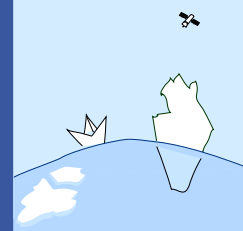


Arctic Cross-
Copernicus forecast
products for sea ice
and iceBERGs

<https://acciberg.nersc.no>

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ACCIBERG



ACCIBERG Project Newsletter

Successful Stakeholder Workshop

The second ACCIBERG stakeholder workshop was held on the 12th June 2026, taking place both online and in person at DMI, Copenhagen, Denmark. It was run back to back with the [IICWG 13th International Workshop](#) on Sea Ice Modelling, Assimilation, Observations, Predictions, and Verification.

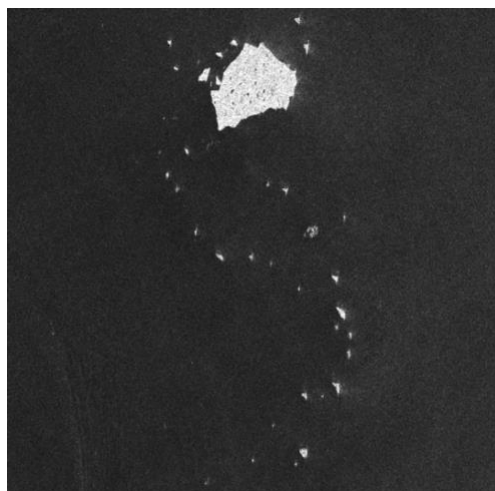
The objective of the workshop was to demonstrate and review the new services from the ACCIBERG project, namely ensemble sea ice forecasts and iceberg trajectory forecasts, to gather user feedback, and plan the future integration of these services into operational Copernicus Services in the Arctic. A user survey was conducted to better understand stakeholder needs, assess the user experience with the OpenBerg and ICECAP applications, and collect suggestions for future improvements.

Key feedback and priorities for future development include the addition of a graphical user interface, with the aim of widening the user base and the continued development of analysis tools and functionalities to support user needs.

We now look forward to our final meeting at Mercator Ocean Intl.'s offices in Toulouse, France on the 8th – 9th December (8th whole day and 9th morning). Please add the dates to your diary, more information will follow.

Iceberg Tracking Using OpenBerg

A huge iceberg, measuring 5.7 km x 4.2 km, is currently drifting southwest between Greenland and Iceland. The size of it makes it easy to spot using satellite data. It has been tracked by the ACCIBERG team since May, using both Synthetic Aperture Radar (SAR) and optical satellite observations from Sentinel 1 and Sentinel-2, respectively. The iceberg's movements are unusual. Although it initially drifted southward, close to the Greenland coast, in July it became trapped in ocean eddies circulating in the Denmark Strait. This has resulted in a more complex drift pattern than is typically observed for icebergs in this region.



The pirouetting iceberg has been slowly breaking up as it moves, leaving smaller icebergs or "growlers" in its wake. These bergy bits (an official term) and growlers are much smaller in size, meaning they can be harder to see and track and therefore dangerous to ships in the region. It is not only local fishing boats that have to be careful, as iceberg tourism is on the rise with cruise ships wanting to view the giant iceberg. But those wanting the best view of the iceberg need to be careful, as the satellite picture is misleading. Although it looks like the growlers and bergy bits are streaming out behind the main iceberg, like the tail of a kite, they are in fact drifting ahead of the main berg. As the iceberg is so enormous, it sits low in the ocean at 100 m depth, but the lighter debris float near the surface where the currents are faster.

Figure 1: Sentinel-1D IW image of the iceberg acquired on 07 August 2026. Source: Copernicus Sentinel-1 data (2026). Processed and visualized by Mohamed Babiker.

For the ACCIBERG team, this is a great opportunity to test the OpenBerg software, developed to predict iceberg trajectories in the Arctic. We have successfully reproduced the trajectory of the iceberg and its debris using OpenBerg, together with Arctic MFC forecasts of ocean currents. The ice island has proven to be a good validation test, with OpenBerg able to reproduce the iceberg's characteristic circular motion whilst caught in the ocean eddies and the scattering of bergy bits all over this part of the Denmark Strait.

Seasonal forecast of the September sea ice minimum

The existing C3S seasonal predictions of Arctic sea ice concentration only provide monthly means and no regional assessments. For marine users who have to operate in the vicinity of the ice edge, more fine-grained assessments of the forecasts are needed to be useful. This is what ACCIBERG's ICECAP software has been developed to do, as a contribution to the evolution of the Copernicus Services, in order to bring sea ice forecasts closer to the users.

For this year's summer minimum, near-average conditions are expected. [Forecasts from July](#) onwards have been indicating slightly more favourable conditions in the northern sea route than in recent years, but still no navigation possible after October. The conditions on the Northwest passage route are heavier than in the past years.

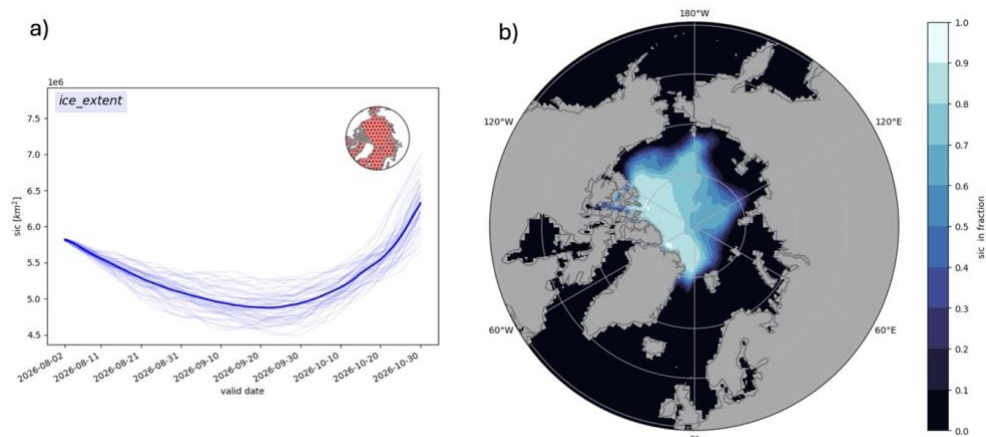


Figure 2: A C3S seasonal forecast of the 2026 sea ice minimum. Shown is the ECMWF contribution with initial date 1st August 2026. Left: forecast of pan-Arctic sea ice extent; thin lines are ensemble members, indicating the forecast uncertainty, and the thick line is the ensemble mean forecast. Right: ensemble-mean forecast of sea ice concentration at the predicted minimum on 20th September 2026.

As a demonstration of what is possible using ICECAP, Figure 2 shows the daily evolution of pan-Arctic sea ice extent and a map of the ice cover expected around this year's annual minimum as predicted by the ECMWF contribution to the C3S multi-model seasonal forecasting system. On the left, we see that the annual minimum is expected around the 20th September, but there is uncertainty about the minimum extent. On the right, we see there seems to be a good chance for the ice to retreat sufficiently in the Laptev and East Siberian Seas to allow shipping. However, there are still heavy ice conditions in the Northwest passage. Users of ICECAP will notice that both the amplitude and the timing of the sea ice minimum change from one model to another, suggesting that there is substantial uncertainty in the forecasts.

The ICECAP software, now runs as a [prototype service on the EDITO platform](#) and allows end users to visualize sea ice forecasts from C3S and CMEMS services at the touch of a button.

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