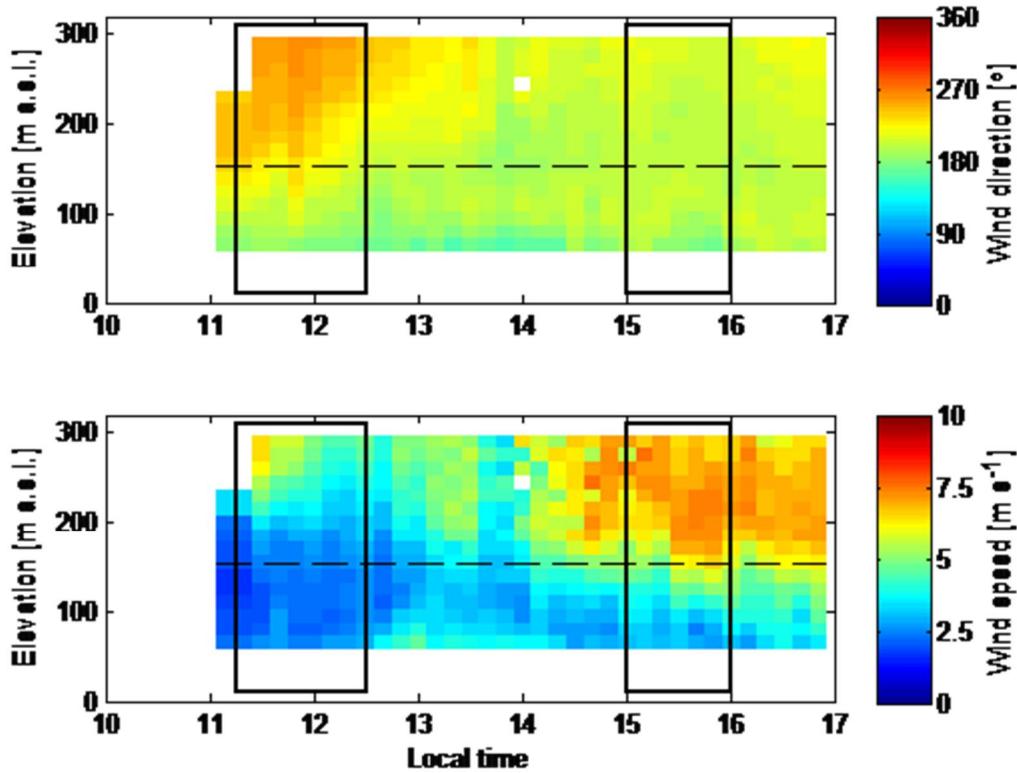
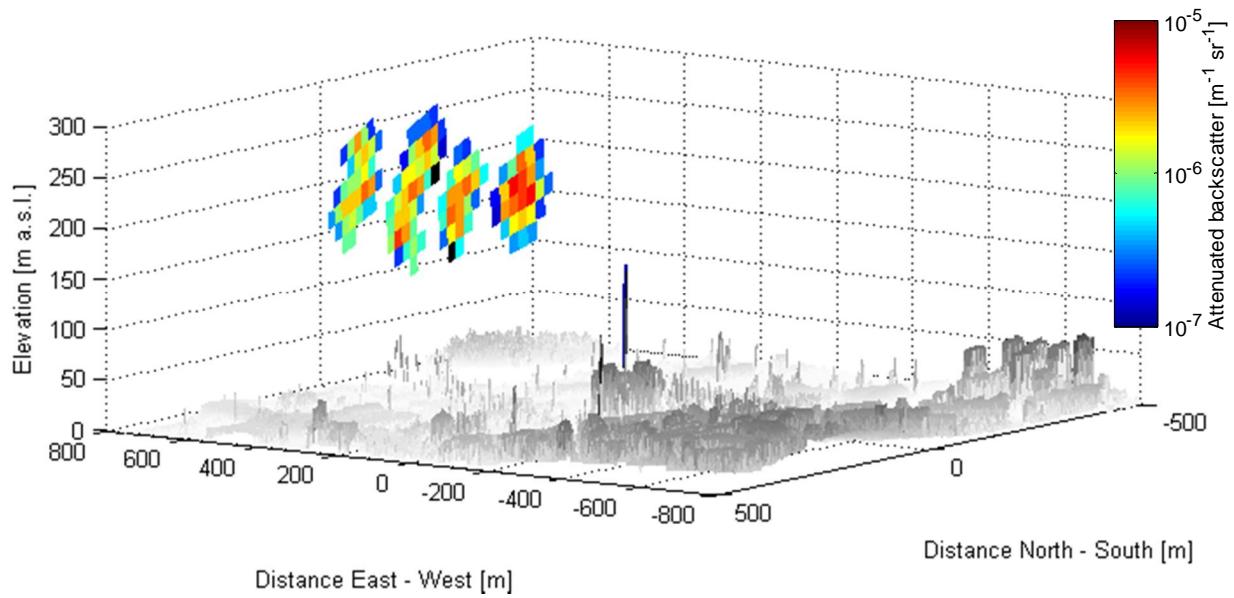
Supplementary Information 1

Table SI1. Coal properties

		Coal
Moisture	%	11.0 - 11.3
Ash	%	10.5 – 11.4
Volatiles	%	32.8 – 33.1
Sulphur	%	0.27 – 0.41
Heating Value	GJ/t	24.6 – 24.9
Coal	%	62.3 – 63.1
Hydrogen	%	4.1 – 4.2
Nitrogen	%	1.8 – 2
Oxygen	%	-
Chlorides	mg/kg	76 – 236

Supplementary Information 2

LIDAR Measurements from the studied time period, local time is UTC +2. The rectangulars present the flight times and the dashed line shows the stack height.

LIDAR data from 14:43 from the measurement day, the stack is at the middle and wind is blowing 180 ° angle.

Supplementary Information 3

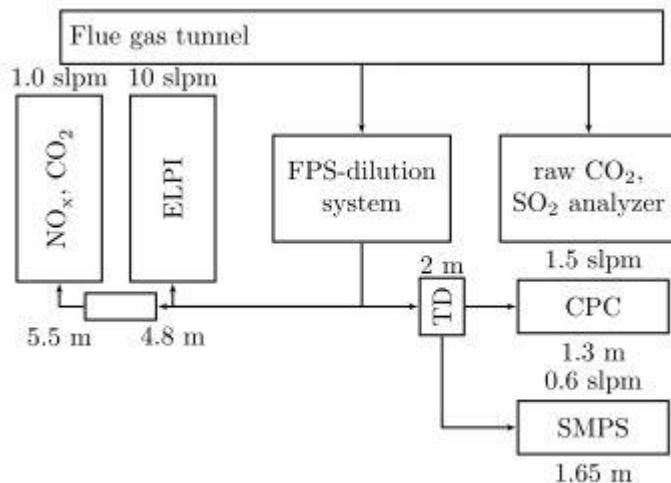



Fig S1. (a) Instrument installation at stack

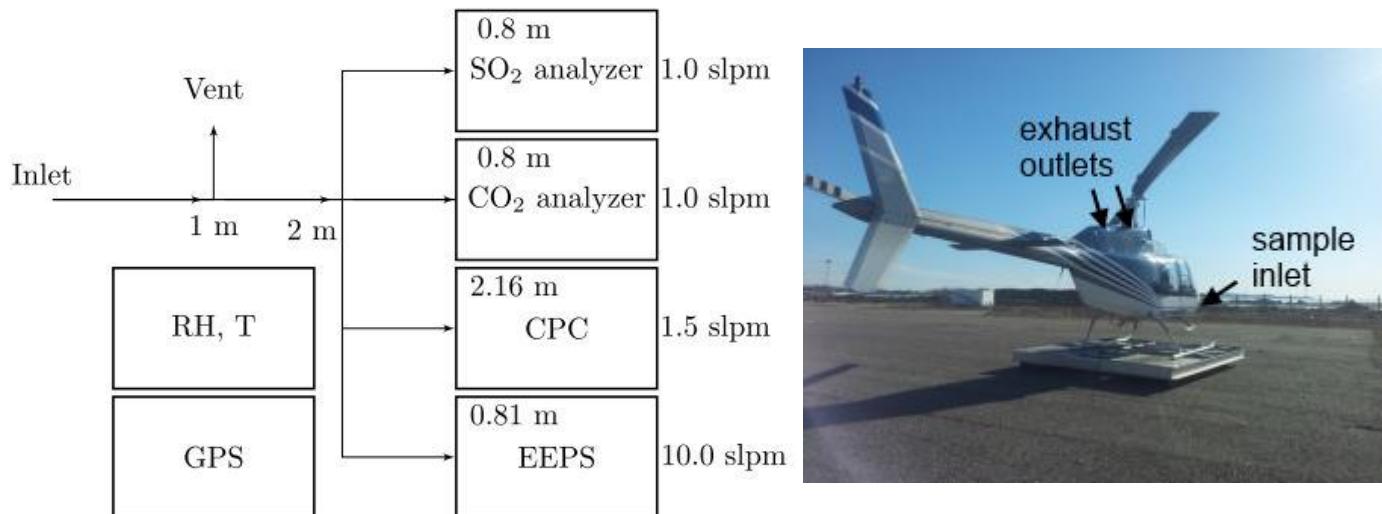



Fig S1. (b) Instrument installation in the helicopter and figure of the helicopter (sample inlet and exhaust outlets shown).