



ALMA BOARD MEETING
April 14-16, 2021

PUBLIC SUMMARY

The ALMA Board convened via Zoom on April 14-16, 2021, with the following attendees:

Chair	Linda Tacconi (EU)	Board Assessors	Joseph Pesce (NA)
Vice-Chair	James Di Francesco (NA)		Andreas Kaufer (EU)
Board Members	Toshikazu Onishi (EA)		Satoru Iguchi (EA)
	Ralph Gaume (NA)		
	Xavier Barcons (EU)		
	Saku Tsuneta (EA)		
	Willy Benz (EU)		
	Karin Öberg (NA)		
	Daniel Weselka (EU) [<i>*Could not attend</i>]		
	Tony Beasley (NA)		
	You-Hua Chu (EA)		
	Luis Chavarría (CL)		

JAO	Sean Dougherty (ALMA Director)
	Stuartt Corder (ALMA Deputy Director)
	John Carpenter (Observatory Scientist)
	Sergio Martin (Science Operations Performance Group Manager)
	Frank Ruseler (Head of Administration)
	Norikazu Mizuno (Head of Engineering)
	Ivan Lopez (Safety Manager)
	Jorge Ibsen (Head of Computing)
	Valeria Foncea (EPO Manager)
	Rafael Mena (HR Manager)

Executives	Paulina Bocaz (AUI Representative in Chile)
	Tetsuhiro Minamidani (NAOJ Representative in Chile)
	Leonardo Testi (ESO ALMA Programme Manager)
	Phil Jewell (NRAO ALMA Program Manager)
	Álvaro González (NAOJ ALMA Program Manager)
	Nikolaj Gube (ESO Legal Service)
	Ciska Kemper (ESO ALMA Programme Scientist)
	Crystal Brogan (NA ALMA Program Scientist)

ASAC	Kotaro Kohno (ASAC Chair)
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Observers	Adam Cohen (AUI)
	Donna O'Malley (NSF)
	Allison Farrow (NSF)
	Shiang-Yu Wang (ASIAA)

PUBLIC SUMMARY

Under the prevailing extraordinary global circumstances related to the coronavirus, the ALMA Board held its April 2021 meeting via Zoom.

The Board's Chair, Dr. Linda Tacconi, welcomed all Board members and assessors, and thanked the JAO for reorganizing the meeting in a timely fashion to be conducted via Zoom.

Dr. Tacconi also welcomed Adam Cohen, AUI President, Leonardo Testi, Phil Jewell and Alvaro Gonzalez (ALMA Program Managers), Paulina Bocaz and Tetsuhiro Minamindani, the AUI/NRAO and NAOJ legal representatives respectively, Nikolaj Gube Deputy Head of the ESO Executive Office, and Kotaro Kohno, the ASAC Chair. She welcomed as well all members of the JAO Core Management Team, the Regional Program Scientists, and Donna O'Malley, Allison Farrow and Shiang-Yu Wang, as observers from NSF and ASIAA, respectively.

In addition to other matters, during the meeting the Board:

1. Reviewed the status of the observatory's return to operations
2. Reviewed the 2020 Financial Report and approved the proposed Fiscal Year 2021 reprofile, related to the extraordinary circumstances.
3. Approved a change in the budget principles to deal with multi-year projects.
4. Examined the last ASAC report and Science Committee's feedback regarding the scientific status and priorities for the Observatory.
5. Discussed the status of the Development Roadmap implementation and the progress made by the different Roadmap technical requirements Working Groups towards ALMA 2030.
6. Examined long-term strategies to ensure the continuing development and sustainable operations of ALMA, especially towards the 2030 goals.
7. Recognized and thanked the JAO staff and associated contractors and equally committed colleagues at the Regional Support Centers for returning ALMA to science operations last March.

ALMA Return to Operations Status Overview

The Board noted the presentations given by the ALMA Director and Deputy Director, which reviewed the achievements and challenges for ALMA since last November, focused mainly on the Return to Operations. Their summary highlighted the following points:

- The progress made so far to return ALMA to science operations.
- The RTO framework rules, protocols and review process and its risk management approach.
- The approach for completing cycle 7 on a best effort-basis, due to the uncertainties related to the current pandemic situation in Chile.
- The management and leadership approach from the CMT, and all managers and supervisors, to provide reassurance to the staff.

- The ongoing analysis of the pandemic trends in Chile and some projections based on the successful Chilean vaccination campaign and the next steps to enable a safe transition to Baseline science operations, the last RTO phase.
- Future considerations and lessons learned exercise to be conducted after the RTO is completed.

Cycle 7 ongoing efforts

The Board noted the presentation given by the Array Performance Group's Manager, Sergio Martin, regarding the remaining Cycle 7 Scientific Operations and plans forward. His presentation included:

- Current Return to Operations (RTO) Phase and scientific priorities
- Original Cycle 7 configuration schedule and ongoing re-planning efforts
- End-to-End RTO flawless testing and successful re-starting PI Science with the 12-m Array
- The next steps to re-start PI science with the Morita Array

Cycle 8 Preparations

The Board noted the presentation provided by the Observatory Scientist related to the preparations towards Cycle 8. His presentation covered, among other issues:

- ALMA Call for Proposals deadline: 21 April
- Cycle 8 supplemental call - planned for September/October 2021 Proposal Call
- New technical capabilities included for cycle 8, such as:
 - Solar observations in Band 5
 - Band 9 & 10 observations in stand-alone 7-m array
 - Mosaics for continuum linear polarization (Bands 3-7, 12-m array)
 - Spectral scans with the 7-m array
 - Stand-alone 7-m array polarization (single-pointing, Bands 3-7)
 - VLBI observations of faint science targets (passive phasing)
 - Pulsar observations using 12-m array
- New approaches for the proposals, including:
 - Dual anonymous proposal review
 - Distributed peer review
 - Encouraging larger proposals
- Current status of Proposal Review Process
- The successful NRAO Cycle 8 ALMA Ambassadors program

Financial Matters

The ALMA Board noted the report of the ALMA Budget Committee on the 2020 budget execution and financial results and 2021 projections, which included a re-profiling of the ongoing JAO budget, including the carry forward of part of the 2020 unspent funds.

The Board also discussed the plan to update the Forward-Look plan, which should be adopted in the next November meeting.

ALMA Development Program and Roadmap

The ALMA Board noted the status of the ALMA Development Program and the status of the ongoing projects and studies.

The Board also reviewed the progress of the implementation of the Development Roadmap, and examined long-term strategies to ensure the continuing development and sustainable operations of ALMA, especially towards the 2030 goals.

Finally, the Board sent their warmest thanks to the JAO staff and associated contractors for their dedication and hard work in returning ALMA to science operations last March, with the support from the equally committed colleagues at the Regional Support Centers.

The Board acknowledged that the effort to reach this important milestone was extraordinarily challenging in the face of the ongoing COVID-19 pandemic, and it will continue to be challenging until the pandemic abates. Given these difficulties, the Board was pleased that transmission within staff has remained minimal and urged everyone to continue following necessary guidance to ensure safety. ALMA continues to be amongst the World's most impactful observatories, in large part due to the staff's ongoing efforts.

Alejandra Voigt
ALMA Executive Officer
Board's Secretary