HALO-(AC)^3 – 2022/03/29 – Polar5 research flight #06

Objectives:

Media flight with test of nose boom

Mission PI P5: Christof Lüpkes christof.luepkes@awi.de

Flight times:

Polar 5 Crew	
Mission PI	Christof Lüpkes
Basis Data Acq.	Cristina Sans Coll
SMART/ Eagle/Hawk	Hanno Müller
MiRAC / AMALi	Imke Schirmacher
Dropsondes	Alexander Riedel

Polar 5	
Take off	08:15 UTC
Touch down	09:16 UTC

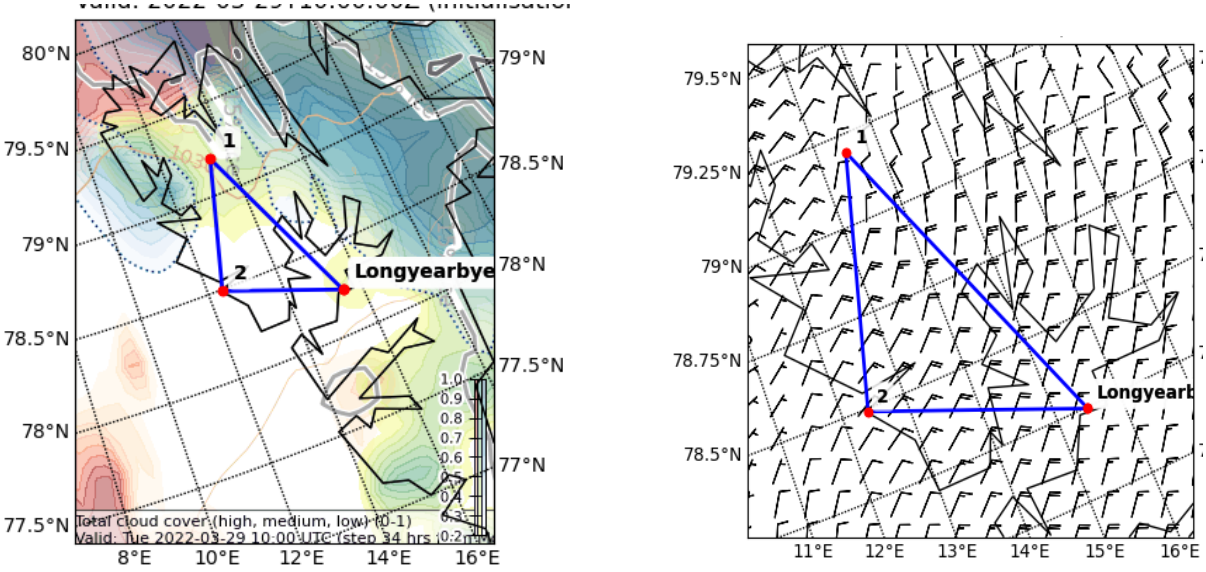

Fig. 1: Predicted Cloud fields and wind.

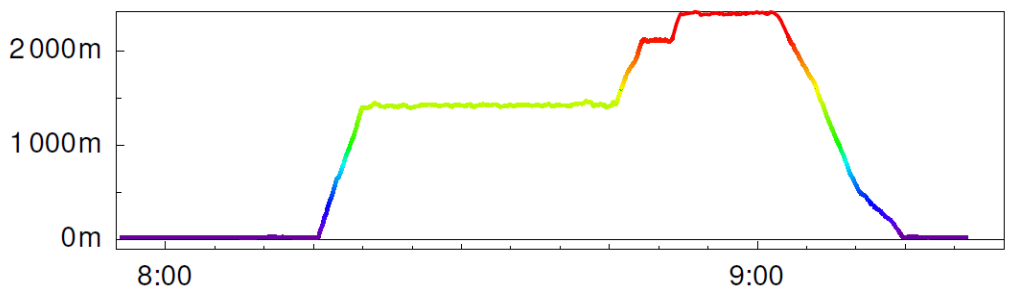

Fig.2: Height profile of flight.

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

Cloud situation was partly as predicted with some clouds at mountain tops east of Longyearbyen and some mid level thin stratus clouds near WP1.

Overview:

The goal of the flight was just to test the noseboom and dynamic pressure signal of the basic meteorology equipment.

Instrument Status:

Polar 5	
Basis data acquisition	
Nose Boom	unclear
MiRAC-A	
MiRAC-P	
AMALi	
SMART	
Eagle/Hawk	
Sun Photometer	
Drop Sondes	

Table S5.1: Instrument status as reported after the flight for all instruments on Polar 5.

Detailed Flight Logs:

As in some earlier flights, the noseboom was working but showed lower pressure than the basic meteorology dynamic pressure. During a few minutes of the flight (8.45 UTC after curve at WP1) it became extremely turbulent over a glacier. We assume that this was due to lee waves, which had been predicted by the airport meteorologist.

Quicklooks: