

ASTR/PHYS PROFESSIONAL DEVELOPMENT



Join faculty and graduate students
from APS and Physics for a discussion on

Careers In Heliophysics

4:45–6:00pm

Tues November 19

Duane G130

Join to learn about
careers in Heliophysics,
connect with faculty and
members of the field
and free pizza!

David Malaspina (CU Boulder):
david.malaspina@colorado.edu

Rachel Lense (NASA/GSFC):
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Richard Sheppard (NOAA Space
Weather Prediction Center):
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Christine Gabrielse (Aerospace
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Professional Development Organizers

Nick Schneider, APS faculty
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John Keller, APS faculty
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Shaughnessy Dunn, APS undergrad
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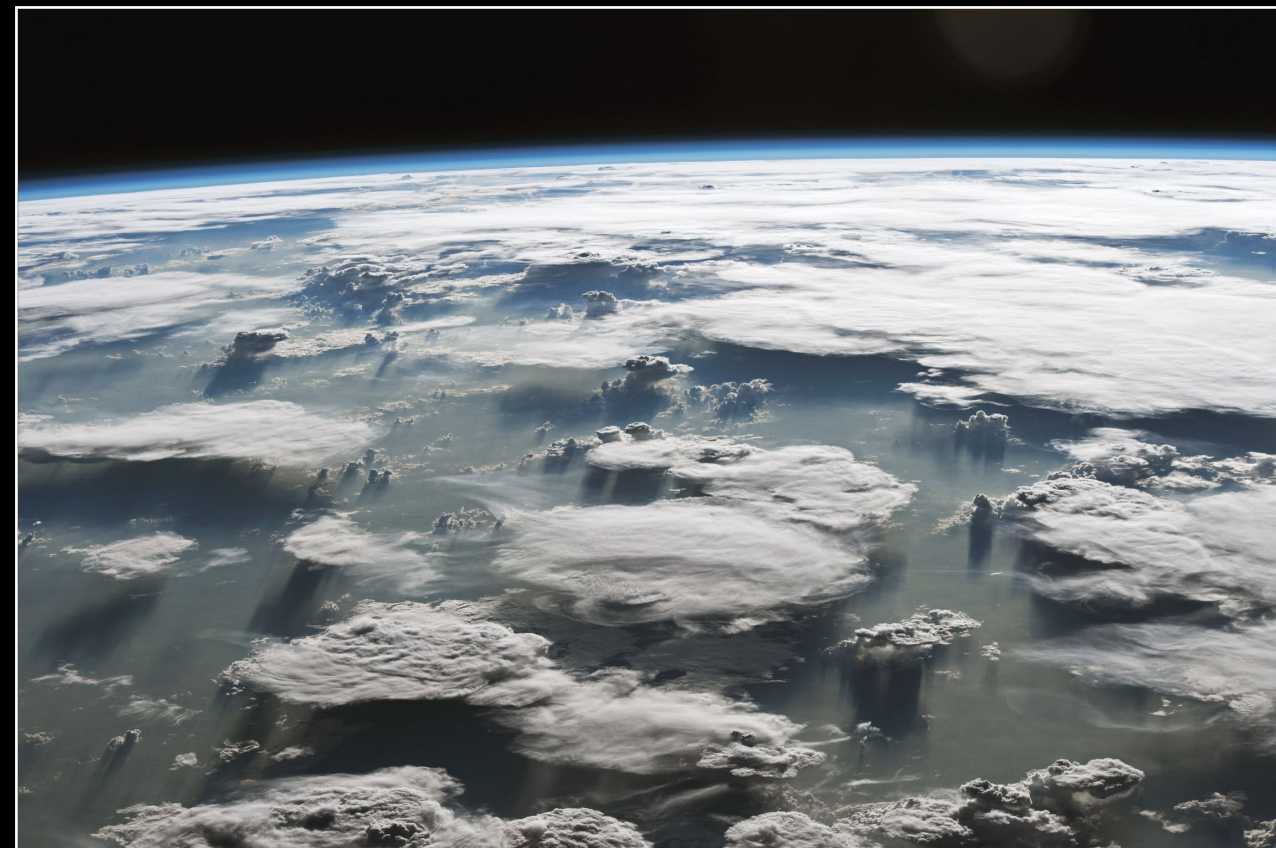
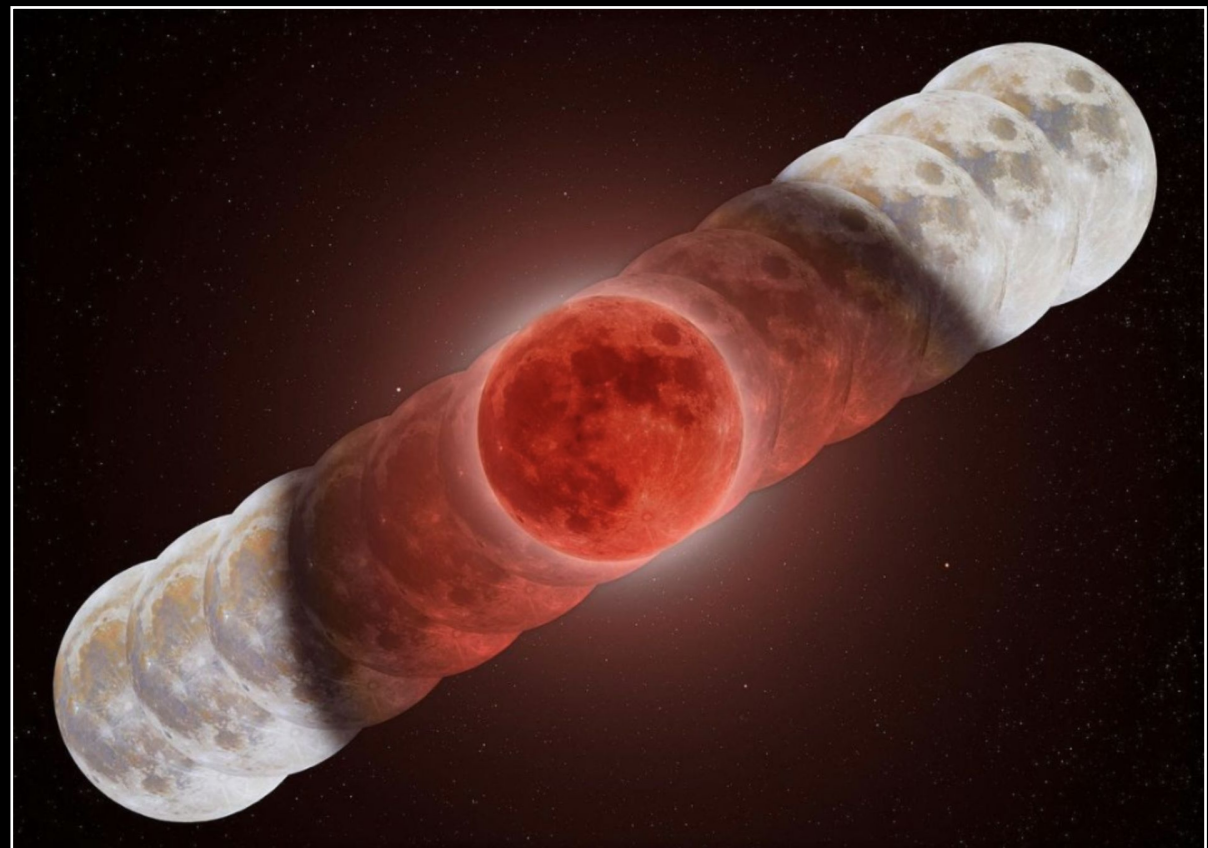
Careers in Heliophysics:

An Info Session on Careers Exploring the
Sun, Planetary Magnetospheres, Space
Weather, and Space Plasma Physics

Plan for Today

- Introduction to Heliophysics (~5-7 min)
- Panel Member Presentations (~5-7 min each)
 - David Malaspina (CU Boulder)
 - Rachel Lense (Goddard Space Flight Center)
 - Christine Gabrielse (The Aerospace Corporation)
 - Richard Sheppard (NOAA Space Weather Prediction Center)
- Open for discussion

The space environment touches our lives, every day



What is Heliophysics?

Heliophysics seeks to understand the nature of the space environment

Heliophysics seeks to detect, predict, and adapt to extreme conditions in space, to protect life and society and to safeguard exploration beyond Earth



What is Heliophysics?

The Sun
(center of the
solar system)

The Solar Wind
(the space
between solar
system objects)

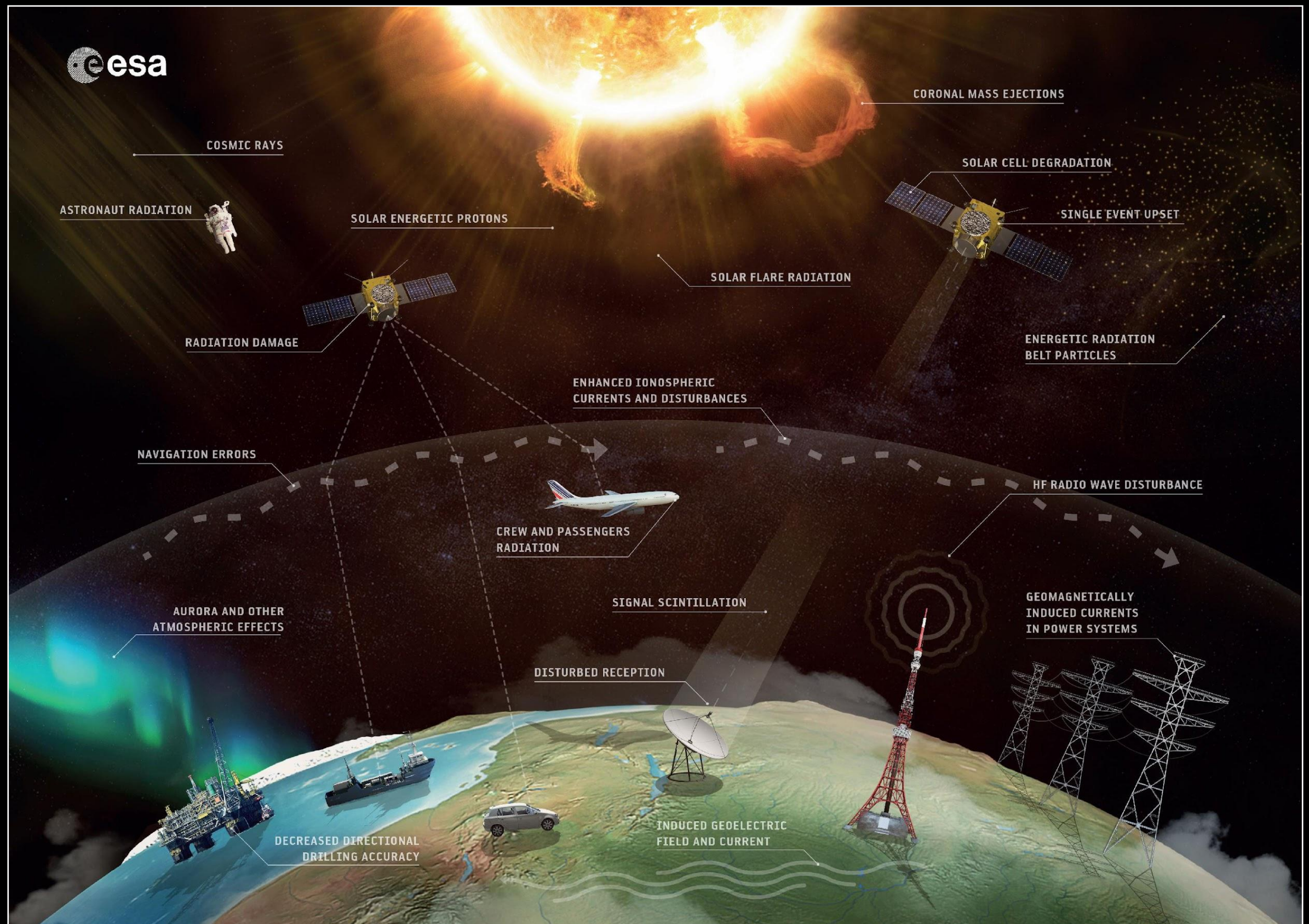


**The Edge of the
Solar System**
(outer edge of
the solar system)

Ionospheres
(outer edge of a
planetary
atmosphere)

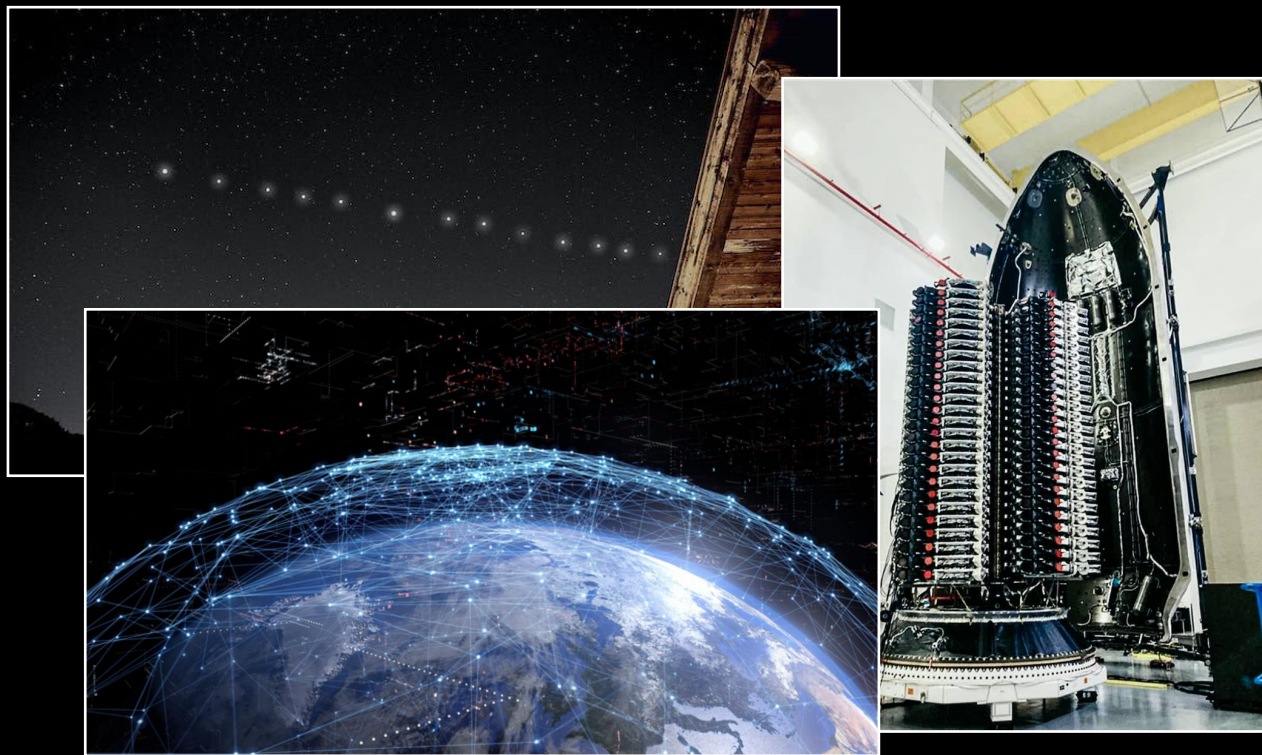
Magnetospheres
(regions of space
influenced by
planets)

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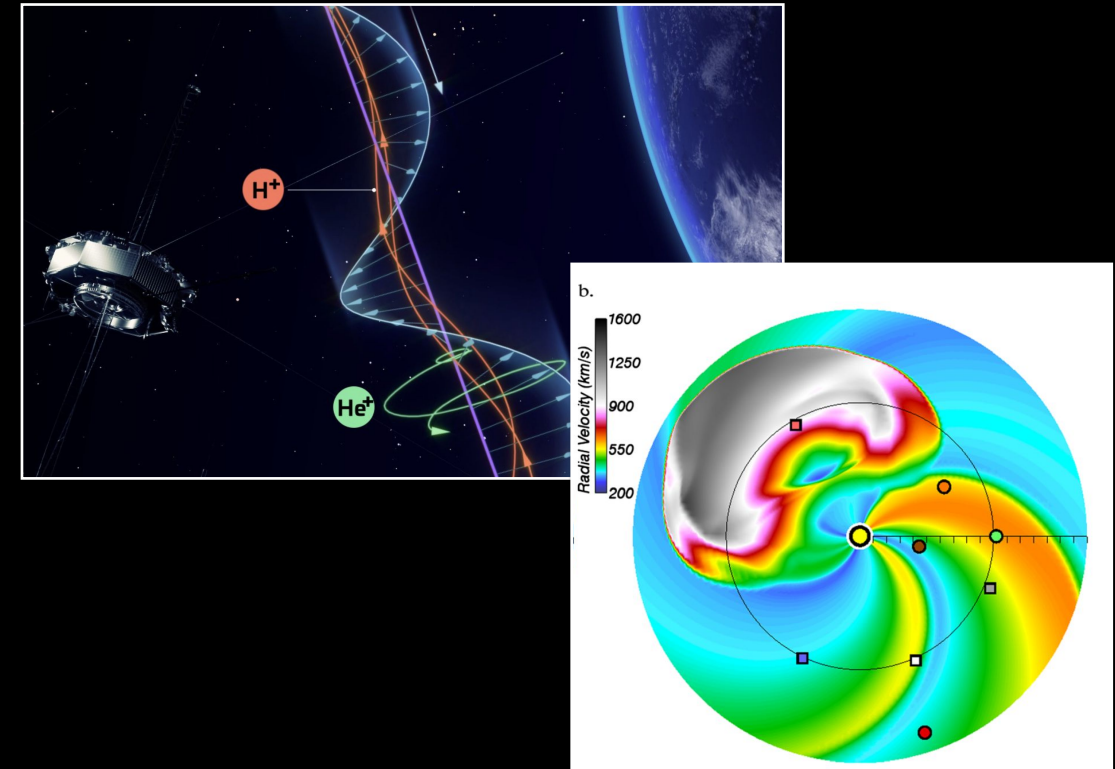


Types of Heliophysics Careers

Commercial



Academic

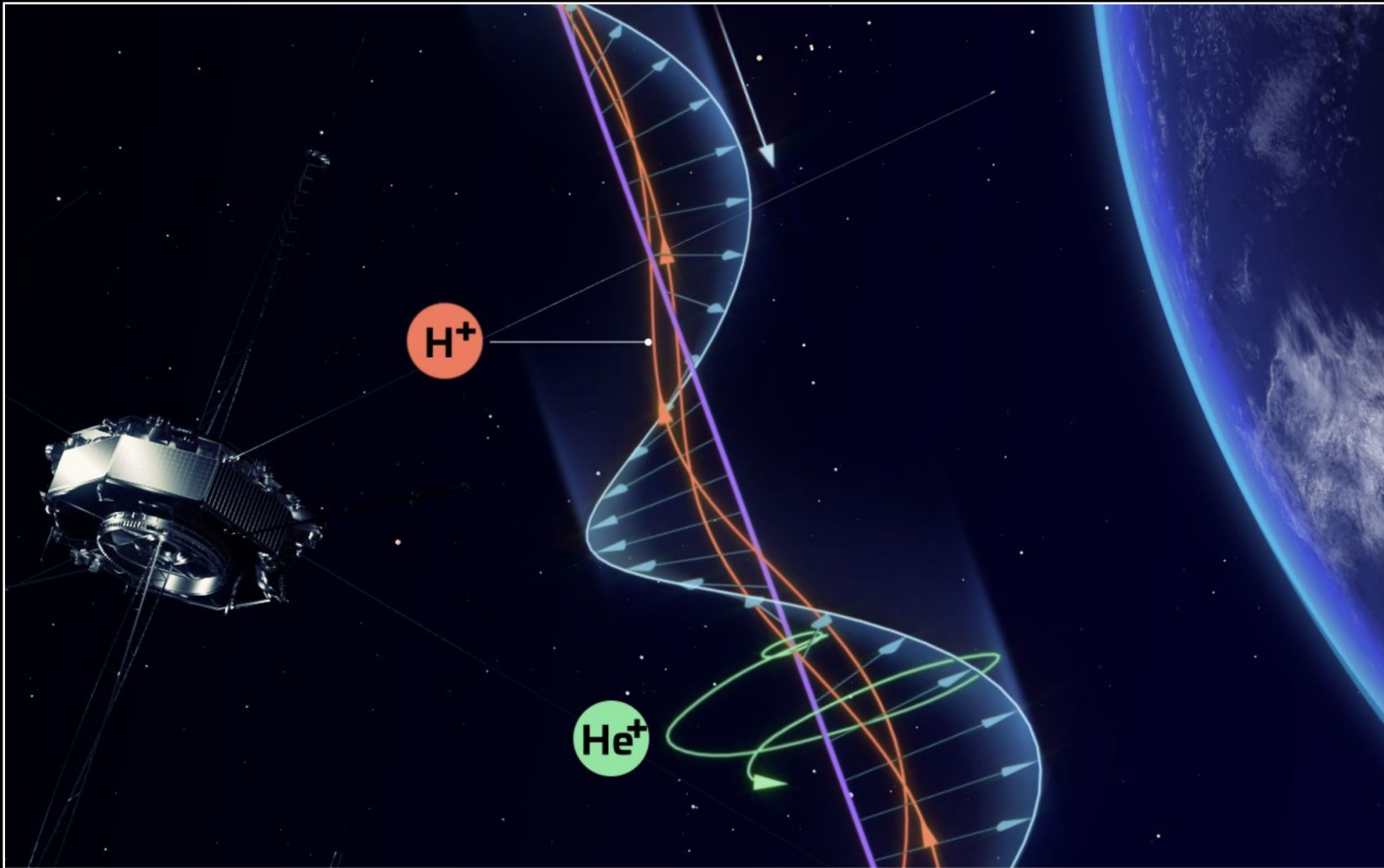


Military

Civilian Government



Heliophysics: Academic



Heliophysics: Civilian Government

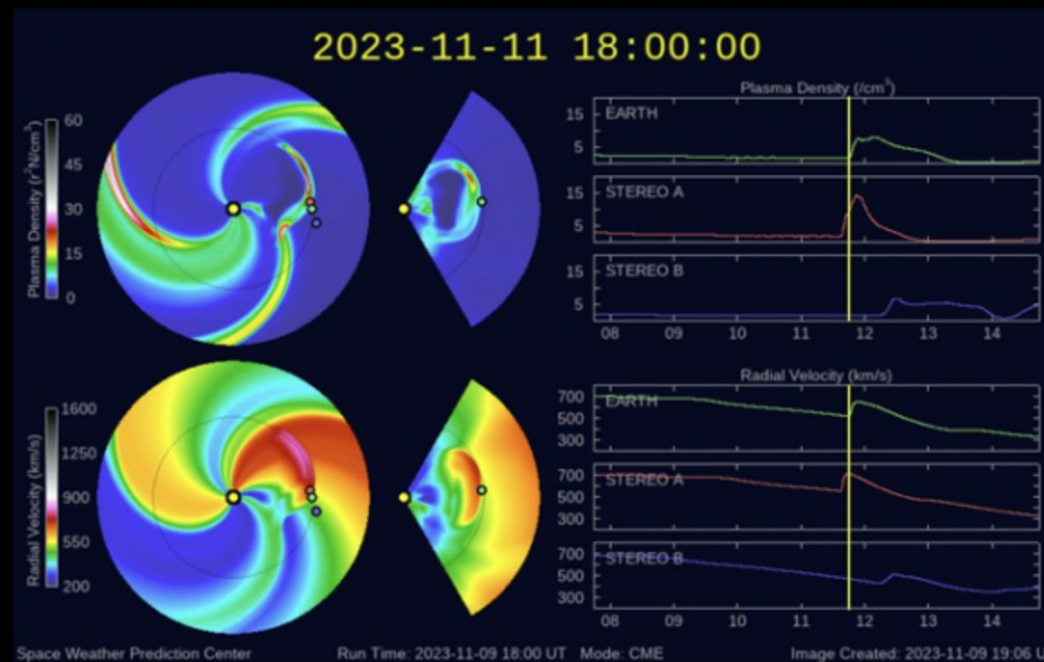


Heliophysics: Space Weather



MODERATE Geomagnetic Storm WATCH Valid for 11-12 Nov **G2**

WHAT: A Coronal Mass Ejection (CME) is expected to arrive at Earth on 11 Nov



EVENT:

A halo CME associated with a solar eruption located near S15W15 at 09/1115 UTC

TIMING:

The CME is expected to arrive at Earth around 1800 UTC on Nov 11, with effects persisting into the early hours of 12 Nov (UTC)

EFFECTS:

G2 storm levels are likely on 11-12 Nov



Heliophysics: Military



Counterinsurgency / Counterterrorism



A2/AD Environments / Multi-Domain

Communications

ISR



Safety of Flight

PNT

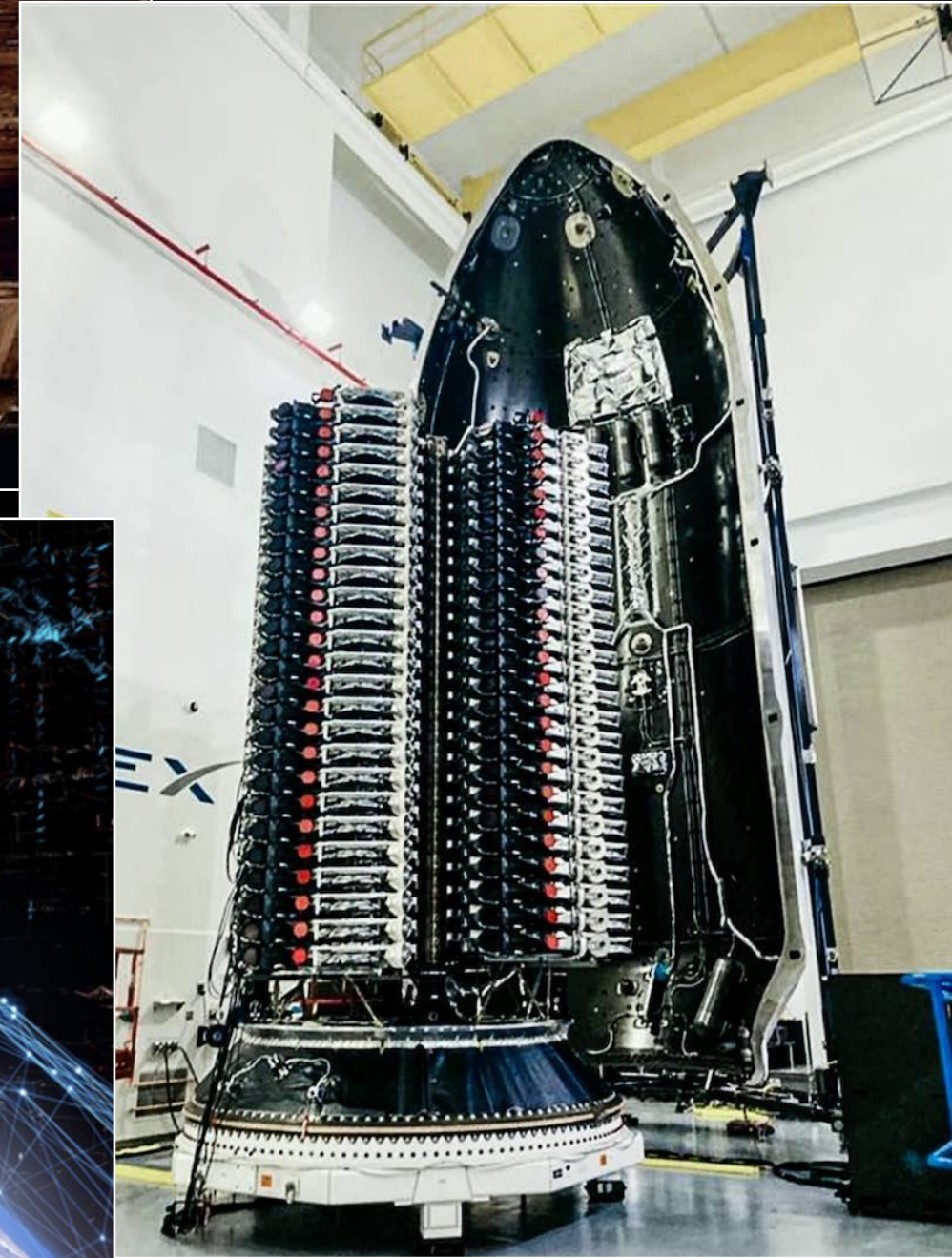


Polar Operations



Ballistic Missile Defense

Heliophysics: Commercial





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Contact information for presenters:

Rachel Lense (NASA/GSFC): rachel.lense@nasa.gov

Richard Sheppard (Space Weather Prediction Center): richard.sheppard@colorado.edu

David Malaspina (CU Boulder): david.malaspina@colorado.edu

Christine Gabrielse (Aerospace Corp.): christine.gabrielse@aero.org

Feedback on this Event:

