

National Aeronautics and Space Administration
Goddard Space Flight Center

Landsat 8 OLI, NEON, UAz RadCaTS, RSP intercomparisons

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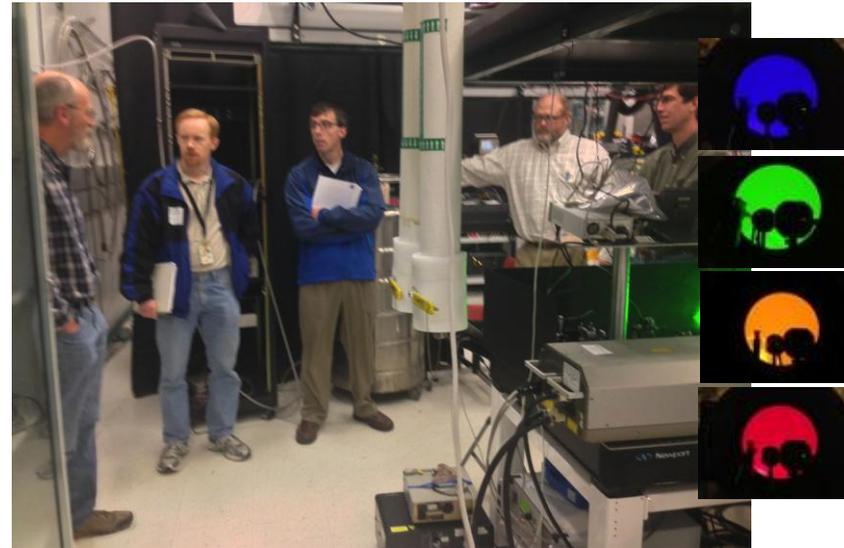
FIG. 33 Illustrating the concept of radiance and the relationship.



Recent

- JPSS-1 VIIRS
 - Thermal vacuum testing started July 17
 - Laser-based calibration post TV

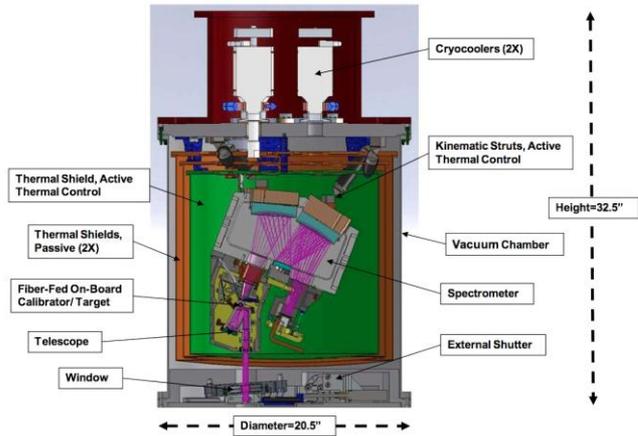
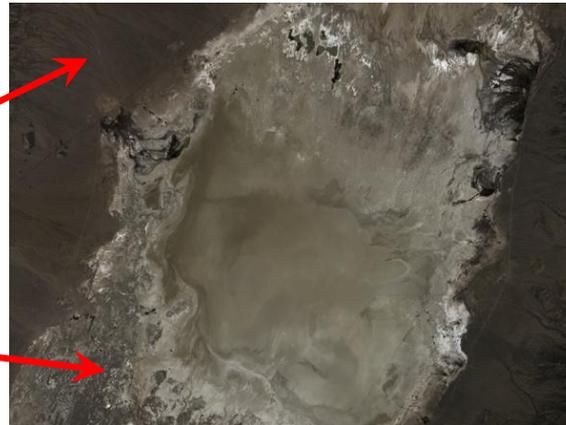
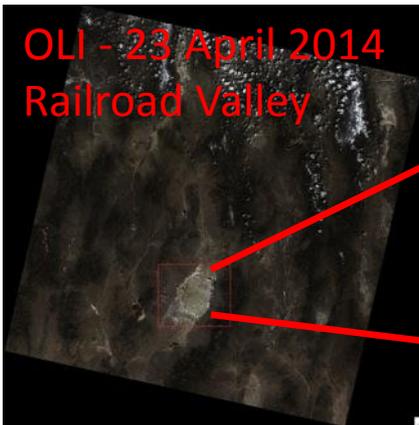
- CLARREO pre-phase A
 - Reflectance retrieval development
 - Laser-based calibration development





NEON and Landsat

Sensor	Overpass time (UTC)	Altitude (m AGL)
NIS (NEON)	18:17	997 m
Landsat 8 OLI	18:21	705 km
NIS (NEON)	18:22	1001 m



NEON Imaging Spectrometer

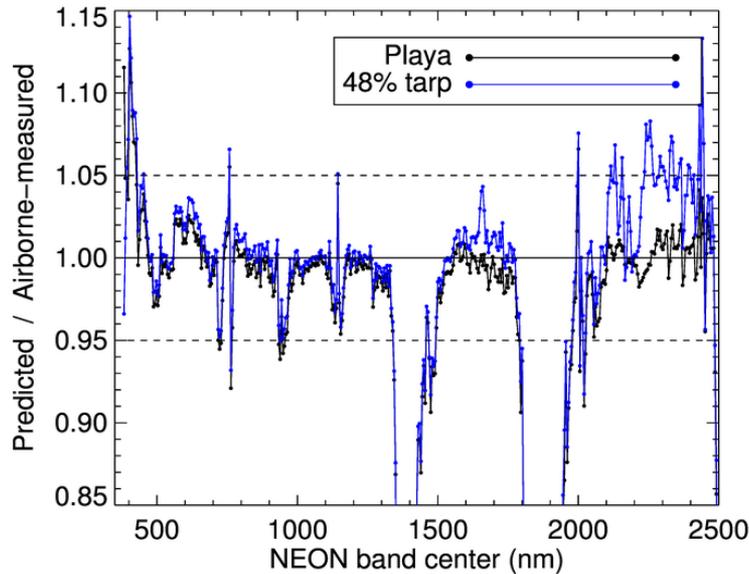
- 350-2500 nm range
- 5-nm sampling
- 1-m res @ 1-km AGL
- 34° full field-of-view



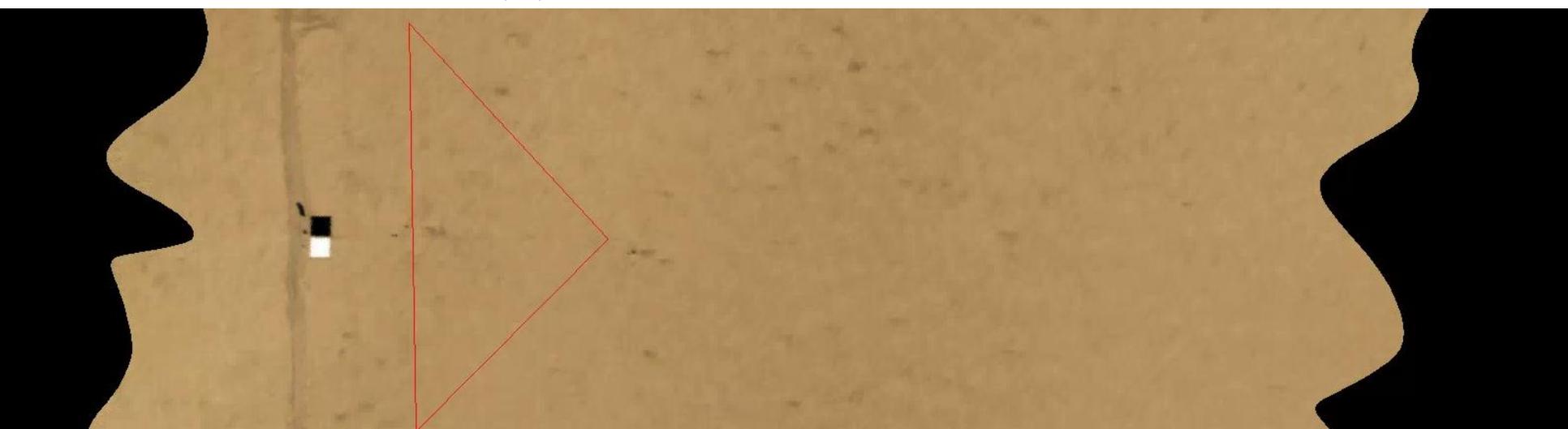
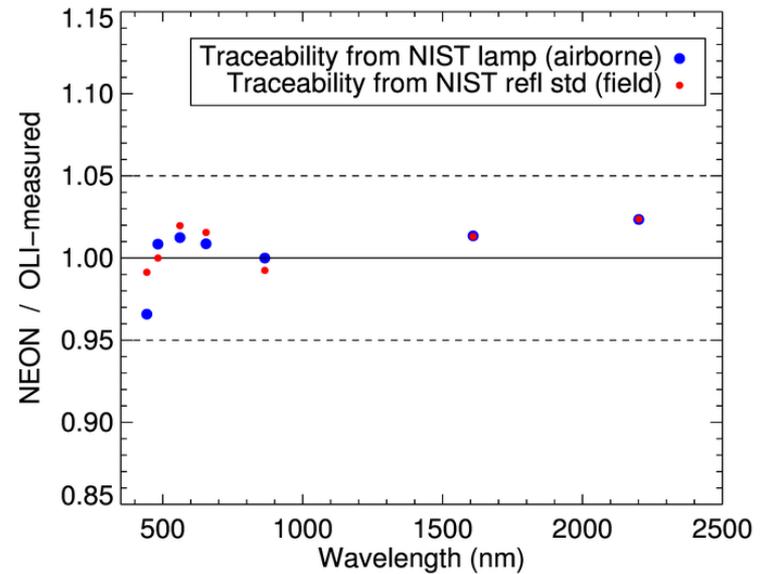
NEON in situ reflectance retrieval

23 April 2014, Railroad Valley

How well does NEON laboratory calibration agree with flight results?



How well does NEON traceability to NIST agree with Landsat OLI?



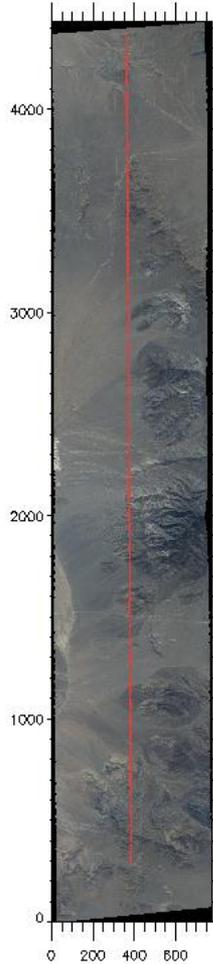


GISS-RSP, AVIRIS and OLI intercomparison 31 March 2014

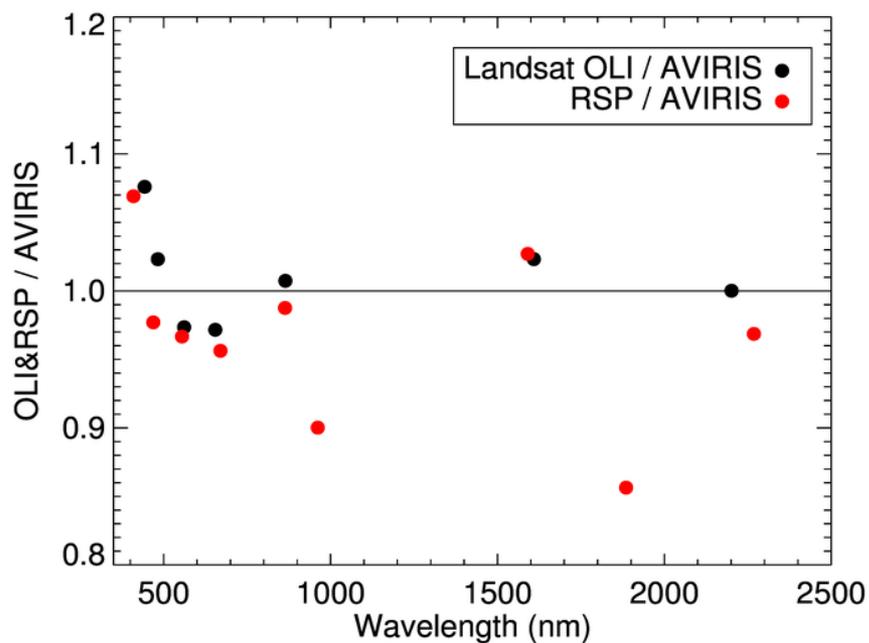
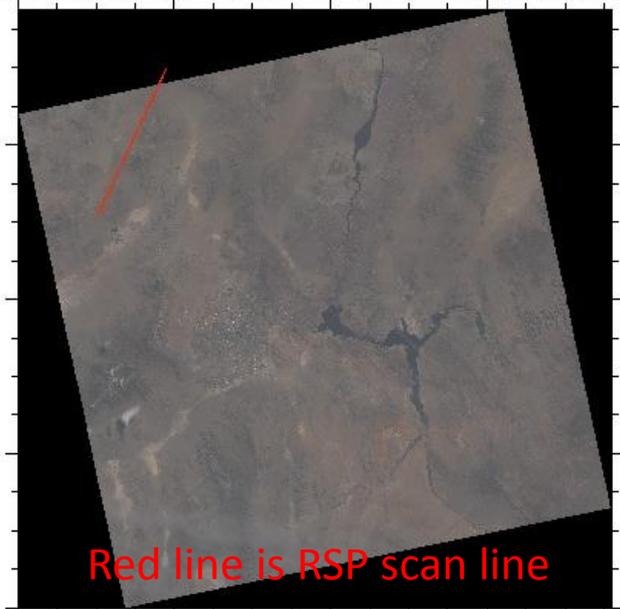
- Research Scanning Polarimeter and AVIRIS flight during SEAC4RS
- Coincident measurements with Landsat on 31 March 2014



AVIRIS 20140331 18:13-18:20UTC



Landsat OLI 20140331 18:16UTC





RadCaTS

Radiometric Calibration Test Site

Surface BRF

TOA spectral radiance

- Automated ground measurements for vicarious calibration
- Included as part of CEOS' RadCalNet to be in place for Sentinel 2 MSI calibration

