

EXPERIENCE営2017 Experience Search and a construction of the search and a construction of the

MEASURING THE INFRARED SOLAR CORONA



Overview

During the eclipse, a team of scientists led by Paul Bryans at the National Corporation for Atmospheric Research will sit inside a trailer in Camp Wyoba atop Casper Mountain in Wyoming and point a specialized instrument at the Sun. The instrument is a spectrometer, which collects light from the Sun and separates each wavelength of light, measuring their intensity. This particular spectrometer, called the NCAR Airborne Interferometer, will, for the first time, survey infrared light emitted by the Sun's atmosphere, or corona. Such an experiment can only be conducted from the ground during an eclipse, when the Sun's bright face is blocked, revealing the much fainter corona.

Eclipse Science

This novel data will help scientists characterize the corona's complex magnetic field—crucial information for understanding and eventually helping forecast space weather events. The scientists will augment their study by analyzing their results alongside corresponding space-based observations from other instruments aboard NASA's Solar Dynamics Observatory and the joint NASA/JAXA Hinode.

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