

Iceland Greenland Seas Project Workshop – 17-18 June 2019
University of East Anglia, Norwich, UK



“A coordinated atmosphere-ocean research project, centered on a rare wintertime field campaign to the Iceland and Greenland Seas, seeks to determine the location and causes of dense water formation by cold-air outbreaks.”

Workshop Agenda

Monday 17 June 2019 – ZICER 0.01, School of Environmental Sciences, UEA

Session Chair – Ian Renfrew

- 9.00 Welcome and overview of the IGP (including status of atmospheric data sets) - Ian Renfrew (UEA)
- 9.30 Introduction and status of the IGP oceanographic data sets – Bob Pickart (WHOI) & Kjetil Våge (UiB)
- 9.45 The emergence and evolution of the North Icelandic Jet - Stefanie Semper (UiB)
- 10.15 Water mass transformation in the Iceland Sea in winter 2015-16 – Kjetil Våge (UiB)
- 10.45 *Coffee*

- 11.15 Circulation and deep water formation in the Eggvin Offset, in the northwest Iceland Sea - Silje Skjelsvik (UiB)
- 11.30 Ventilation and water mass properties in the EGC seen from chemical tracers – Emil Jeansson (NORCE)
- 12.00 Variety of mixed layers in the IGP domain and their evolution through the winter – Bob Pickart (WHOI)
- 12.30 *Lunch*

Session Chair – Andy Elvidge

- 13.30 Tracing overflow water from the origin in the Nordic Seas to the Greenland-Scotland Ridge – Alin Brakstad (UiB)
- 14.00 Upstream sources of the North Icelandic Jet: a potential pathway between Greenland Sea and Iceland Sea - Jie Huang (WHOI & Tsinghua)
- 14.30 A new pathway to the dense overflow east of Iceland - Stefanie Semper (UiB)
- 14.45 Investigating the hydrographic seasonality of Denmark Strait Overflow Water – Jake Opher (BAS)
- 15.00 *Discussion period I – Oceanography*
- 15.15 *Coffee*

- 15.30 The impact of wintertime sea ice anomalies on high surface heat flux events in the Iceland and Greenland Seas – James Pope (BAS)
- 16.00 The changing nature of air-sea interaction over the Nordic Seas and its impact on the headwaters of the Atlantic Meridional Overturning Circulation – Kent Moore (U. Toronto)
- 16.30 *Discussion period II – Oceanography and climate*
- Evening - Workshop dinner – The Cellar House at 18.15 (Meet 17.45)*

Tuesday 18 June 2019 – ZICER 0.01, School of Environmental Sciences, UEA

Session Chair – Annick Terpstra

- 9.00 An overview of the IGP aircraft observations: surface fluxes over the marginal-ice-zone – Andy Elvidge (UEA)
- 9.30 Two cold air outbreak cases over the Iceland and Greenland Seas – Ian Renfrew (UEA)
- 10.00 Model evaluation and atmospheric boundary-layer budgets during a cold-air outbreak – Chris Barrell (UEA)
- 10.30 *Coffee*
- 11.00 Atmospheric boundary-layer wind observations from the WindCube Lidar - Christiane Duscha (UiB)
- 11.20 Aircraft measurement of vapour isotopes during a Cold Air Outbreak (4th/5th March 2018)- Alexandra Touzeau (UiB)
- 11.50 Airborne field measurements and model simulations of boundary layer properties over the Iceland Sea – Heidi Golid (remotely) (UiB)
- 12.05 Discussion period III – atmospheric processes
- 12.30 *Lunch*

Session Chair – Bob Pickart

- 13.30 North Atlantic polar mesoscale cyclones in ERA5 and ERA-Interim reanalyses – Denis Sergeev (U. Exeter)
- 14.00 Cold air outbreaks in the Labrador and Nordic Seas: Characteristics and climatology – Annick Terpstra (UiB/UEA)
- 14.30 An update on ocean modelling - Mike Spall (via Bob Pickart)
- 14.45 *Coffee*
- 15.15 Discussion period IV
- Atmosphere-ocean coupling – what novel questions can we address with the coupled coordinated data sets?
 - Future research plans from various groups & planned publications
 - Specific requests for collaborations
 - Update on IGP website
 - Update on outreach activities – films etc
 - Possible break out groups on specific topics
- 17.00 Finish

Evening – optional Norwich tour (18.00), get bus at 17.30, and meal out.

Wednesday 19 June – ZICER 0.05 and 0.06

I've booked a couple of small rooms for group discussions.
We can organise into small break out groups as needed.

Attendees

Name	email	Affiliation
Ian Renfrew	I.Renfrew@uea.ac.uk	University of East Anglia
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Emil Jeansson	emje@norce-research.no	NORCE Norwegian Research Centre, Bergen
Matilda Hallerstig	mhal@norce-research.no	NORCE, Bergen

UEA researchers who may attend a few talks:

Shenjie Zhou, Virryna Wu, Dan Smith, Dave Stevens, Xiaoming Zhai, Rob Hall