

Date: 29 September 2016

Author: George Craig, Florian Baur

NAWDEX 2016 - Planning summary

There are no flights planned today. This is a down day for the Falcon crew. The next missions are planned for Sunday, 1st October (HALO) and under consdieration for Sunday, 2nd October (French and German Falcon and HALO).

Today's schedule:

- Weather discussion with a short introduction the French team, a short Quicklook session of the Monday and Tuesday mission at 16:00 UTC
- There will be a midterm party at 19:30 UTC. Please bring some finger food! Beverages are provided.

Report HALO mission on Tuesday (27 September):

- Everything worked out as planned
- one additional sonde was dropped (in total: 20)
- inflow region with strong dust layer and high moisture signals could be sampled

Report from coordinated Falcon - FAAM BAE146 mission on Tuesday (27 September):

- some coordination issues appeared but could be solved
- successful coordinated N-S directed flight leg
- FAAM BAE146 dropped 23 sondes

Report of Falcon calibration flight on Wednesday (28 September):

calibration flight above Vatnajökull glacier was successful

Report of Radiosonde IOP:

- 5 Radiosondes were launched
- observations up to 42km altitude

Status of the aircraft:

- Falcon: OK. A brake had to be replaced before Wednesday's flight
- HALO: OK. One position light will be replaced tomorrow

Status of instruments:

• All OK.

IOP6 on Saturday 1st October:

- Evolving cyclone is located south of Iceland and is moving towards Iceland while intensifying
- targets of the measurements are the temperature structure in the strong PV anomaly in the

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centre, the moisture structure at tropopause level and the high wind speeds near the tropopause fault

- Take off is planned for 8:30 UTC
- Satellite overpass at 15:01 UTC
- Who were the responsible persons:

O Scientific Manager: George CraigO Chief Forecaster: Julian QuintingO Instrument Manager: Manuel Gutleben

- o Coordinator Ground-Based Observations: Jacob Maddison
- O Mission Scientists: Andreas Schäfler (HALO), Pila Bossman and Florian Baur (Ground Support)

Discussion

- No major problems were noted with the flight plan which will remain at high levels in Gander and Shanwick airspace.
- The vertical resolution of both the cloud radar and water vapor lidar are sufficient to resolve sub-kilometre structures near the tropopause.
- Look for ships located near cyclone where additional radiosondes could be launched.

Further announcements:

- Another mission (IOP7) will be proposed for Sunday (2nd October)
 - Coordinated mission with HALO, Falcon (French and German)
 - Further planning and discussion at the synoptic meeting at 16:00UTC and presentation of the draft tomorrow in the general meeting (11 UTC)