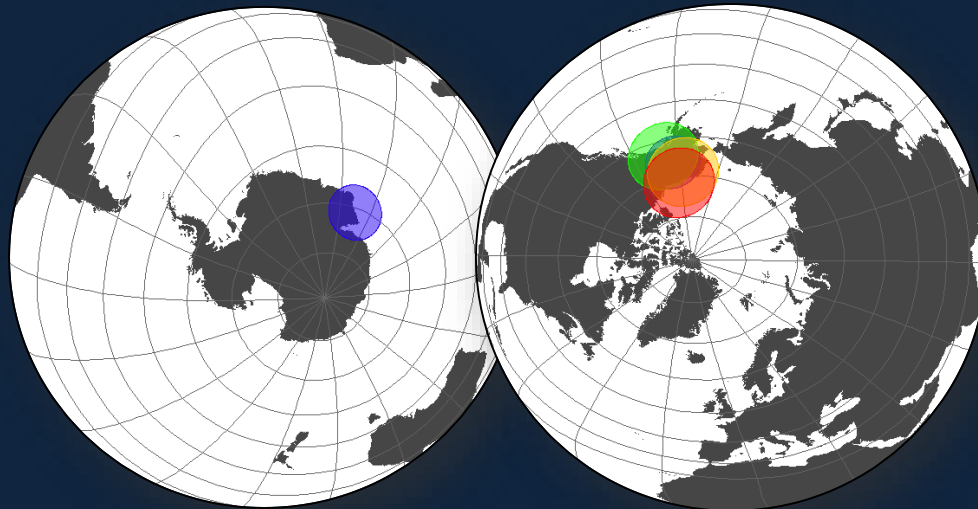


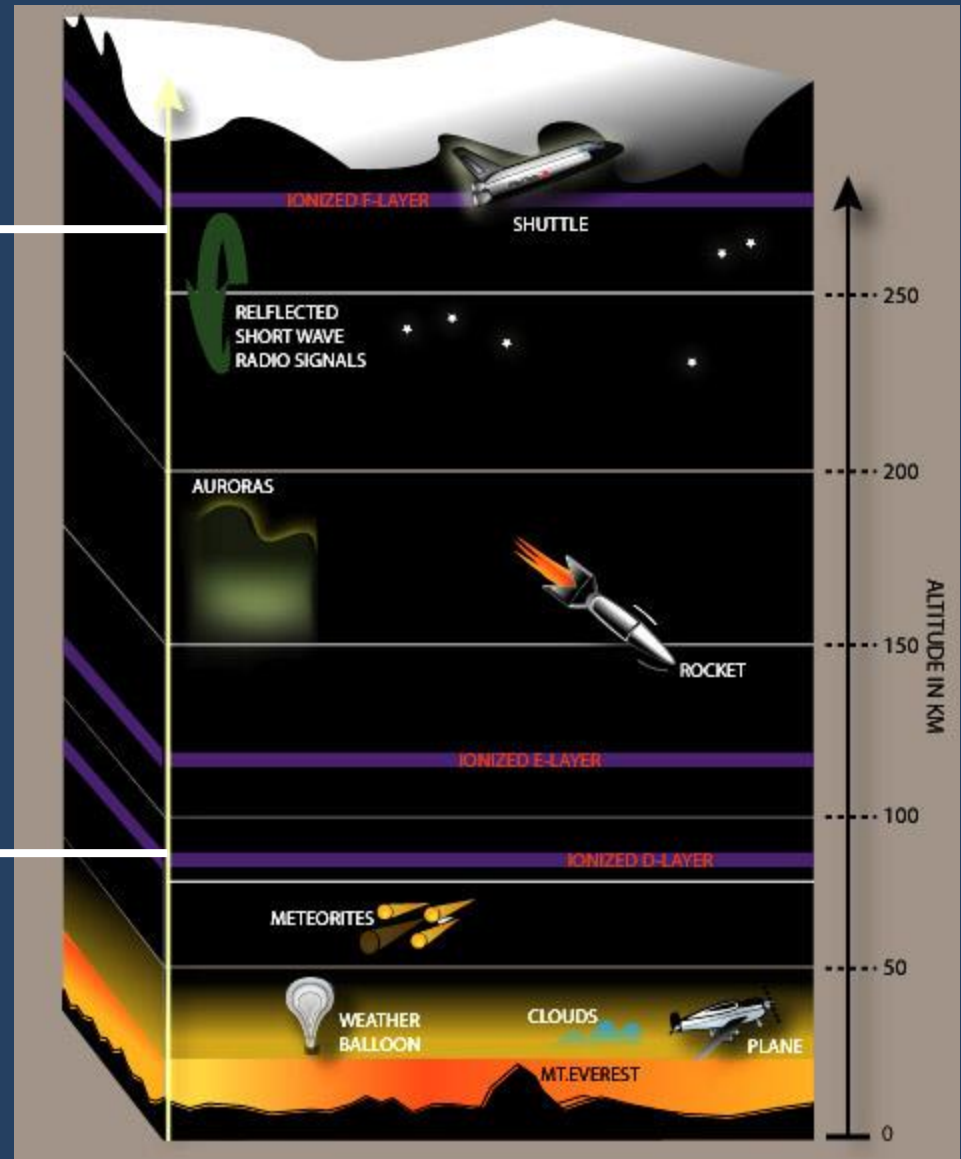
# The Scanning Doppler Imager Network

Mark Conde  
Callum Anderson

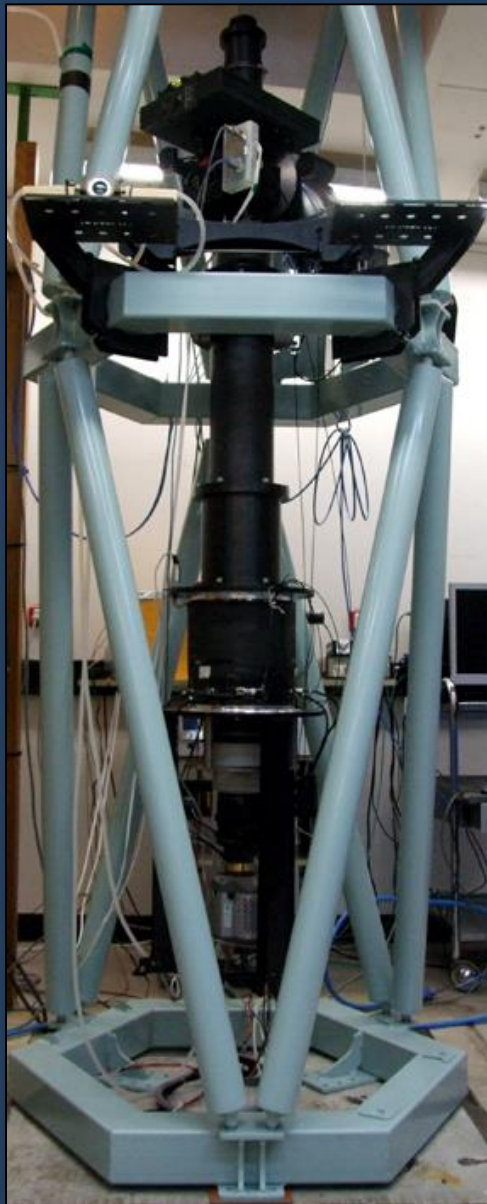


# The Scanning Doppler Imager

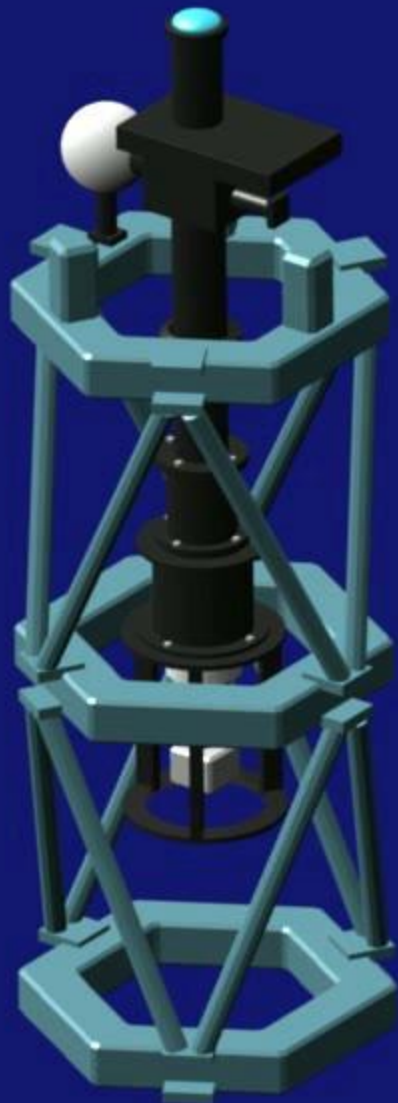
Measurements in this  
region



# *The Scanning Doppler Imager*

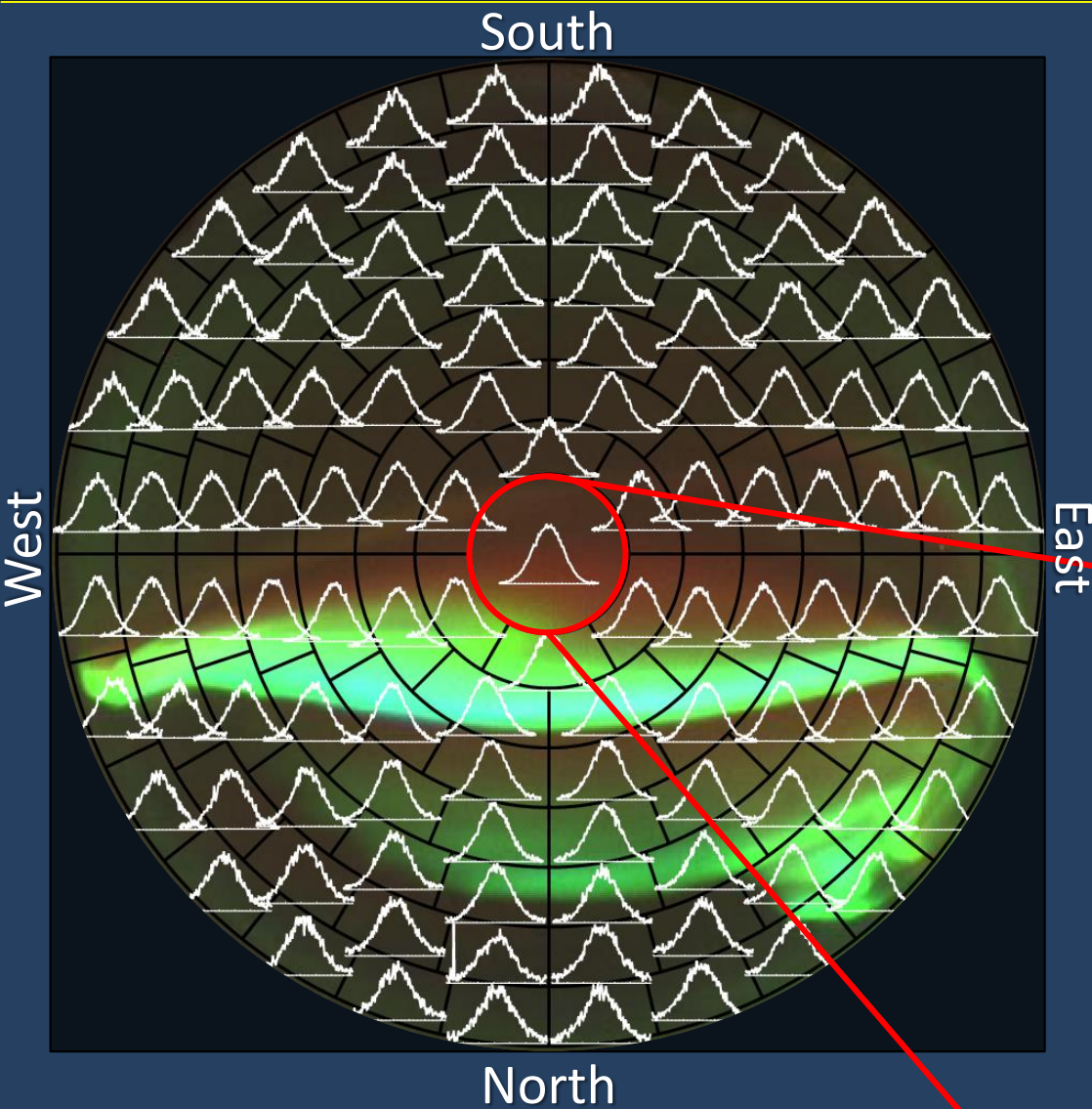


# *The Scanning Doppler Imager*





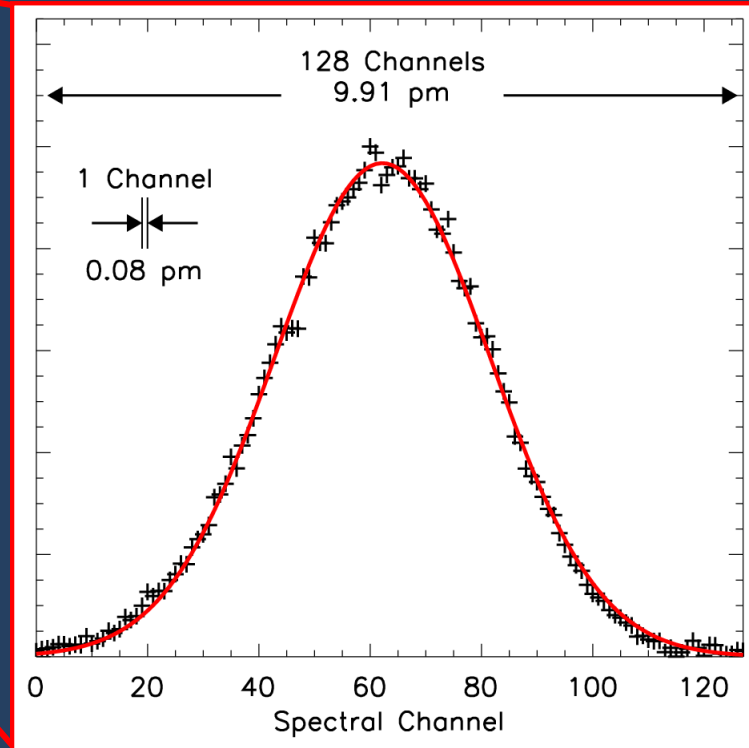
# The Scanning Doppler Imager



Divide the field-of-view into software-defined 'zones'

Simultaneously acquire spectra in every zone

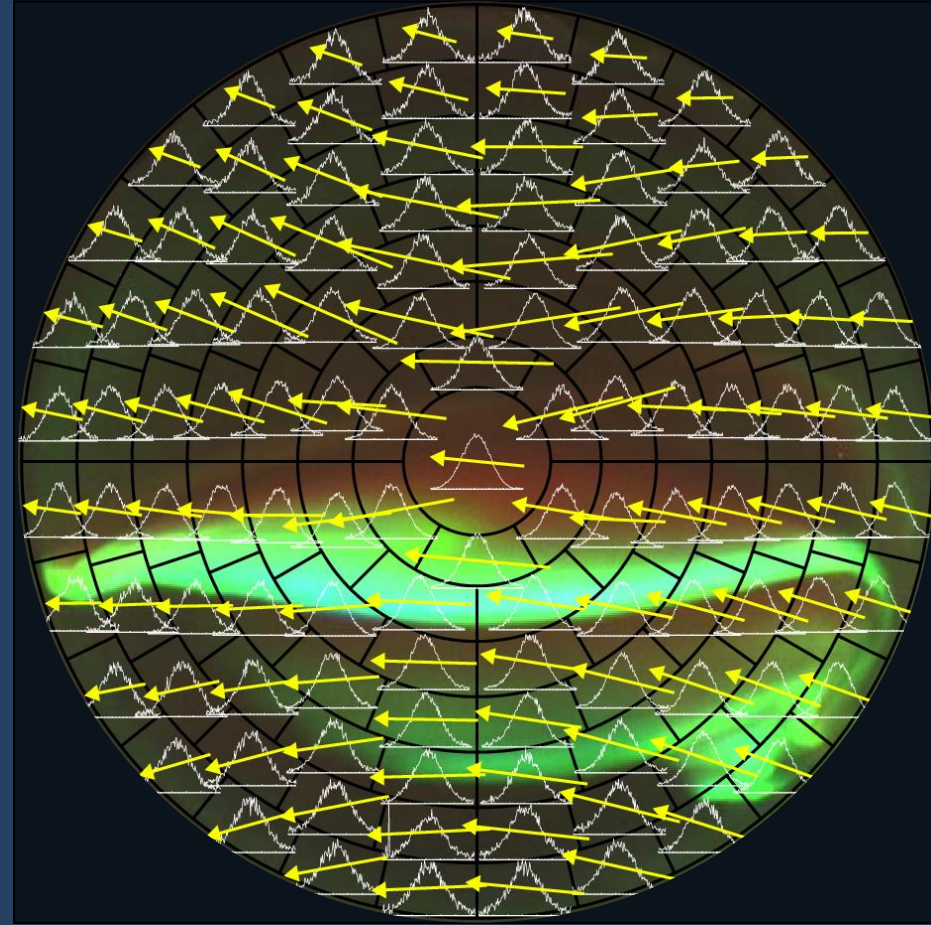
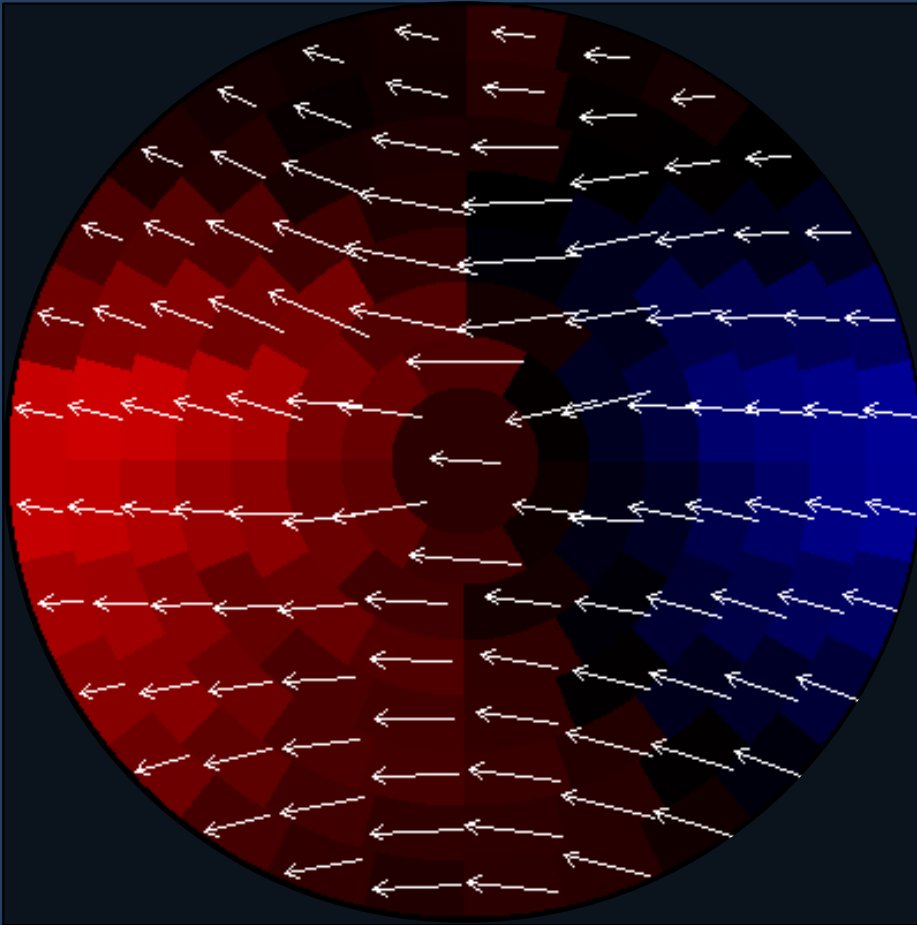
Fit emission profiles to the recorded spectra



# The Scanning Doppler Imager

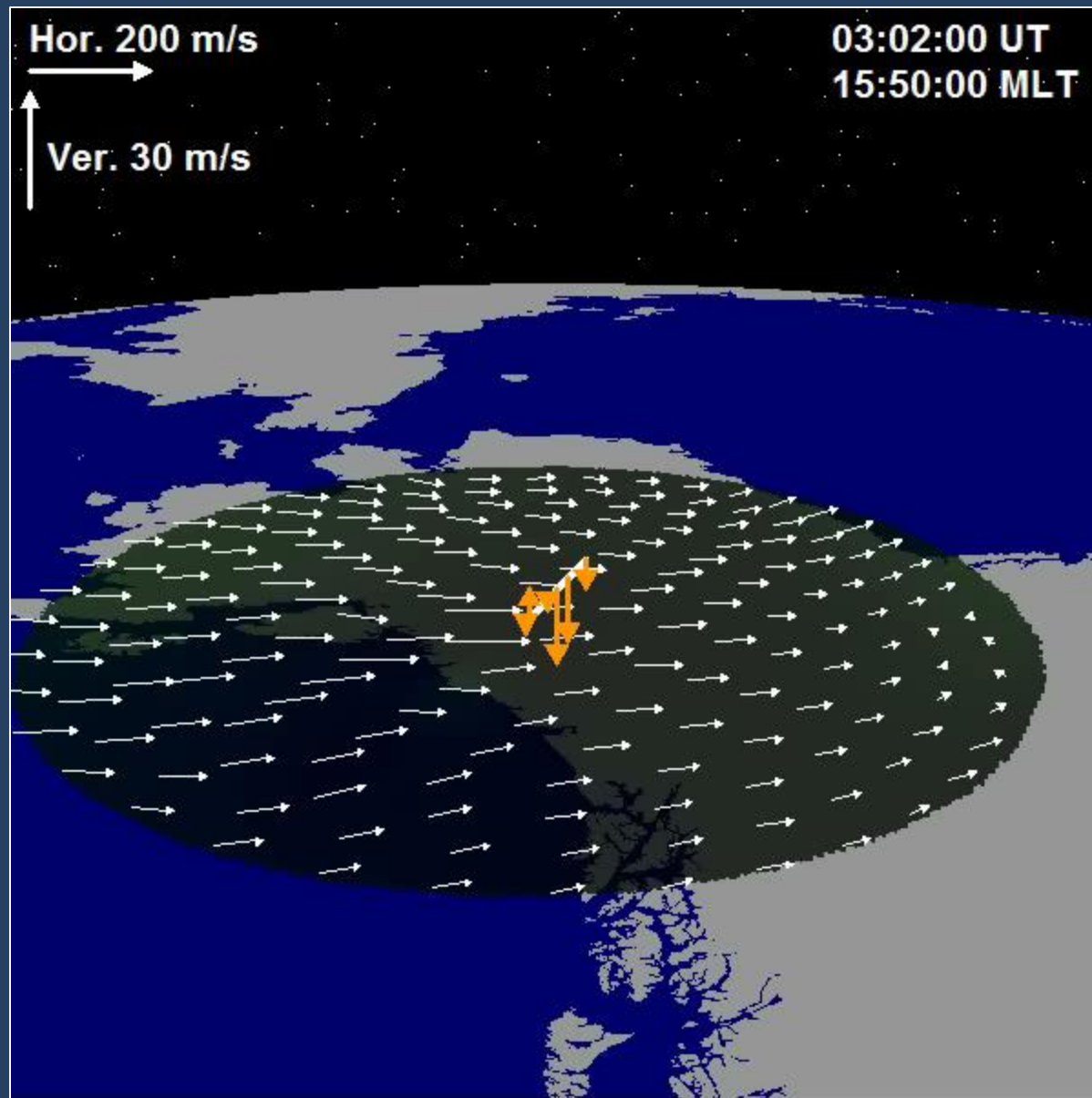
We measure:

- Line-of-sight wind speed (Doppler shift),
- Atmospheric temperature (Doppler broadening)
- Emission intensity



# The Scanning Doppler Imager

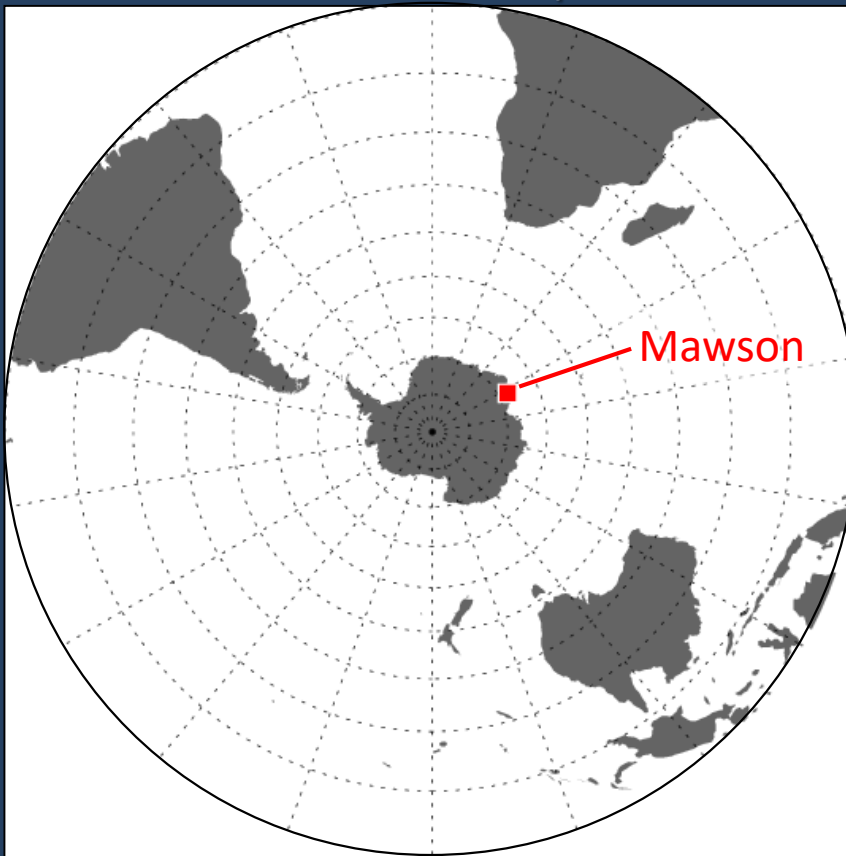
January 24<sup>th</sup>, 2010, F-region



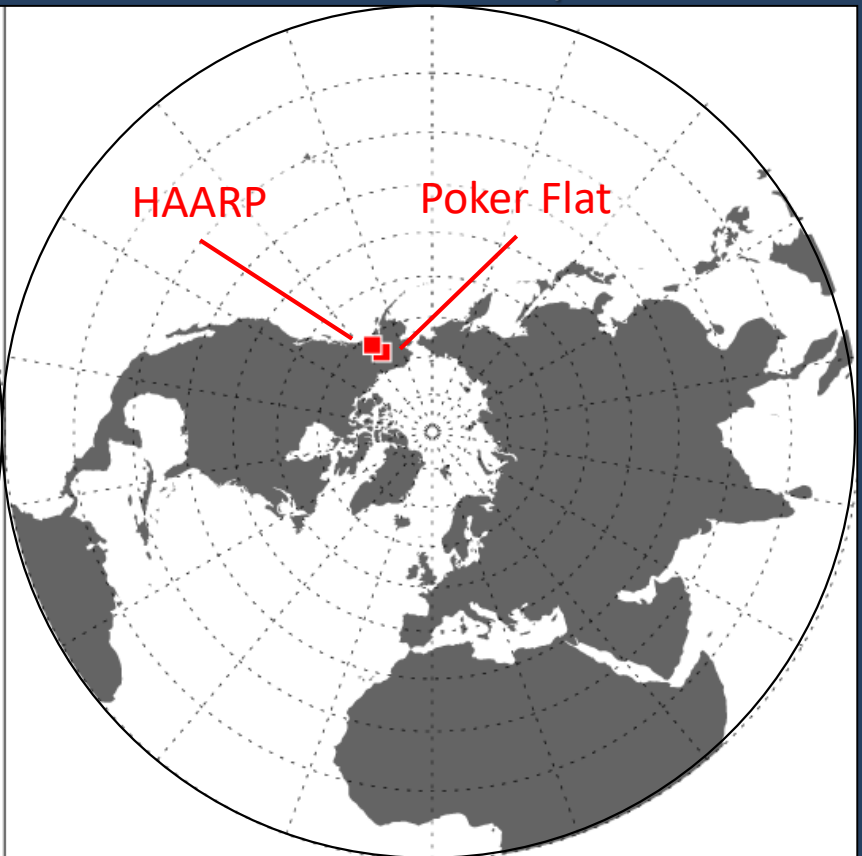


Locations of currently deployed SDI instruments.

Southern Hemisphere

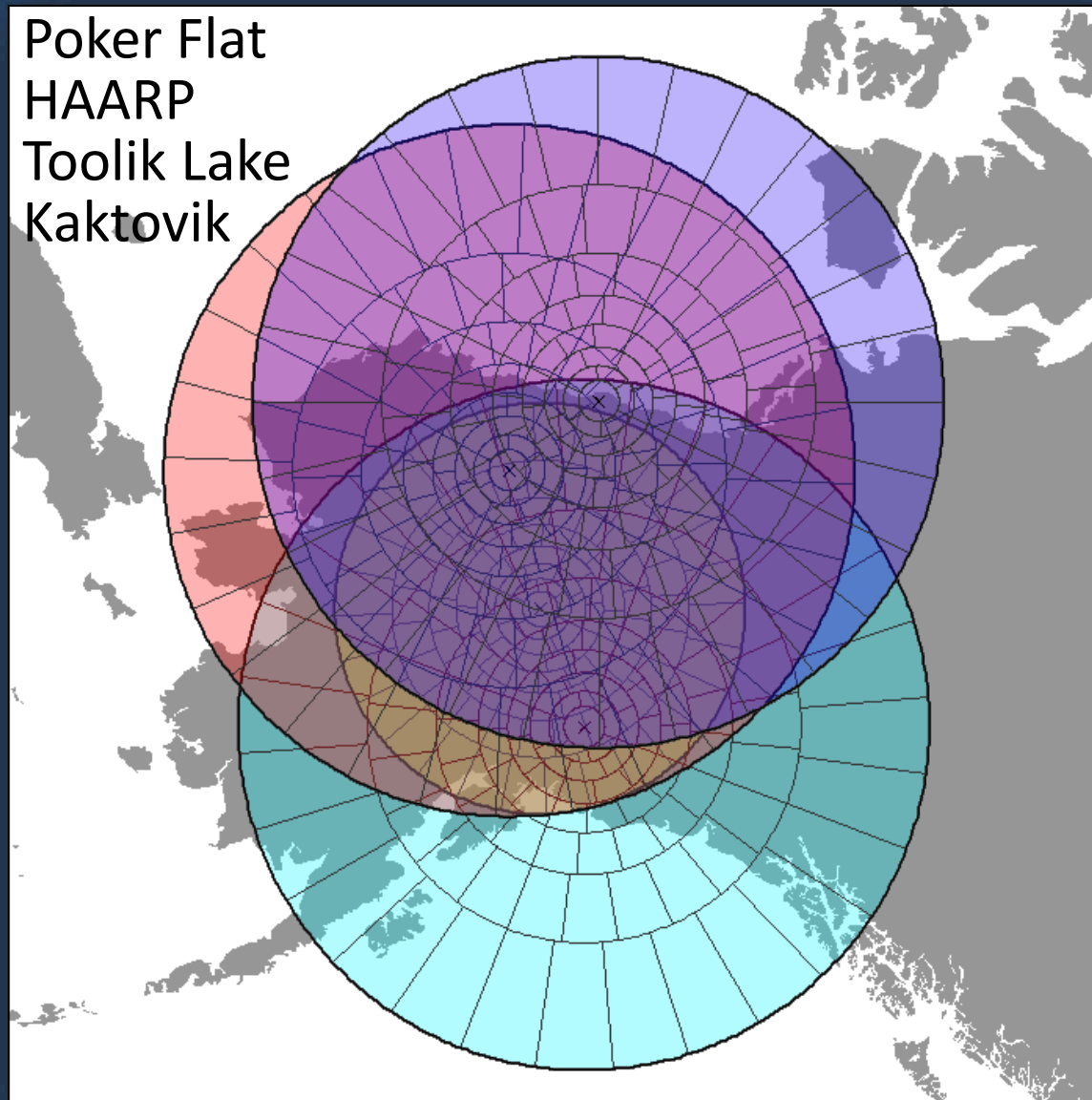


Northern Hemisphere





# Future Deployments





PLEASE DO NOT  
ENGINES HERE.  
NO FRESH AIR  
IS NEARBY

AUTHORIZED  
PERSONNEL  
ONLY

AUROPAL  
TELEVISION OBSERVATORY

GEOPHYSICAL INSTITUTE  
UNIVERSITY OF ALASKA  
FAIRBANKS, ALASKA

NO PARKING

AURORAtrailers

## What we need:

- A level space for the trailer
- Not too much light pollution
- Power – enough to run some baseboard heaters, a computer, various low-power electronics
- Internet – for remote access, data downloads; doesn't need to be high-speed
- Occasional technical support – rebooting a computer, checking on a laser, etc.