

Image: Sounding rocket launches CHESSESS mission to study the matter between stars

April 18 2018



Credit: NASA

The Colorado High-resolution Echelle Stellar Spectrograph, or CHESS 4, was successfully launched on a NASA Black Brant IX sounding rocket at 12:47 p.m. EDT, April 16 (4:47 a.m. local, April 17) from the Kwajalein Atoll in The Republic of the Marshall Islands.

The CHESS 4 [mission](#) will study the interstellar medium, the matter between stars. The mission focuses on translucent clouds of gas, that provide the fundamental building blocks for stars and planets. These [clouds](#) have very low densities and the only way to study them is to measure how a cloud is affected by a star—and its associated outpouring of stellar material, the stellar wind—moving through it.

The payload systems reported a nominal flight, proceeding as expected. The payload is to be recovered, making it the second NASA astronomical mission with water recovery. Hampered by high winds since the targeted launch day of April 13, the CHESS 4 left the pad with only 13 minutes left on the last day of the [launch window](#).

The CHESS 4 instrument was developed by the Laboratory for Atmospheric and Space Physics at the University of Colorado, Boulder. The mission was preceded by the launch of the Penn State Water Recovery X-ray (WRX) rocket experiment on April 4. The successful launch of both missions brings to an end this year's Kwajalein campaign.

Provided by NASA

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