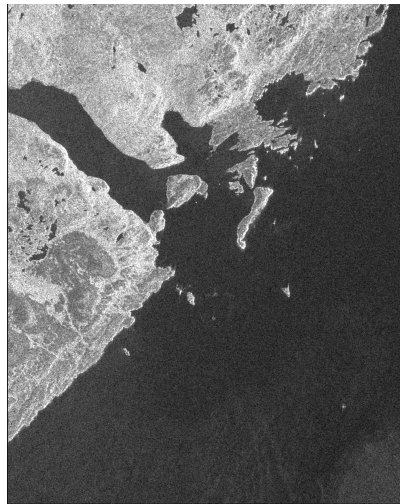


Iceberg Detection Software (IDS)

C-CORE, a Canadian applied R&D company with expertise in adapting space technologies for use in harsh terrestrial environments, is taking advantage of new capabilities offered by ESA's Sentinel-1 mission to improve its EO-based maritime monitoring service.



Innovation



The service, which provides day/night, all-weather, large-area reconnaissance specifically to detect and classify icebergs and to distinguish icebergs from seagoing vessels, helps mitigate risk for oil and gas operations in ice-prone oceans: once detected, icebergs approaching operational areas can be pushed or pulled off course, preventing potentially damaging contact with fixed structures and reducing downtime due to disconnection for floating platforms.

Figure Caption: Sentinel-1A IW Swath image (right) used to locate icebergs for the tourism website Icebergfinder.com (left) in Northern Newfoundland. The location of the icebergs on the Iceberg Map were extracted from detections taken from the Sentinel-1 image. The icebergs are located with IDS after the land and islands are masked out of the SAR image.

Impact

Surveillance plans for regions of interest are also developed specifically for each client.

Concept

The process is automated using C-CORE's proprietary Iceberg Detection Software (IDS), with 24/7 quality control provided by C-CORE's team of EO specialists, so that clients get near-real-time information in a format customized to their specifications.

Technical details

C-CORE is now upgrading its IDS to handle Sentinel-1 imagery; testing of this new capability has been ongoing during the 2015 iceberg season, and the results have been posted to Icebergfinder.com, a website developed by C-CORE to show the locations of icebergs that can be viewed from shore. C-CORE is further enhancing IDS to automatically download and process imagery to handle the large volume of Sentinel-1 data, as well as to alert analysts to review the imagery more quickly.

Multi-media

Icebergfinder.com

Reference

Contact info

Website: www.c-core.ca