

ACLOUD Flight 2017 06 08, Thursday

POLAR 6
In-situ

Crew:	Mission PI	Emma Järvinen	Est. Take Off:	9:40 LT
	AWI	Daniel Damaske		
	PMS	Delphine Leroy	Est. Duration:	5 h 20 Min
	Aerosol 1	Hans Clemen		
	Aerosol 2	Udo Kästner		
	Trace Gases	Heiko Bozem		
	Nevzorov	Dmitry Chechin		

Waypoints:	LYR:	78° 14.816' N,	15° 27.545' E
	NyA:	78° 55.421' N	11° 55.377' E
	C1:	79° 31.206' N,	8° 41.792' E
	C2:	80° 27.234' N,	9° 38.604' E
	C3:	81° 1.164' N,	2° 54.426' E
	C4 (PS):	81° 45.000' N,	10° 12.000' E
	C1:	79° 31.206' N,	8° 41.792' E
	LYR:	78° 14.816' N,	15° 27.545' E

LYR – NyA climb and stay at 4,000 ft: **60 NM @ 140 kn** **25 min**

NyA – C1 at 4,000 ft: **51 NM @ 140 kn** **22 min**
descent to cloud top level before C1

C1 – C2 saw tooth, 200 ft/min **55 NM @ 140 kn** **24 min**
At C2: 10:58:00 LT (Satellite)

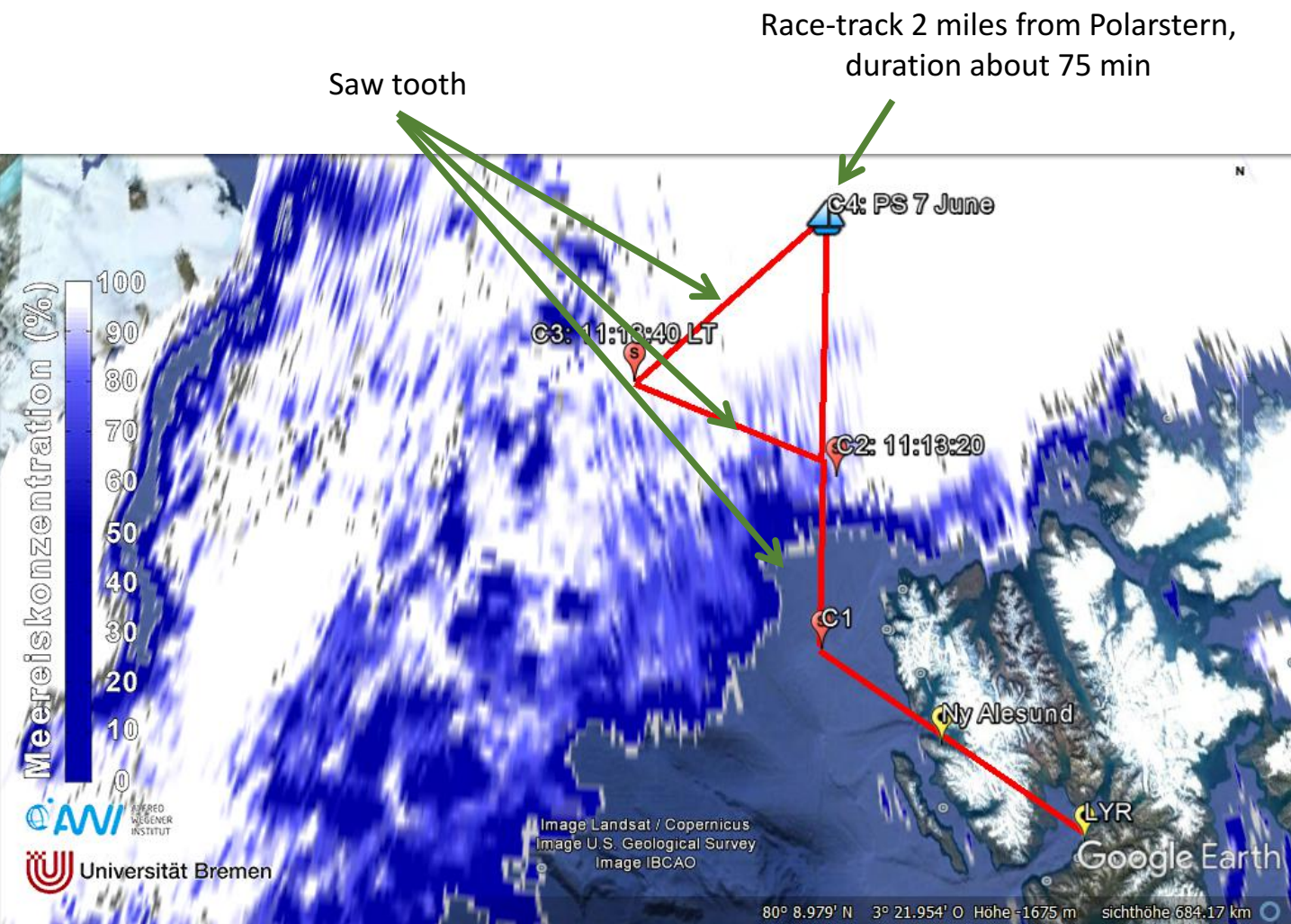
C2 – C3 saw tooth, 200 ft/min **72 NM @ 140 kn** **31 min**

C3 – C4(PS) saw tooth, 200 ft/min **81 NM @ 140 kn** **35 min**
7 x race-track near PS @ 120 kn,
8 min legs + 3 min turns to change altitude and/or to de-ice
1 legs below cloud ,5 legs in cloud and 1 above **75 min**

C4 (PS) – C1 aerosol profile **144 NM @ free speed** **62 min**
12,000 ft – 6,000 ft

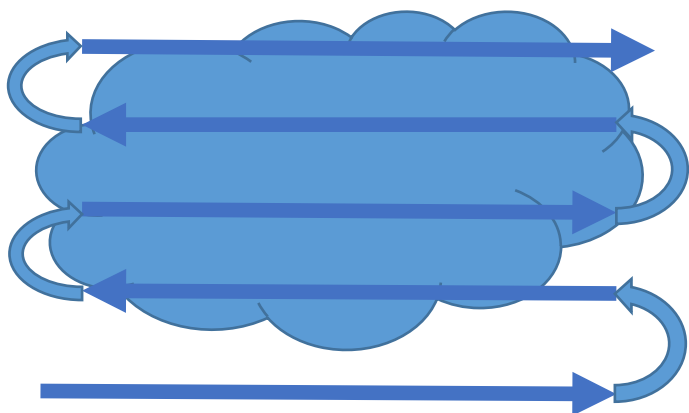
C1 (PS) – LYR free speed+height to LYR **108 NM @ free speed** **47 min**

Total: 636 NM 5 h 20 min



B. Race-track

8 min straight leg, 6-7
different altitudes



A. Saw tooth

5 min (100-200 ft/min)
ascent and descent

Spend 2-5 minutes below
and above cloud

