

# The ALMA Proposal Preparation Process

How to get started and what to expect



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# This talk is for you if...

- You are new to ALMA and have not yet had experience with the relevant documentation...
- You have not downloaded the ALMA Observing Tool (OT) or even know where to get it.
- You have a fabulous science case that will be essential to follow-up with ALMA facilities...
- You would like examples of science use cases for ALMA
- You were familiar with past Cycles and wonder what Cycle 8 capabilities are now available and what changes will be made before the Call for Proposals.

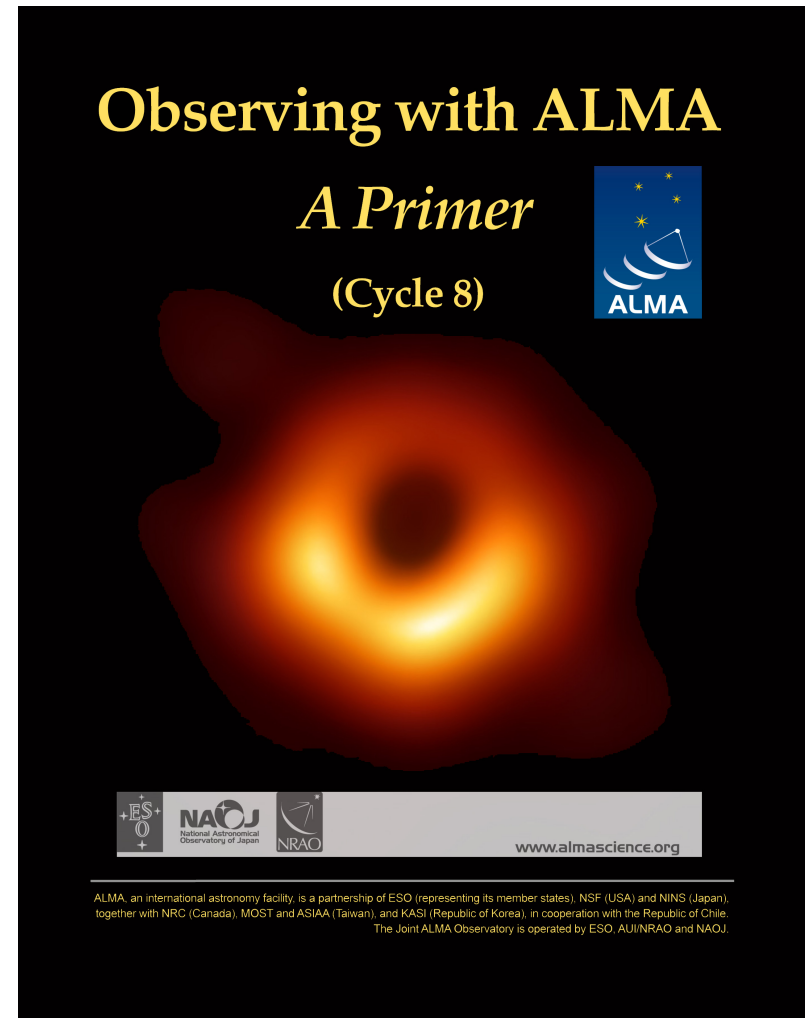
**This talk will be available online for reference after this workshop.**

# Proposal Checklist

- Read relevant documentation (CfP, Guide, Primer, etc.)
- Create an ALMA account by registering at the Science Portal ([almascience.org](http://almascience.org))
- Download the Observing Tool (OT) & related guides
- Prepare the Science Case
  - New capabilities for Cycle 8!
- Prepare Science Goals (sources, frequency & correlator setup, integration times) within the OT
- Make use of the Helpdesk & the Knowledgebase

# Cycle 8 Documentation & Timeline

- Call for Proposals
- Proposer's Guide
- ALMA Primer
- *OT Guide*
- *ALMA Technical Handbook*
- Timeline for Cycle 8
  - 17 Mar – Call for Proposals
  - 21 Apr – Proposal Deadline
  - August – Results to PIs
  - 08 Sept – Supplemental CfP
  - Oct. 2021 – Start of Cycle 8
  - 06 Oct – Supplemental Deadline
  - Sept. 2022 – End of Cycle 8

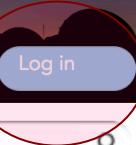


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Atacama Large Millimeter/submillimeter Array  
In search of our Cosmic Origins



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Observatory News

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

ALMA Cycle 7 Pre-Announcement  
Dec 19, 2018

Job Opening: Head of ALMA Department of Science Operations  
Dec 05, 2018

More...

NRAO News

Multi-Messenger Astrophysics: Insights from Combining Gravity and Radio Waves  
Feb 16, 2019

ALMA Data Reduction Party  
Mar 13, 2019

New Horizons in Planetary Systems  
May 13, 2019

More...

Status

Configuration Schedule  
Cycle 6 Highest Priority Projects

Refereed publications: 1300  
Last observed source:  
Northeast\_Section\_of\_NGC6334  
Current configuration: C43-1

More...

Science Highlights - An ALMA Detection of the Radioactive Molecule  $^{26}\text{AlF}$  in a Stellar Merger Remnant.

[www.almascience.org](http://www.almascience.org)



Although diffuse Galactic gamma-ray emission from the isotope of aluminum,  $^{26}\text{Al}$ , was first detected in the 1980s, the identification of the source of emission has been hard to pinpoint due to the poor spatial resolution of gamma-ray observations. In a recent Nature paper, a team led by Dr. Kaminski has made use of sensitive, high-

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# Downloading the ALMA OT



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Log in



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## 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 6* release of the OT is configured for the present capabilities of ALMA as described in the [Cycle 6 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 Java 8** is installed (see the [troubleshooting page](#) if you are experiencing Java problems). The ALMA OT 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. There are some issues with Web Start, particularly that it does not work with the Open JDK versions of Java such as the "Iced Tea" flavour common on many modern Linux installations. The Oracle variant of Java should therefore be installed instead. If this is not possible, then the tarball installation of the OT is available.

The **tarball** version must be installed manually and will not automatically update itself, however there should be no installation issues.

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.



# OT Video Tutorials



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## OT Video Tutorials

The OT video tutorials provide an audio-visual demonstration of different aspects of proposal preparation in the OT. Novice users should start with the first video and work their way down, while more experienced users may want to jump straight to one of the specialised videos.

### OT Video Tutorial 1: Useful to Know

This video will help you get started with the OT and introduce you to some handy tips and tricks. Topics covered include navigating the OT, using the help function, the template library, time estimation, validation, opening & submitting projects including re-submissions, and the concept of non-standard modes. **Note:** this video is from Cycle 4, some things have changed slightly in Cycle 5. In particular, time constraints can now also include simultaneous 12-m and 7-m observations, and re-submissions are no longer defined by the user. Also, the time estimate interface has changed a bit.

A thumbnail image for the video tutorial. It shows a starry night sky with the Milky Way galaxy. The text 'Video 1: Useful to Know' is overlaid in white, with a play button icon in the center of the word 'to'.

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# Science Case

- Must include:
  - Astronomical Importance
  - Estimated intensity, S/N
- May include:
  - Figures
  - Tables
  - References
- Free-form PDF document
  - 12+ font, English only! (OT will check for font size)
  - 20 MB file size
  - 4 pages (6 for Large Programs)

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# ALMA Array Configuration Schedule (Cycle 8)

- Antenna configurations for the main 12-m array will use a new nomenclature in Cycle 8.
  - Configurations will be called C-1, C-2, and so on up to C-10, with C-1 having similar characteristics to the C43-1 configuration of Cycle 7, and likewise for the others.
  - Cycle 8 will NOT include the two longest baseline 12-m array configurations, C-9 and C-10.
- Maximum baselines in Cycle 8 will therefore be 8.5 km in configuration C-8.
- Configurations C-9 and C-10 with maximum baselines of 13.9 km and 16.2 km, respectively, will again be available in Cycle 9.
- **NOTE: No PI observing takes place in Feb!**
- The forward-looking configuration schedule (through Cycle 9) can be found at:  
<https://almascience.nrao.edu/observing/observing-configuration-schedule/long-term-configuration-schedule>

Start date	Configuration	Longest baseline	LST for best observing conditions
2021 October 1	C-8	8.5 km	~ 22h – 10h
2021 October 20	C-7	3.6 km	~ 23h – 11h
2021 November 10	C-6	2.5 km	~ 1h – 13h
2021 December 01	C-5	1.4 km	~ 2h – 14h
2021 December 20	C-4	0.78 km	~ 4h – 15h
2022 January 10	C-3	0.50 km	~ 5h – 17h
2022 February 1-28	No observations due to February Maintenance		
2022 March 1	C-1	0.16 km	~ 8h – 21h
2022 March 26	C-2	0.31 km	~ 9h – 23h
2022 April 20	C-3	0.50 km	~ 11h – 1h
2022 May 10	C-4	0.78 km	~ 13h – 3h
2022 May 31	C-5	1.4 km	~ 15h – 5h
2022 June 23	C-6	2.5 km	~ 16h – 6h
2022 July 28	C-5	1.4 km	~ 17h – 7h
2022 August 18	C-4	0.78 km	~ 19h – 8h
2022 September 10	C-3	0.5 km	~ 20h – 9h

# ALMA in Cycle 8

In Cycle 8 we continue to operate as what is been defined as “Steady State Operations”\*

- **In Cycle 8, the following technical capabilities will be available for the first time:**
  - Solar observations in Band 5
  - VLBI observations of faint science targets (correlated flux density  $<500$  mJy within an unresolved core on ALMA baselines up to 1 km). These observations will be done in passive phasing mode, where it is recommended to have a bright calibrator within 5 deg of the science target.
  - High-frequency observations (Bands 9 and 10) with the stand-alone 7-m Array
  - Mosaicking of continuum linear polarization observations (Bands 3 to 7)
  - Spectral scans with the 7-m Array
  - Up to a total of 75 hours of full polarization observations of a single field with the 7-m Array in stand-alone mode at the Main Call only

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see the Capabilities Presentation

# ALMA Capabilities

- **Spectral line, continuum, and mosaic observations**
  - Spectral line and continuum observations with the 12-m Array and the 7-m Array in all bands
  - Single field interferometry (all bands) and mosaics (Bands 3 to 9) with the 12-m Array and the 7-m Array
  - Single-dish spectral line observations in Bands 3 to 8
- **Polarization**
  - Single pointing, on-axis, full, linear and circular polarization for both continuum and full-spectral-resolution observations in Bands 3, 4, 5, 6, and 7 on the 12-m Array.
  - Linear polarization imaging of a compact source on-axis in both continuum and full spectral resolution modes is feasible at the level of 0.1% (3 sigma) fractional polarization for the very brightest calibrators, and 0.2% (3 sigma) level for a typical observation.
  - The minimum detectable degree of circular polarization is 1.8% of the peak flux for both continuum and full spectral resolution observations. (NOTE that Zeeman observations have not been fully commissioned and should be discouraged from proposing.)
  - Mosaicking of continuum linear polarization observations (Bands 3 to 7).
  - Up to a total of 75 hours of full polarization observations of a single field with the 7-m Array in stand-alone mode at the Main Call only (Bands 3 to 7). Note that combined 7-m Array and 12-m Array polarization observations are not supported this cycle.



# ALMA Capabilities

## ACA Supplemental Call:

- In Cycle 8, 2021 ALMA will offer a stand-alone ACA Supplemental Call for Proposals.
- The Supplemental Call will open on 08 September 2021 and the proposal deadline will be on 06 October 2021.
- Observations from the Supplemental Call will be scheduled from January 2022 to September 2022.
- The anticipated amount of time available will be announced in the Call. While stand-alone ACA proposals accepted from the Main Call may be assigned priority "A", "B", or "C", all accepted proposals from the Supplemental Call will be assigned priority "C".
- More information about the supplemental call can be found at:  
<https://almascience.nrao.edu/proposing/7m-array-supplemental-call>

# ALMA Capabilities

## Standard vs Non-Standard modes???

**GONE!**

- Unlike in previous cycles, there will no longer be a distinction between standard and non-standard modes so... there is no more 20% cap on the time request for non-standard modes!!!
- Proposal types in Cycle 8 will include Regular, Very Long Baseline Interferometry (VLBI), Target of Opportunity, and Large Program. VLBI proposals work in concert with the Global mm-VLBI Array (GMVA) or the Event Horizon Telescope (EHT).
- **GMVA programs must also submit a proposal to the GMVA by its 1 February 2021 deadline.** Additional information about proposing with ALMA using the GMVA was made available in the GMVA Call for Proposals in early January 2021.

## However, Large Program Observing Modes will **STILL** be restricted. They **CANNOT** include:

- Polarization observations
- Bandwidth switching projects (having less than 1 GHz aggregate bandwidths over all spectral windows)
- Solar observations
- VLBI observations
- Non-standard calibrations (user-defined calibrations selected in the OT)
- Astrometric Observations
- **NOTE: Contact your local ARC for support NOW to help with preparing your large programs. The ARCs have both proposal preparation and data processing support available for your large programs. Review the documentation off the science portal on how to prepare “value added” data products.**

# ALMA Capabilities – NEW!!!

## Dual-Anonymous Proposal Review

- Proposals in Cycle 8 will implement a dual-anonymous process for proposal reviews.
- Guidelines on how to prepare such proposals is available now in an ALMA Science Portal news item and, later, in the CfP - <https://almascience.nrao.edu/news/items-for-planning-cycle-8-proposals>.

## Distributed Peer Review Process

- Distributed peer review will be used for all proposals requesting less than 25 hours on the 12-m Array, and ACA stand-alone proposals requesting less than 150 hours on the 7-m Array.
- Large proposals and proposals requesting 25 hours or more on the 12-m Array will be reviewed by science review panels, as in previous cycles.
- **NOTE: Go to the Science Portal NOW! Log in and edit your preferences. That is how the distributed peer review will know how to assign projects – based on your area of selected expertise!**

# Three major changes introduced in the ALMA Review Process for Cycle 8 2021



- 1 Distributed peer review
- 2 Encouraging larger programs
- 3 Dual anonymous

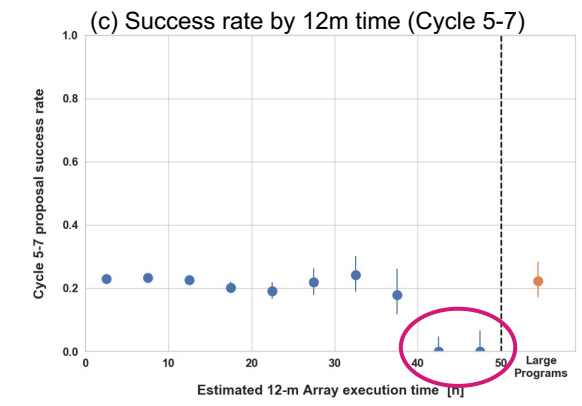
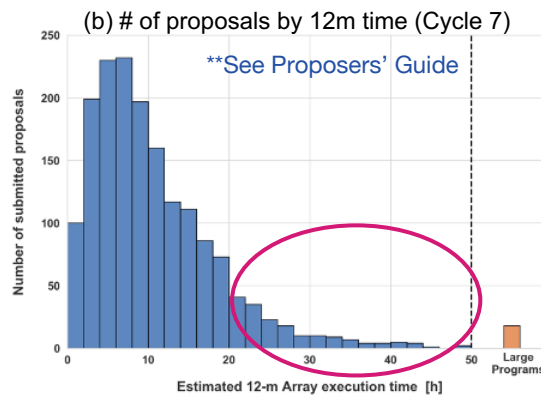
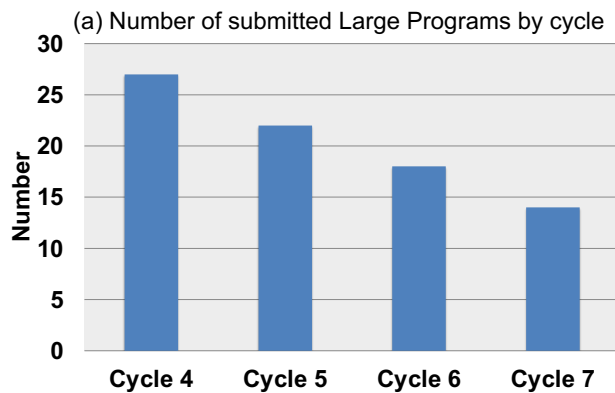


# Some context for the changes introduced in the ALMA Review Process (Cycle 8 2021 to ...)



A few challenges to address in Cycle 8 2021:

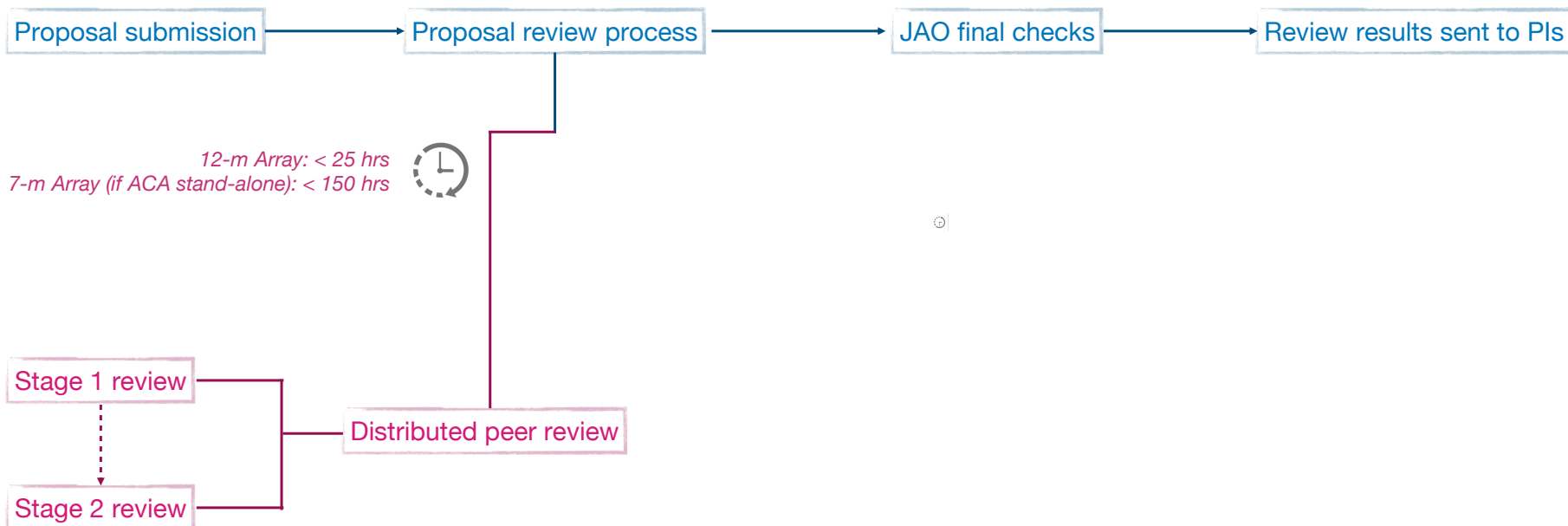
- Large number of submitted proposals (~ 1800) places heavy burden on panelists. Workload may impact quality of the reviews.
- International Visiting Committee (IVC) and ASAC concerns about relatively few ambitious (in terms of time) projects proposed and accepted:
  - Number of submitted Large Programs continues to decline in each cycle (Figure a).
  - Fewer proposals requesting > 20-30 hr (Figure b).
  - Low (i.e., zero) acceptance rate (Grade A/B) for 40-50 hr proposals (Figure c).
- Potential biases in the review process to date.



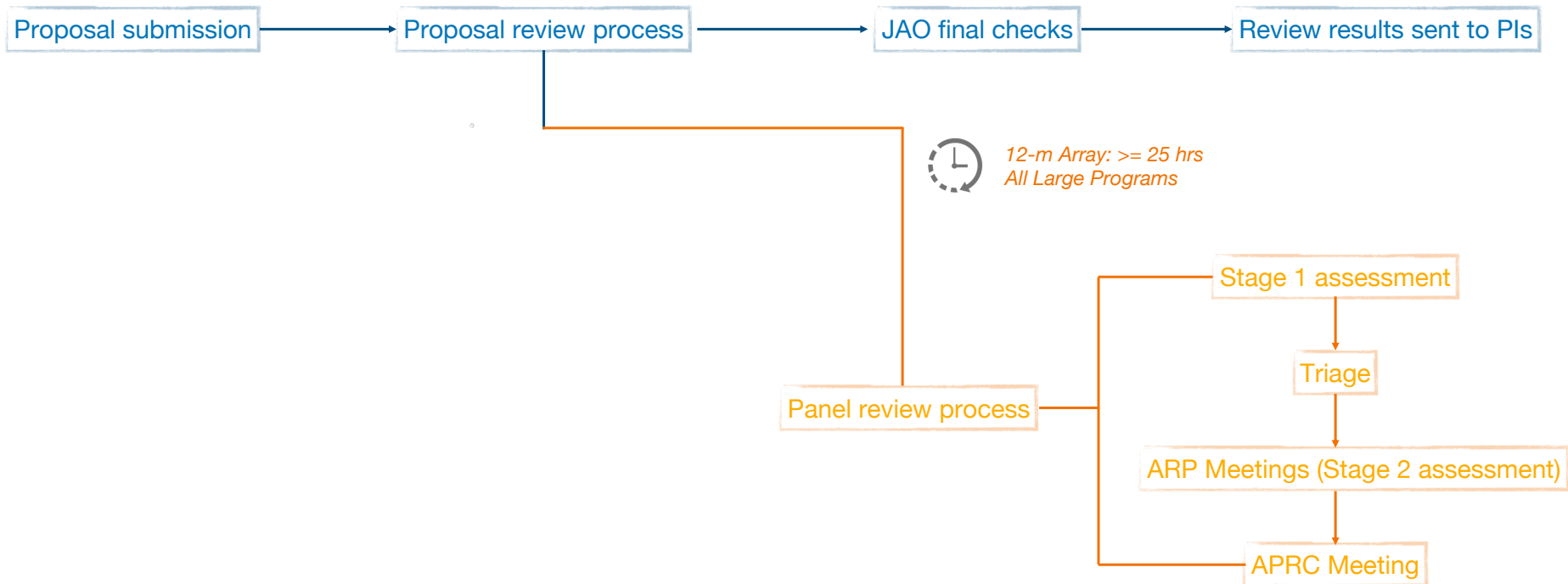
# Overview of the ALMA Review Process in Cycle 8 2021



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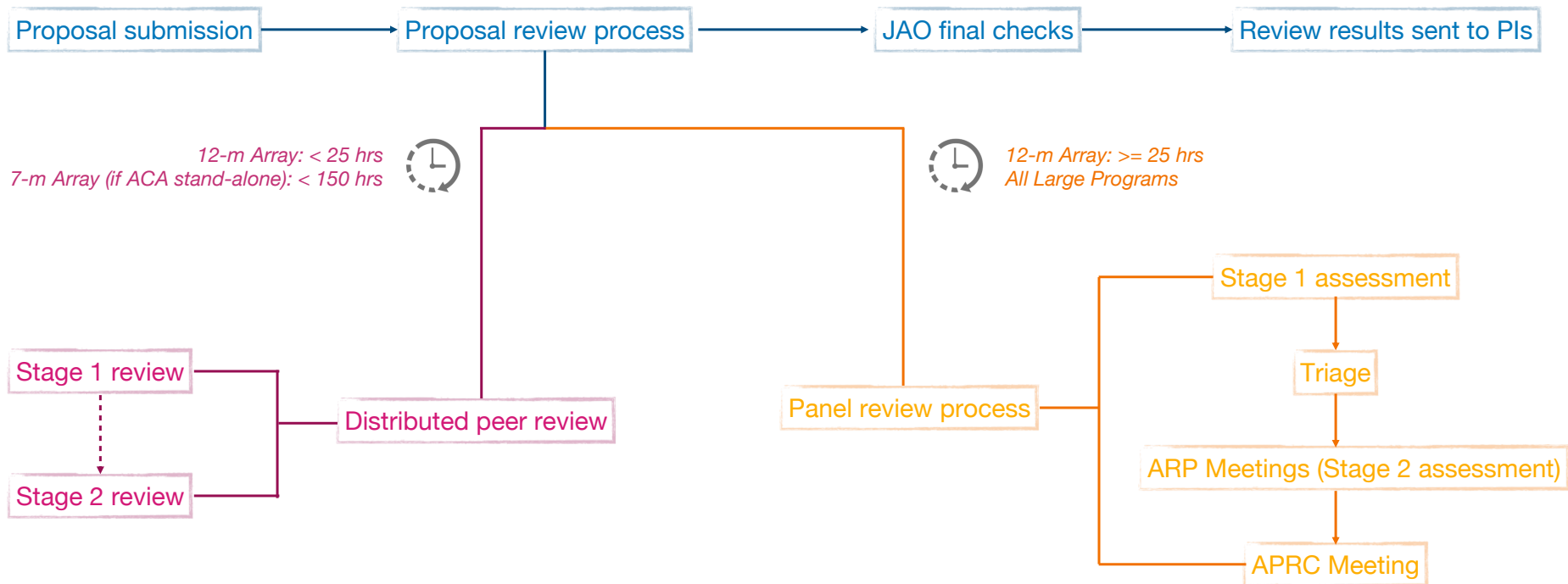


# Overview of the ALMA Review Process in Cycle 8 2021





# Overview of the ALMA Review Process in Cycle 8 2021



# Panel review in ALMA Cycle 8 2021



In the **panel review process**, proposals are reviewed by panels of experts on the scientific subject of the proposals.



12-m Array: >= 25 hrs  
All Large Programs

## How it works:

- Proposals assigned to panel based on their scientific category.
- Conflicts of interest checked
- All panel members review all (non-conflicted) proposals assigned to their panel.

### Stage 1

- Conflict identification.
- Science assessors score all their assigned proposals and write a comment.
- Triage performed as needed after Stage 1, minimizing workload in Stage 2.

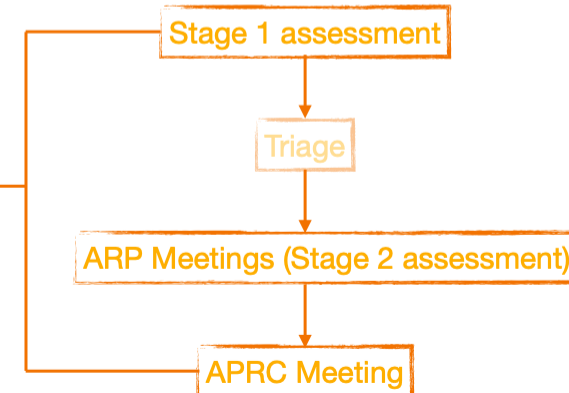
### Stage 2: ALMA Review Panel (ARP) Meetings *peer review*

- Face to face meeting —> Virtual in 2021
- Proposals are re-scored based on discussion; consensus reports are written.

### Stage 3: ALMA Proposal Review Committee (APRC) Meeting

- Recommend which Large Programs should be scheduled
- The panel review process results in a ranked list of all submitted proposals.

## Panel review process



Panels in Cycle 8 2021 will be similar to previous cycles, but with reduced number of proposals and total science assessors, although more panelists per panel compared with previous cycles.



# Distributed peer review in ALMA Cycle 8 2021



12-m Array: < 25 hrs  
7-m Array (if ACA stand-alone): < 150 hrs



**Distributed peer review** is a process in which one member of the proposal team (either the PI or one of the CoIs) reviews ten other proposals.

**Why is ALMA using distributed peer review?** After Cycle 7 Supplemental Call, distributed peer review proved to be a viable review system for the ALMA community (see [ALMA Memo 616](#)). Additionally it provides a series of advantages over panel review, such as more involvement of the community, and a significant reduction of the workload for each reviewer.

### How it works:



- Each proposal team designates one member as the acting reviewer.
- Proposals are assigned to reviewers based on reviewers' expertise.

### Stage 1 (Mandatory)

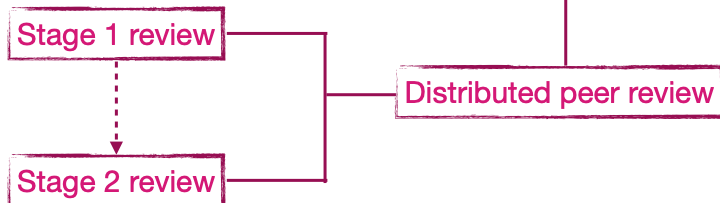
- Conflict identification
- Reviewers rank the assigned ten proposals and write a comment to the PI.

### Stage 2 (Optional)

- It is possible to re-rank proposals and edit the comments to the PIs based on the comments made by the other (9) reviewers.



- Cycle 8 2021 will be the first time that distributed peer review is used by ALMA in a main Call for Proposals.
- In order to make assignments, ALMA users should **update their expertise in their science portal profile.**



# A few updates for Large Programs and queue building



*ALMA encourages PIs to submit **larger, more ambitious proposals***

- No cap on the total time that can be allocated to Large Programs. *Note, Large Programs still cannot fill more than 50% of the time in a configuration/LST.*
- Large Programs, and proposals that require more than 25 hours on the 12-m Array, will have first priority to fill at least 10% of the observing queue.



<https://almascience.nrao.edu/alma-data/lp>

# Towards dual-anonymous review

*The Joint ALMA Observatory (JAO) is committed to reducing biases in the review process.*

1. Modifications in the review process in recent cycles
2. Cycle 7 context
3. Updates for Cycle 8 2021: dual-anonymous guidelines

# Modifications in the review process in recent cycles



## Cycle 7:

- removed investigator names from reviewer tools
- randomized investigator list on cover sheet to not identify PI
- first names listed with first initial to not identify gender

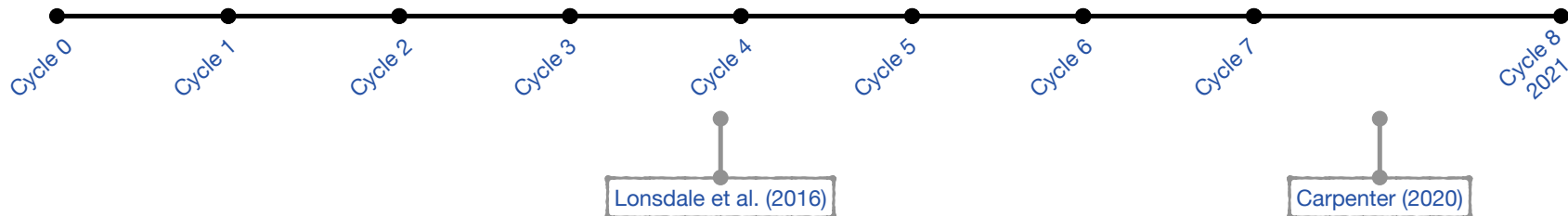
*Impact:* some systematics changed, but not others

**Cycle 5-6:** Institutions, emails, executive removed from proposal cover sheet

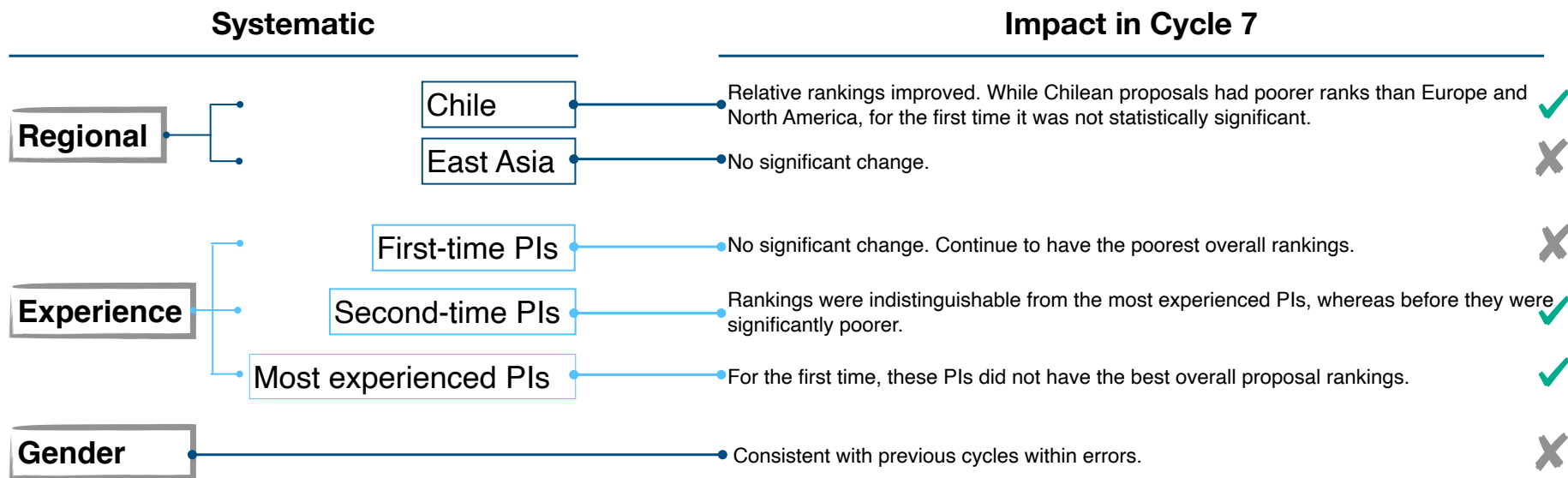
*Impact:* no significant change

**Cycle 4:** Panel Chairs and Reviewers informed of systematics during ALMA Review Panel meeting orientation

*Impact:* no significant change



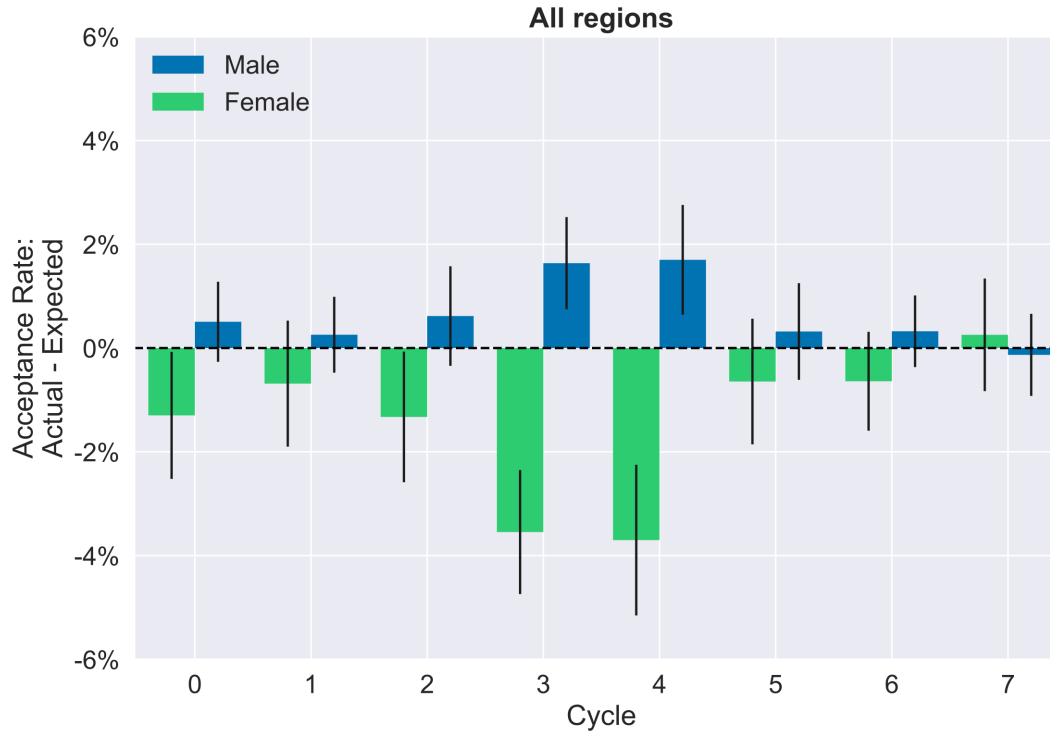
# Modifications in the review process in recent cycles: Cycle 7 context



*Impact* → **Overall:** Some (but not all) systematics reduced after modifications in Cycle 7, suggesting some biases in the review process have been present.

# Addressing systematics

## Gender



Figures: Carpenter (2020), updated for Cycle 7

Impact

For the first time, women did better than expected based on demographics, although consistent with previous cycles within uncertainties.





# Addressing systematics Dual-anonymous in Cycle 8 2021



12-m Array: < 25 hrs  
7-m Array (if ACA stand-alone): < 150 hrs



12-m Array: >= 25  
All Large Programs



**The whole process will follow the dual-anonymous guidelines.**

Stage 1 review

Stage 2 review

Distributed peer review

Panel review

Stage 1 assessment

Triage

ARP Meetings (Stage 2 assessment)

APRC Meeting

Ranked list with all submitted proposals



# Addressing systematics

## Dual-anonymous in Cycle 8 2021



**Dual-anonymous review** is when the proposal team does not know the identity of the reviewers, and viceversa.

**Why is ALMA adopting this system?** To ensure that the proposal review process is as fair and unbiased as possible for all ALMA users. Systematics from Cycle 0-6, before dual-anonymous, are reported in Carpenter (2020). JAO committed to reducing biases in the review process.



*How it works:*

- Proposals are written in such a way to not identify the team behind it.
- All identifying information related to the authors of the proposals is hidden from the reviewers and science assessors throughout the scientific review process.



*Will some guidance be provided?*

- Of course! Link will be shared.
- PIs encouraged to contact ALMA Helpdesk if in doubt.
- ARC staff should contact PHT for clarification if they cannot point the PI to the proper documentation.

# FAQ



<https://almascience.nrao.edu/proposing/alma-proposal-review/frequently-asked-questions>

**Q: What will happen to a proposal that is not fully anonymized?**

**Q: How will reviewers identify conflicts of interest if they have no access to the list of proposers?**

**Q: Who can I designate to be the reviewer for my submitted proposal? As a PI, how do I designate a reviewer?**

**Q: Can a student (without a PhD) be a designated reviewer?**

# After submission



- Remember, you can resubmit as often as needed, but quite busy right before the deadline
- **If you don't submit reviews (distributed peer review), YOUR proposal will be rejected!**
- Large proposals and Proposals requesting 25 hours or more on the 12-m Array will be reviewed by **science review panels**, as in previous cycles.
- All proposals will be subject to Technical Assessment by a selected group of JAO and ARC experts.
- Proposals will be assessed on the basis of the **overall scientific merit** of the proposed investigation and its **potential contribution** to the advancement of scientific knowledge.
- Following approval by the Directors Council, the outcome of the Proposal Review Process will be communicated to the PIs. ~August 2021.

# After it is accepted



- Any change requests need to go to the Helpdesk, and possibly a formal change request
- Being prompt helps ensure your project can be observed!
- Then wait! – dynamic scheduling means your Contact Scientist doesn't know when your project will run.
- As observations are made, updates are shown in the SnooPI tool on the Science Portal:  
<https://almascience.nrao.edu/observing/snoopi>

# Proposal Checklist

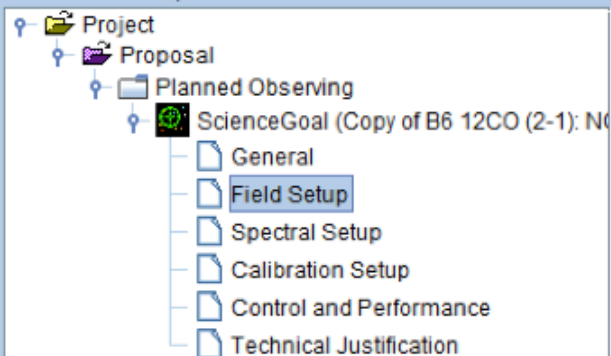
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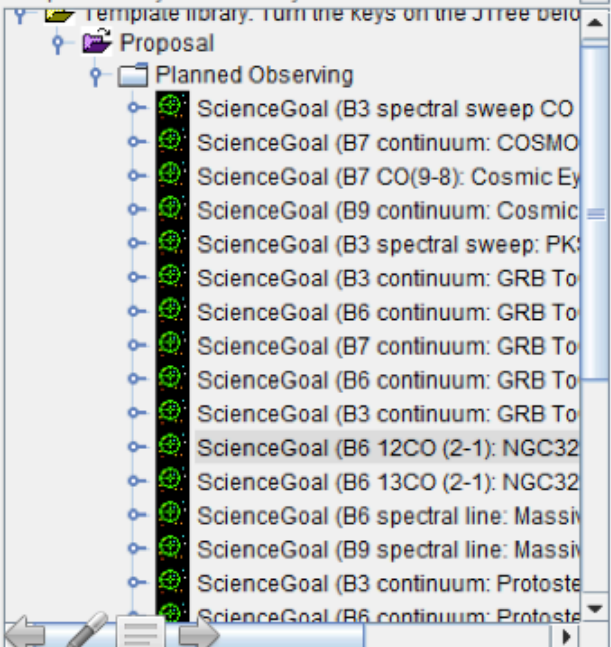
## Project Structure

Proposal Program

Unsubmitted Proposal



Template library. Turn the keys on the JTree below & r...



## Editors

Spectral Spatial Field Setup

Source Name	NGC3256		Resolve
Choose a Solar System Object?	<input type="checkbox"/>	Name of object	Unspecified
System	J2000	Sexagesimal display?	<input checked="" type="checkbox"/>
Parallax	0.00000	mas	
Source Coordinates	RA	10:27:51.6000	PM RA 0.00000 mas/yr
Dec	-43:54:18.000	PM DEC	0.00000 mas/yr
Source Radial Velocity	0.000	km/s	hel Doppler Type RELATIVISTIC
Target Type	<input type="radio"/> Individual Pointing(s) <input checked="" type="radio"/> 1 Rectangular Field		
Expected Source Properties			
Peak Continuum Flux Density per Beam	0.17400	Jy	
Continuum Polarization Percentage	0.0	%	
Peak Line Flux Density per Beam	0.00000	Jy	
Line Width	0.00000	km/s	
Line Polarization Percentage	0.0	%	
Rectangle			
Coords Type	<input type="radio"/> ABSOLUTE <input checked="" type="radio"/> RELATIVE		
System	J2000		
Field Center Coordinates	Offset(Longitude)	0.00000	arcsec
	Offset(Latitude)	0.00000	arcsec

## Feedback

Validation Validation History Log

Description	Suggestion



Project Structure

Proposal Program

Unsubmitted Proposal

- Project
  - Proposal
    - Planned Observing
      - ScienceGoal (Copy of B6 12CO (2-1): NGC3256)
        - General
        - Field Setup
        - Spectral Setup
        - Calibration Setup
        - Control and Performance
        - Technical Justification

Template library. Turn the keys on the JTree below & r...

Template library. Turn the keys on the JTree below & r...

- Proposal
  - Planned Observing
    - ScienceGoal (B3 spectral sweep: PK: GRB To
    - ScienceGoal (B7 continuum: COSMO
    - ScienceGoal (B7 CO(9-8): Cosmic Ey
    - ScienceGoal (B9 continuum: Cosmic
    - ScienceGoal (B3 spectral sweep: PK: GRB To
    - ScienceGoal (B3 continuum: GRB To
    - ScienceGoal (B6 continuum: GRB To
    - ScienceGoal (B7 continuum: GRB To
    - ScienceGoal (B6 continuum: GRB To
    - ScienceGoal (B3 continuum: GRB To
    - ScienceGoal (B6 12CO (2-1): NGC32
    - ScienceGoal (B6 13CO (2-1): NGC32
    - ScienceGoal (B6 spectral line: Massi
    - ScienceGoal (B9 spectral line: Massi
    - ScienceGoal (B3 continuum: Protoste
    - ScienceGoal (B6 continuum: Protoste

Editors

Spectral Spatial Field Setup

Source Name NGC3256 Resolve

Choose a Solar System Object?  Name of object Unspecified

System J2000 Sexagesimal display?  Parallax 0.00000 mas

Source Coordinates RA 10:27:51.6000 PM RA 0.00000 mas/yr

Dec -43:54:18.000 PM DEC 0.00000 mas/yr

Source Radial Velocity 0.000 km/s hel z 0.000000000 Doppler Type RELATIVISTIC

Target Type  Individual Pointing(s)  1 Rectangular Field

Expected Source Properties

Peak Continuum Flux Density per Beam 0.17400 Jy

Continuum Polarization Percentage 0.0 %

Peak Line Flux Density per Beam 0.00000 Jy

Line Width 0.00000 km/s

Line Polarization Percentage 0.0 %

Rectangle

Coords Type  ABSOLUTE  RELATIVE

System J2000

Field Center Coordinates Offset(Longitude) 0.00000 arcsec

Offset(Latitude) 0.00000 arcsec

See the OT presentation!

Feedback

Validation Validation History Log

Description	Suggestion



# Proposal Checklist

- Read relevant documentation (CfP, Guide, Primer, etc.)
- Create an ALMA account by registering at the Science Portal ([almascience.org](http://almascience.org))
- Download the Observing Tool (OT) & related guides
- Prepare the Science Case
  - New capabilities for Cycle 8!
- Prepare Science Goals (sources, frequency & correlator setup, integration times) within the OT
- **Make use of the Helpdesk & the Knowledgebase**



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



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### Observatory News

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

ALMA Cycle 7 Pre-Announcement  
Dec 19, 2018

Job Opening: Head of ALMA Department of Science Operations  
Dec 05, 2018

More...

### NRAO News

Multi-Messenger Astrophysics: Insights from Combining Gravity and Radio Waves  
Feb 16, 2019

ALMA Data Reduction Party  
Mar 13, 2019

New Horizons in Planetary Systems  
May 13, 2019

More...

### Status

[Configuration Schedule Cycle 6 Highest Priority Projects](#)

Refereed publications: 1300  
Last observed source:  
Northeast\_Section\_of\_NGC6334  
Current configuration: C43-1

More...

Science Highlights - An ALMA Detection of the Radioactive Molecule  $^{26}\text{AlF}$  in a Stellar Merger Remnant.

[www.almascience.org](http://www.almascience.org)



Although diffuse Galactic gamma-ray emission from the isotope of aluminum,  $^{26}\text{Al}$ , was first detected in the 1980s, the identification of the source of emission has been hard to pinpoint due to the poor spatial resolution of gamma-ray observations. In a recent Nature paper, a team led by Dr. Kaminski has made use of sensitive, high-



# I could use a hand...

*Have no fear, the ALMA Helpdesk is here...*

# ALMA



Atacama Large Millimeter/submillimeter Array  
Observer Support

ALMA Science

Agent ▾

Submit Helpdesk Ticket

AR ▾

How can we help you today?

Help Center > [Knowledgebase](#) TOO

## Knowledgebase

### General (1)

- What Cycle 8 proposal issues and clarifications should I be awa...

[View all articles in General >](#)

### ALMA Observing Tool (OT) (47)


- What are the restrictions on multiple spectral setups within a s...
- Can I set up monitoring observations with the OT?
- How do I change which sideband my spectral windows are plac...
- How do I set up a mosaic in the OT?
- How do I convert flux measurements given in Jy km/s or K km/...


[View all articles in ALMA Observing Tool \(OT\) >](#)


### Proposal Handling (7)


### Historical Articles (20)



 **Knowledgebase**  
View all articles >

 **News**  
View all news posts >

 **Submit Helpdesk Ticket**  
Get in touch for help>

 **My tickets**  
View your submitted tickets >

Welcome to the new ALMA Helpdesk User Interface!  
Please use your email with your ALMA Science Portal password when logging in to view and submit tickets.

 News

**General** FEB 4


**Archive Downtime**  
The Oracle database will be upgraded at all ARCs and the JAO from version 12c to 19c. The ALMA Archive will be down during this upgrade. This will also prevent new accounts being created and current account updates on the...

NA >

**General** MAR 24

**Cycle 7 observation suspension and the delay of the Cycle 8 proposal deadline-COVID-19**  
As stated on the ALMA Science Portal, Due to the COVID-19 outbreak that has spread to Chile, the ALMA Director has made the decision to suspend science operations with ALMA, effective immediately. The plan is to continue resubmitting data

>

  
See all news >

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

**ALMA Helpdesk @ NRAO (logged in view)**

## Submit Helpdesk Ticket

Please complete this form and one of our agents will reply to you by email as soon as possible.

Name \*

Anthony Remijan

Email

aremijan@nrao.edu

Cc

Department \*

Select

Project Planning (NA)

General Queries (NA)

Face to Face Support (NA)



Data Reduction (NA)

Observing Tool (NA)

Proposal Handling (NA)

Archive and Data Retrieval (NA)

Proposal Submission Emergency

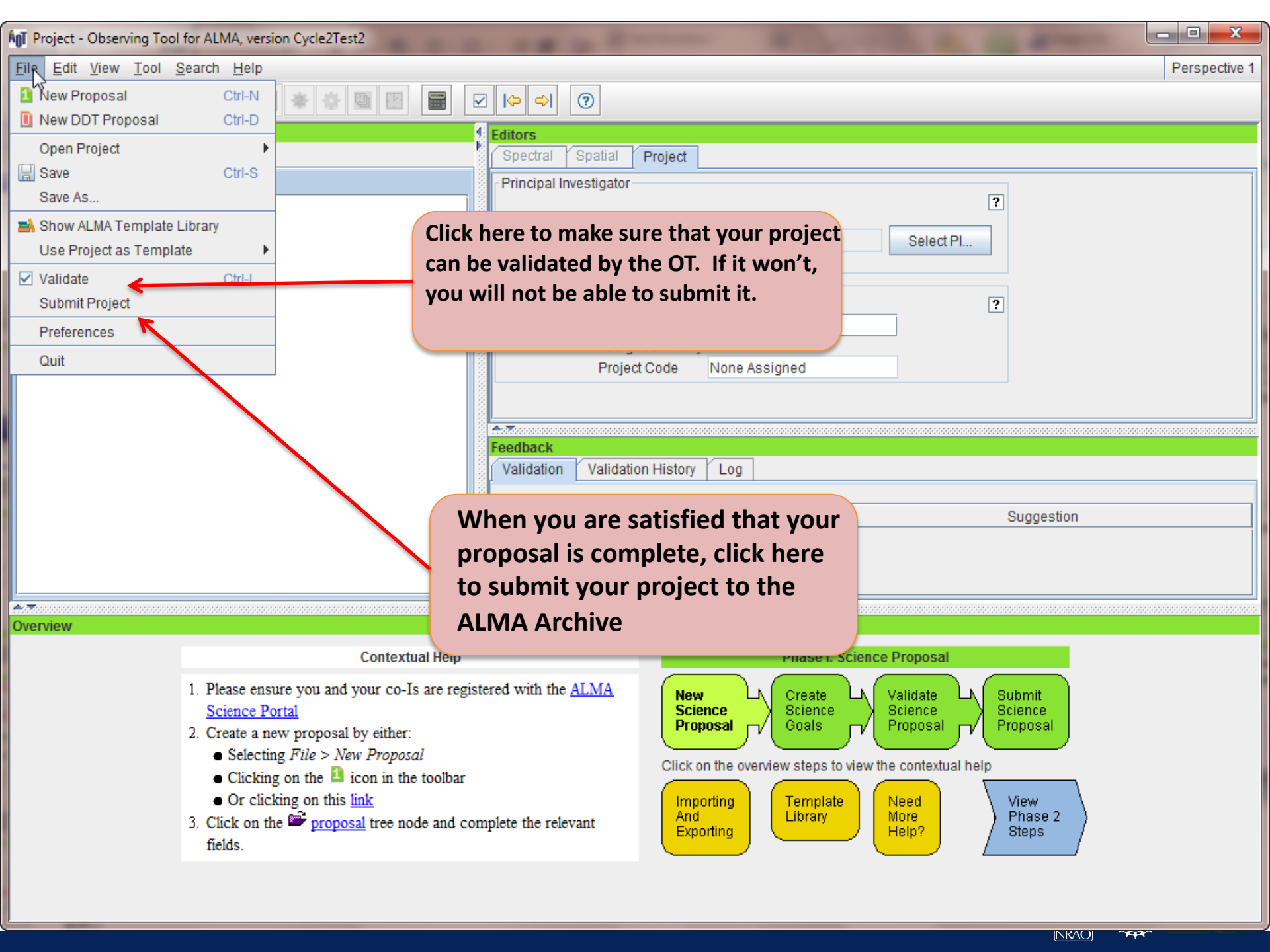
 Choose files or  Drag and drop

Submit

Reset

# help.almascience.org

## ALMA Helpdesk @ NRAO (logged in view)



- New Proposal Ctrl-N
- New DDT Proposal Ctrl-D
- Open Project
- Save Ctrl-S
- Save As...
- Show ALMA Template Library
- Use Project as Template
- Validate Ctrl-I
- Submit Project
- Preferences
- Quit

Click here to make sure that your project can be validated by the OT. If it won't, you will not be able to submit it.

When you are satisfied that your proposal is complete, click here to submit your project to the ALMA Archive

Editors

Spectral Spatial Project

Principal Investigator

Select PI...

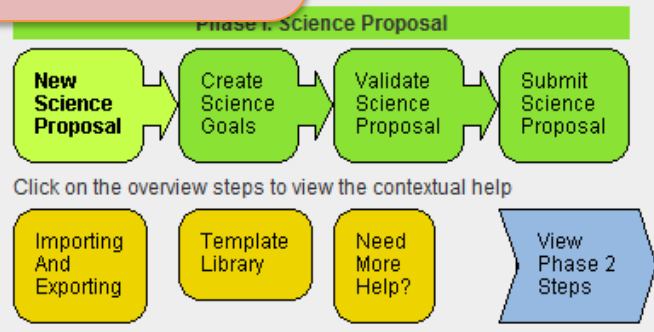
Project Code None Assigned

Feedback

Validation Validation History Log

Suggestion

- Contextual Help
- Please ensure you and your co-Is are registered with the [ALMA Science Portal](#)
  - Create a new proposal by either:
    - Selecting *File > New Proposal*
    - Clicking on the icon in the toolbar
    - Or clicking on this [link](#)
  - Click on the [proposal](#) tree node and complete the relevant fields.



## After submission

- Remember, you can resubmit as often as needed, but keep in mind that the server is quite busy right before the deadline
- Distributed peer review will be used for all proposals requesting less than 25 hours on the 12-m Array, and ACA stand-alone proposals requesting less than 150 hours on the 7-m Array.
- In this review system, for each submitted proposal the PI (or one of the delegated co-Is) will be responsible for reviewing up to 10 other submitted proposals, thus increasing the involvement of the ALMA community in the review process – **if you don't submit reviews, YOUR proposal will be rejected!**
- Large proposals and proposals requesting 25 hours or more on the 12-m Array will be reviewed by science review panels, as in previous cycles.
- All proposals will be subject to Technical Assessment by a selected group of JAO and ARC experts.

## After submission

- Proposals will be assessed on the basis of the overall scientific merit of the proposed investigation and its potential contribution to the advancement of scientific knowledge.
- Following approval by the Directors Council, the outcome of the Proposal Review Process will be communicated to the PIs of all valid submitted proposals - expected around August 2021.
- Any change requests need to go to the Helpdesk, and possibly a formal change request
  - Being prompt helps ensure your project can be observed!
- Then wait – dynamic scheduling means your Contact Scientist doesn't know when your project will run. As observations are made, updates are shown in the SnooPI tool on the Science Portal:

<https://almascience.nrao.edu/observing/snoopi>





**For more info:**  
<https://almascience.nrao.edu/>

The Atacama Large Millimeter/submillimeter Array (ALMA), an international astronomy facility, is a partnership of Europe, North America and East Asia in cooperation with the Republic of Chile. ALMA is funded in Europe by the European Organization for Astronomical Research in the Southern Hemisphere (ESO), in North America by the U.S. National Science Foundation (NSF) in cooperation with the National Research Council of Canada (NRC) and the National Science Council of Taiwan (NSC), and in East Asia by the National Institutes of Natural Sciences (NINS) of Japan in cooperation with the Academia Sinica (AS) in Taiwan. ALMA construction and operations are led on behalf of Europe by ESO, on behalf of North America by the National Radio Astronomy Observatory (NRAO), which is managed by Associated Universities, Inc. (AUI), and on behalf of East Asia by the National Astronomical Observatory of Japan (NAOJ). The Joint ALMA Observatory (JAO) provides the unified leadership and management of the construction and operation of ALMA.



[www.nrao.edu](http://www.nrao.edu)  
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*The National Radio Astronomy Observatory is a facility of the National Science Foundation  
operated under cooperative agreement by Associated Universities, Inc.*