



CALIOP, on CALIPSO



EARL



Sky above EARL, during lidar data run



PEARL

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Prior Research:

- Observing the effect of clouds and rainstorms on stratification in the PBL with micropulse lidar (EARL)
- Measuring concentration of the stratospheric aerosol layer after volcanic eruptions over time with two lidars (523-nm and 1574-nm), and determining the wavelength exponent of stratospheric aerosols
- Comparing ground (EARL) and satellite (CALIOP) lidar in the PBL in a polluted urban city
- Constructing a portable eye-safe research lidar (PEARL) and creating Matlab data analysis scripts

Current Research:

- Comparing organic aerosol measurements in aircraft campaigns (DC3 and SEAC4RS)
- Optimizing depolarization and short-range receiver on the portable eye-safe research lidar
- Determining aerosol entrainment into PBL from free troposphere with micropulse lidar

Research Interests:

- Effects of aerosols on cloud-formation, especially as affecting severe storms, weather, and climate
- Comparing ground, aircraft, and satellite data for better understanding of aerosol phenomena

