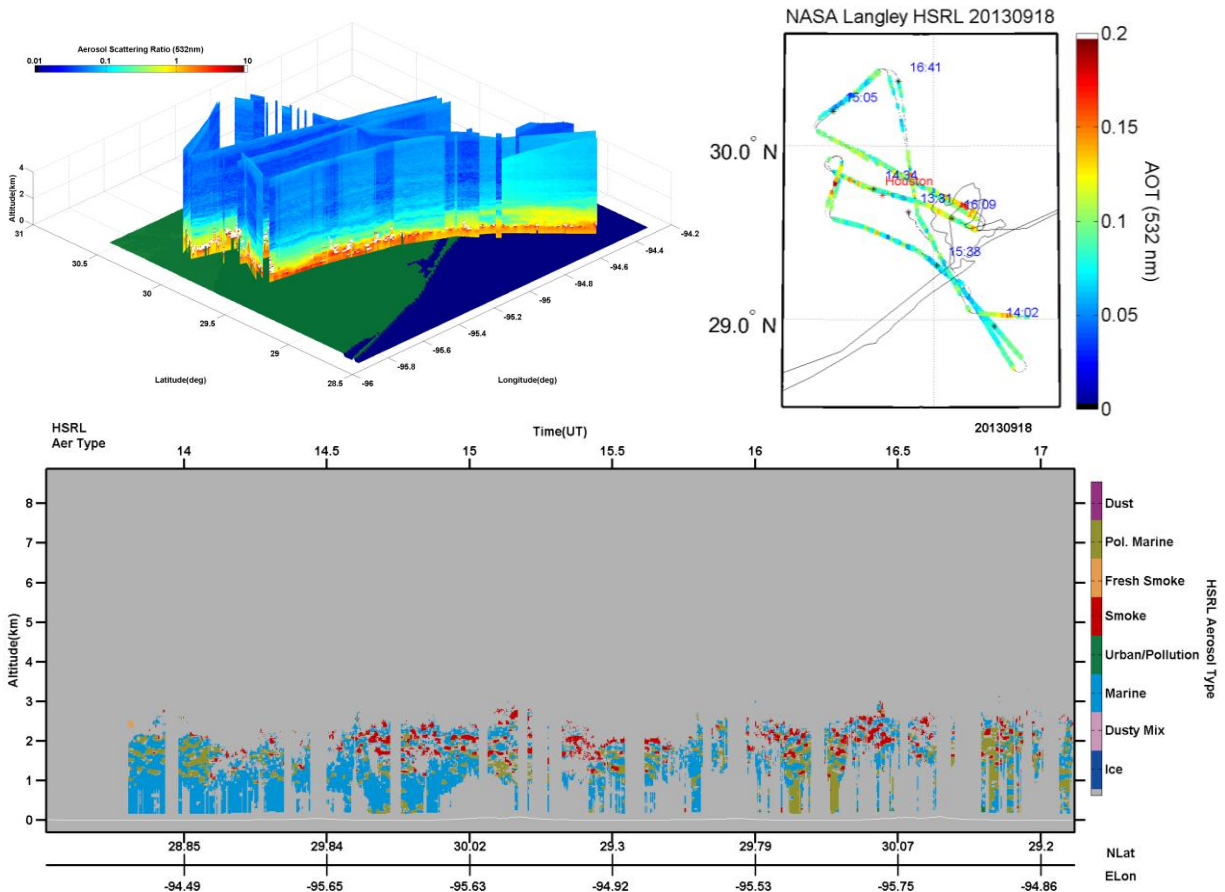


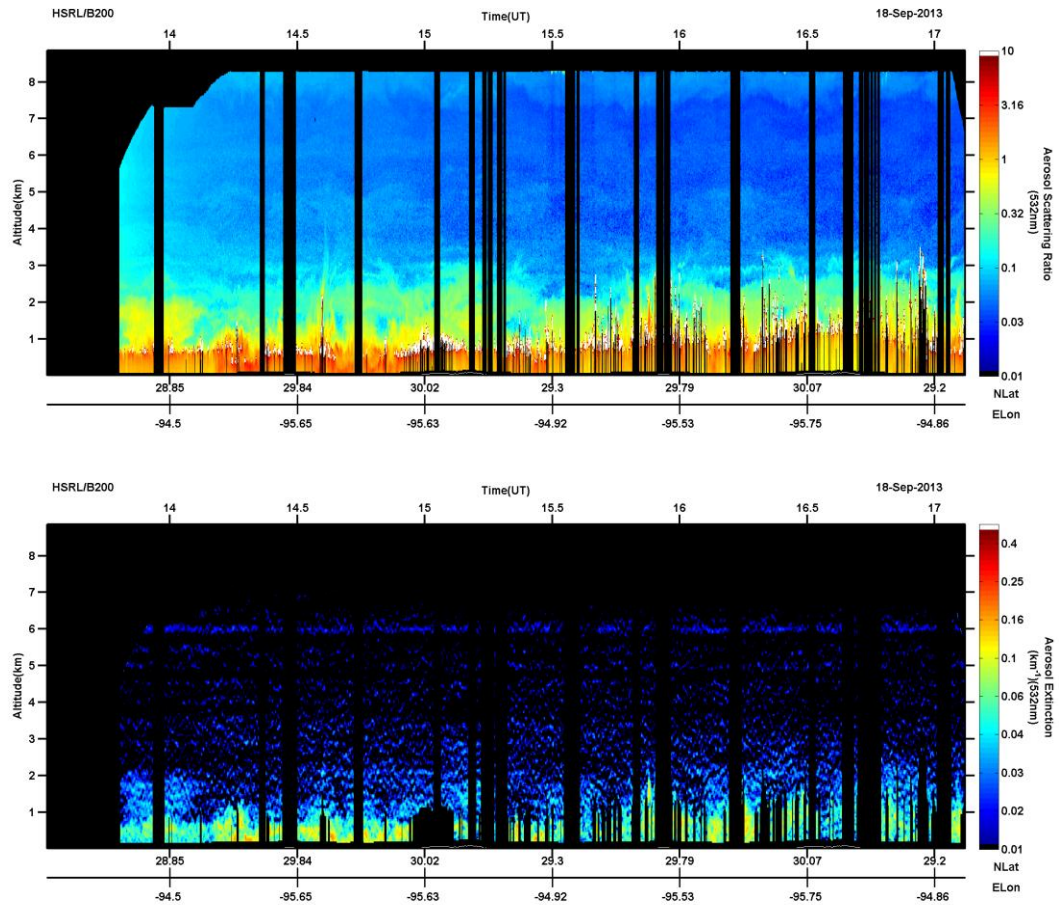
DISCOVER-AQ HSRL Data Summary

FLIGHT: Morning science flight (1 of 2)
DATE: September 18, 2013

SUMMARY:

This morning's HSRL-2 observations were characterized by low aerosol loading of approximately 0.1 or less for most of the flight, except for a brief observation of enhanced aerosol over Galveston Bay on the second loop that had comparatively high lidar ratio and low wavelength dependence (i.e. bigger particles) indicative of a mixture of marine and pollution. Boundary layer heights were low (~1km) throughout the flight pattern on the first pass, but began to rise on the second pass.





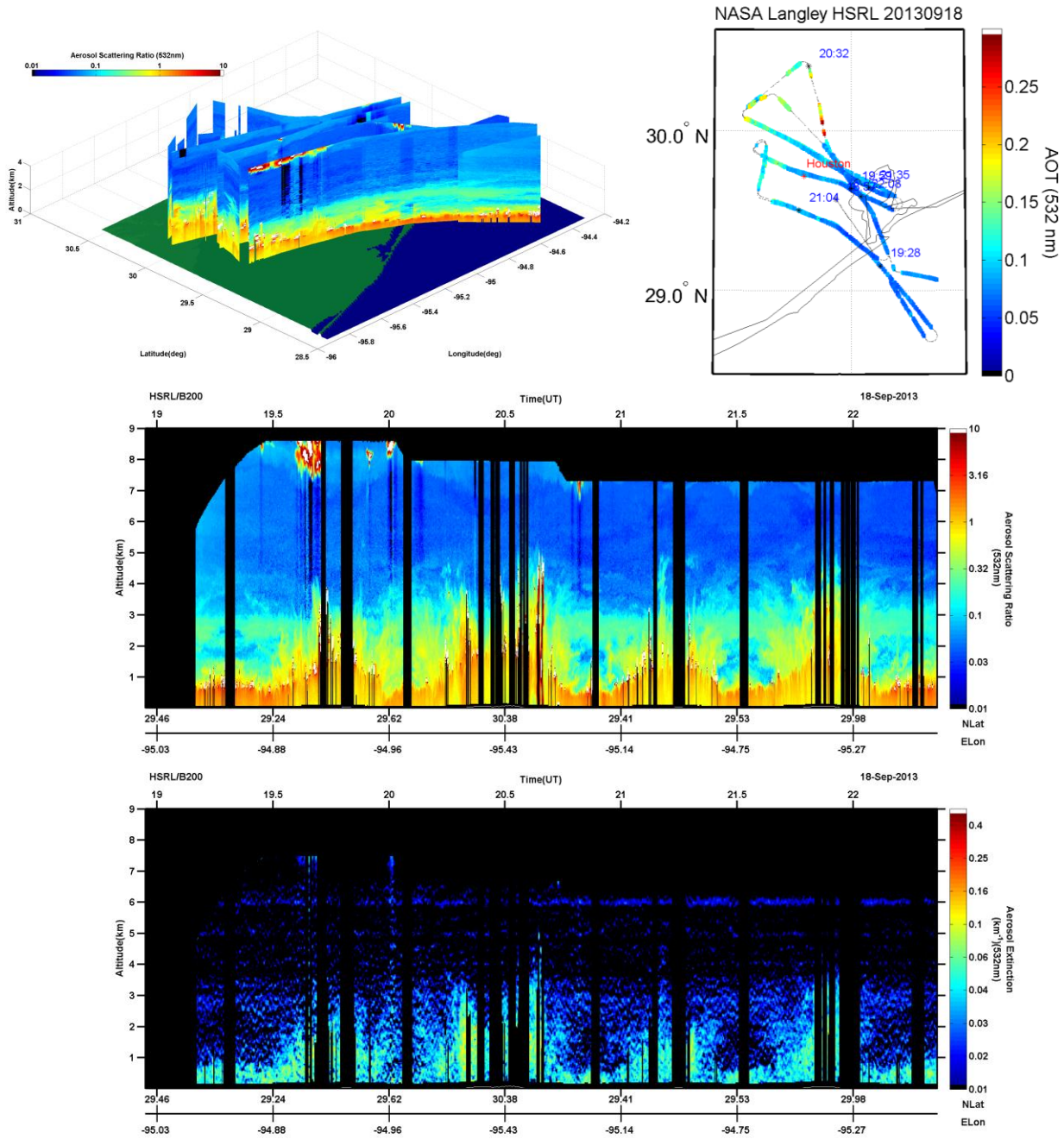
Operator Flight Notes, Flight # 1:

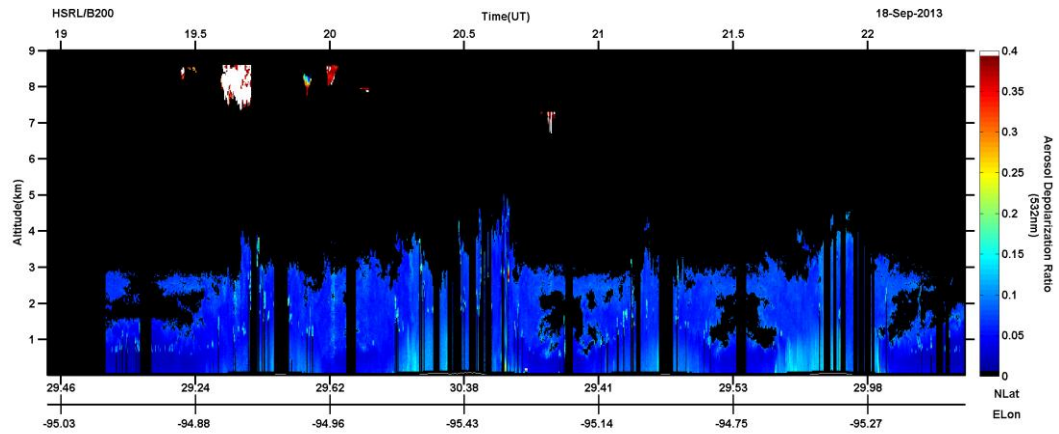
- Tuning INF 1453 to 1457 UTC
- OAC, PGR, I2 calcs at 1513 UTC, new 355 nm OAC value did not auto update, manually entered
- INF tuning 1519 to 1527 UTC, at end of PZ range, moved over one FSR to correct
- Tuning INF 1608 to 1618 UTC
- OAC, PGR, I2 calcs at 1642 UTC
- INF cal at 1700 UTC

FLIGHT: Afternoon science flight (2 of 2)
DATE: September 18, 2013

SUMMARY:

HSRL-2 observations on the afternoon flight saw some increase in the optical depth in the North and West parts of the flight pattern, and depolarization indicating non-spherical particles in these same regions. This optical depth was mostly from the boundary layer itself, which increased in height in the afternoon, particularly in the western and northern parts of the flight pattern (West Houston, NW Harris Co., and Conroe).





Operator Flight Notes, Flight # 2:

- No P3 flying, following Disc AQ type pattern, with flight mod for ship in Glaveston Bay
- Tuning INF at 1955 to 1959 UTC
- OAC cal at 2026 UTC
- PGR, I2 cal at 2033 UTC
- INF PZ approaching limit 2048 UTC
- INF PZ at limit, waiting for aircraft turn to correct, 2111 UTC
- Tuning INF, had to unlock and move over FSR to avoid PZ limit, retuned and locked 2118 to 2124 UTC
- OAC, PGR, I2 cals at 2156 UTC
- Tuned INF 2203 to 2205
- INF IGR cal at 1015 UTC