

SMART ICE

a sea-ice monitoring and information
service for coastal communities and
industries

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SMART ICE



Stuck in the Slush

Living with climate variability & change

Responds to community priorities

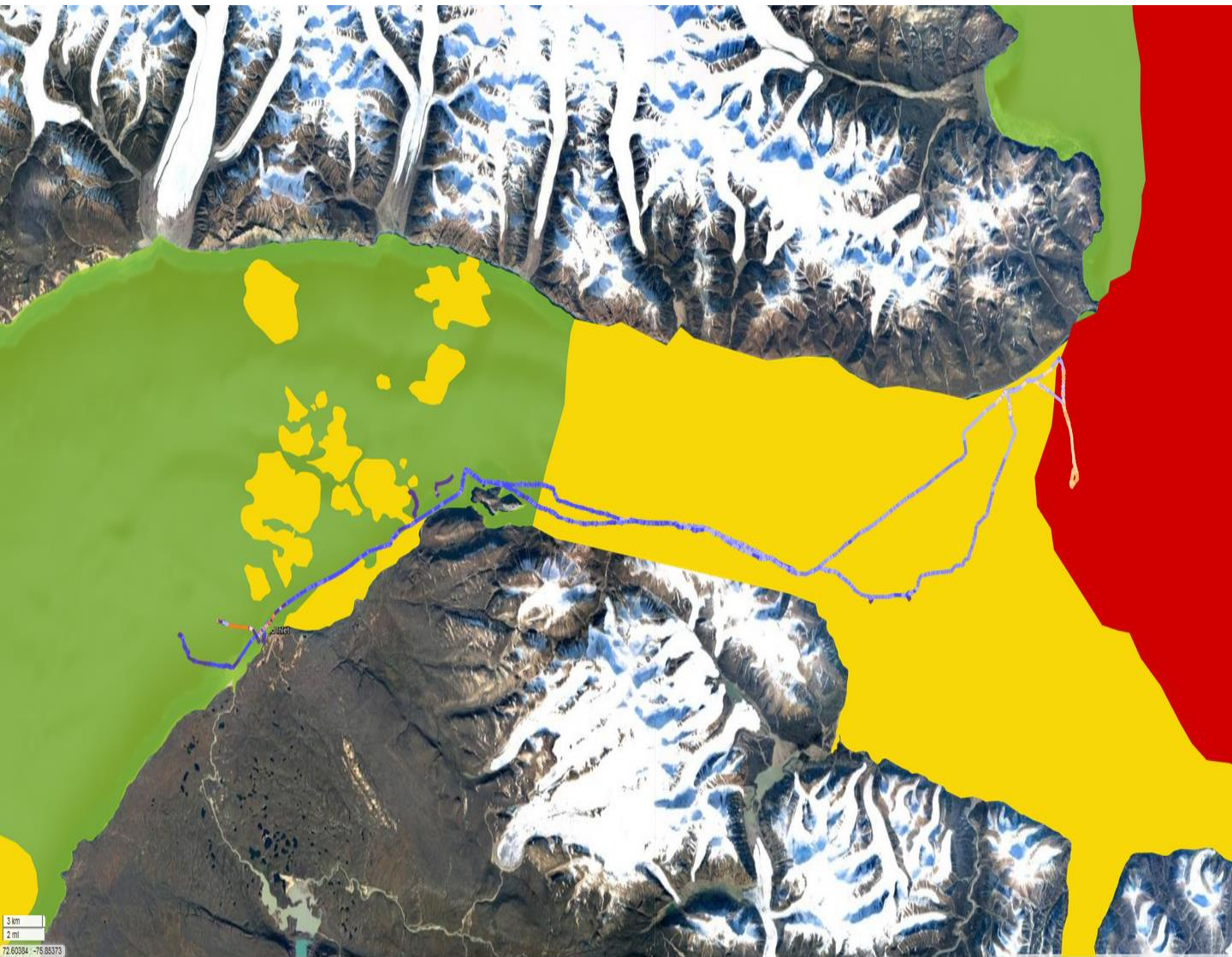
Inuit knowledge of traditional travel routes less reliable



**Directly involves Inuit in all operations
Integrates Inuit Knowledge about sea ice**

Sikumiut – our community user group

Combining local knowledge and satellite technology to produce Inuit-relevant sea-ice hazard maps



Ice Travel Map: Jun 24 2017

GO SLOW NO GO

Ice Thickness: Jun 14 to Jul 4 2017

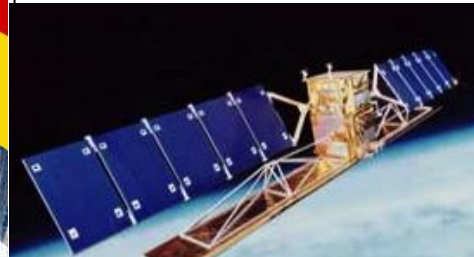
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ft

Click on track to get ice thickness information

- S2 (10m):
- MODIS (250m):
- S1 (75m):
- Locations of Interest
- Buoy Data (Ice Info)
- Coastline
- Community Basemap

⚠ Caution some data is over 10 days old

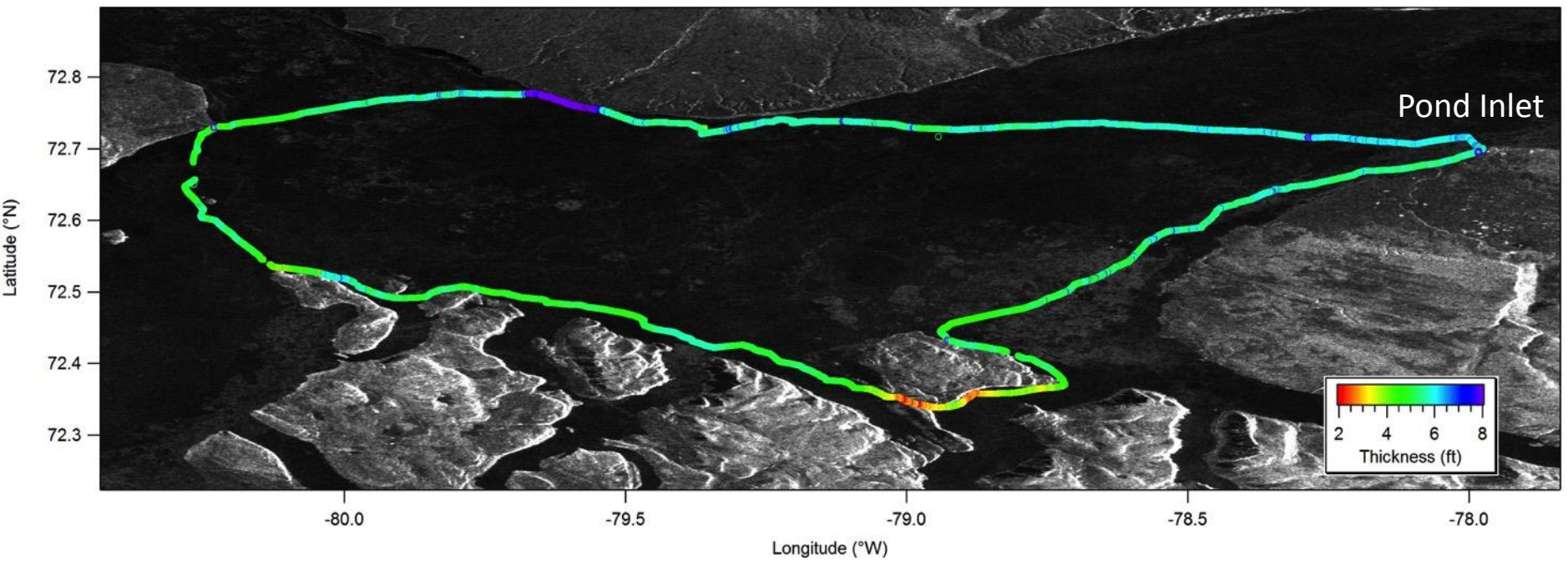
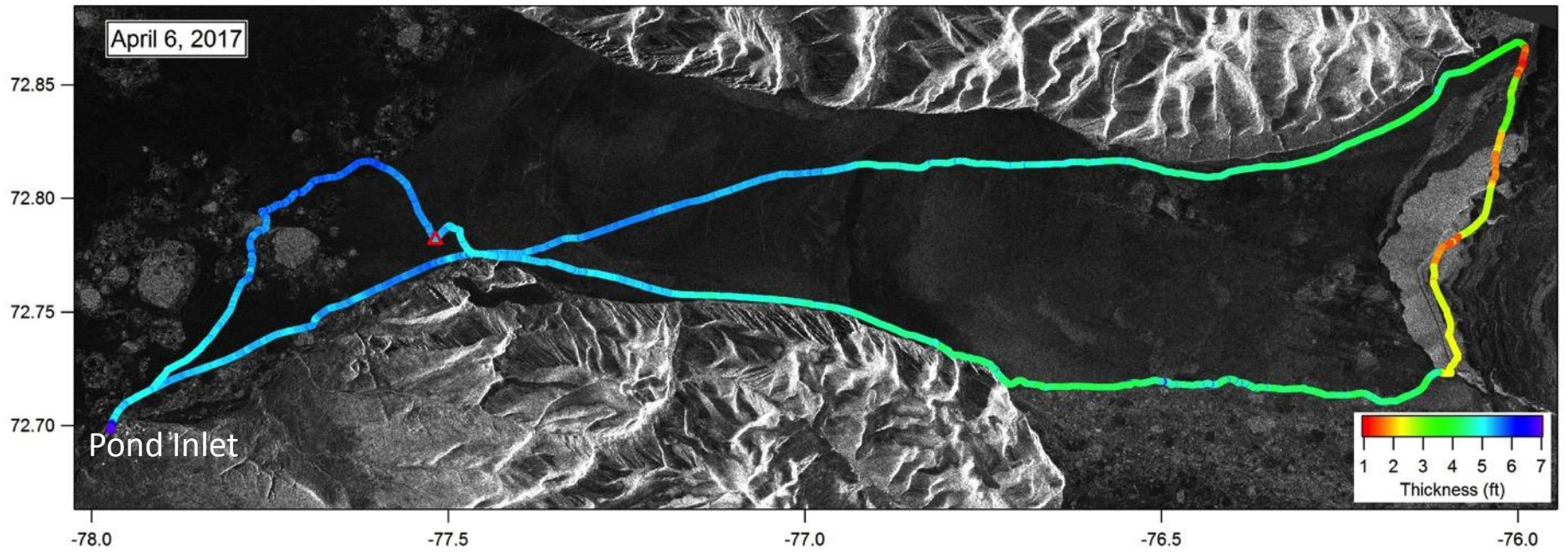


A satellite in orbit above Earth, showing solar panels and instruments.

SmartQAMUTIK

Qamutik-mounted
mobile sensor to
continuously record sea
ice thickness





SmartBUOY

Network of low-cost, recoverable,
stationary sea-ice thickness sensors



From feasibility to sustainability



Building a sustainable social enterprise

Maintaining safe ice passage under unpredictable conditions ...



...using local expertise and knowledge



Winter Fisheries



Floe Edge Tourism



**ARCTIC BAY
ADVENTURES**
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ARCTIC KINGDOM

Winter shipping and sealift



SmartICE services can:

- Support route planning
- Monitor refreezing of ship track
- Inspect ship track crossings
- Monitor ice break-up



Canadian Armed Forces & Rangers Expeditions and Training Exercises



Search and Rescue



Freshwater ice monitoring



From feasibility to sustainability



Building a sustainable social enterprise
Promoting northern entrepreneurship & innovation
Developing a knowledge economy in communities

