



ICEBERG MONITORING

POLAR VIEW IN THE ANTARCTIC

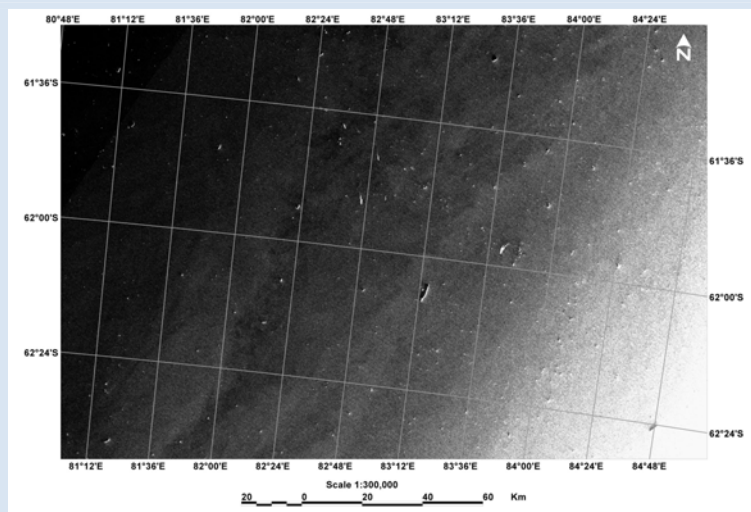
Polar View will deliver near real time information to assist vessels navigating in the Southern Ocean. Provision of timely and accurate data from satellite observations will contribute to safe and efficient ship operations. Given the vast extent of the Southern Ocean, satellite observations provide the best source of information about iceberg location, concentration and movement.



The iceberg service established in the northern hemisphere has been extended to the Antarctic. This service supports safe shipping and offshore operations by providing near real-time detection of icebergs based on satellite synthetic aperture radar (SAR) imagery. Much experience has been gained in the Arctic where end-users are concerned with transportation and offshore operations safety.

Within a few hours of the satellites collecting the Synthetic Aperture Radar (SAR) images, the data is received and processed using specialised Iceberg Detection Software. A custom-developed algorithm extracts both icebergs and other targets, such as ships and offshore structures, from the SAR imagery. The results, which include iceberg targets, their size and shape and longitude and latitude information, are then forwarded to vessels in the Southern Ocean.

The example (right) shows how icebergs in the Southern Ocean appear on Envisat SAR imagery.



A number of global yacht races, including the Volvo Ocean Race, have used this information to help steer them away from dangerous icebergs. C-CORE, a member of the Polar View consortium, supplied 'pre-leg' reconnaissance of the areas in the Southern Ocean notorious for harbouring icebergs.

Polar View is funded by the joint European Space Agency as part of the Global Monitoring for Environment and Security (GMES) programme. The overall Polar View programme operates in the north and south, delivering a range of polar environmental information services. For further information on the Polar View programme please visit either the Antarctic network website www.polarview.aq or the Polar View programme website www.polarview.org. The British Antarctic Survey manages Polar View in the Antarctic. You can contact Andrew Fleming at Andrew.Fleming@polarview.org or on +44 (0)1223 221451.