



Flight Plan for: 24 March 2021

POLAR 6

Take Off: 09:00 UTC
Duration: 05.17 Hours

Pilots: Bill
Ben

Crew:

Mission PI	J. Schneider
AWI	??
ALABAMA	O. Eppers
CVI	S. Mertes
Trace gases	Heiko Bozem
Aerosol	Z. Juranyi

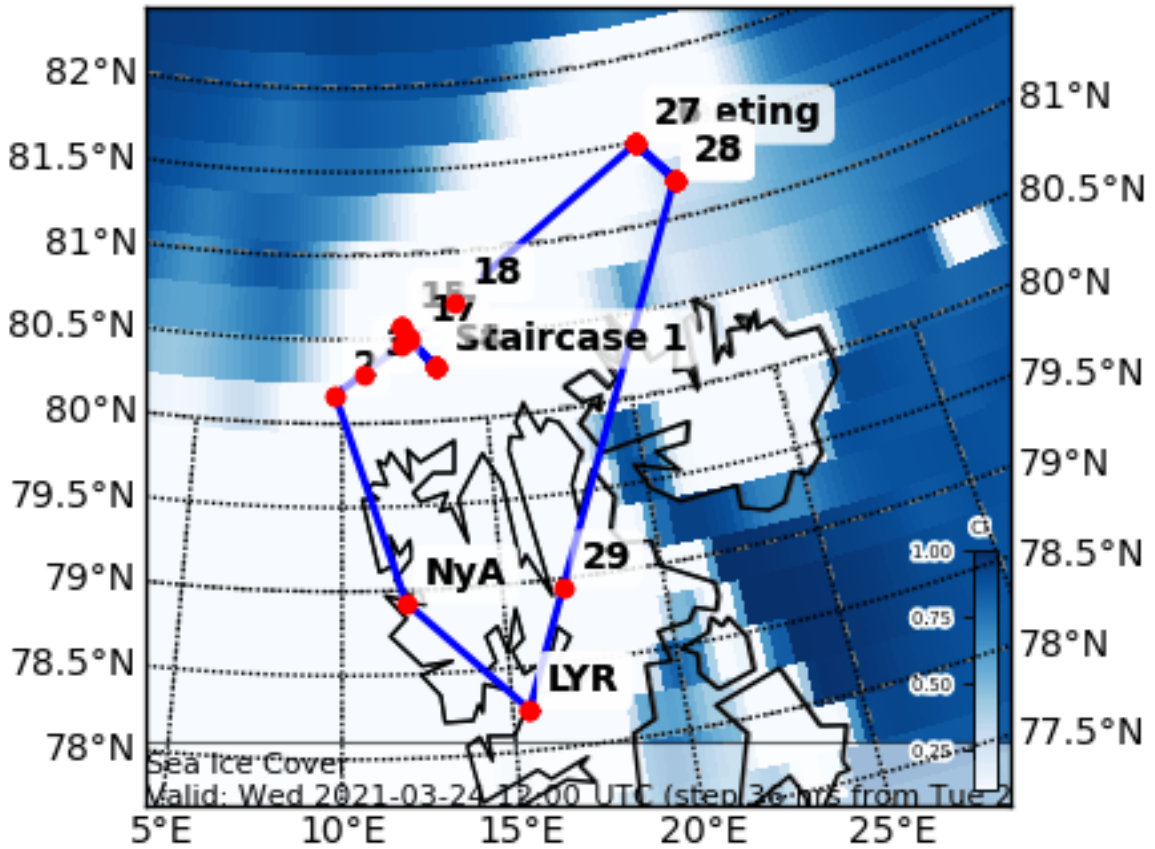
Waypoints:

W0 78°14'	15°28' (LYB)
W1 78°55'	11°59' (NyA)
W2 80°10'	9°45'
W3 80°18'	10°46'
W4 80°27'	12°07'
W5 80°30'	12°27'
W6 80°19'	13°17'
W7 80°19'	13°18'
W8 80°34'	12°06'
W9 80°34'	12°06'
W10 80°19'	13°18'
W11 80°19'	13°18'
W12 80°34'	12°06'
W13 80°34'	12°06'
W14 80°19'	13°18'
W15 80°34'	12°06'
W16 80°19'	13°18'
W17 80°30'	12°27'
W18 80°42'	14°07'
W19 81°29'	21°57'
W20 81°13'	23°07'
W21 81°13'	23°07'
W22 81°29'	21°57'
W23 81°29'	21°57'
W24 81°13'	23°07'
W25 81°13'	23°07'
W26 81°29'	21°57'
W27 81°29'	21°57'
W28 81°13'	23°07'
W29 78°56'	16°52'
W30 78°14'	15°28' (LYB)



Overview Map:

Sea Ice Cover Fraction (0-1) (pseudocolor plot)
Valid: Wed 2021-03-24 12:00 UTC (step 36 hrs)





Flight Plan:

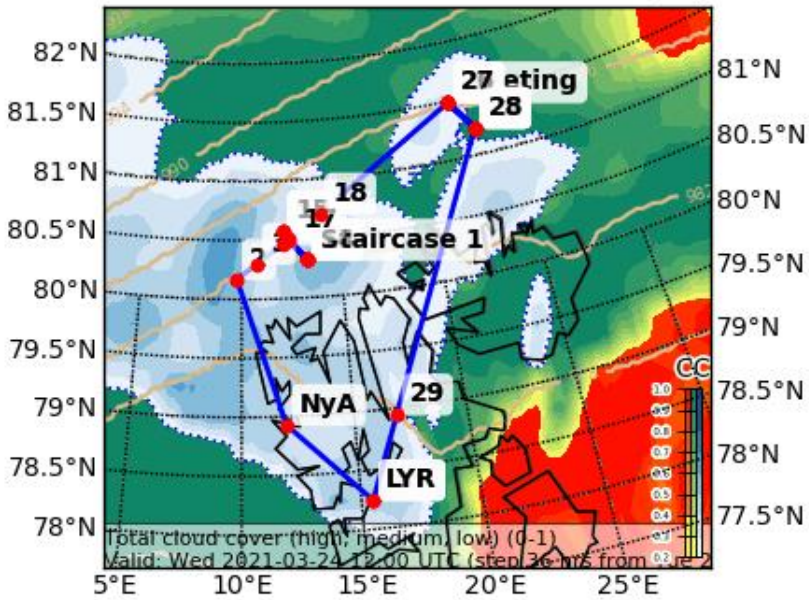
LYR – NyA ascend FL 80: 58 NM @160 kn (cruising speed)	20 min
NyA – W4 at FL 80: 137 NM @160 kn (cruising speed)	33 min
W3 – W4 descend through cloud with 500 ft/min @120 kn	16 min
W4 – W6 FL 20: 16 NM @120 kn	8 min
W6 ←→ W16 5 stacks 4 min each, @ FL 20, 40, 60, 80, 100 @120kn	45 min
W16 –W17 FL100 13 NM @120kn	7 min
W17 – W18 descend through cloud with 500 ft/min @120 kn	20 min
W18 – W19 FL10 (below cloud), 87 NM @120kn	44 min
W19 ←→ W28 5 stacks 4 min each, @ FL 20, 40, 60, 80, 100 @120kn	45 min
W28 – W29 at FL100: 152 NM @ 160 kn cruising speed	57 min
W29 – LYR at FL100 → descending: 45 NM @ 160 kn cruising speed	22 min

Total: 5 hr 17 min

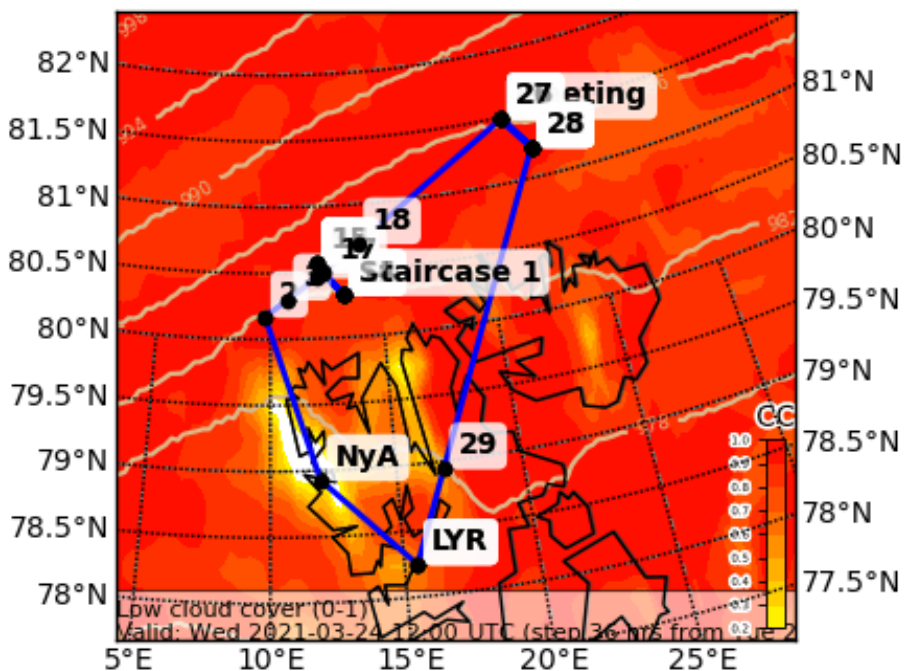


Additional Maps:

Cloud Cover (0-1) (Total Cloud Cover)
Valid: Wed 2021-03-24 12:00 UTC (step 36 hrs fr

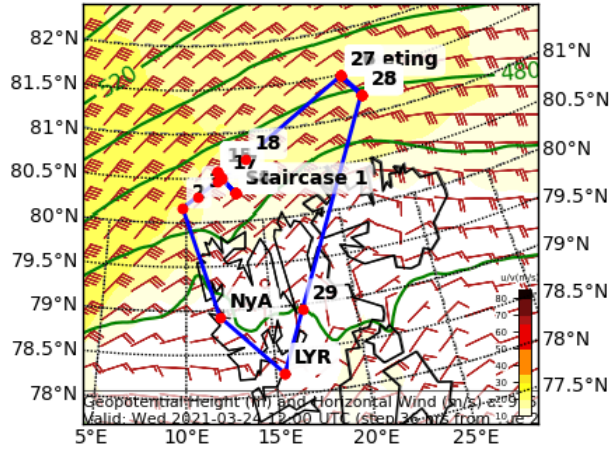


Cloud Cover (0-1) (Low Cloud Cover)
Valid: Wed 2021-03-24 12:00 UTC (step 36 hr



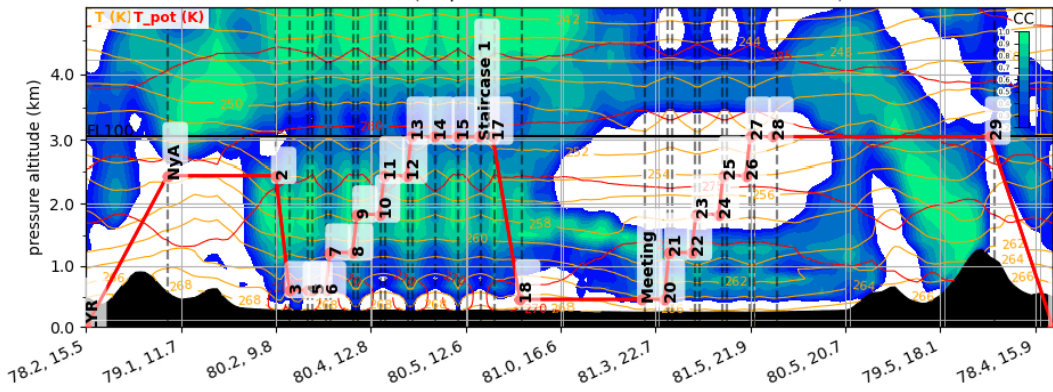


Geopotential Height (m) and Horizontal Wind (r
Valid: Wed 2021-03-24 12:00 UTC (step 36 hrs



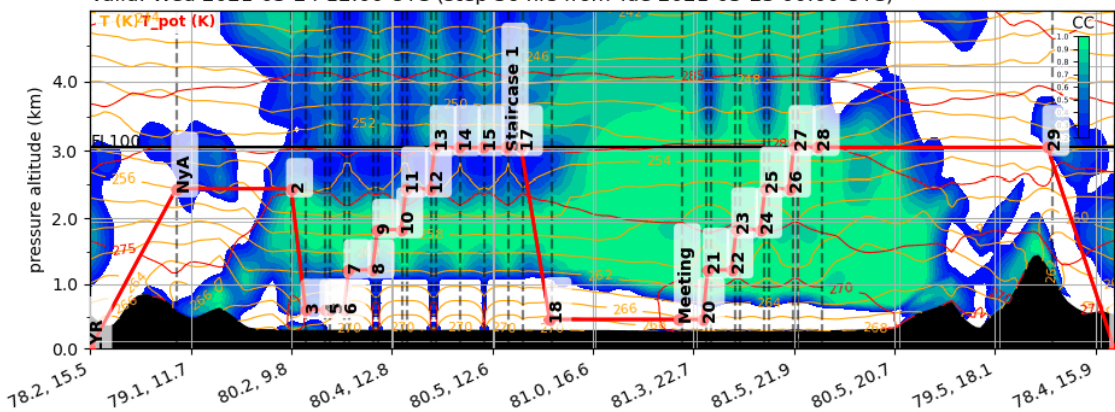
ICON

Cloud Cover (0-1) Vertical Section
Valid: Wed 2021-03-24 12:00 UTC (step 36 hrs from Tue 2021-03-23 00:00 UTC)



ECMWF

Cloud Cover (0-1) Vertical Section
Valid: Wed 2021-03-24 12:00 UTC (step 36 hrs from Tue 2021-03-23 00:00 UTC)





Objectives of the Flight:

Large Whalers Bay polynya, accompanied with strong Norther-Easterly winds bring ing cold air to the South. The objective is to fly against the wind, parallel to the ice edge. Meeting with Polar 5 and HALO.

Polar 6 will perform two stack patterns to derive turbulence and cloud properties.

General Weather Situation:

