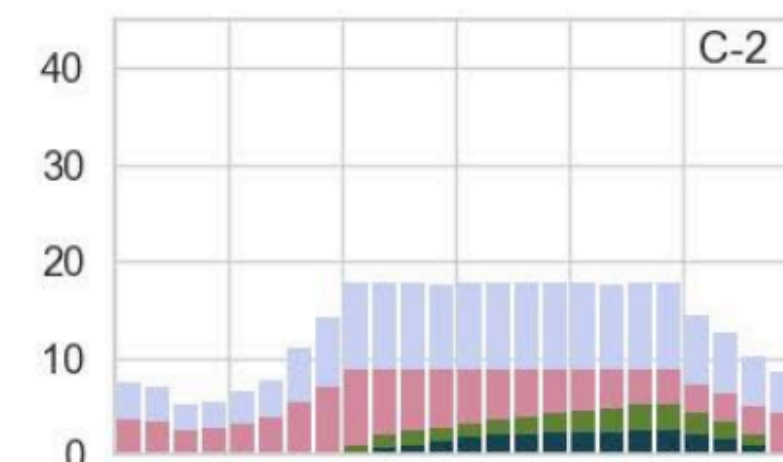
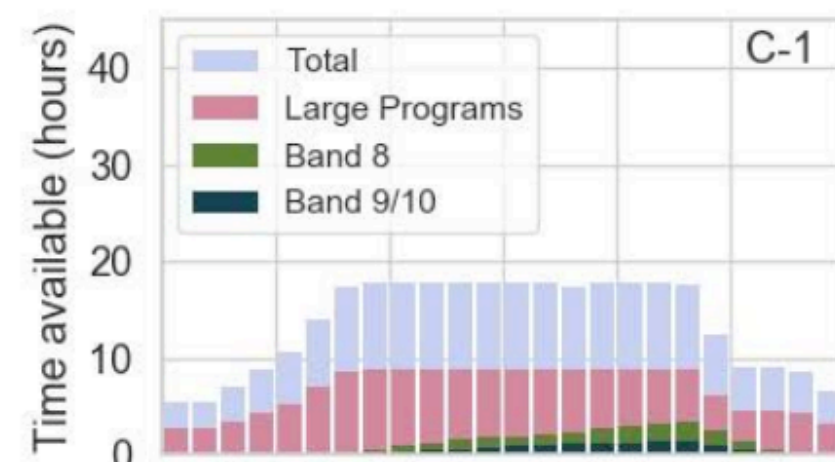
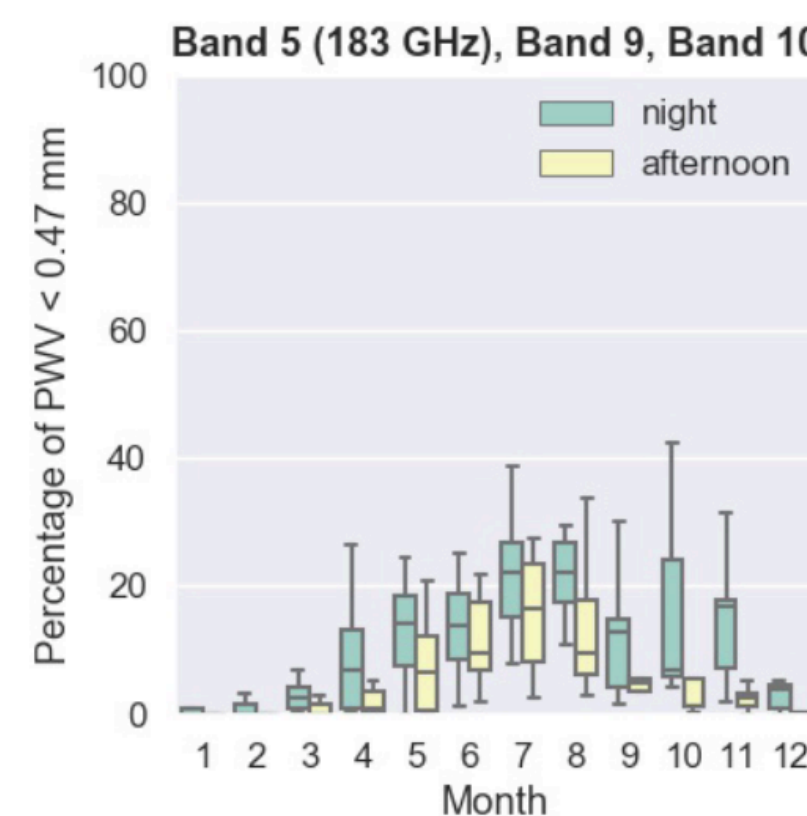
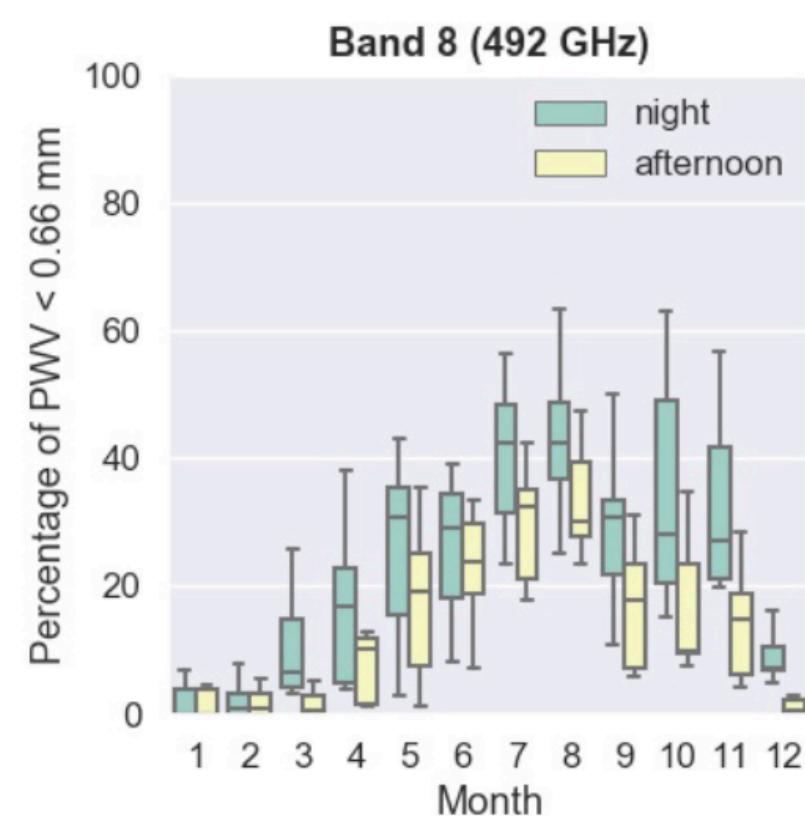
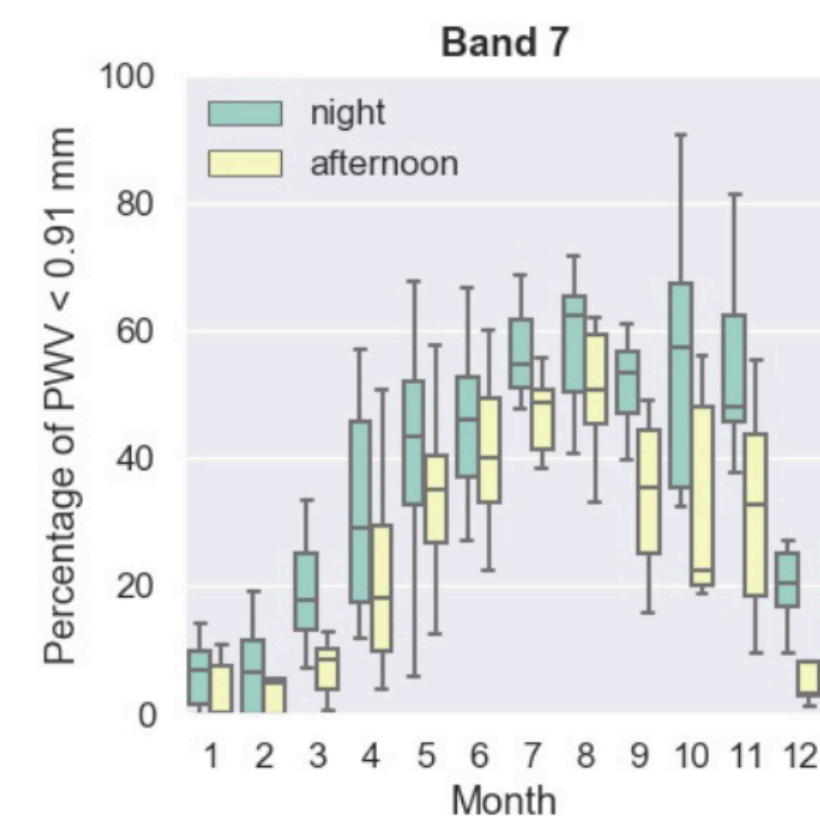
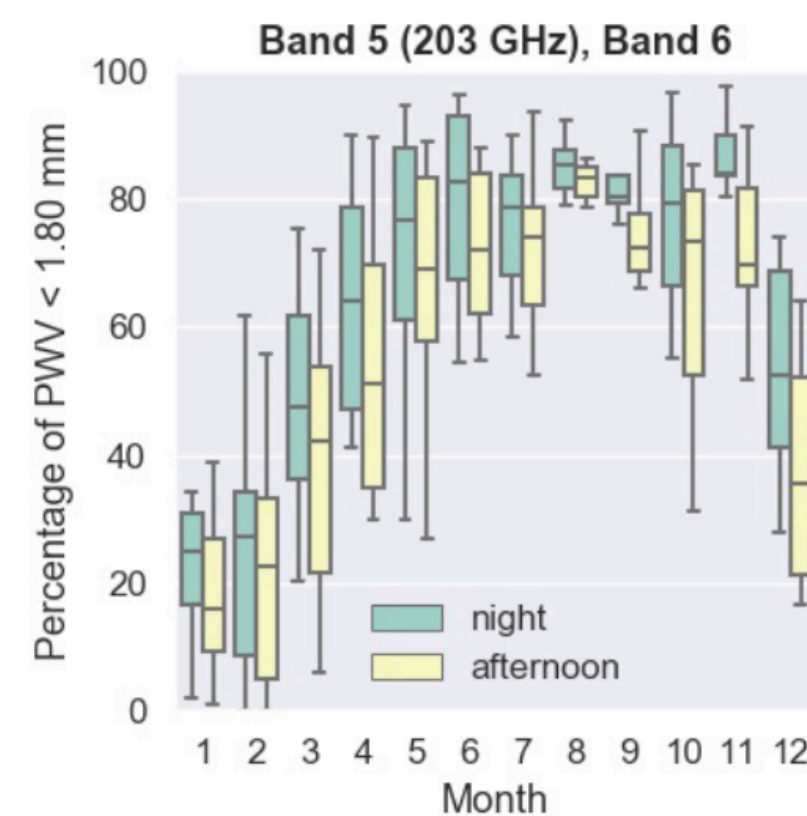
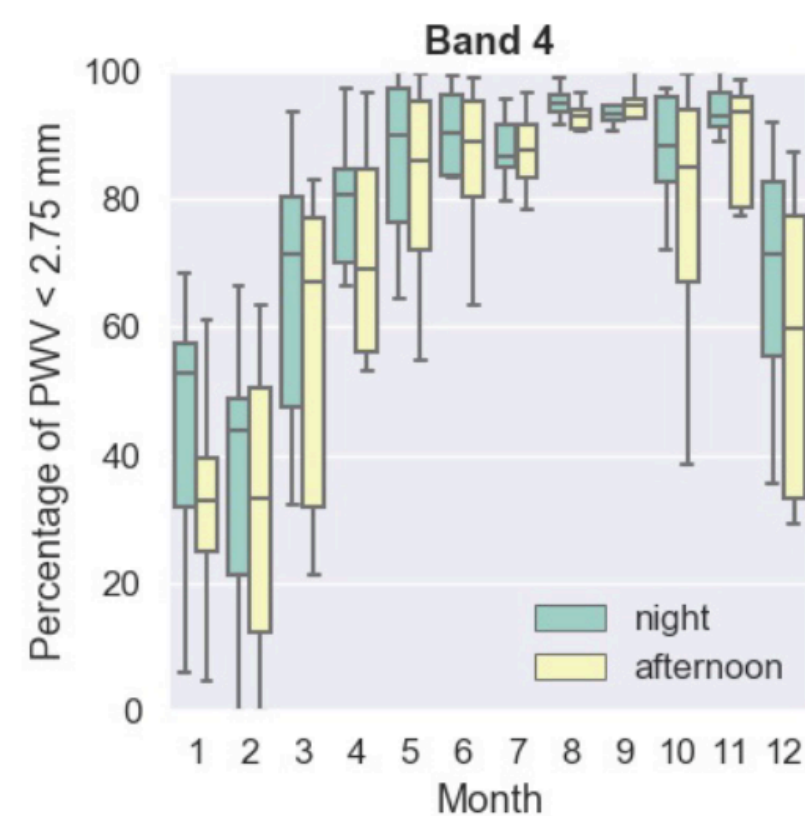
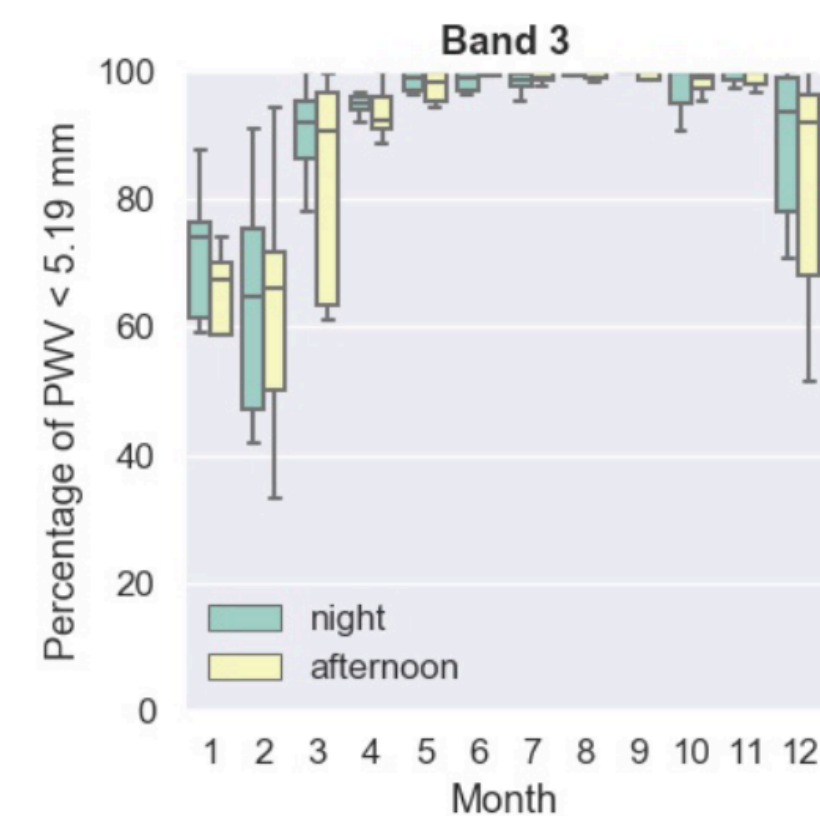
[Download 4-page Template](#) for Regular, DDT, ToO, Solar, or mm-VLBI proposals

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

[\[https://almascience.eso.org/documents-and-tools/proposing/proposal-template\]](https://almascience.eso.org/documents-and-tools/proposing/proposal-template)



Observing strategies are important



Proposal Science Case

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

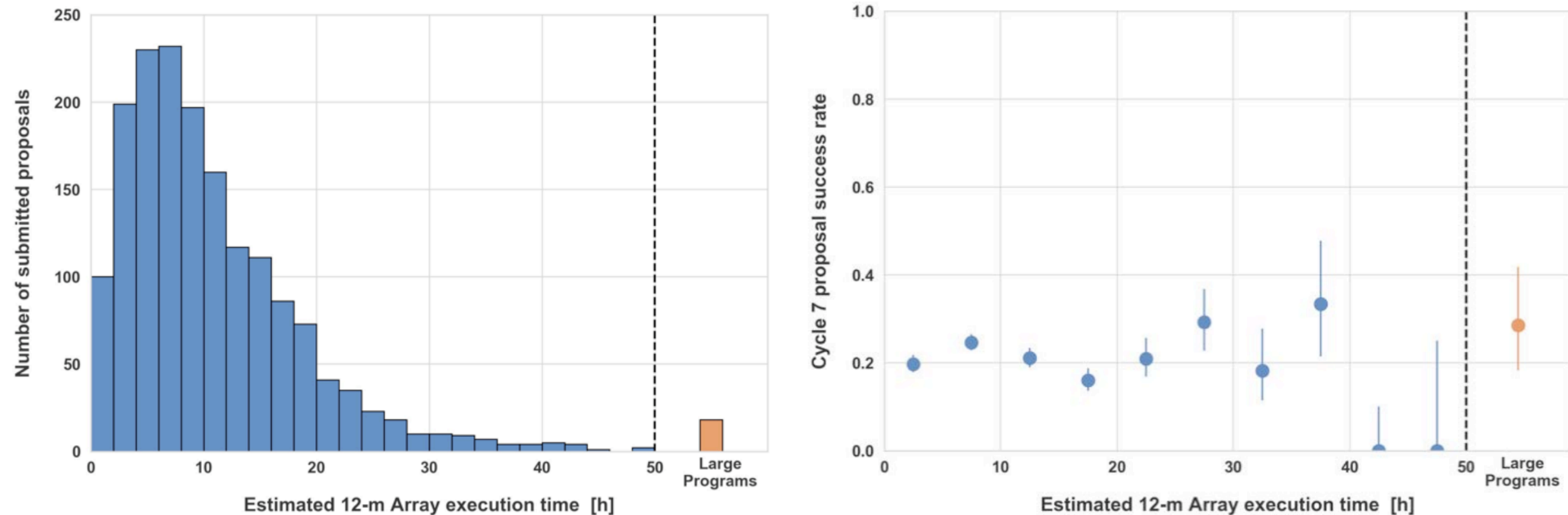


Figure 1: (Left) Number of proposals submitted as a function of the 12-m Array execution time in Cycle 7. (Right) The fraction of proposals (with 1σ confidence intervals) that are assigned priority Grade A or B as a function of the estimated 12-m Array time.

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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



A screenshot of the ALMA Observer Support website. The header includes the ALMA logo and the text 'Atacama Large Millimeter/submillimeter Array Observer Support'. A navigation bar contains links for '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. Below the search bar, it says 'Search in: Tickets [checked] KB articles [checked] Science Portal [checked]' and a 'Help' link. At the bottom, there are six icons with labels: 'My Tickets', 'Submit a Ticket', 'Knowledgebase', 'News', 'TOO', and 'Advanced Preferences'.

[\[https://help.almascience.org\]](https://help.almascience.org)

ALMA Review Process

- *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)*

Dual anonymous review - identities concealed from the reviewers

- *Write in 3rd person, anonymise your science case!*
- *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)*



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Resources

ALMA Help Desk

Questions and requests answered within 48 hours (faster on week of deadline) [<https://help.almascience.org/>]

Documentation

OT User Manual, OT Reference Manual, OT trouble-shooting page [<https://almascience.nrao.edu/documents-and-tools>]

Video Tutorials

Visual demonstrations of OT usage (produced in Cycle 6) [<https://almascience.eso.org/proposing/observing-tool/video-tutorials>]

Simulation Tutorials

Check that your observations are feasible in chosen configuration [<https://casaguides.nrao.edu/index.php/ALMAGuides>]



What the TAC are looking for?

Adam Leroy & Christine Wilson

What is the process for proposal writing?

How do I write an anonymous proposal?

Do the TAC judge the technical case and/or feasibility?

Do I need to explain the setup (band, resolution, snr etc.) from a scientific perspective?

Write reader friendly proposals. The TAC read 100s so make it easy to parse important information

