Since 2004, Noetix Research Inc. of Ottawa has been working with the Canadian Ice Service and the European Space Agency to provide the Polar View Floe Edge Service to high Arctic communities. The first communities to access and use the service were Pond Inlet and Arctic Bay, where it has been used to identify the location of the floe edge, and the ice conditions between the community and the floe edge, for safe navigation. Then services were expanded to 3 communities in the Northwest Territories in 2005 (Sachs Harbour, Ulukhaktok, and Paulatuk). Just last year the service was also expanded to Resolute Bay and Grise Fiord.

The Floe Edge Service shows the current sea ice conditions around each community using RADARSAT1 and ENVISAT ASAR sensors, while providing some image interpretation that depicts the floe edge position, where the landfast and moving ice are located, and a 30 year average floe edge position. The service operates year-round and products are available online within 24 hours after the images are acquired.

Through the sea ice project ongoing in Cape Dorset, Igloolik, and Pangnirtung for the past three years to document Inuit knowledge and use of sea ice, great interest was expressed in having more access to satellite images of sea ice to evaluate local and regional ice conditions. Through Canadian International Polar Year funding for the Inuit Sea Ice Use and Occupancy Project, as well as funding from the Environment Canada Northern Ecosystem Initiative, the sea ice project that we have been working on was able to be expanded, while also enabling the involvement of Noetix Research Ltd. and the expansion of the Floe Edge Service to these three communities (for at least two years). So, over the past three weeks (October 28 - Nov 17), Noetix representatives Tom Hirose and Mark Kapfer, along with myself, visited each community to give public presentations on the service, how it works, and how to access the image products. Also, a full day workshop was held in each community to tailor the service (e.g. regional extent, frequency of acquisition, and product interpretation) to community needs. These presentations and meetings were supported and facilitated by the Hamlet Offices in each community, and the Hamlets have also taken on the responsibility of printing and posting image products regularly, for those who do not have internet access. So far, the presentations and the service have been well received, and an evaluation of the utility of the service will be ongoing for the next two years to gauge its effectiveness as a support tool.

Key users of this service tend to be the Hunters and Trappers Associations, Territorial and Federal Government Agencies, Conservation Officers, Tourism, Media, and Community Schools. This is currently considered a demonstration service and product, but the long-term vision is to provide this kind of service to all northern communities as an ongoing program. In order to achieve this goal, it is really important to receive feedback from communities who are using the service, as well as expressions of interest from other communities who may want to use the service. This kind of feedback is critical in order to secure additional financial resources to ensure a self-sustaining service.
For more information contact the Hamlet Office in Cape Dorset, Igloolik, or Pangnirtung - or Noetix Research directly.