



**ALMA BOARD MEETING**  
**November 18-20, 2020**

**PUBLIC SUMMARY**

The ALMA Board convened via Zoom, between the 18<sup>th</sup> and 20<sup>th</sup> of November, with the following attendees:

Chair	Karin Öberg (NA)
Vice-Chair	Toshikazu Onishi (EA)
Board Members	Ralph Gaume (NA) Xavier Barcons (EU) Saku Tsuneta (EA) - <i>*Did not attend.</i> Willy Benz (EU) James Di Francesco (NA) Daniel Weselka (EU) Tony Beasley (NA) Linda Tacconi (EU) You-Hua Chu (EA) Luis Chavarría (CL)
Board Assessors	Joseph Pesce (NA) Andreas Kaufer (EU) Satoru Iguchi (EA)
JAO	Sean Dougherty (ALMA Director) Stuartt Corder (ALMA Deputy Director) John Carpenter (Observatory Scientist) Frank Ruseler (Head of Administration) Norikazu Mizuno (Head of Engineering) Ivan Lopez (Safety Manager) Jorge Ibsen (Head of Computing) Elizabeth Humphreys (Head of Science Operations) Rafael Mena (HR Manager) Valeria Foncea (EPO Manager)
Executives	Leonardo Testi (ESO ALMA Programme Manager) Phil Jewell (NRAO ALMA Program Manager) Álvaro González (NAOJ ALMA Program Manager) Paulina Bocaz (AUI/NRAO Representative in Chile) Tetsuhiro Minamidani (NAOJ Representative in Chile)
ASAC	Kotaro Kohno (ASAC Chair)
Board's Secretary	Alejandra Voigt (ALMA Executive Officer)

## **PUBLIC SUMMARY**

The ALMA Board held its November 2020 meeting, via Zoom due to the extraordinary circumstances.

The Board's Chair, Dr. Öberg, welcomed all Board members, assessors and attendees, noting especially the attendance of all the members of the ALMA Management Team, the JAO Core Management Team, the representatives in Chile for AUI/NRAO and NAOJ, the new ASAC Chair, Kotaro Kohno and two observers, Shiang-Yu Wang, ASIAA Acting Director, and Alison Peck, NSF Program Manager for Arecibo.

The Chair expressed the Board's appreciation and best wishes to Prof. Willy Benz, who will be stepping down as ESO Council President at the end of the year, this being his last meeting as an ALMA Board member.

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

1. Reviewed the status of the activities to return to operations and the plans to manage the observatory under these extraordinary circumstances.
2. Appreciated the extraordinary efforts made by the JAO staff during the pandemic.
3. Approved the 2021 ALMA Budget.
4. Received the last ASAC report from the ASAC Chair.
5. Appointed 6 new ASAC members.
6. Assessed the ongoing Development Projects and the current efforts with the implementation of the ALMA Development Roadmap.
7. Approved a funded extension of the ALMA Phasing Project, second phase (APP-II), to allow the full suite of its proposed capabilities to be completed for Cycles 8 and 9.

### **ALMA Overview**

The Board noted the presentation given by the ALMA Director, regarding the challenges for ALMA in the past year, including:

- Status of Cycle 7 as of March 22.
- The reports from the Caretaker Teams at OSF & SCO and their outstanding efforts to maintain the safety and security of the facilities.
- The activities carried out by special missions from Engineering and Computing to better prepare the return to operations.
- The Return to operations strategy, planning and reviews approach in order to gradually resume the observatory activities when is sufficiently safe and secure. This included the development of framework documents, policies, protocols, implementation documents, planning, trainings and scope for each one of the defined phases.
- The necessary transparency to ensure the communications and information flow with the staff, especially to sufficiently convey protocols and guidelines, creating a dedicated page with FAQs and plans, making them accessible online.
- The activities in addition to return to operations, such as:
  - Preparations for Cycle 8 proposal review

- Santiago Remote Control Room Extension preparation
- Completed restructuring the Department of Science Operations
- Data Science Initiative
- Hardware-in-the-loop simulator – CDMR coming next month

## **ALMA Operations**

The Board noted the presentation given by the Deputy Director, regarding the latest activities, and next steps to return the observatory into operations, including:

- Return-to-Operations Phase reviews.
- Powering up the OSF and the AOS and resuming all basic services, such as potable water, sewage, etc.
- Plans for resuming science operations.
- Major technical risk items and mitigations plans.
- COVID risk items and risk-management challenges remaining.
- Plans to update the Forward-Look and the high-level goals of the observatory.

## **Scientific Matters**

The Board noted the presentations given by the Chair of the ASAC and the Chair of the Board's Science Committee regarding:

- Assessment of the performance of ALMA scientific capabilities and the plan presented for ObsMode2021, which are planned to be offered starting in cycle 9
- Ways to maximize ALMA's scientific impact, including the scientific effectiveness of the Proposal Review Process.
- Scientific impacts of the ALMA Development Program and the plans to implement the ALMA 2030 Roadmap.

After deliberation and given the expertise and other requirements, the Board approved the appointment of six new members to the ASAC, starting January 2021:

- Stephen White (NA, solar), for one year, until December 31st 2021.
- Paul van der Werf (EU, Near and distance galaxies), for three years, until December 31st 2023.
- Alexandra Pope (NA, Galaxy evolution), for three years, until December 31st 2023.
- Erik Rosolowsky (NA, Nearby galaxies), for three years, until December 31st 2023.
- Meredith Hughes (NA, Disks), for three years, until December 31st 2023.
- Nami Sakai (EA, Disks), to be reappointed for a full term of three years, until December 31st 2023.

## **Financial Matters**

The ALMA Board noted the report of the ALMA Budget Committee on the 2020 budget execution and financial results and projections to the end of the year.

The Board also discussed the risks and challenges ahead and the management approach to deal with the pandemic effects.

Finally, subject to the FY2021 budget appropriation process in the USA and the approval by ESO Council and the Japanese FY2021 budget appropriation process, the Board approved the proposed 2021 ALMA Operations Budget for JAO and Off-site activities, projects and the Development Program, as well as for JAO COVID-related extraordinary expenses.

## **ALMA Development Program Update**

The ALMA Board noted the presentation by the ALMA Deputy Director on behalf of the AMT regarding the status of the ALMA Development Program. This covered the on-going projects and studies, the projects that will be submitted for approval in the near future and a summary of the scope of upcoming calls for proposals within the three regions.

The Board also noted the ongoing activities related to the ALMA Development Roadmap Implementation Plan that will define the processes to accomplish the highest-priority directions for the Development Program as identified in the ALMA's long-term vision.

Finally, the Board approved a funded extension of the ALMA Phasing Project, second phase (APP-II), originally approved by the Board in its November 2017 meeting, to allow the full suite of proposed capabilities to be completed for Cycles 8 and 9.