

June 2010

AEROSPACE

A M E R I C A

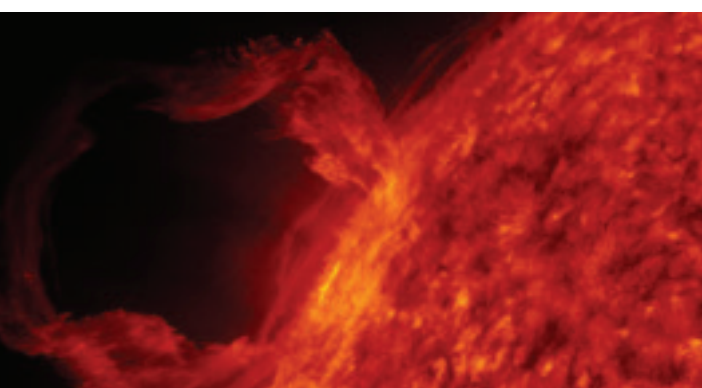
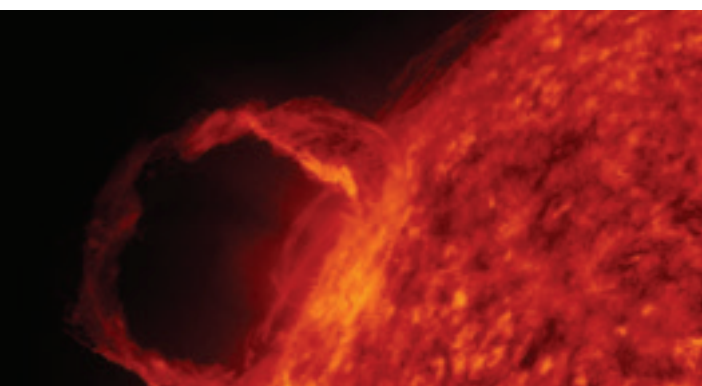
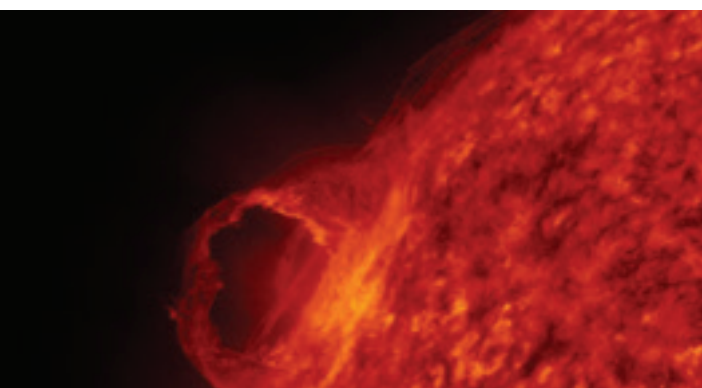
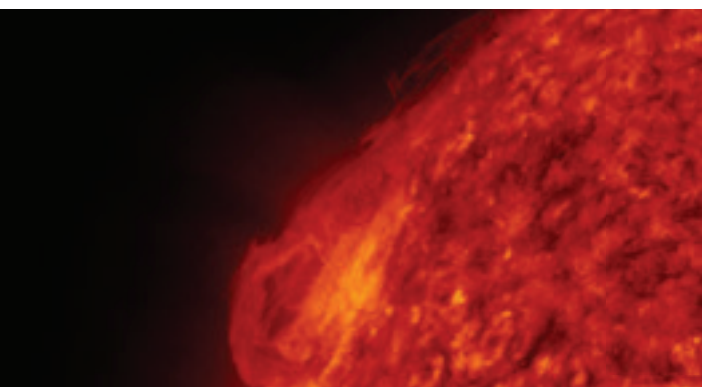
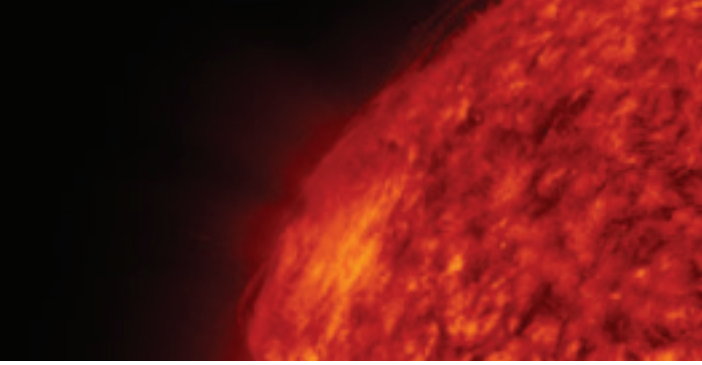
Dazzling images from our nearest star

**A conversation with Buzz Aldrin
Paradigm shift in U.S. space policy**

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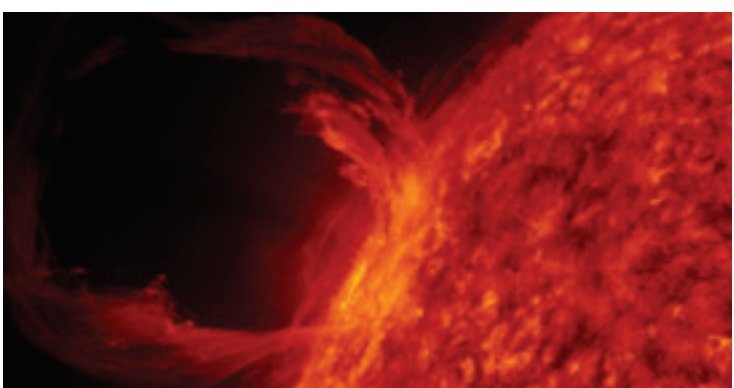


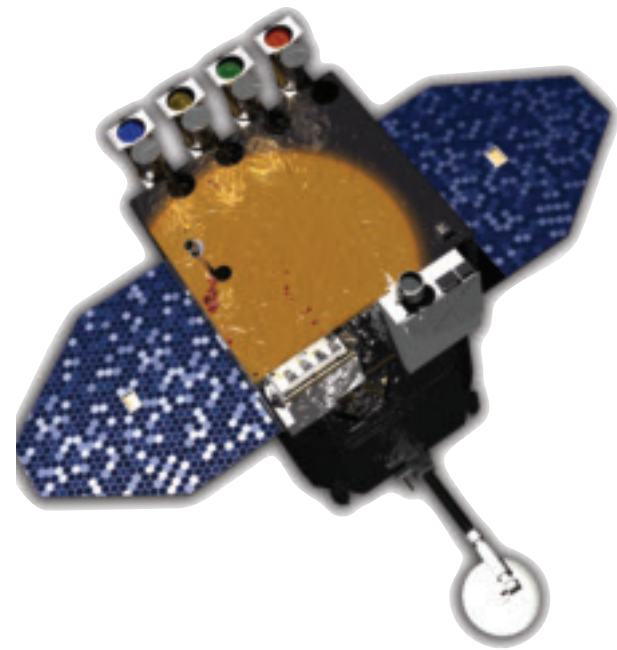
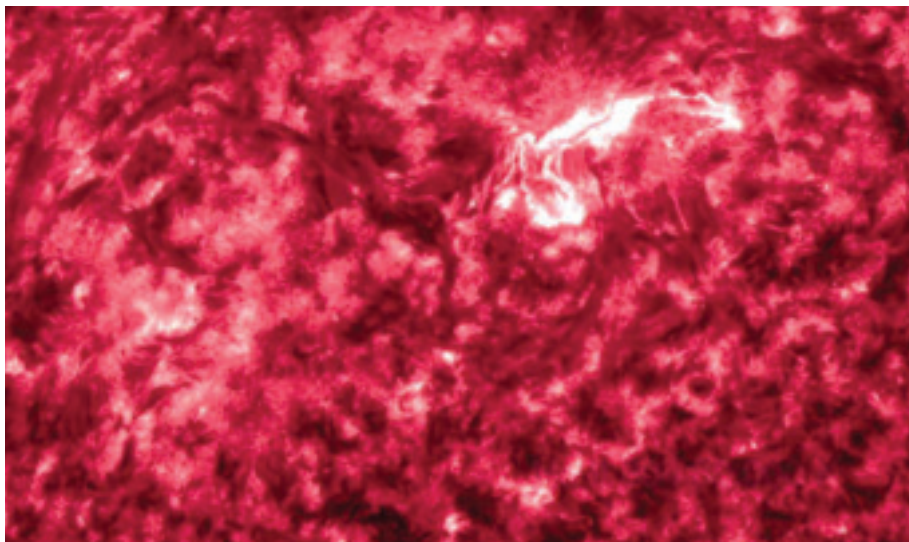
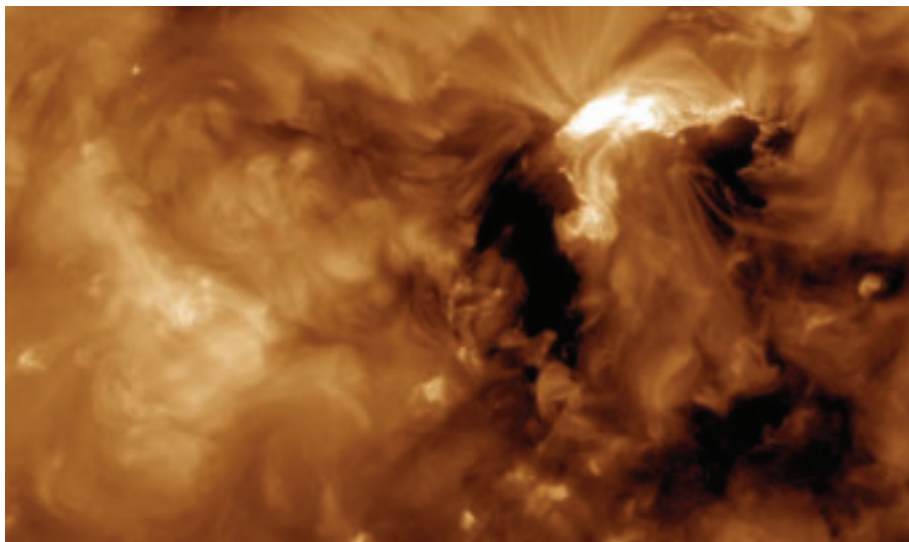
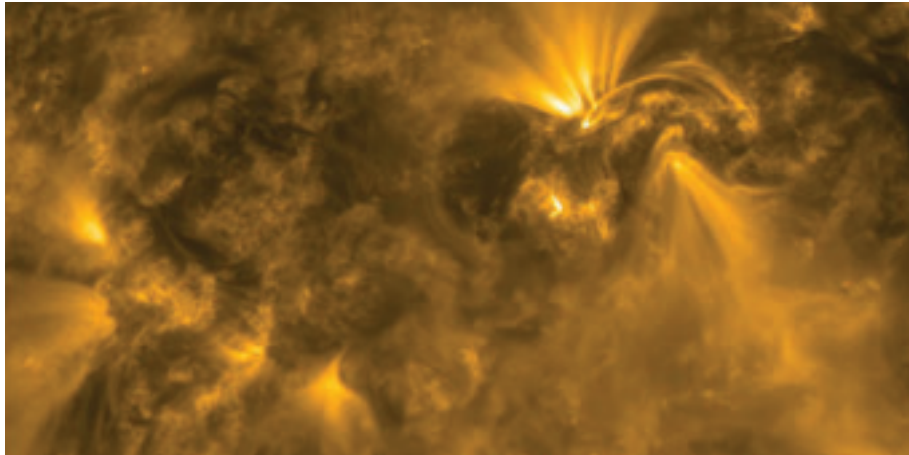
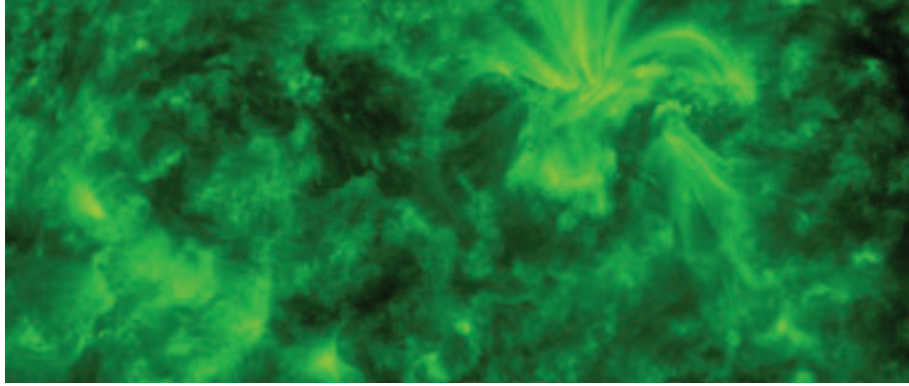
Dazzling images

from our
nearest star

The Solar Dynamics Observatory is designed to help us understand the Sun's influence on Earth and near-Earth space by studying the solar atmosphere on small scales of space and time and in many wavelengths simultaneously.

Soon after the instruments opened their doors, the Sun began performing for SDO with this beautiful prominence eruption. The Atmospheric Imaging Assembly data, from March 30, 2010, show a wavelength band that is centered around 304 Å. This extreme ultraviolet emission line is from singly ionized helium and corresponds to a temperature of approximately 50,000 C. The AIA images the solar atmosphere in multiple wavelengths to link changes in the surface to interior changes. Data includes images of the Sun in 10 wavelengths every 10 seconds. PI: Alan Title; PI Institution: Lockheed Martin Solar Astrophysics Laboratory. [Text and images courtesy NASA Goddard.]





These stills from the HMI magnetic map show the Sun's magnetic field followed by four of SDO's 12 imaging wavebands. The Helioseismic and Magnetic Imager provides continual full-disk coverage at higher spatial resolution and new vector magnetogram capabilities. PI: Phil Scherrer; PI Institution: Stanford University.

