

V108a Update on ALMA Development toward the WSU - Spring 2026

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This presentation provides an update on ALMA development overview since the previous ASJ meeting in September 2025. Preparations for the Wideband Sensitivity Upgrade (WSU) are progressing. This major upgrade includes replacing hardware components such as receivers, digitizers, data transmission systems, a correlator, and a spectrometer, with the aim of broadening the Intermediate Frequency (IF) bandwidth by at least a factor of two. In addition, the observational and data analysis software is being updated for operations of the integrated WSU system.

The overall system design and its staged implementation plan are being actively developed by teams from software/computing, science operations, as well as development and engineering. As a result of these efforts, the project successfully passed the Preliminary Design Review (PDR) for the WSU System, held in July 2025.

Regarding developments led by East Asia, preliminary design work for the Total Power GPU Spectrometer (TPGS) and the new Band 8v2 receiver has progressed toward the PDR of each project. The Data Transmission System (DTS), now in the critical design phase, has advanced its prototype and undergone interface testing with the correlator subsystem.