

NAWDEX 2016 - Planning summary

Today there are no flights. The next missions are planned for tomorrow, Monday 26 September (IOP4) with Halo and Tuesday 27 September with Falcon, FAAM and HALO.

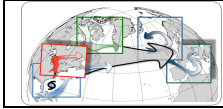
The schedule for today is the detailed planning of the HALO flight that will take place on Monday 26 September. At 16UTC there will be a weather discussion with a 10 Minutes quicklook session at the beginning with 1 slide per instrument. In addition there will be science meetings on days with less flight planning activities.

IOP3 on Friday 23 September

Research flights on Friday with HALO, Falcon and FAAM were successful. All instruments worked well and the measurements were successful. The Falcon could measure winds in the cirrus clouds above the jet exit very well in a coordinated flight leg with HALO in the morning. The ascent region of the WCB was crossed 3 times by HALO and 21 dropsondes were released in total. The FAAM arrived at the meeting point RUBEX later than planned. However, a request to Shannon airspace administration, HALO was allowed to fly an extra circle in order to start the coordinated flight leg with FAAM about as planned.

IOP4 on Monday 26 September

- On Monday a HALO flight addresses the structure of ex-TC Karl, which was explored during the last 2 days by the Global Hawk as part of the SHOUT mission. Until Monday 12 UTC, ex-TC Karl will merge with a cyclone evolving from Newfoundland, and this merged system will be associated with a very pronounced tropopause fold. The HALO flight is planned with several transects across this fold and the strong WCB further east.
- The first part of the flight will be at high levels (FL410) to measure the water vapour structure near the dry intrusion. Further south, at FL280, sondes will be dropped ahead of the dry intrusion and across the tropopause fold.
- The current flight plan might be too long. These issues will be discussed with the pilots in the meeting at 12UTC when the flight track will be planned in detail.
- Scientific Manager: Heinli Wernli (today), Jim Doyle (Mon 26 Sept)
- Chief Forecaster: Julian Quinting
- Instrument Manager: Manuel Gutleben
- Coordinator Ground-Based Observations: Leo Shaffin
- Mission Scientist: George Craig (HALO), Oliver Reitebuch (Falcon), Volkmar Wirth (Ground support)



IOP5 on Tuesday 27 September

- Ex-TC Karl will be captured in its mature state.
 - A mission coordinated between Falcon and FAAM is planned between the Faroe Islands until northern Scotland, crossing the PV streamer and the strong jet stream.
 - The meeting point with the British FAAM will be near the Faroe Islands at 10:40 UTC.
 - FAAM is operating at lower altitudes to make measurements in warm and ice clouds. The Falcon is flying at FL360 to take wind measurements in the tropospheric and stratospheric air and near the surface. In between the relative humidity might be too low.
 - A HALO flight is trying to catch the breakup of the PV streamer into a PV cutoff. This cutoff determines the future evolution of ex-TC Karl towards Norway.
 - The flight plans for Falcon and HALO will be further discussed with the pilots at 12 UTC.
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- Scientific Manager: Heini Wernli, Jim Doyle (Mon/Tue 26/27 Sept)
 - Chief Forecaster: Julian Quinting
 - Instrument Manager: Manuel Gutleben
 - Coordinator Ground-Based Observations: Leo Shaffin
 - Mission Scientist: Hanin Binder (HALO), Oliver Reitebuch (Falcon), Andreas Schäfler and Christian Keil (Ground Support)

Further points from discussion:

Radiosondes will be launched by Martina Bramberger between Tuesday and Wednesday 26/27 Sept to capture gravity waves possibly excited by the strongly anticyclonically curved jet stream approaching Iceland. A possible measurement flight with Falcon on Wednesday will be discussed tomorrow.