Time delay (hour)

0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0

a

PDF (a.u.)

0.10 0.09 0.08 0.07 0.06 0.05 0.04 0.03 0.02 0.01 0.00

0.6 0.5 0.4 0.3 0.2 0.1 0.0

-400 -300 -200 -100 0 100 200 300 400 500

Displacement (km)

b

all matches, n = 2391

within cirrus, n = 591

confirmed contrail, n =55

PDF (a.u.)

0.16 0.14 0.12 0.10 0.08 0.06 0.04 0.02 0.00

0 10 20 30 40 50 60

Wind speed ($m\,s^{-1}$)

c

Flight altitude (km)

13 12 11 10 9 8 7

0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7

PDF (a.u.)