

9:15-10:00am **Heliophysics**

(Moderator: Justin Kasper, BWXT)

9:15-09:20am Overview

9:20-09:30am SunRISE (*Alex Hegedus, U. Michigan*)

9:30-09:40am ROLSES (*Bob MacDowall, NASA GSFC*)

9:40-09:50am Simulations of Type II solar bursts with FARSIDE (*Alex Hegedus*)

9:50-10:00am Discussion

Heliophysics System Observatory

- 19 Operating Missions with 26 Spacecraft
- 1 Mission in Implementation
- 6 Missions in Formulation

■	FORMULATION
■	IMPLEMENTATION
■	PRIMARY OPS
■	EXTENDED OPS

Solar Orbiter (ESA)
2020



Parker Solar Probe
2018



STEREO



Voyager (2)



2023
SunRISE (6)



WIND



SET-1 (USAF)



SOHO (ESA)



IMAP



ACE



SDO



ICON



GOLD (SES)



TIMED



PUNCH (4)



Hinode (JAXA)



IRIS



MMS (4)



SET-1 (USAF)



AIM



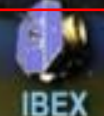
AWE (ISS)



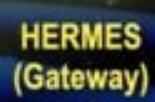
TRACERS (2)



IBEX



HERMES (Gateway)



THEMIS-ARTEMIS (2)



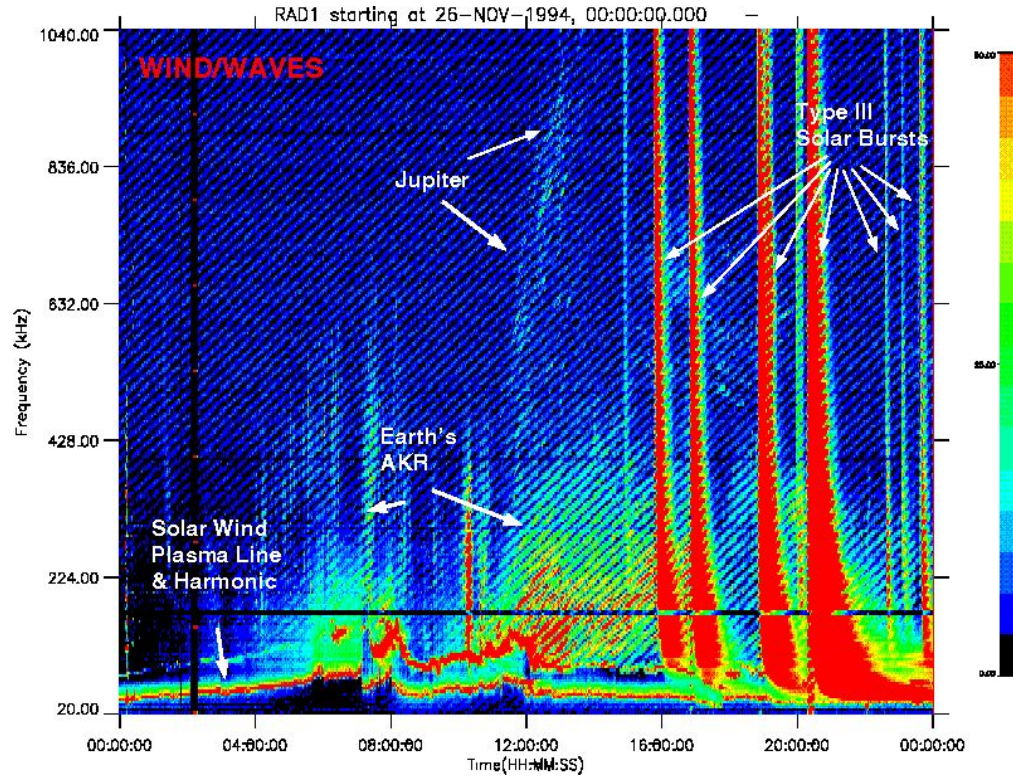
THEMIS (3)



Geotail (JAXA)



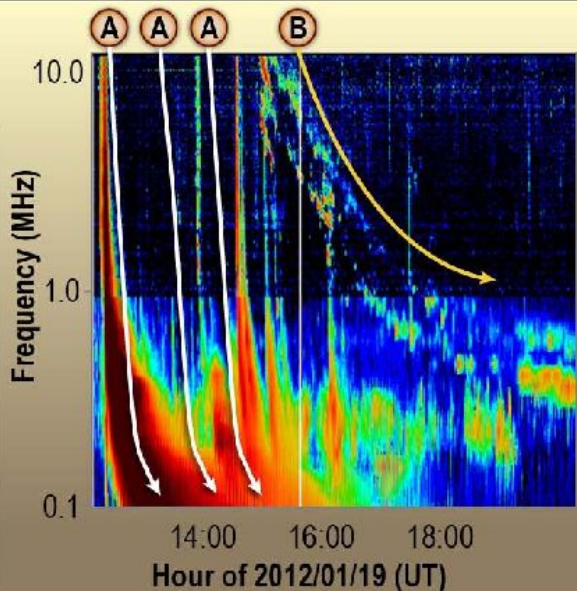
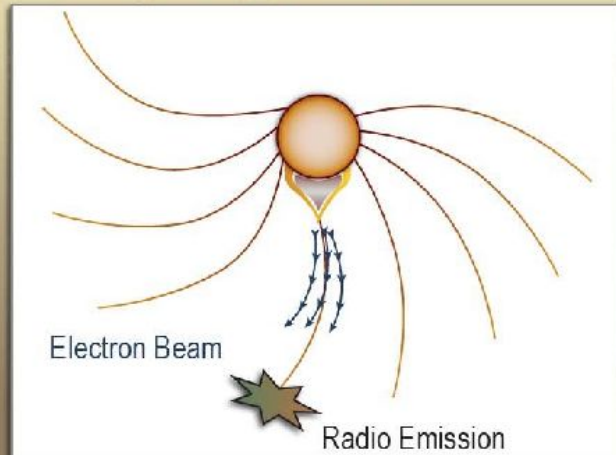
RADIO EXPERIMENT



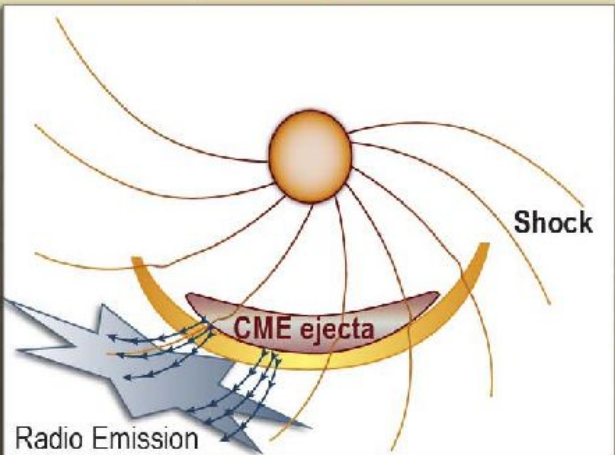
Wind/WAVES (GSFC)

Lazio et al. (2017)

A Type III Radio Bursts
Rapidly drop in frequency as electron beams escape from active regions along open field lines



B Type II Radio Bursts
Slowly descends in frequency as coronal mass ejections expand into space



RISE_014e