



USE CASE



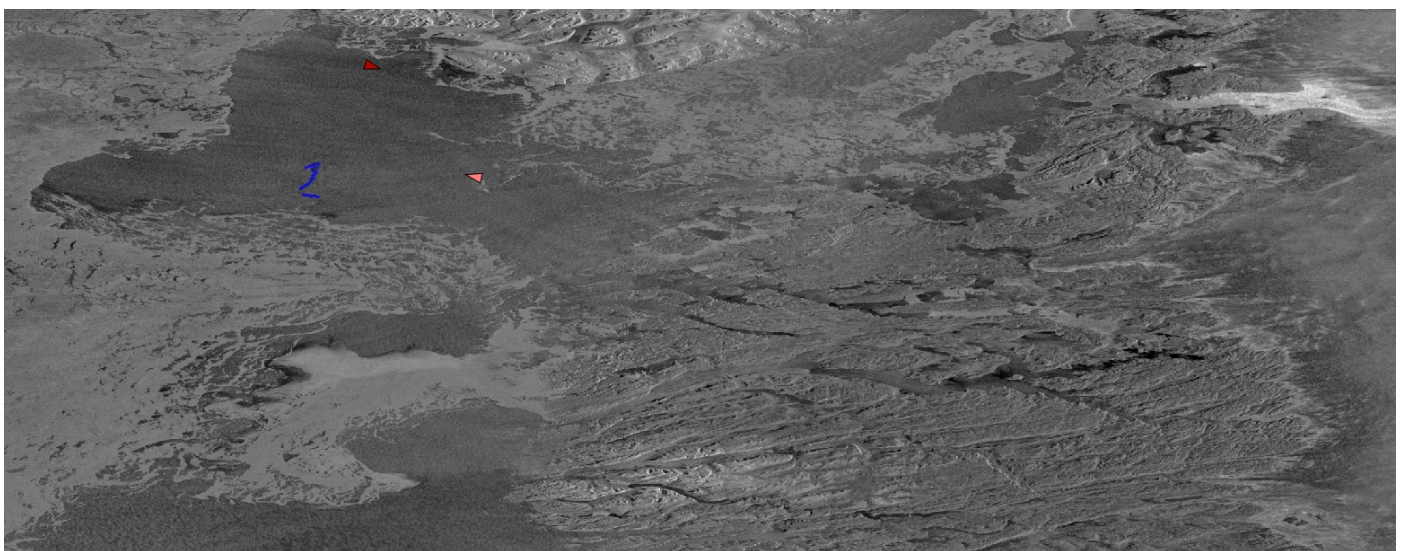
ROUTINE MONITORING OFF THE COAST OF GREENLAND

Denmark's Joint Arctic Command (JACO) makes extensive use of Copernicus Maritime Surveillance (CMS) products to enhance its overall awareness and daily monitoring of Greenland. With over 44 thousand square kilometres of often frozen inaccessible coastline, monitoring Greenland's waters would be impossible for Denmark without satellite technology.

As well as commercial shipping, including fishing activity, Greenland – and the Arctic as a whole – is experiencing

additional traffic from cruise liners. This presents challenges for safety of navigation and search and rescue activities. CMS products support Danish authorities carrying out maritime surveillance in the region across very large areas of ocean.

At operational level, in response to the routine monthly requests from JACO, EMSA orders satellite imagery to fulfil their coverage needs for general maritime traffic surveillance and potential oil spill detection.



Satellite images provide a safe and reliable detection method in Greenland, a vast and inhospitable region



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By analysing Earth Observation (EO) images alongside supplementary information offered by EMSA such as vessel position data and meteorological data, potential pollution can be identified, its extent determined, and its possible source detected.

Pollution is a particular concern in the delicate Arctic ecosystem, which is home not just to whales and seals, but to marine species that do not exist anywhere else in the world. For this reason, Synthetic Aperture Radar (SAR) satellite images are particularly suitable for detecting potential illicit discharges from ships. They provide relevant details like the spill location, area and length, the detection's confidence level, as well as supporting information regarding the potential spill source, in quasi-real time (in practice, within 20 minutes of a satellite acquisition).

The oil spill detection delivered by Copernicus Maritime Surveillance Service extends the European CleanSeaNet service to areas of interest beyond European waters.

Copernicus is the Earth Observation component of the European Union's Space Programme which looks at our planet and its environment for the benefit of all European citizens. It offers information services that draw from satellite Earth Observation and in-situ (non-space) data. The European Maritime Safety Agency (EMSA) is the Entrusted Entity responsible for implementing the Copernicus Maritime Surveillance service on behalf of the European Commission (DG-DEFIS).



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Get in touch for more information

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