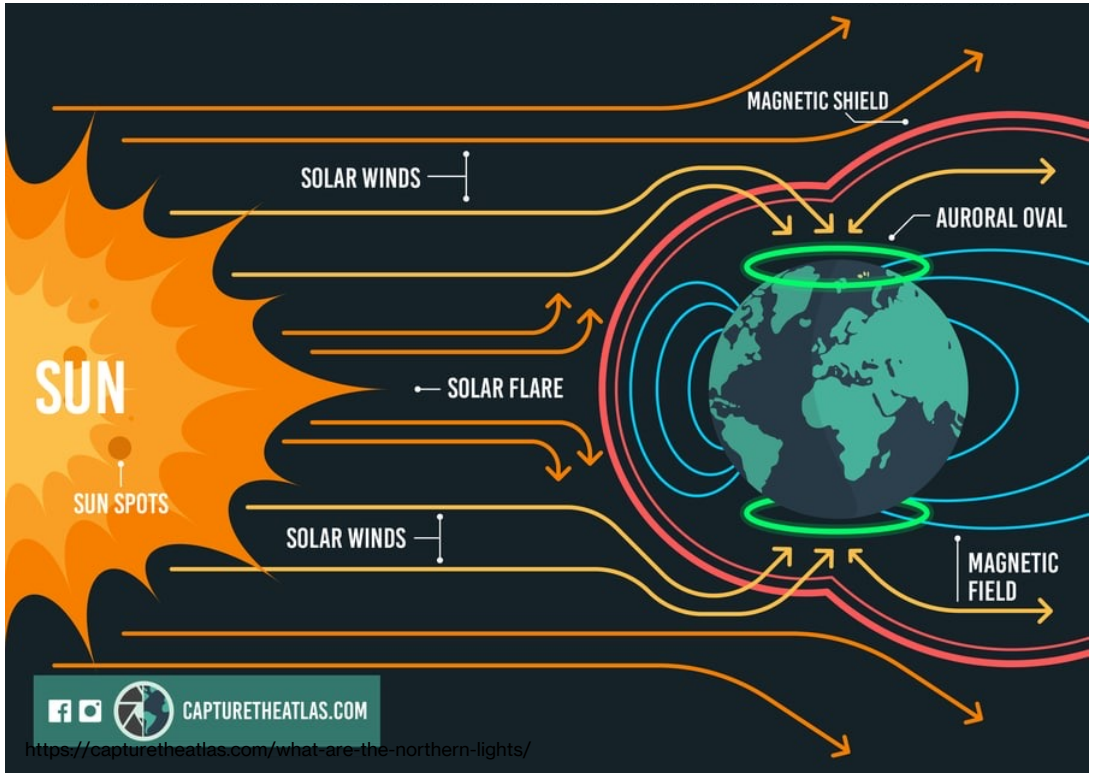
CHASING THE AURORA

Multispectral Study of Sunlit Aurora Using HiT&MIS: Deployment and Preliminary Results

Charmi Patel

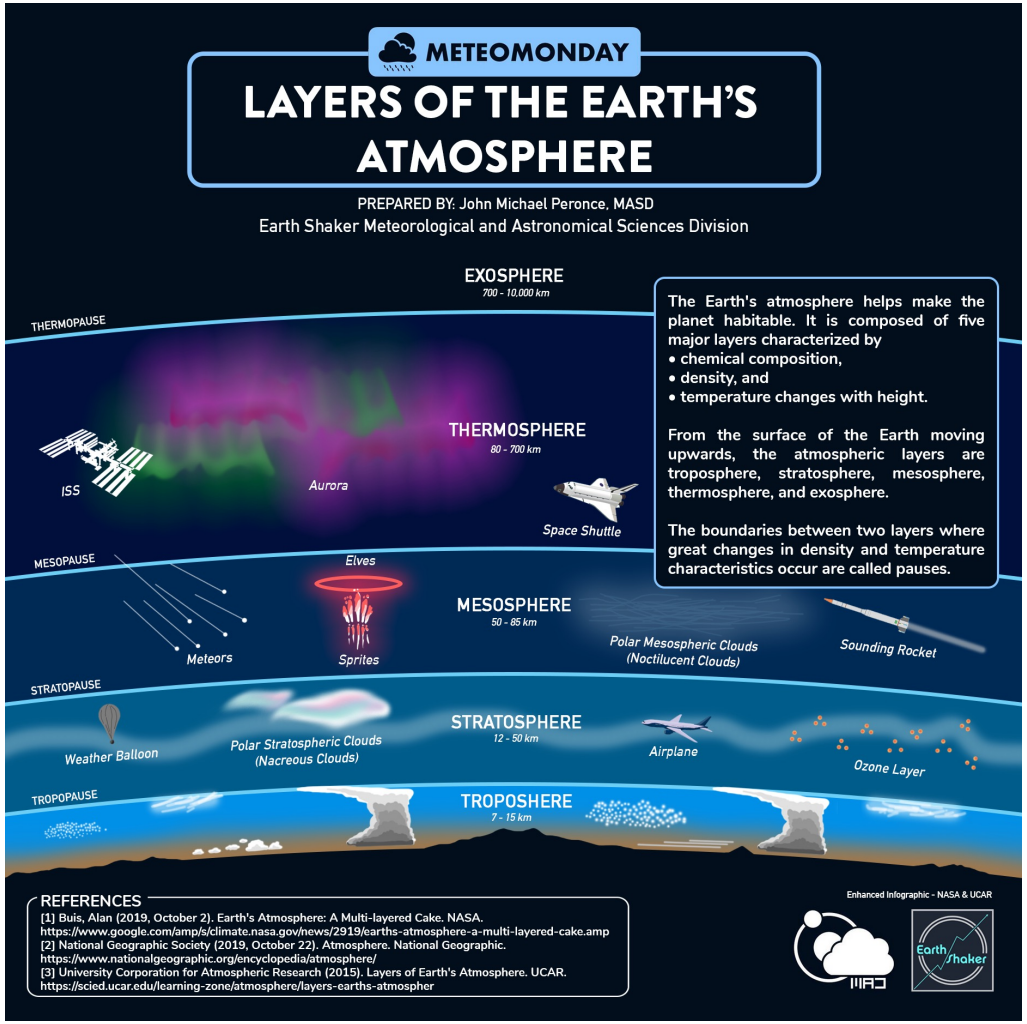
WHAT IS AURORA?

Magnetized particles from the sun interact with the earth's atmosphere to create aurora



https://capturetheatlas.com/what-are-the-northern-lights/

WHY DO WE CARE?

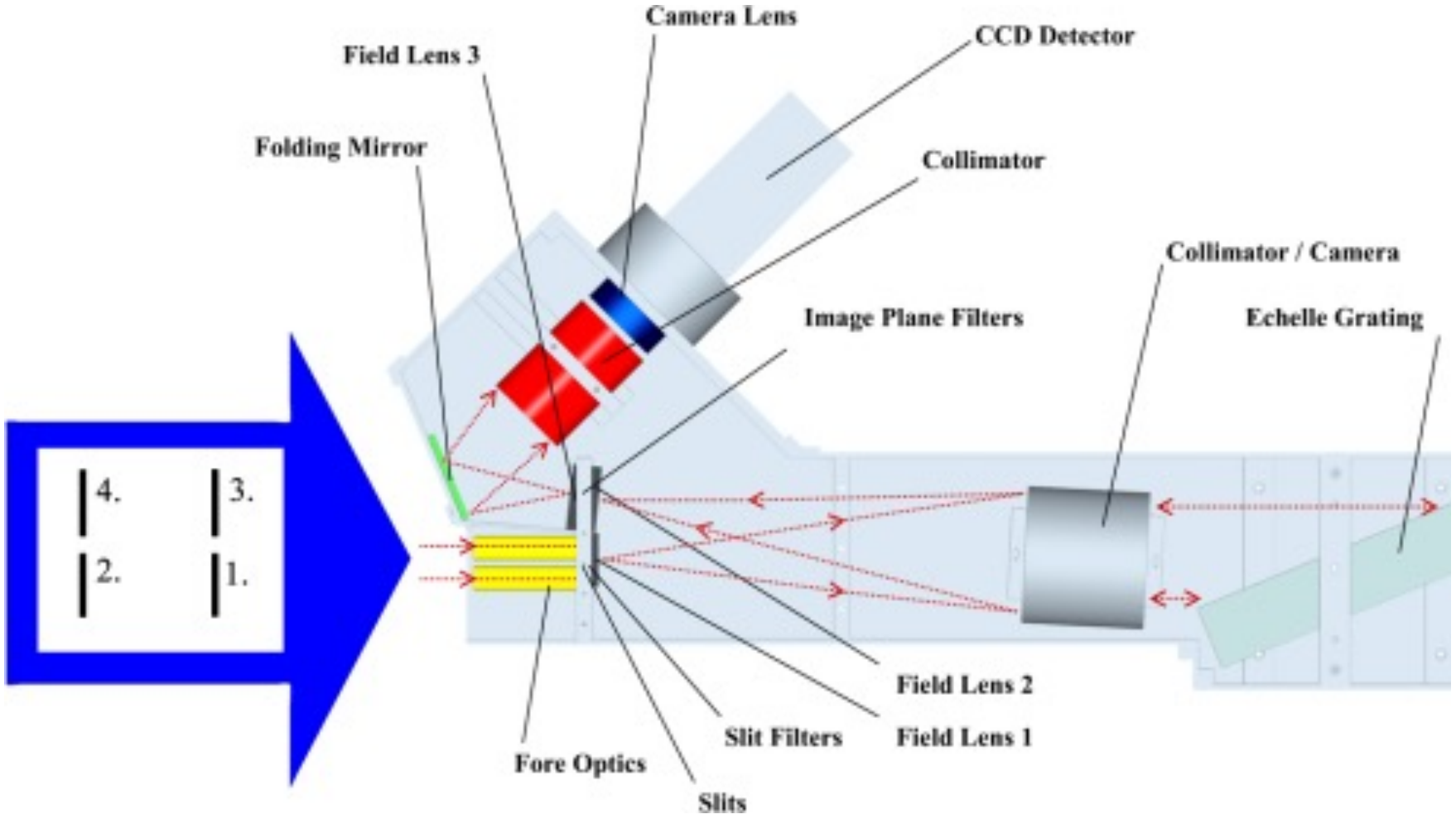


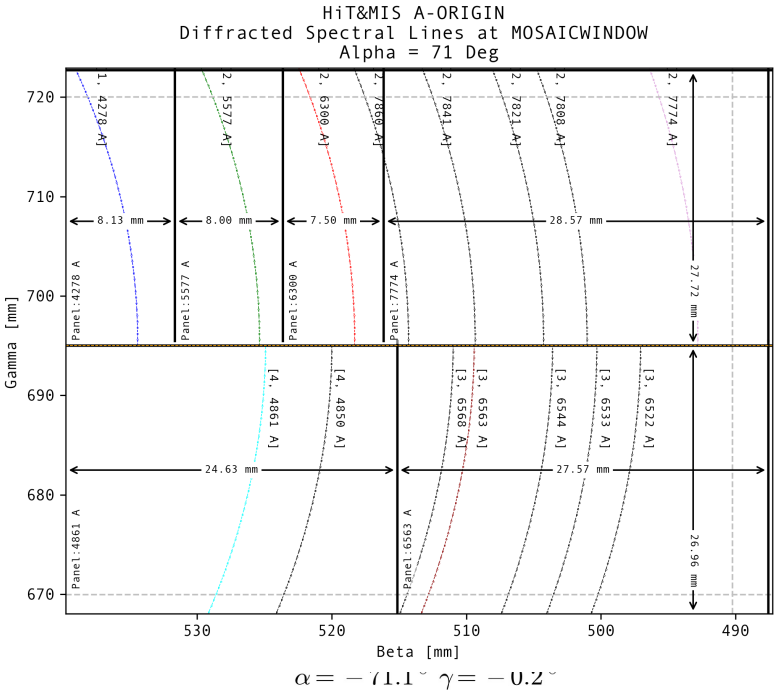
THE RESEARCH GAP

- Nighttime aurora are extensively studied through spectrographs, imagers, etc.
- Daytime aurora is difficult to observe because of the bright solar background

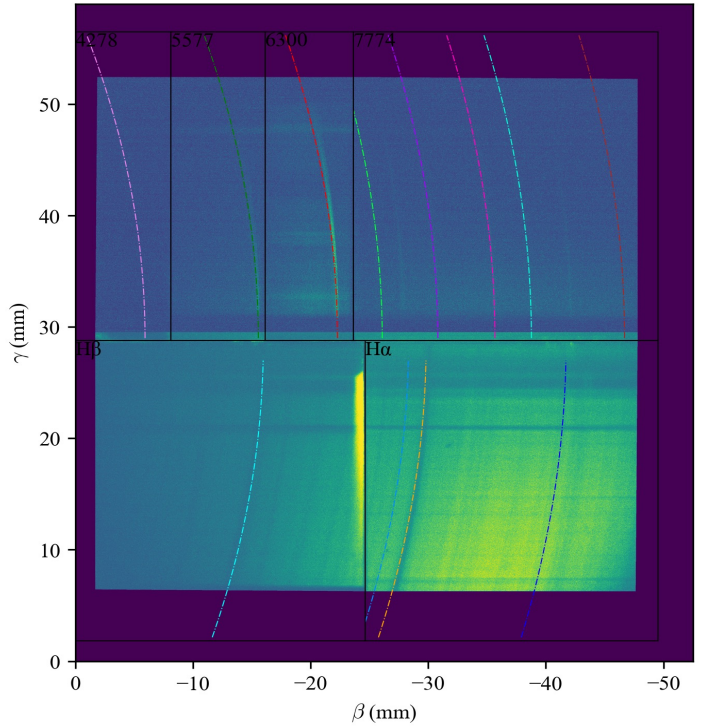
HiT&MIS

- **Hi**gh **T**hroughput **& M**ultislit **I**magining **S**pectrograph overcomes this issue with high resolution
- It is currently deployed in Kiruna, Sweden (Arctic Circle)

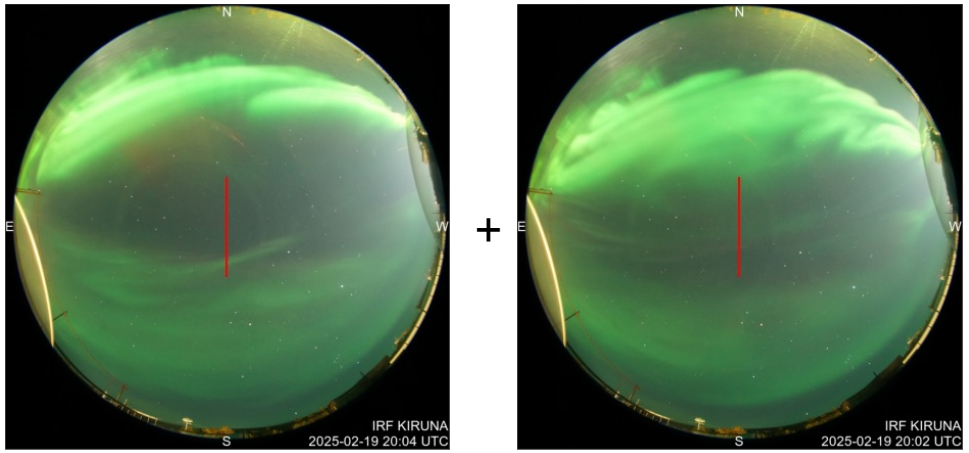




$\alpha = -71.1^{\circ}\ \gamma = -0.2^{\circ}$



FIRST GLANCE



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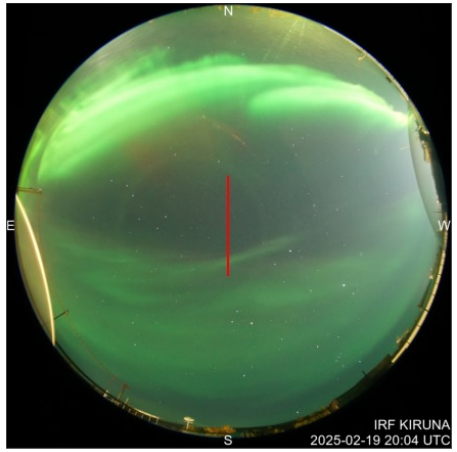

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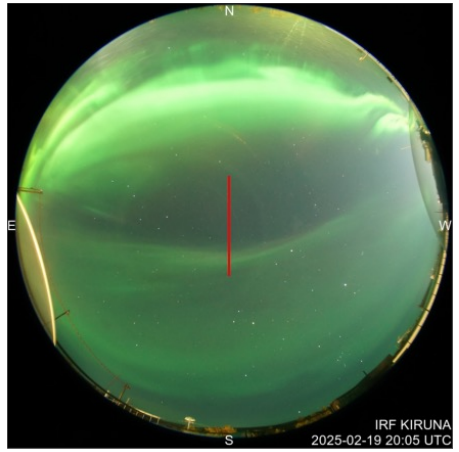

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