

Supplement

Answers to reviewer comment 2:

Table 1. Flight summary of DLR Falcon 20 and FAAM BAe-146 during the EUCAARI-LONGREX campaign containing take off time (T/O) and landing time (L) of the flights at local time (LT) and operational area.

Date	DLR Falcon 20			FAAM BAe-146			Operational area
	Flight ID	T/O	L	Flight ID	T/O	L	
6 May 2008	080506a	09:36	12:25	b362	09:09	13:51	Germany/Belgium and North Sea
	080506b	15:26	18:00	b363	15:13	18:25	Germany/Belgium and North Sea
7 May 2008				b364	13:27	15:51	South Germany
8 May 2008	080508a	08:08	11:47	b365	08:24	12:30	Germany/Poland and Baltic coast
	080508b	13:45	17:31	b366	13:54	17:09	Germany/Benelux
9 May 2008	080509a	11:39	15:03	b367	12:22	16:50	South Germany (aircraft intercomparison)
10 May 2008				b368	08:04	13:00	Sweden/Finland/Baltic Sea
				b369	14:30	18:12	Baltic Sea/Germany
12 May 2008				b370	06:15	12:36	Germany/Netherlands/North Sea
				b371	13:51	18:04	Germany/Baltic Sea
13 May 2008	080513a	10:41	13:55	b372	08:56	13:28	Germany/Baltic Sea/English Coast
	080513b	14:56	17:43	b373	14:46	18:27	English Coast circuit/Western Ireland
14 May 2008	080514a	09:16	12:58	b374	09:41	14:39	Irish Sea/Atlantic Ocean south-west of Ireland
	080514b	14:21	16:38	b375	15:54	18:18	Transit from Ireland to Germany
20 May 2008	080520a	10:25	14:02				Eastern Germany/Poland/Baltic Sea
21 May 2008	080521a	07:59	11:11	b379	08:03	13:27	Germany/Benelux
	080521b	12:31	15:10				Germany/Benelux
22 May 2008	080522a	08:55	11:55	b380	08:57	13:20	Germany/Benelux/English Channel/England
	080522b	12:44	13:44				Germany/Benelux/English Channel/England
24 May 2008	080524a	06:26	10:22				South Germany/Austria

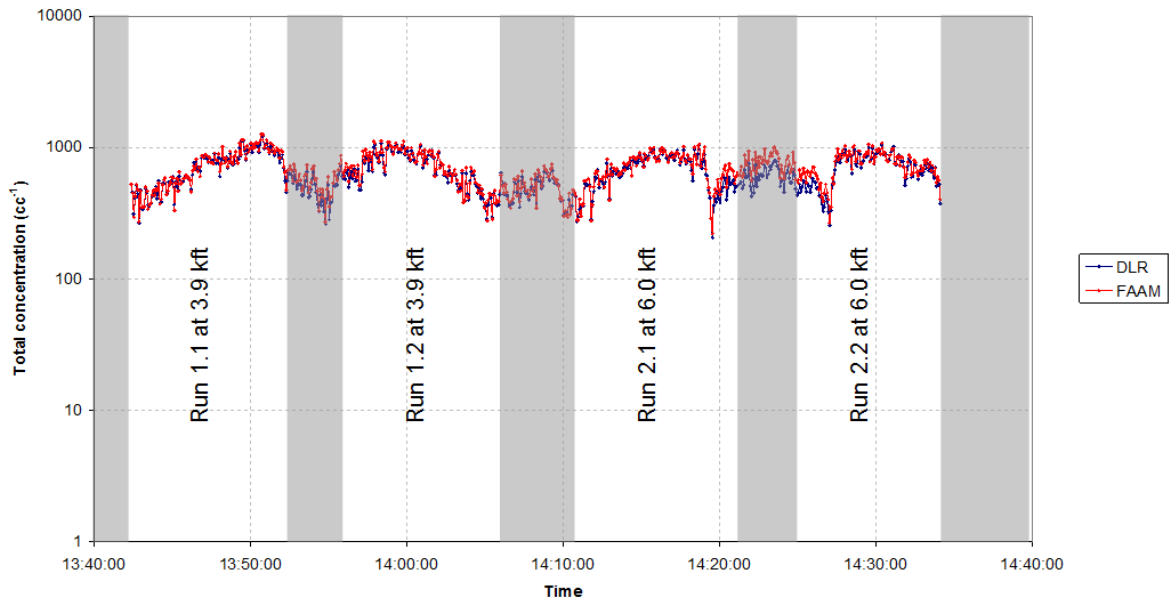


Figure S1. The total concentrations measured by the two aircraft during the single aircraft intercomparison. The grey areas show when the aircraft was not in a straight and level run.

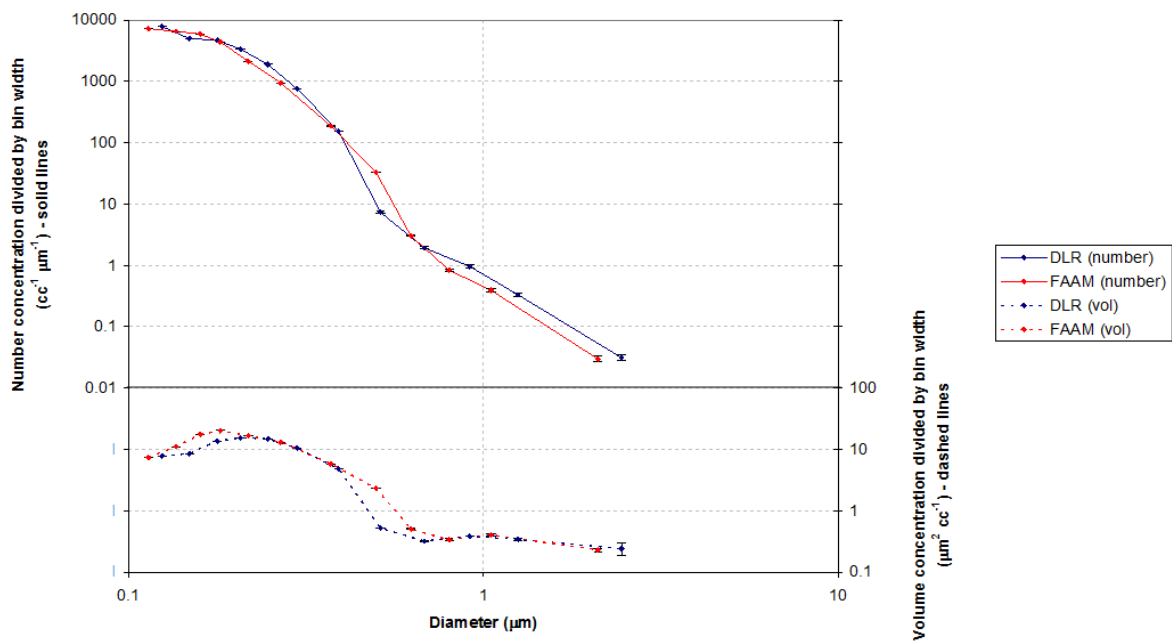


Figure S2. The aerosol size of the single aircraft intercomparison. The error bars are derived from counting statistics only.

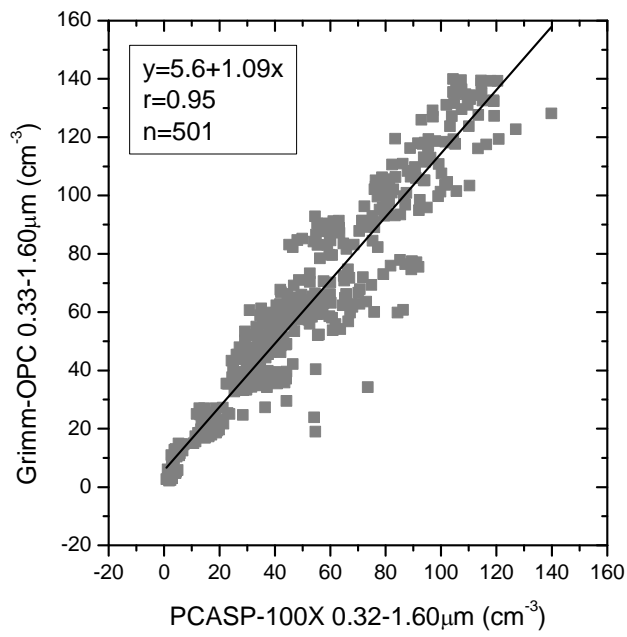


Figure S3. Comparison of Grimm-OPC and PCASP-100X number concentration within overlapping size ranges.