



Hyperspectral Thermal Emission Spectrometer (HyTES)

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JPL developed a thermal infrared imaging spectrometer with high spatial and spectral resolution to provide precursor thermal infrared data for the NRC Recommended HypIRI mission. Engineering flights are completed. JPL is now preparing HyTES for science campaigns.

Key enabling JPL technologies:

- **Dyson spectrometer:** small form factor with high throughput, self-baffling
- **Quantum well Infrared photodetector:** high uniformity and yield
- **Precision slit:** enables low distortion and provides additional baffling
- **Concave diffraction grating:** low scatter, high efficiency

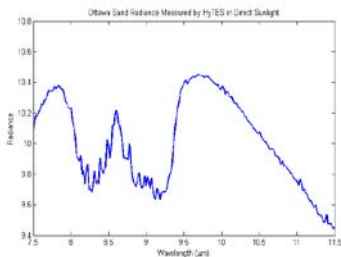
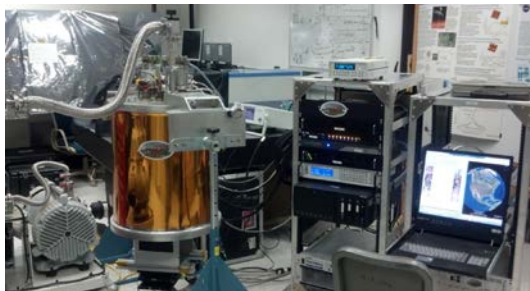


Arriving at Grand Junction

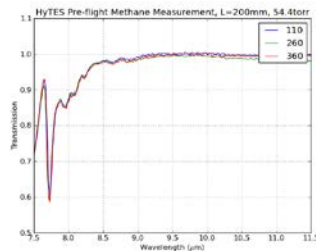


Successful delivery and integration of HyTES on Twin Otter

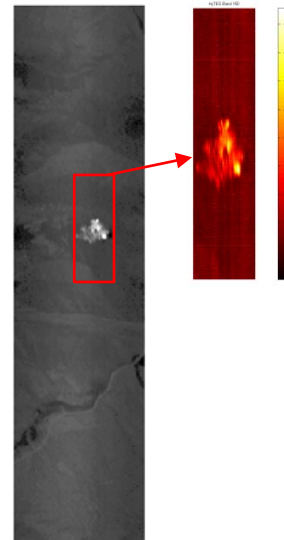
Final preparations before flight.



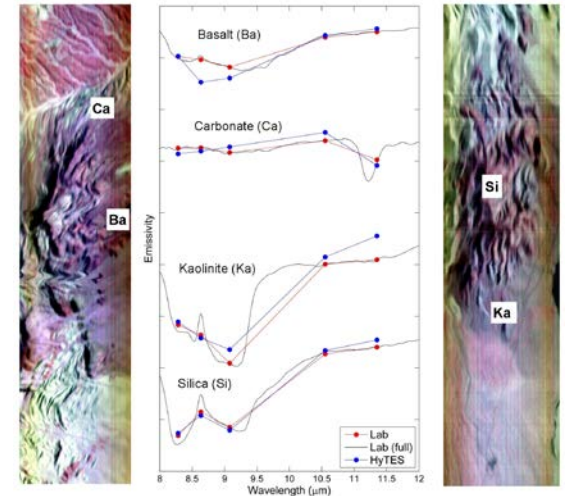
Quartz in direct sunlight



Methane Detection



Fire/Hot Spot detection



Mineralogical Identification