

Cryovex 2008 – Overview

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Cryovex08 objectives:

- Sea-ice experiment from CFS Alert:
 - Coincident flight with lidar, ASIRAS and HEM
 - Test for readiness for post-Cryosat launch campaign
 - In-situ calibration line with ice thickness, snow depth, reflectors
 - Deployment of GPS bouys for ice drift monitoring in near real time
- ASIRAS flight over "cold" ice profile in Northern Greenland (Liz Morris)
- Devon ice cap reflight with ASIRAS

Opportunity objectives:

- Flight across EGIG line, crossing ice sheet from W to E
- Overflight of KV Svalbard with ASIRAS and laser reflector in Fram Strait

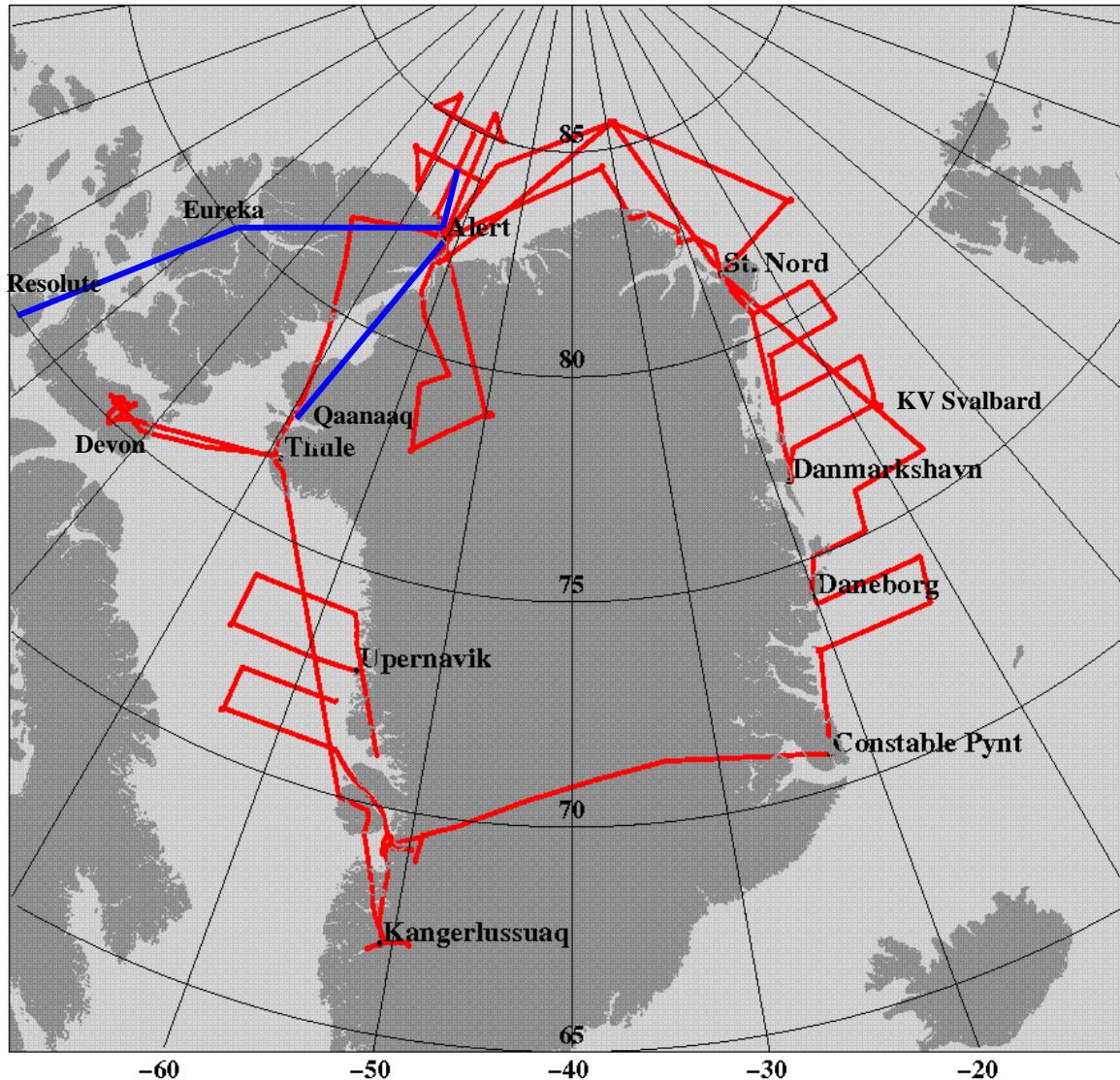




Other objectives, not related to CryoVex, opportunity basis:

- *Sea-ice flights in NW and NE Greenland, with helicopter-based in-situ measurements (Greenland Home Rule government)*
- *Iceberg lidar overflights, Disko Bay, W Greenland (DMI)*
- *Hans Island weather station deployment (KVUG, Denmark/SAMS, Scotland)*
- *AWI/U Edmonton sea ice EM profiles*
- *Damocles ice camp with AUV experiment*





Time schedule OY-POF:

- April 15-17 Installation
- April 18 Survey of icebergs
- April 19 Sea ice Baffin Bay
- April 20 EGIG transit
- April 21 Transit to St. Nord
- April 24 Overflight of KV Svalbard
- April 27 Lines north of Greenland
- April 28 Transit to Alert
- April 29 UK1 flight (Morris)
- May 1 NE lines + validation sites
- May 2 Square+HEM flight
- May 5 Mow-the-lawn AUV site
- May 6 Devon ice cap
- May 7 To Kangerlussuaq
- May 8- Unmount ASIRAS
- May 15 P-band sounder test

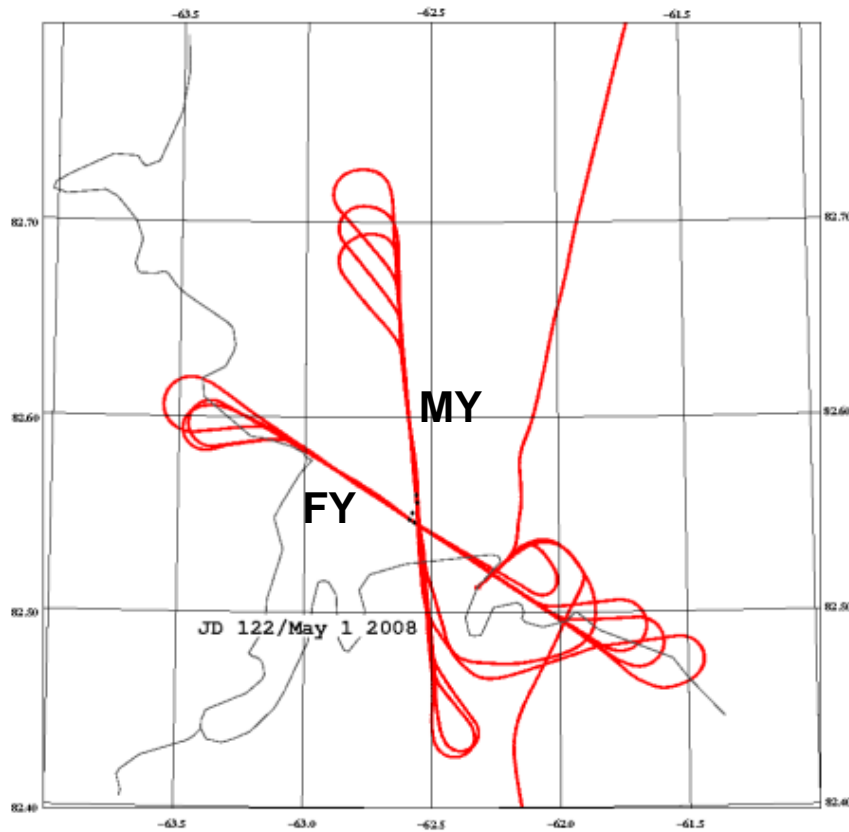
Time schedule C-GKBG

- April 27 Resolute-Eureka
- April 28 Eureka-Alert
- April 29 Ice strip reco
- April 30 Qaanaaq pick-up
- May 1 Fuel cache for EM heli
- May 4 Hans Island + ice strip
- May 7 Demob Qaanaaq/Resolute

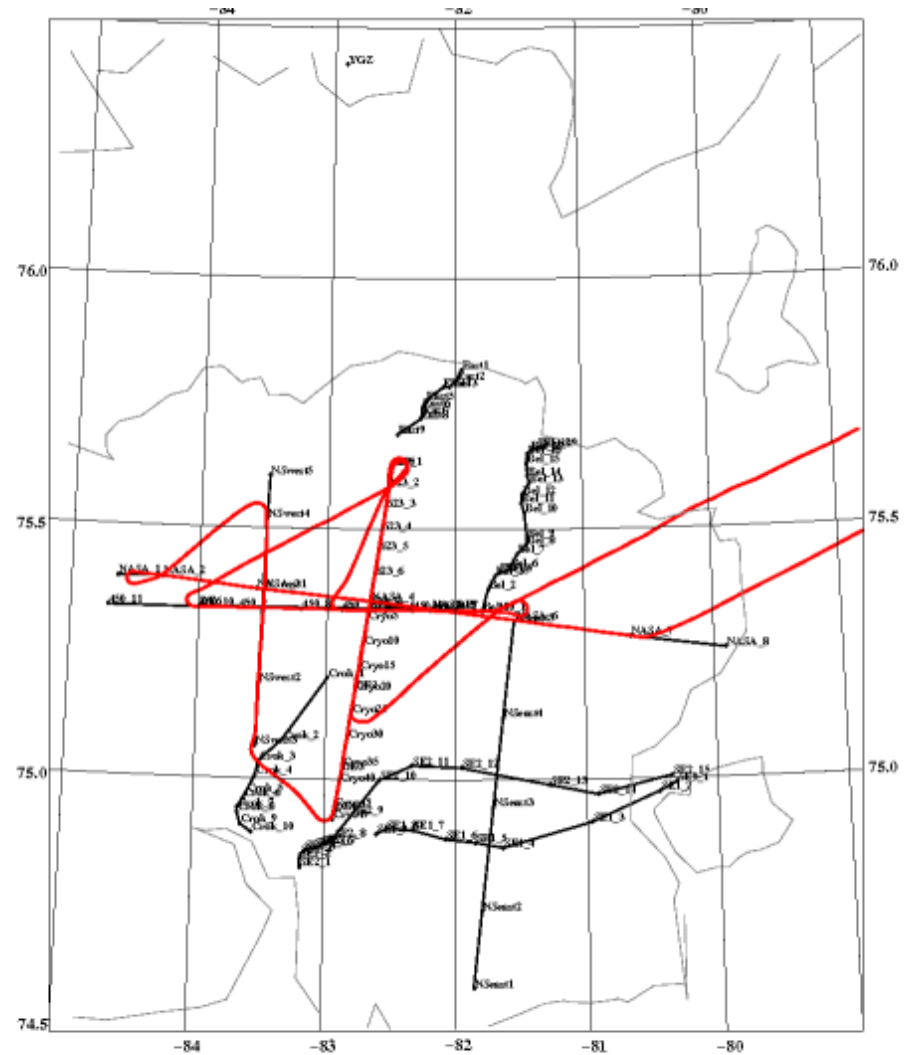


Details of flights

May 1 – ice validation lines



May 6 – Devon ice cap





Some lessons learned for 2010 CryoVex

- ASIRAS: New reduced-storage LAM mode works fine
- Desk-top PC's in field still very awkward .. *and too heavy* ..
- Data QC during flight campaigning important .. *easier with more time*
- Avoid too many other projects at same time .. *conflicts in scheduling*
- Alert weather .. *need longer time on site, especially for Heli ops*
.. *should we go earlier in 2010?*
- Alert logistics:
 - *Need overall DND agreement for 2010 and 2011*
 - *Unknown how change of logistics to private operator will affect daily ops*
 - *Internet access a problem .. acquire Iridium-based internet hub?*





2009 operations from Alert:

- UNCLOS bathymetry - Canadian and Danish Hydrographic Services, DTU-Space – 6 weeks
- Airborne gravity survey (DC3) – DTU-Space and NRCan (Geodetic Survey Division) – 6 wks
- Danish IPY science ice camp – 2 weeks+, last part of April

