1	Supporting information for the following manuscript:
2	
3	
4	Measurements of nitrous acid in commercial aircraft exhaust at the Alternative
5	Aviation Fuel Experiment
6	
7	Ben H. Lee <sup>1*</sup> , Gregory W. Santoni <sup>1</sup> , Ezra C. Wood <sup>2,3</sup> , Scott C. Herndon <sup>2</sup> , Richard C. Miake-Lye <sup>2</sup> , Mark S.
8	Zahniser, Steven C. Wofsy <sup>1</sup> , J. William Munger <sup>1</sup>
9	
10	<sup>1</sup> Harvard University, Cambridge, MA
11	<sup>2</sup> Aerodyne Research, Inc., Billerica, MA
12	<sup>3</sup> Now at the University of Massachusetts, Department of Public Health, Amherst, MA
13	
14	
15	The supporting information contains three (3) pages of figures.



19 S1. Mixing ratios time series observed during a typical injection of source gas with enhanced levels of  $CH_4$  and

HONO. Time response (1/e) – determined by an exponential fit of the increase and decrease of the mixing ratios

21 versus time – are averages of six injection tests.





25 **S2.** Emission indices of  $NO_x$  (a) and HONO (b) observed at maximum rated engine thrust parsed by fuel-type (symbols shown in legend), plotted against ambient temperature.



28

**S3.** Time-series a) of HONO and NO<sub>x</sub> mixing ratios measured from a diesel-powered generator during AAFEX. Scatter plot b) between HONO and NO<sub>x</sub> shows an emission ratio of  $0.82 \pm 0.05\%$ .