

ACLOUD Flight 2017 05 31

POLAR 5
Remote

Crew: Mission PI André Ehrlich
AWI Christoph Petersen Est. Take Off: 17:00 LT
SMART Michael Schäfer
Eagle/Hawk Evi Jäkel Est. Duration: 4.5 Hours
MiRAC Tatiana Nomokonova
AMALi Roland Neuber

Waypoints: **NyA**: 78° 55.40' N, 11° 55.40' E
C1: 78° 52.000' N, 12° 35.000' E
C2: 79° 10.000' N, 10° 30.000' E
Box 1 C3: 79° 57.00' N, 7° 50.00' E **C4**: 80° 17.00' N, 7° 50.00' E
C8: 80° 35.00' N, 10° 00.00' E
PS: 80° 25.00' N, 10° 02.00' E
Box 2 C5: 80° 45.00' N, 11° 15.00' E **C6**: 80° 45.00' N, 13° 20.00' E
Alternative (**Box 2 C5**: 80° 45.00' N, 7° 00.00' E **C6**: 80° 45.00' N, 5° 00.00' E
C7: 78° 45.00' N, 9° 15.00' E

Flight Plan

LYR—C1 along the glacier 1000 ft above ground **60 NM @140kn 30 min**
C1 – C2 pass NyA/center of fjord at 1000 ft: **30 NM @140kn 15 min**

C2 – C3 at 1000 ft: **40 NM @140kn 20 min**

Box 1 Mapping: C3-C4 at 400 ft: **3x20 NM @120 kn 40 min**
legs separated by 1 NM

C4 – C8 Calibration pattern nose boom: **40 NM @ 120kn 15 min**
→ **diff. flight speeds 1min (160-140-140-120-100-120-140-160kn)**

C8—PS

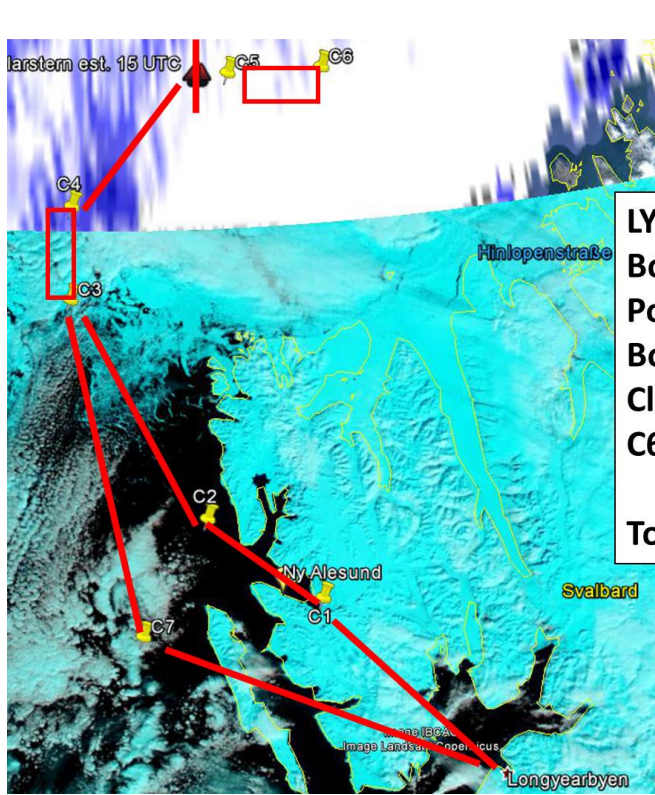
Polarstern Meeting
3 legs back and forth: at 200 ft **6 NM @120kn**
at 500 ft **6 NM @120kn**
at 800 ft **6 NM @120kn 15 min**

Box 2 Mapping: C5-C6 at 400 ft: **3x20 NM @120 kn 40 min**
legs separated by 1 NM
→ Start climbing to 10 000ft C6-C5-C6 **40NM 20 min**

C6—C5—C4—C3 at 10 000 ft **80 NM @140 kn 40 min**
C3-C7 at 11 000 ft **60 NM @140 kn 25 min**
→ **Release 2 drop sondes**

C7-LYR at 10 000 ft **80 NM @140 kn 35 min**

Total: **460+turns NM (1.00+0.75+0.25+0.75+0.75+1.00 = 4.5 hrs)**



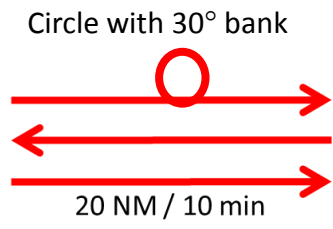
Polar 5

**Take-off:
15:00**

LYR-C1-2-3	1.00 h
Box	0.75 h
Polarstern	0.50 h
Box	0.75 h
Climb C5-6	0.25 h
C6-5-4-3-7-LYR	1.25 h
Total:	~4.5 h

Box Mapping

140 kn @ 400 ft



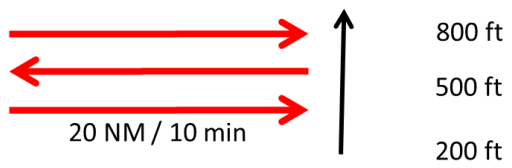
Top View

1 NM separated horizontally

Polarstern Meeting

120 kn

Side View



20 NM / 10 min

Top View

