Preparing on Earth for Events in Space

Understanding How Space Weather Affects Terrestrial Systems

Project Name: Cloud-Enabled Space Weather Modeling and Data Assimilation Platform (CESWP)

Project Lead: Cybera Inc.

CANARIE Contribution: $933,000

Participants:

- University of Alberta, AB
- University of Calgary, AB
- University of New Brunswick, NB
- University of Waterloo, ON

What *is* the Cloud-Enabled Space Weather Modeling and Data Assimilation Platform?

The Cloud-Enabled Space Weather Modeling Platform (CESWP) is a next-generation expansion of the valuable science and research capabilities provided by the Canadian Space Science Data Portal (CSSDP), a secure web portal providing a single point of access to a wide range of space data, observations, and investigative tools.

The CANARIE-funded CSSDP helped shape the development of the space science community and provided valuable knowledge to Canadian industries affected by space weather phenomena. Now CESWP will take CSSDP "into the cloud" and simplify access to space weather simulation tools.

CANARIE funding for CESWP, plus the speed and capacity of the CANARIE network, will make it easy for space scientists to collaborate and run simulations and models on space weather data.

Value to Research and to Canada:

- Will lead to improvements in researcher productivity and research funding efficacy as well as enabling preparedness for space weather events such as solar flares.
- Will benefit Canadian technology-intensive industries such as aerospace, communications and energy.
- Will cement Canada's position as a leader within the international space sciences community.

Did you know?

Information gathered through CESWP could lead to improved warnings about space events that could destroy satellites, cripple power grids or knock out terrestrial communications.

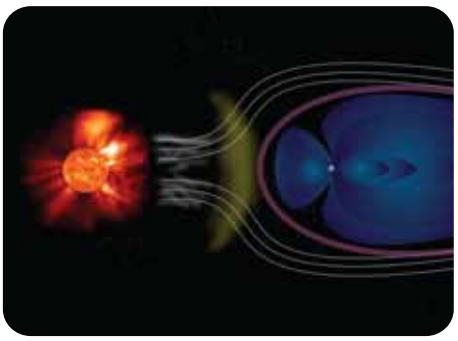
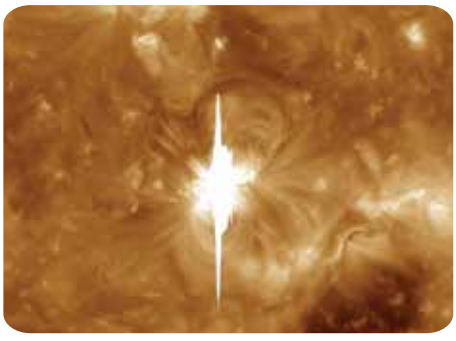


Illustration of how solar activity creates aurora (the Northern or Southern Lights)



Close-up photo of a solar flare: NASA

Find out more: www.CANARIE.ca/en/programs
www.cssdp.ca