

Directs the NASA Administrator to develop a celestial time standard to support future operations and infrastructure on and around the Moon and other celestial bodies.

Extended Summary:

H.R. 2313, the Celestial Time Standardization Act, establishes a coordinated celestial time standard critical for advancing scientific research, enhancing space navigation, and supporting complex missions to the Moon, Mars, and beyond.

A unified time standard will improve the safety, precision, and success of future space operations throughout the space domain.

This legislation directs the NASA Administrator to:

- Lead the development of celestial time standardization, including defining and preparing a strategy to implement a coordinated lunar time.
- Collaborate with the Departments of Commerce, Defense, State, and Transportation, and consult with the private sector, academic institutions, and international standards-setting organizations.
- Submit a report to Congress within two years of enactment outlining the strategy developed for a coordinated celestial time system.

Background:

- Maintaining a sustained U.S. presence on the Moon and in deep space is vital to advancing scientific discovery, enabling exploration, fostering commercial innovation, and strengthening international partnerships.
- NASA's Artemis program will require strong collaboration among government agencies, commercial entities, academic institutions, and international partners, making system interoperability essential.
- While Coordinated Universal Time (UTC) serves as the standard for Earth-based timekeeping, celestial bodies like the Moon require distinct time standards due to relativistic differences and unique orbital dynamics.
- U.S. leadership in developing celestial time standardization will promote global competitiveness, enhance collaboration with international partners, and ensure safe and sustainable space operations.