Hi-C Launches for Third Flight to Study the Sun

Hi-C launches aboard a Black Brant IX sounding rocket at the White Sands Missile Range, New Mexico.

On May 29th, 2018 the High Resolution Coronal Imager (also called Hi-C) was launched from White Sands Missile Range in New Mexico on its third flight to study the Sun. The clarity of images returned and their analysis will provide scientists with clues to one of the biggest questions in heliophysics – why the Sun's outer atmosphere is so much hotter than its surface.

The telescope on Hi-C, the centerpiece of the payload weighing 464 pounds and measuring 10-feet long, is designed to observe a large, active region in the Sun's corona in fine detail. The duration of the space portion of the Hi-C mission provided five minutes of observation time with the telescope acquiring an image about every five seconds.

Scientists anticipate that analysis of the imaging data will help resolve current questions about connections between the hot and cool regions of the solar atmosphere. HI-C will focus on the wavelength passband at 172 Angstroms. This wavelength of UV light will be used to reveal the mass and energy connection between the chromosphere and the extremely hot corona.

Studying the interactions between these layers of the solar atmosphere will lead to a better understand the unique dynamics of Sun, and will help with predicting how those interactions result in solar eruptions. Understanding these eruptions will lead to better space weather predictions, and designing technology equipped to handle the disruptions that Earth communications satellites, such as GPS and cell phone signals, face during high solar activity.

For more information: https://www.nasa.gov/centers/marshall/news/hi-c-launches-to-study-suns-corona/index.html