DISCOVER-AQ
HSRL Data Summary

FLIGHT: Morning science flight (1 of 2)
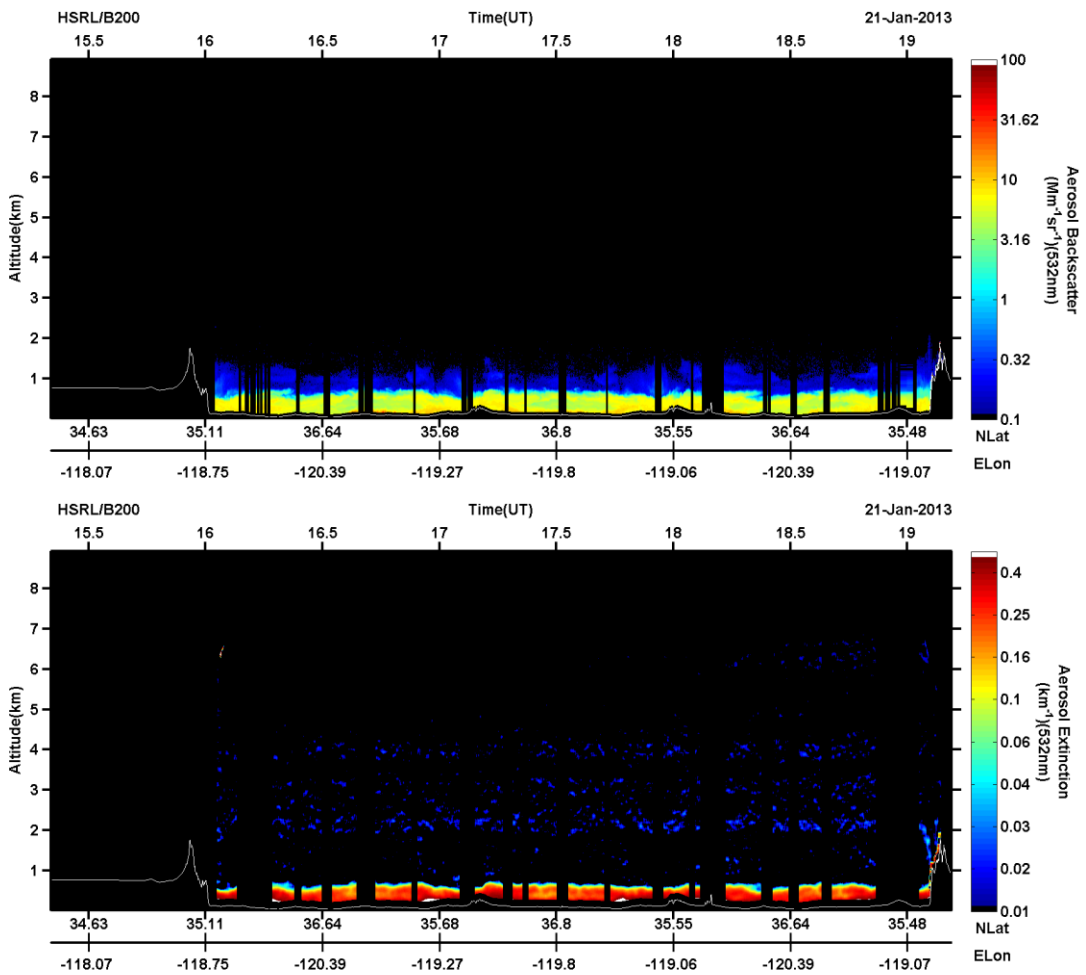
DATE: Jan 21 2013
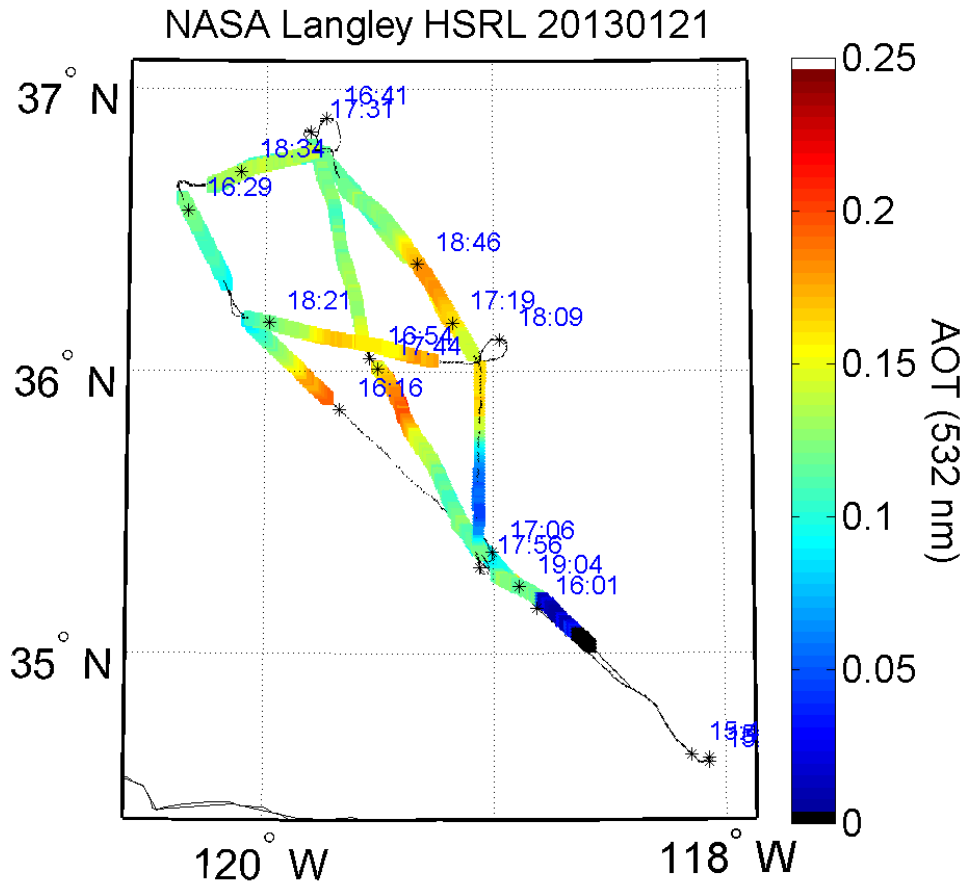
DURATION: 3.6 hours

SUMMARY:
HSRL-2 operated nominally through the flight.

SUMMARY PLOTS:

NASA Langley HSRL 20130121

Operator Flight Notes:

Date: 1/21/2013

Flight 1
- Takeoff at 15:44 UTC
- INTF in severe tilt for climb
- had problems with Tx shutters not opening. Had to cycle power to the interface board - 15:55UTC
- Tuning INTF from 16:36 to 16:50UTC (slight adjustments to maximize science contrast ratio).
- 355nm Beam Alignment tweak at 16:56UTC
- I changed the program before this flight to have the background subtraction range from 24km to 29km. The previous setting was 28km to 29km. This made the 355nm Perpendicular channel more stable (there is a DC dither in all of the detectors and seems to be the strongest in this cahnnel).
- 355nm Beam Alignment tweak ~ 17:14UTC
- INTF tuning at 18:34UTC
- Use second IGR file for INTF gain ratio calculation. First one had the locking still engaged.

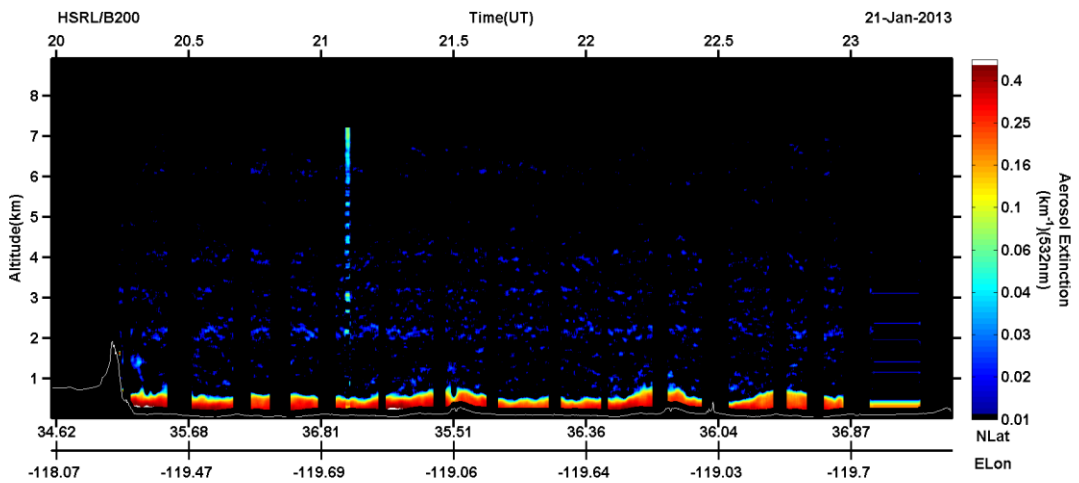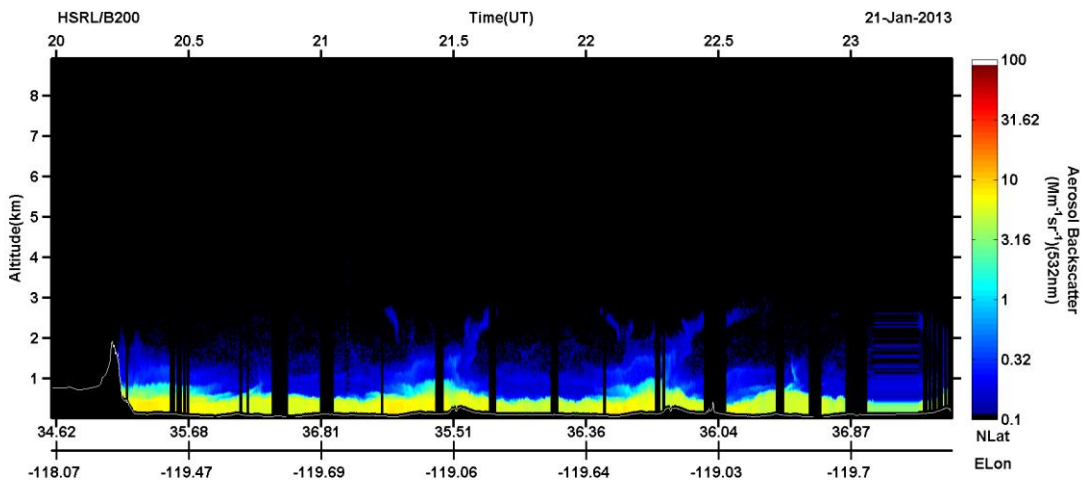- INTF put into severe tilt manually for descent at 19:02UTC for descent
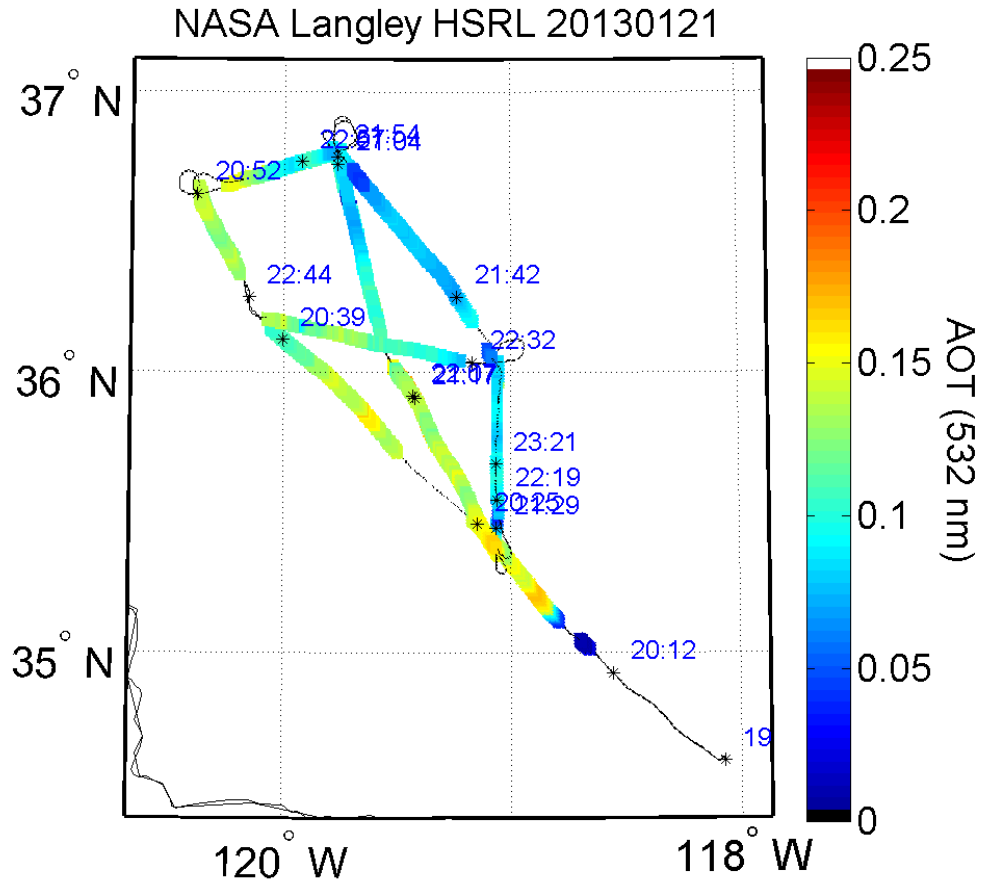
FLIGHT: Afternoon science flight (2 of 2)

DATE: Jan 21 2013

DURATION: 3.8 hours

SUMMARY: HSRL-2 operated nominally during the flight.

SUMMARY PLOTS:

NASA Langley HSRL 20130121

HSRL2 Operator Flight Notes
Date: 1/21/2013
Flight 2

- Takeoff at 20:02UTC
- INTF in severe tilt at takeoff
- Severe tilt removed at 20:29UTC
- Optimizing INTF from 20:30 t0 20:40UTC
- 355nm Beam Alignment tweak at 20:44UTC.
- INTF tweak at 20:46UTC
- Accidental 532nm beam steering over adjust at 21:05UTC
- Another accidental 532nm beam steering over adjust at 21:12UTC
- The baseline in the detectors is not flat, especially in the 355nm channels. The 355nm perp channel seems to have the largest variation (+/- 2counts max: profile to profile)
- Successful IGR cal completed

- INTF placed in severe tilt for descent at 23:25UTC