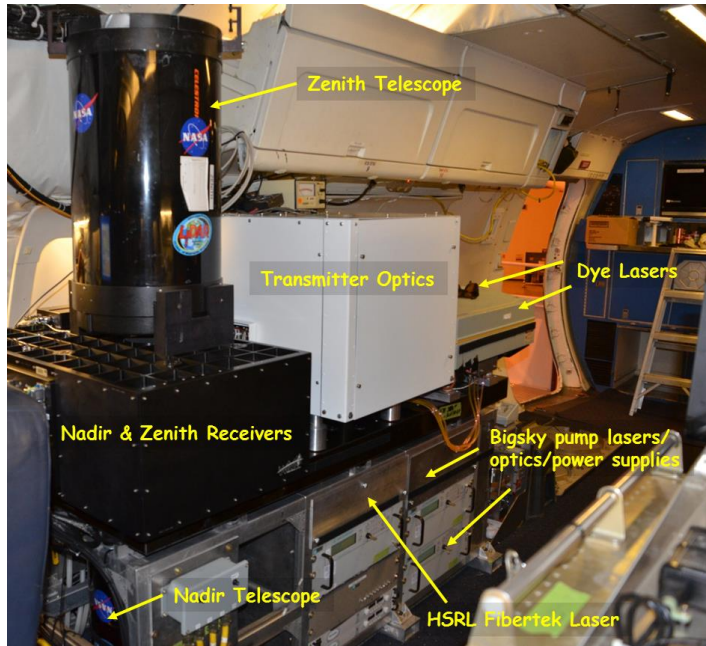


Airborne Ozone & Aerosol Lidar (DIAL/HSRL)

Instrument and Measurements

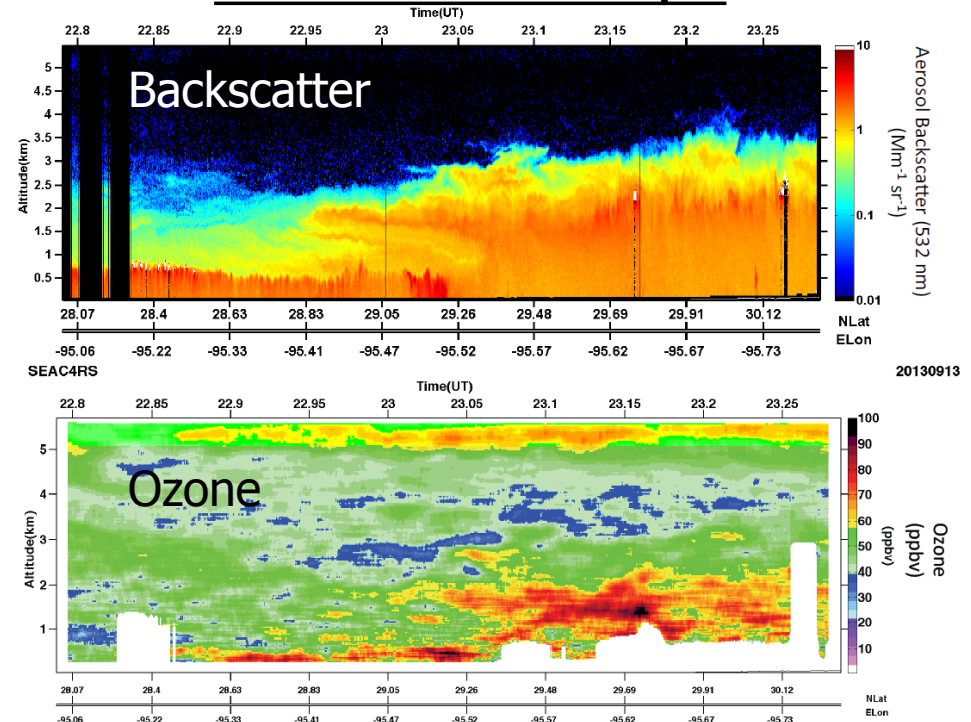


- **Ozone Differential Absorption Lidar (DIAL)**
($\lambda_{\text{on}}=290 \text{ nm}$ & $\lambda_{\text{off}}=300 \text{ nm}$)
($\Delta x \sim 12 \text{ km}$, $\Delta z \sim 300 \text{ m}$)
- **Backscatter** (355, 532, & 1064nm)
($\Delta x \sim 1 \text{ km}$, $\Delta z \sim 30 \text{ m}$)
- **Extinction** (532nm) ($\Delta x \sim 1 \text{ km}$, $\Delta z \sim 30 \text{ m}$)
- **Depolarization** (355, 532, 1064nm)
($\Delta x \sim 1 \text{ km}$, $\Delta z \sim 30 \text{ m}$)
- **Simultaneous Nadir and Zenith Profiling**
- **Real-time data display and downlink**

Team Members

Johnathan Hair, Richard Ferrare, Amin Nehrir, Chris Hostetler, Anthony Notari, James Collins, Carolyn Butler, Marta Fenn, Sharon Burton, Amy Jo Scarino

Measurement Example



High resolution DIAL-HSRL measurement flying over the Houston region on the DC-8. Red line shows transition from water to land.