



S-NPP Sounder Information

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S-NPP Sounder Specifications



Spectral Coverage and Example Observations of AIRS, IASI, and CrIS

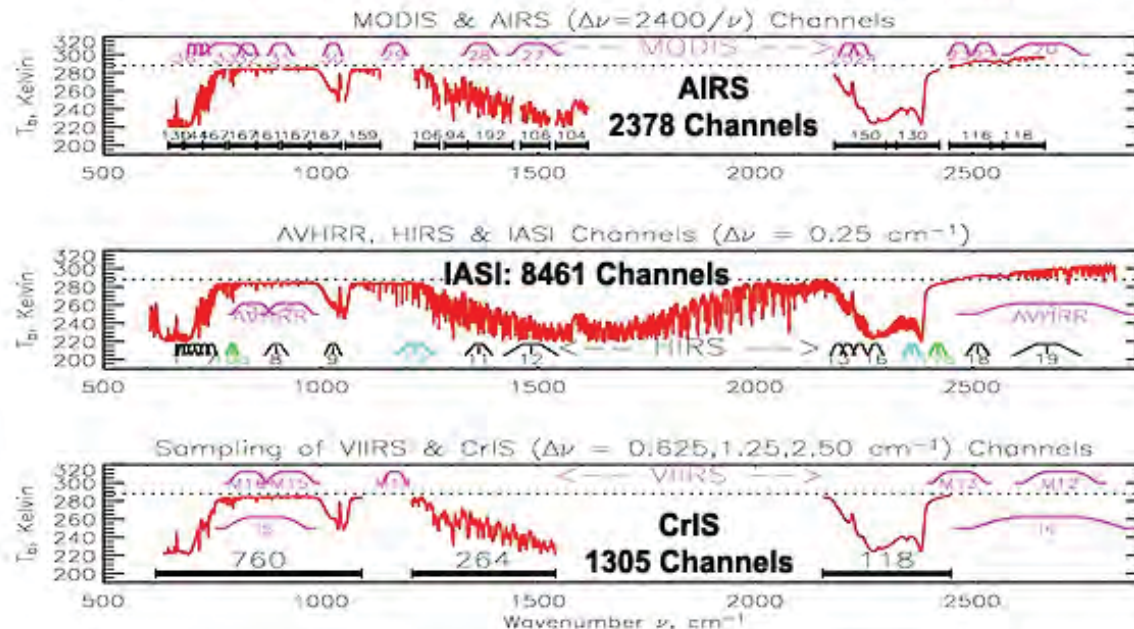


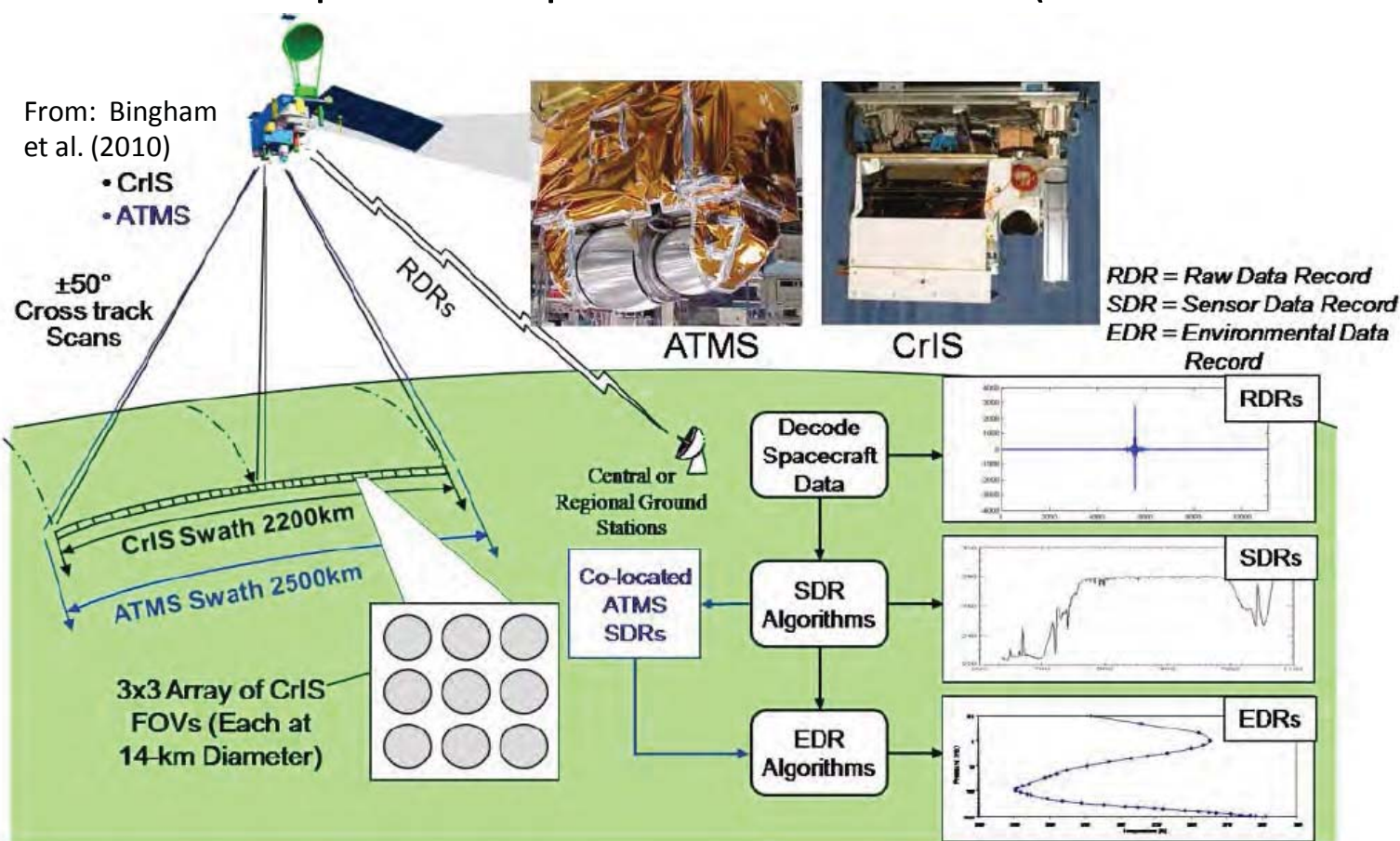
Image credit: CIMSS

	AIRS (2002-present)	IASI (2006-present)	CrIS (2011-present)
Owner	NASA	EUMETSAT	NASA/NOAA
Satellite	Aqua	Metop A/B	Suomi-NPP/JPSS (future)
Instrument Type	Grating spectrometer	Fourier transform spectrometer	Fourier transform spectrometer
Number of channels	2378	8464	1305
Wavelength range	3.7-15.4 μm	3.6-15.5 μm	3.9-15.4 μm
Spectral sampling	$\nu/\Delta\nu = 1200$	0.5 cm^{-1}	0.625 cm^{-1}
FOV Size (at nadir)	13.5 km	12 km	14 km
Swath Width	1650 km	1100 km	2200 km
Equator Crossing Local Time	1330 (ascending)	0930 (descending)	1330 (descending)

S-NPP Sounder Products



- CrIS is coupled with ATMS in a similar way that AIRS is coupled to AMSU to produce retrieved profiles of temperature, moisture, and trace gases
- Coupling with microwave sensor allows for retrievals in partly cloudy Fields of Regard (3x3 array of CrIS FOVs) to increase the number of available observations
- CDRs providing continuity of NASA atmospheric temperature, moisture, and trace gas measurement (AIRS → CrIS) will be available through the Sounder SIPS which is a partnership of JPL and GES DISC (PI: Steve Friedman, JPL)



L2 Products

- Temperature soundings
- Moisture soundings
- Aerosols
- Radiation budget
- Ozone