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ACES - GETTING READY!

### Abstract

Atomic Clock Ensemble in Space (ACES) is a mission using high-performance clocks and links to test fundamental laws of physics in space. The ACES payload will be accommodated externally on the ISS Columbus laboratory. The signal generated from the on-board atomic clocks, the Projet d'Horloge Atomique par Refroidissement d'Atomes en Orbite (PHARAO) and the Space Hydrogen Maser (SHM) will be compared to worldwide distributed ground clock using the MicroWaveLink (MWL) and with the European Laser Timing (ELT) instrument.

Having completed the verification of the atomic clocks, both are integrated into the ACES payload Flight Model for system tests to prove the performance of the ACES system. Soon, environmental testing will start demonstrating flight worthiness.

We will give an outline of the present status and instrument level test results as well as an outlook on remaining activities and the preparation for on-orbit operations.