

ACLOUD Flight #24 - Polar 6 - 20170626

Mission PI P6: Mario Mech

Objectives: Calibration pattern for AIMMS-20, Radiation pattern

Crew:

Polar 6	
PI	Mario Mech
Basis Data Acq.	Cristina Sans i Col
ALABAMA	Franziska Köllner
A + TG	Oliver Eppers
CVI	Stephan Mertes
PMS	Regis Dupuy
PMS	Mathias Schulze

Flight times:

Polar 6	
Take off	8:33 UTC
Touch down	10:39 UTC

Important remarks:

- **approach in clouds aborted due to failure of instrumentation**

Weather situation as observed during the flight (compare to forecast):

Around the airport broken clouds were present. These have been observed over the island as well. To the East and North the cloud cover was lower. During flight we could see that to the North over the ice shield no lower clouds were present. In higher levels hardly any cirrus was present. During the landing procedure we had to cut through a moderate thick cloud layer, which we didn't succeed with.

Overview:

After take off towards West we turned around to stay over land and climbed to 10000ft. There we started the calibration of the AIMMS-20. This contains yaw maneuver while heading towards true North and true South. Afterwards conditions were appropriate for a radiation calibration. This has been performed a bit further North more central over Svalbard. After finishing the radiation calibration we headed a bit further North to inspect the ice condition over the North Eastern coast.

Flight track and pattern:

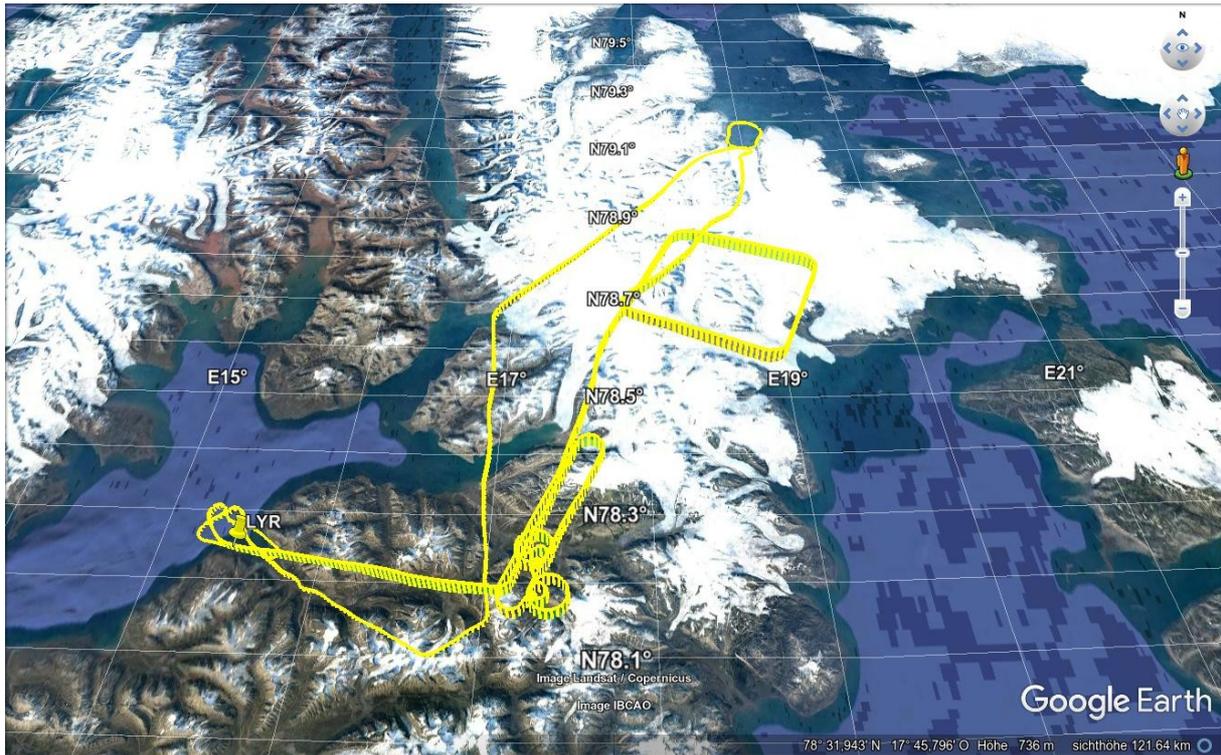


Fig.1: Flight pattern of Polar6.

Left: Pictures from cloud or ice

Instrument Status:

Polar 6	
Basis data acquisition	
Nose Boom	
PHIPS	
SID-3	
CIP	
PIP	
ALABAMA	
CVI	
CVI UHSAS	
CVI ???	
AWI SP2	
AWI UHSAS	
CO/CO2/O3	

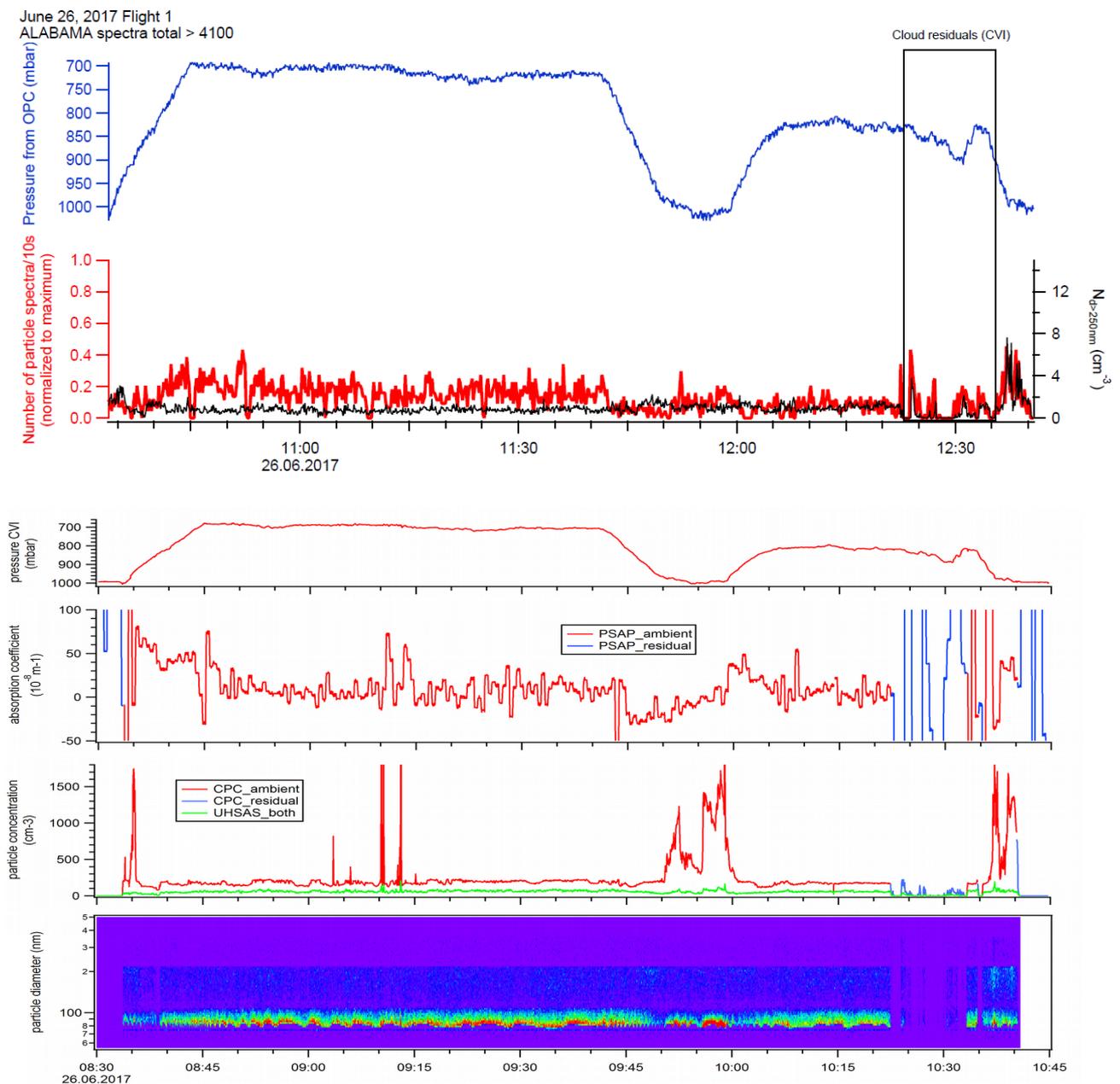
Problem with CVI inlet: CVI inlet heating is not working. When the inlet freezes it does not operate at its full functionality.

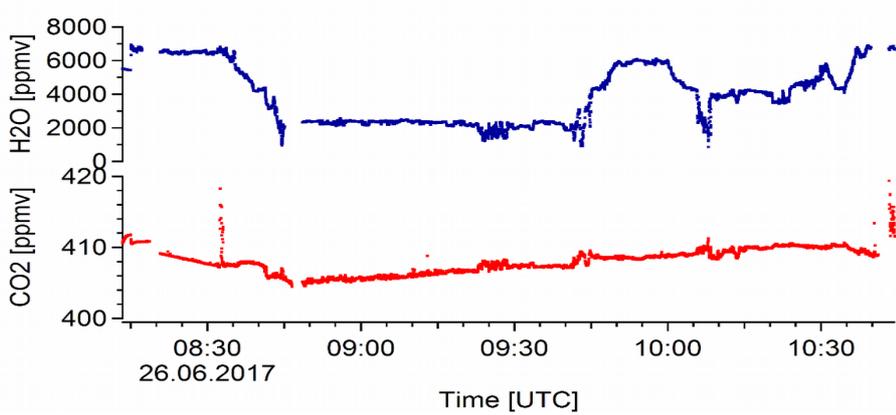
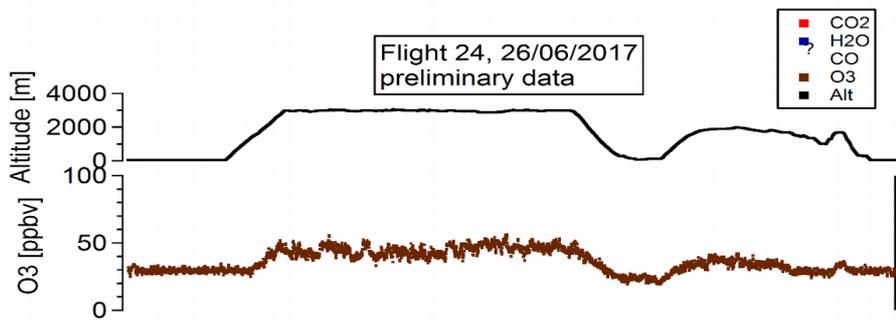
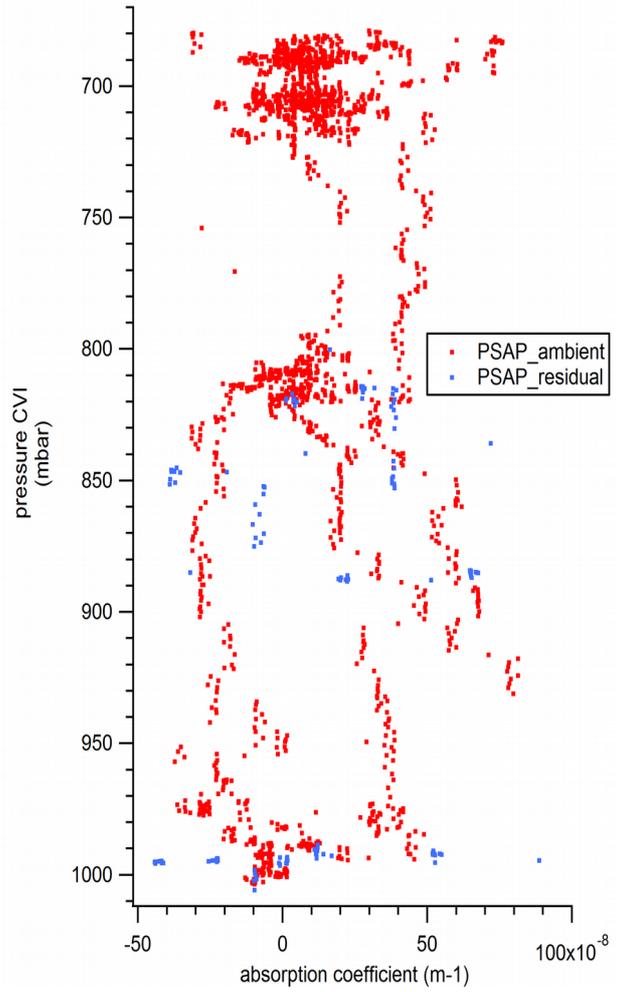
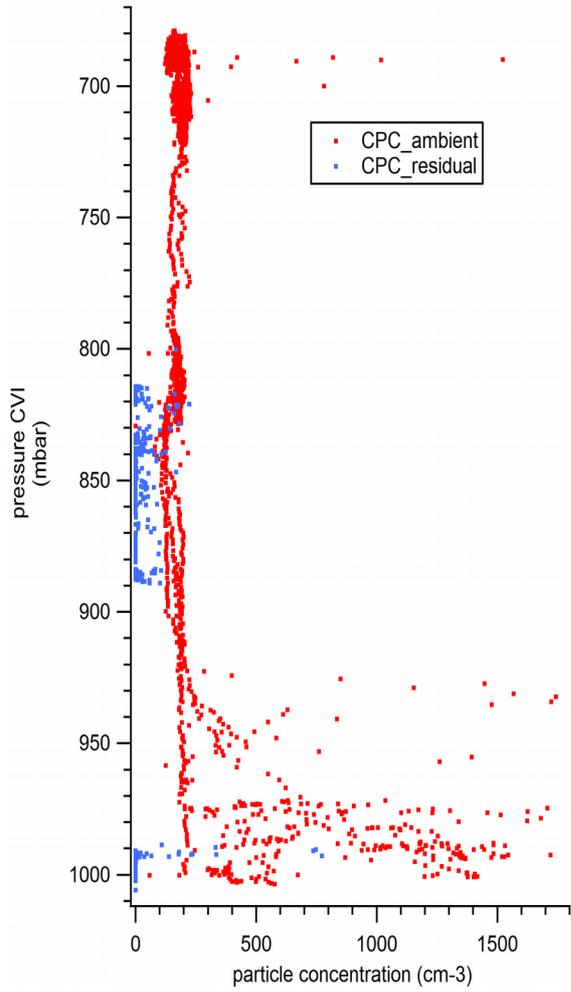
Detailed Flight Logs (Name of author... more than one is possible):

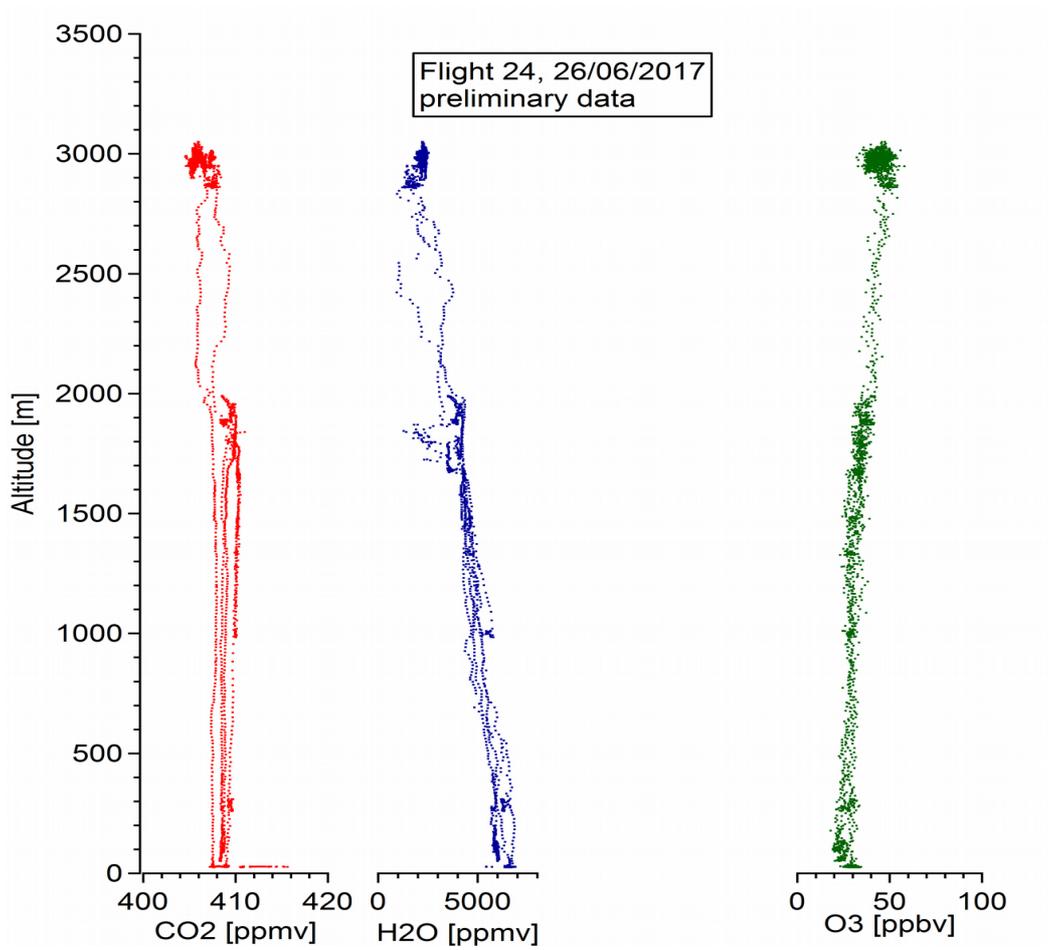
Mario Mech (times UTC)

8:33 take off
8:39 above clouds
8:51 heading true North
8:56 heading true South
9:26 radiation square
10:30 aborted landing approach
10:39 touch down

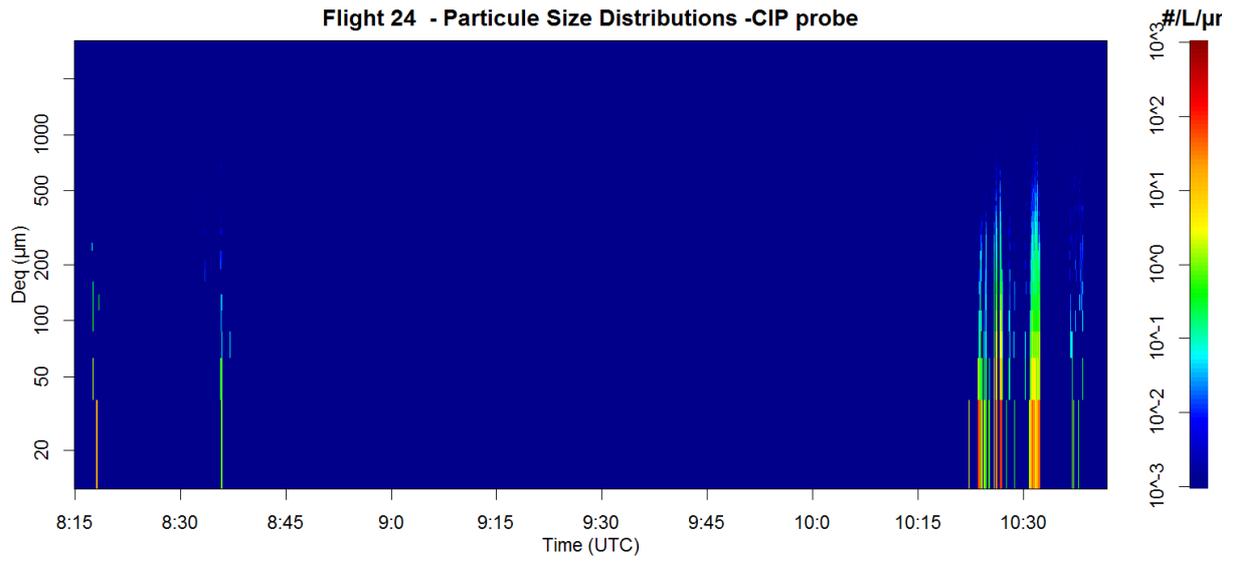
Quicklooks:







Flight 24 - Particulate Size Distributions -CIP probe



Flight 24 - 20170626 - LaMP Preliminary quicklook

