

ALMA BOARD

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Subject: Science Committee Response to the October 2024 ASAC Report

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ALMA Board Science Committee Response to the ASAC: November 2024

The ALMA Board thanks the ASAC for a very comprehensive report summarizing their latest guidance to the Board on issues related to science. The Board received the ASAC's latest Report prior to its November 2024 meeting. The ASAC Chair, Stefanie Milam, summarized the Report to the Board's Science Committee on November 6, 2024 and then to the entire Board during the Ordinary Session of the Board meeting on November 20, 2024. After Dr. Milam's first presentation, the Science Committee prepared a preliminary response which the Chair of the Science Committee presented to the Board immediately after Milam's second presentation. In this document, we elaborate on our response to the ASAC.

The Board is glad to see that the ASAC appreciates and supports the achieved and on-going efforts by JAO and ALMA in many aspects. In this response to their Report, the Board focused on the topics/issues that ASAC have recommendations or concerns.

On the "General Consideration"

- ASAC requests that all reports are made publicly available within a reasonable amount of time after Board Meetings

The Board directs the ALMA Director to publish in the ALMA website a summary of every Board meeting as was done until April 2022.

- ASAC requests the Board to consider if the ASAC charges should be updated to reflect priorities during WSU implementation

The Board already discussed at the April 2024 Board meeting that the Standing (=Permanent) Charges needed major revision, since they were nearly 10 years old. Revised Standing Charges will be included in the Terms of Reference of the ASAC and sent to the ASAC after its approval by the Board.

On the Permanent Charge #1 (ALMA scientific capabilities)

- The ASAC discussed the possibility of community projects during the transition to the WSU and noted the need for a clearer definition. Pros and Cons are noted and there was not a consensus on moving forward. ASAC was highly receptive to community projects for the new WSU system and happy to move forward on those discussions.

The Board considers that guidance from the ALMA Observatory Integrated Science Team (IST) and the ALMA Management Team (AMT) about the possible implementation of such "community projects," is needed before continuing discussion of their scientific benefits. There may exist critical uncertainties in the WSU transition phase that could limit the ability to obtain large, homogeneous, quality-controlled data for such community projects.

On the Permanent Charge #2 (ALMA system performance)

- ASAC shows appreciation and supports comments on the on-going activities.

On the Permanent Charge #3 (science outcomes from ALMA)

- ASAC requests that in addition to the other publication statistics, DDT metrics are also provided.

The Board confirmed that the JAO has provided the metrics for DDT to ASAC for previous Cycles and will provide similar metrics also for future Cycles.

On the Permanent Charge #4 (ways to maximize ALMA's scientific impact)

 ASAC was in a majority agreement for removing proprietary time on DDT proposals as recommended by ALMA, with fair and equal opportunities to appeal for proprietary time waivers.

The Board agreed on the new policy for DDT proprietary time at the November 2024 Board meeting. The Board recommends the ALMA Director adopts the new policy by Cycle 12 at the latest.

- ASAC also recommends that the review reports better communicate the position of each proposal among all ALMA proposals by using deciles (rather than quartiles), as this will provide a more detailed perspective for evaluating the success of the proposal.

The Board does not agree with the recommendation to use deciles rather than quartiles in review reports, as it considered the quartile ranking to be already a reasonable measure of a proposal's position in the review, given the high oversubscription rate in each Cycle.

On the Permanent Charge #5 (by the three regional Science Advisory Committees)

- ESAC is very concerned by the lack of a plan for a data processing system able to cope with the WSU highest data rate tail when they will be first available.

The plans are being developed to handle the very highest data rates and mitigation steps have already been adopted to limit the highest data rates in the initial WSU cycle.

Permanent Charge #6 (scientific impacts of the ALMA Development Program)

 There are limited "ongoing" development programs due to focus and funding priorities falling to WSU planning, design, and implementation. There are some regional/community projects underway that are discussed in the regional SACs. ASAC would appreciate clarification on the intent of this charge and requests more details on what the Board is seeking during WSU implementation. The Board appreciates this comment and is currently working to rewrite the charges, including the current Charge #6. The new charges will be included in the revised Terms of Reference of the ASAC and communicated separately to them in time for their next meeting.