

Aging of Aircraft Emissions: Downwind Comparison of Traditional and Alternative Fuels during AAFEX-II

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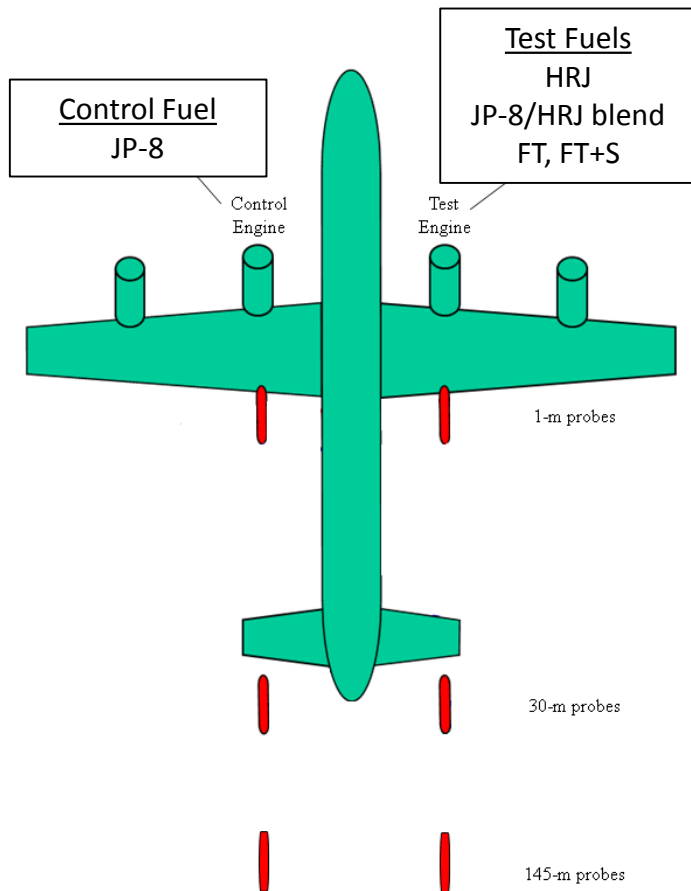
NASA Langley Research Center

January 13, 2012

Objectives

- How do aircraft emissions from alternative fuels compare downwind of engines?
- Do mass and number emission indices continue to change after 30-m?
- Do hygroscopic properties differ between fuel types ?
- Does ambient temperature significantly alter emission characteristics?
- Overall, are the benefits of a switch to alternative fuels realized after aging?

Experimental Setup



- 1-m and 30-m samples taken at aircraft wingtip
- 145-m plumes sampled switching between two inlets
 - ~centerline
 - inlet on roof of trailer
- Lag-chamber used to 'trap' sample for better statistics and size distribution measurement

Particle Sampling at 145-m Trailer



Particle Sampling at 145-m Trailer

