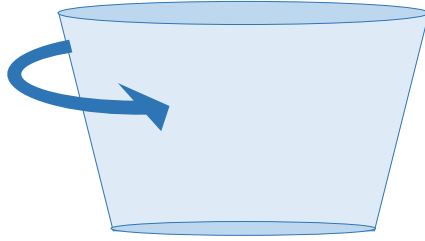


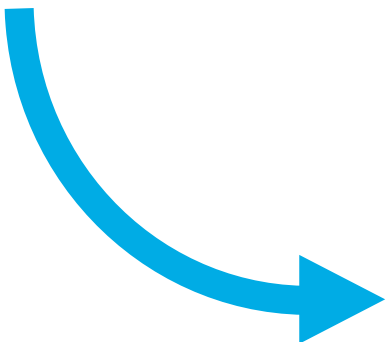
Premature balloon bursts due to low temperatures: Arctic

Marion Maturilli, Ny-Ålesund Site

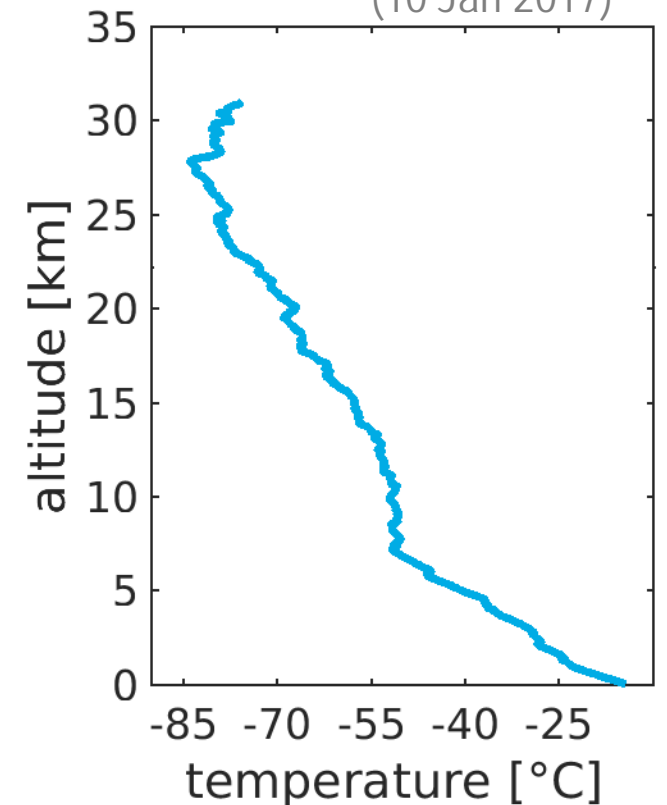


- polar night
- stratospheric polar vortex
- temperatures $< -75^{\circ}\text{C}$

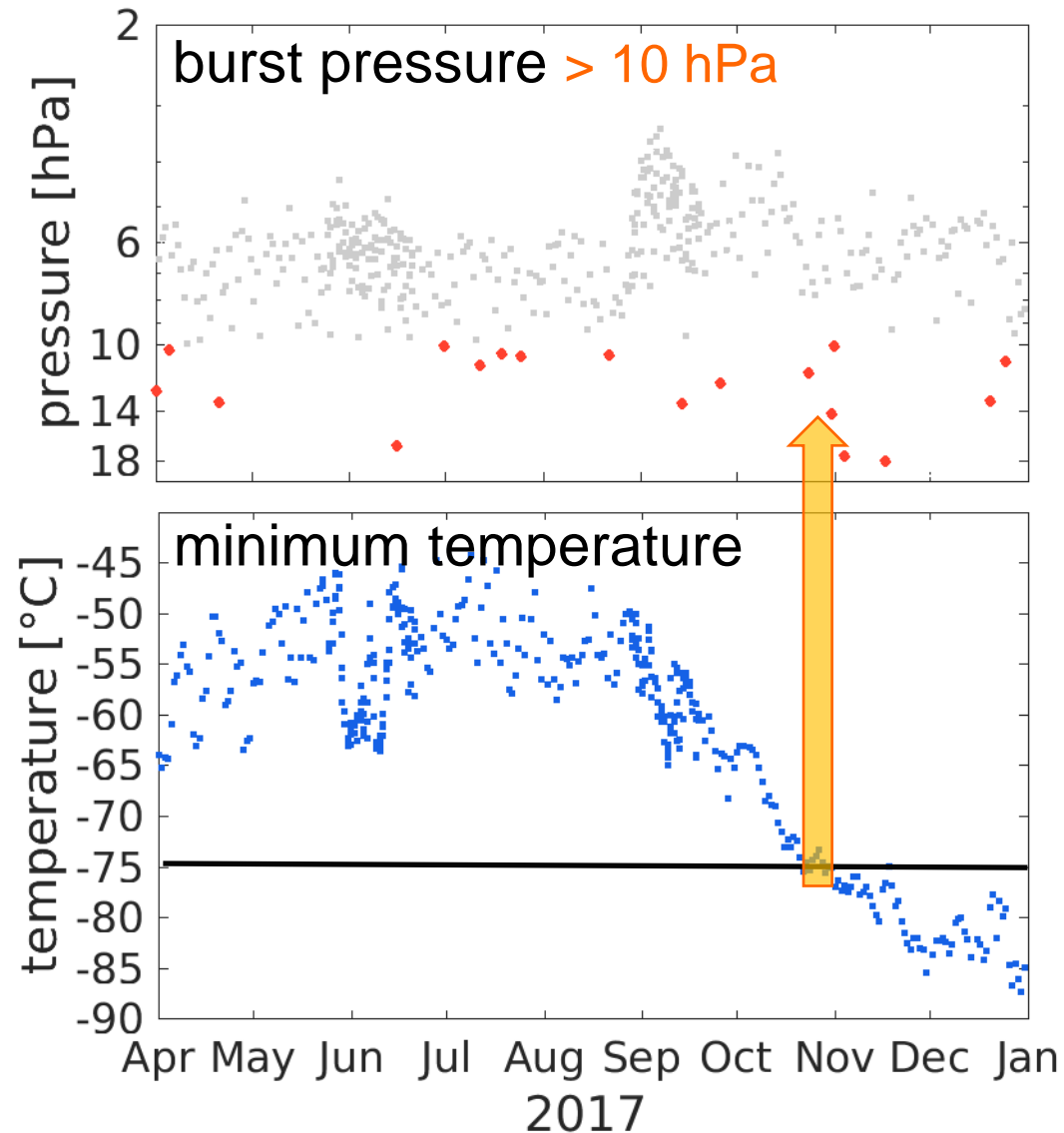



temperature profile

Example: Ny-Ålesund
(10 Jan 2017)



Premature balloon bursts due to low temperatures: Arctic



Criteria at Ny-Ålesund:

if temperature drops
below -75°C



balloon 'bathing' treatment

TX600 (radiosondes)
TX1500 (ozone sondes)
all heated at 55°C

Ny-Ålesund Balloon Treatment

Balloon Bath

“Recipe”:

- 2 parts Diesel
- 2 parts kerosene
- 1 part engine oil

“alternative recipe”:

- 7 parts Diesel
- 2 parts engine oil

