

TO: Suborbital Science Program
NASA Headquarters
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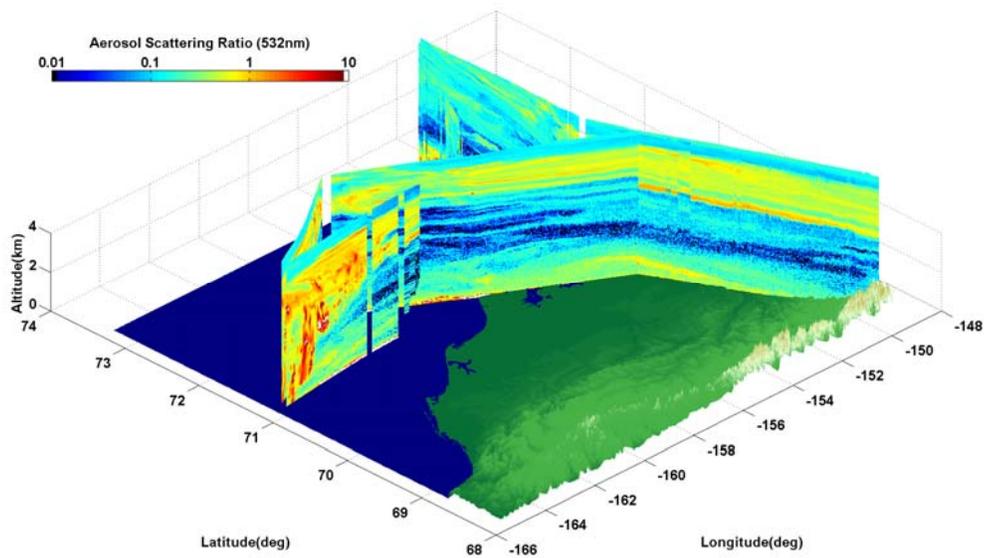
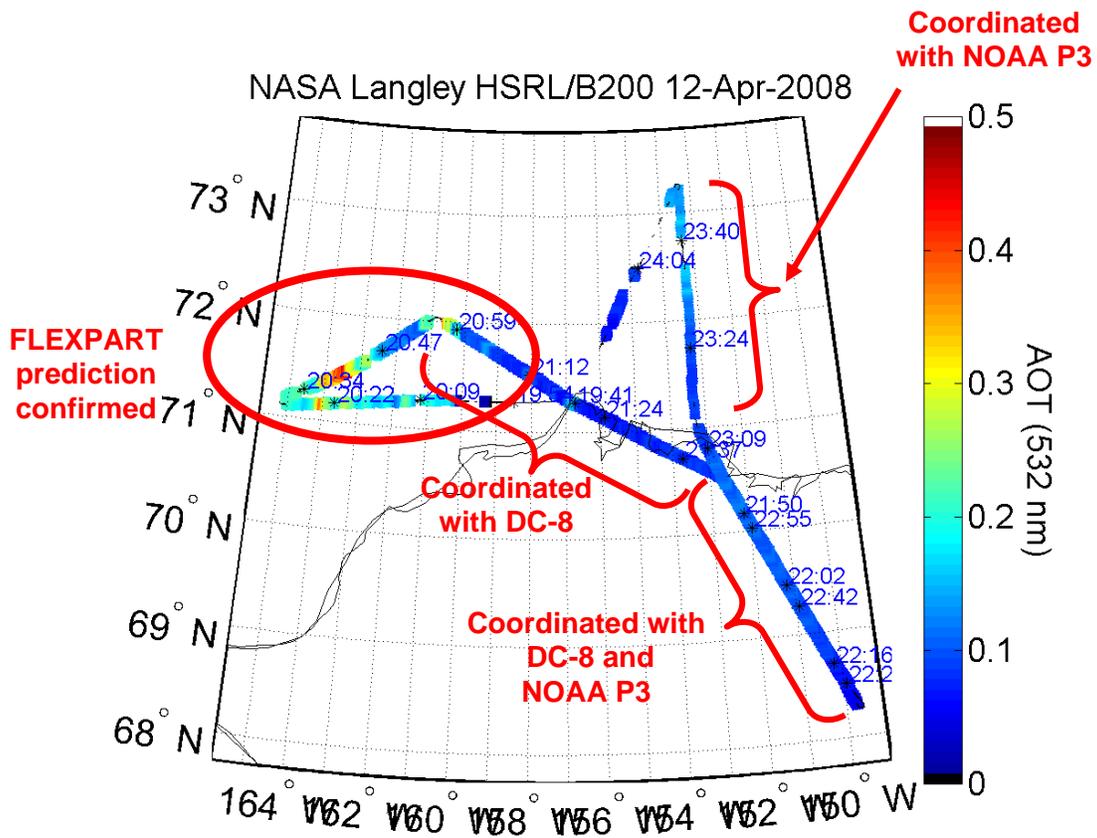
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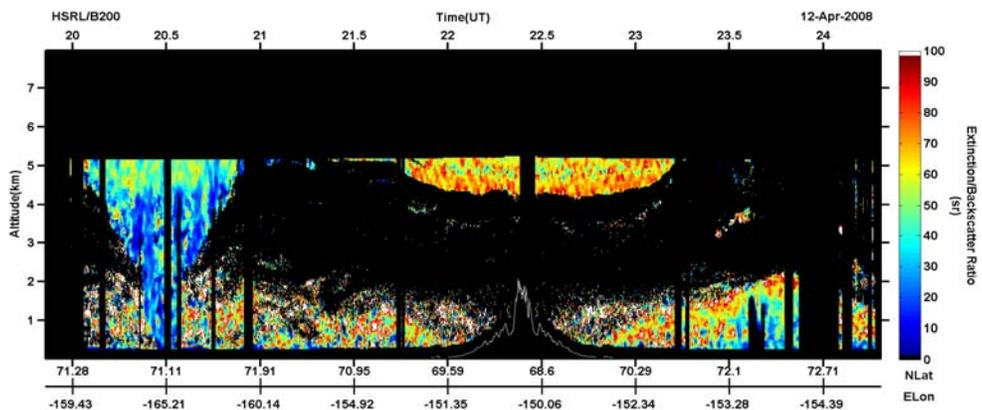
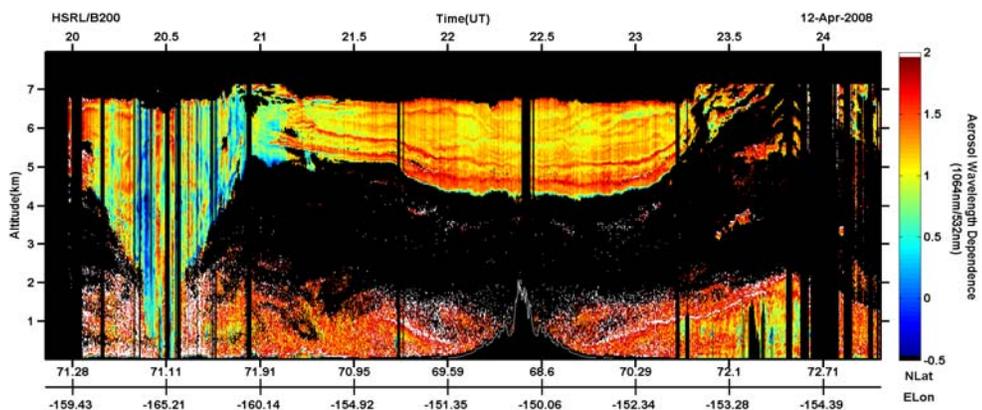
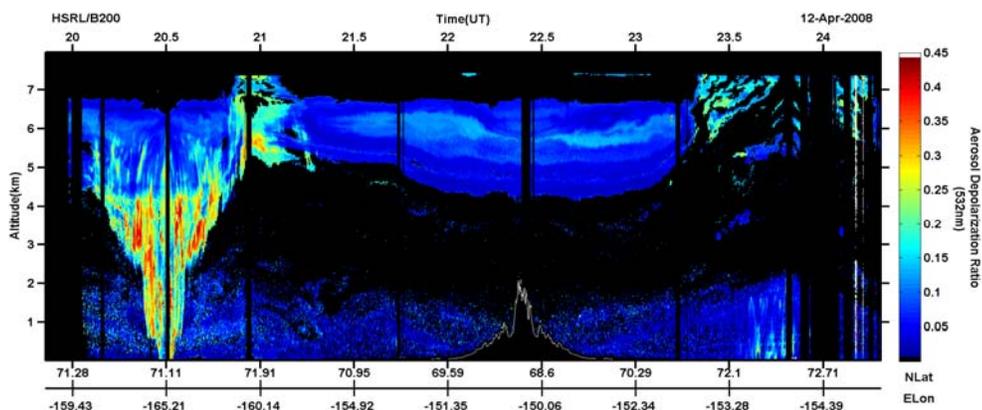
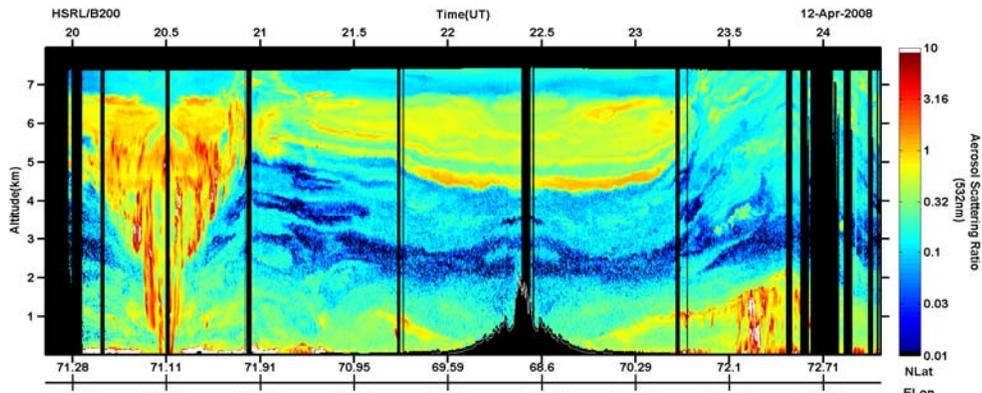
Flight Report

Aircraft :	LaRC B-200 King Air (N529NA) (Operating as NASA529)
Operating Site(s) From / To :	Pt. Barrow, Alaska
Flight Date :	4/12/2008
Flight Number :	R-136
Take Off Time :	1138 Local, 1938 UTC
Landing Time :	1644 Local, 0044 UTC 4/13/2008
Flight Time :	5.1 hours
PI:	Rich Ferrare
Purpose of Flight :	Data <input checked="" type="checkbox"/> Ferry <input type="checkbox"/> Functional Check <input type="checkbox"/> Other <input type="checkbox"/>
Sensor Payload :	HSRL and Digital Camera
Comments :	<p>Local flight from Pt. Barrow. Flew west towards the DC-8 northbound leg and re-intercepted DC-8 during their SW approach into Barrow. Continued east to join the CALIPSO track heading southeast following the DC-8 enroute to the NOAA P-3 rendezvous point. Led the formation aircraft northwest on CALIPSO track as they closed on us. Turned north out over the polar ice, and shortly thereafter the DC-8 departed for Fairbanks, 10 minutes later we returned to Barrow. Route weather was clear of clouds at Flight Level 280. Winds were approximately 20 knots or less for the entire route.</p> <p>The HSRL instrument worked well until the very end of the flight when there was a glitch in a calibration procedure. The system was restarted, clearing the problem. All research objectives had been met prior to the development of the glitch.</p> <p>The flight segment to the west of Barrow appeared to confirm the FLEXPART prediction of a biomass burning plume. Also, interesting aerosol features were sampled simultaneously by the HSRL on the B200 and the in situ sensors on both the DC-8 and the NOAA P3 along the CALIPSO track. The correlation of the compositional measurements from the in situ sensors with lidar observables from HSRL will be used to improve CALIPSO algorithms for aerosol type identification.</p>

SUBMITTED: Chris Hostetler 907-878-3101

DATE: 4/13/2008





FLEXPART Prediction

BB-CO on 18 UTC 2008-04-12 at lat 71.50

