

DISCOVER-AQ HSRL Data Summary

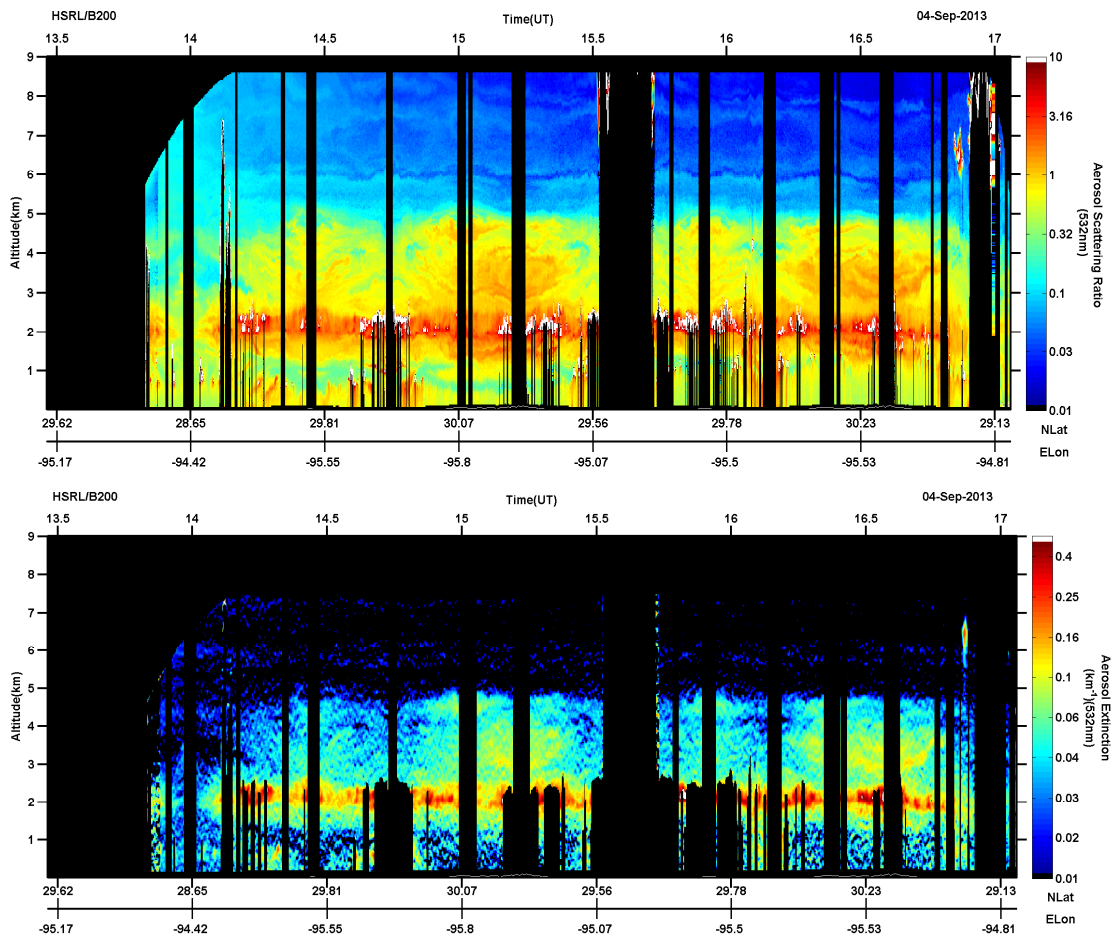
FLIGHT: Morning science flight (1 of 2)

DATE: September 4 2013

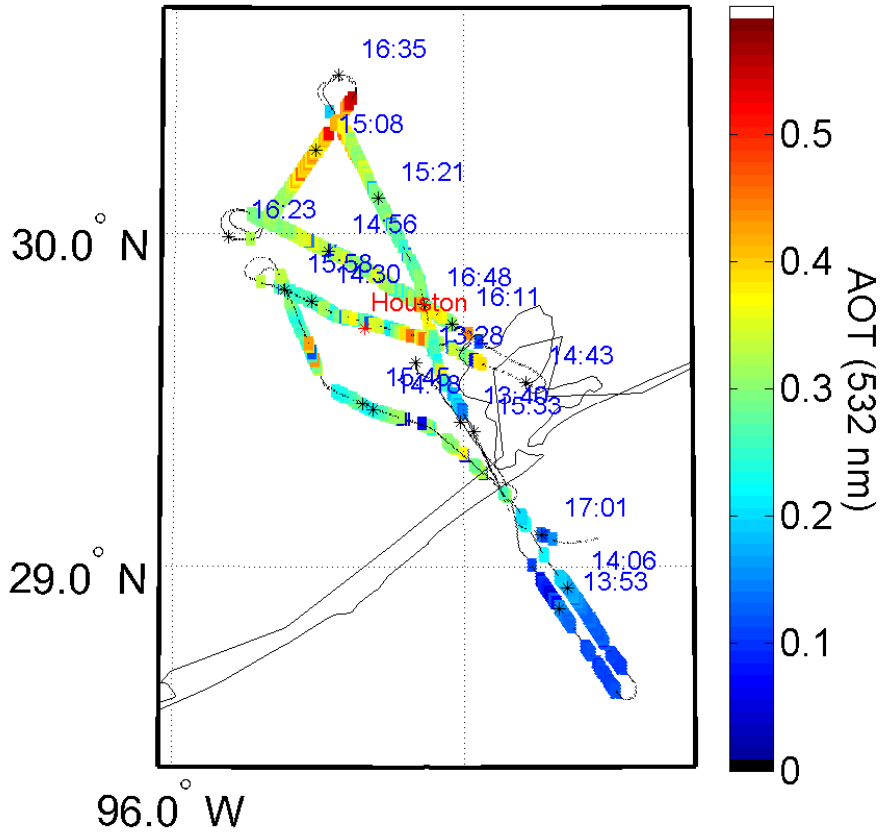
DURATION: 3.7 hours, 13:34 to 17:18 UTC

SUMMARY:

First science flight for Disc AQ, weather build-ups in the area prevented overflight of the Smith Point area and path was in the clouds over portions of the southern Houston and coastal areas. storm build-ups over Smith Point and Galveston. Completed two (truncated for Wx) DAQ patterns. There was significant aerosol loading to 5 km with what appears to be a humid layer around 2 km. AOT is calculated at 10 second resolution and extinction is calculated at 30 seconds. Extinction random uncertainty is in 5-10% range when aerosol loading is reasonable (extinction > 0.1/km).



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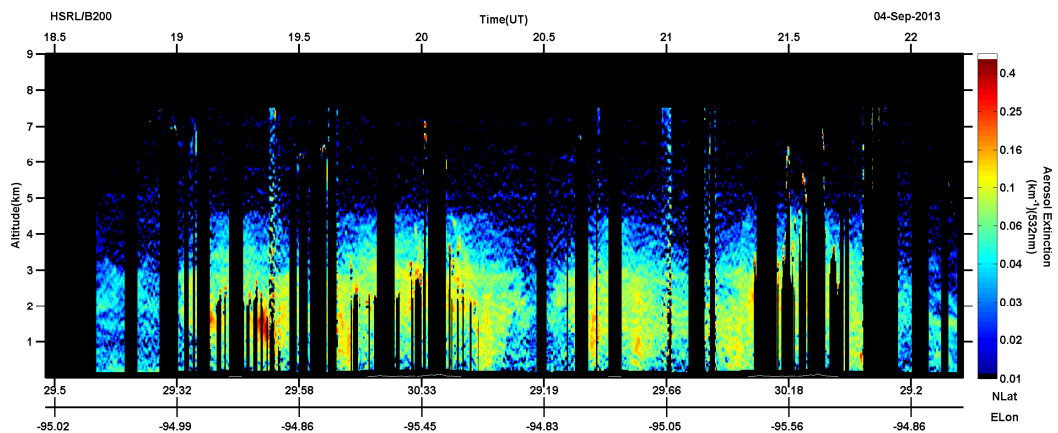
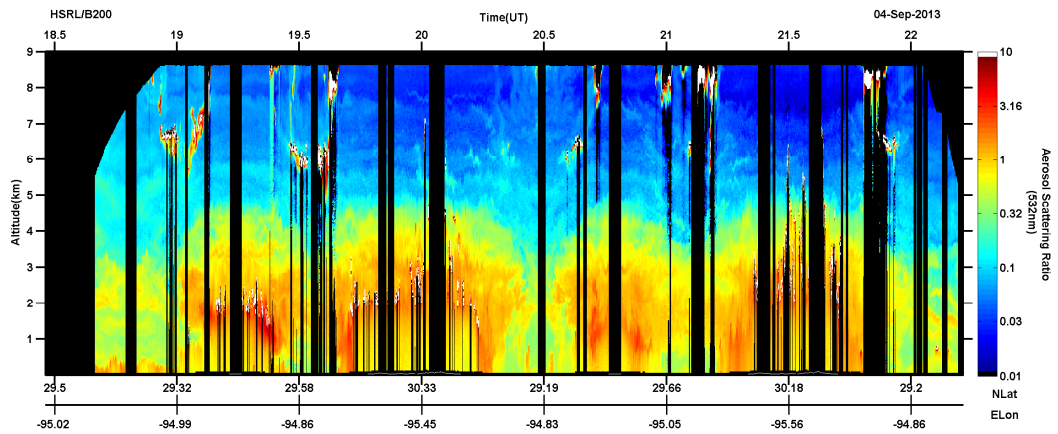


Operator Flight Notes, Flight # 1:

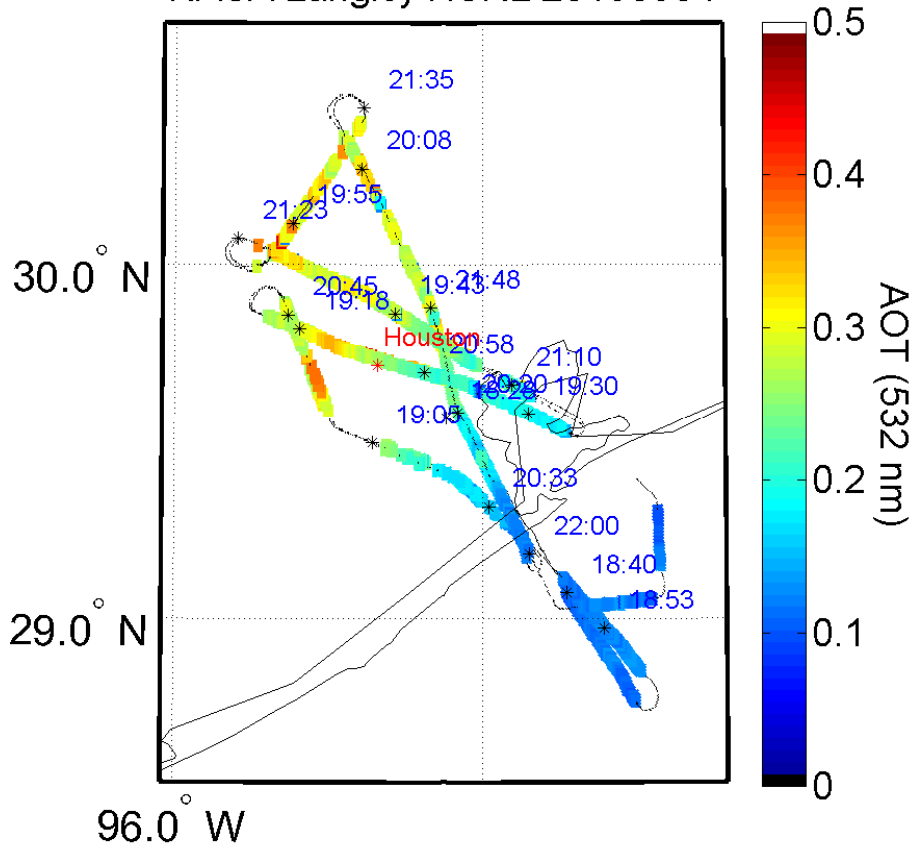
- First Science Flight for DISCOVER-AQ HOUSTON
 - GCAS FOD door wasn't opened until 19000ft.
 - optimizing INTF tilt at 1453 UTC
 - entering heavy clouds at 1531 UTC - disabled autoboesight
 - I2 cal performed at 1646 UTC - IGR cal performed at 1649 UTC.
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FLIGHT: Afternoon science flight (2 of 2)
DATE: September 4 2013
DURATION: 4.1 hours, 18:24 to 22:30 UTC
SUMMARY:

Clouds in the area persisted but did not preclude completed the entire planned path, although portions of the pattern were in the clouds. Completed two DAQ patterns. The afternoon flight shows a similar pattern with the aerosols mixed slightly more as well as increased frequency of high clouds.



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Operator Flight Notes, Flight # 2:

- optimized tilt around 1925 UTC
- I2 and IGR calcs at 2200 and 2201 UTC.