



NIRB Uuktuttinga Ihivriuqhikhamut #126035

IceBird Winter 2025

Uuktuttinga Qanurittuq: New

Havaap Qanurittunia: Scientific Research

Uuktuttinga Ublua: 1/20/2025 1:54:04 PM

Period of operation: from 2025-03-25 to 2025-04-13

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QANURITTUT

Tukihiannaqtunik havaariyauyumayumik uqauhiuyun

Qablunaatitut: We are scientists with the German Alfred Wegener Institute for Polar Research and have carried out airborne sea ice observations in Nunavut for many years. Here we propose to continue our long-term observations and to include Cambridge Bay and Victoria Strait as a new study region. This complements our other study region where we have worked for many years, including Resolute Bay, Pond Inlet, Eureka, and Alert. We use a DC3 airplane for our sea ice observations. It will carry cameras, a radar, and an EM probe for measuring snow and ice properties. The airplane will take off and land at open airports in communities in Nunavut. It will fly along long, straight transects 200 or 300 miles long. It will fly low over the sea ice at 200 ft altitude. On board the aircraft will be three crew and three scientists. They will overnight in the communities. Two or three flights will be carried out from each community. The objective of the surveys is to observe the variability and change of sea ice and snow thickness and deformation in the Canadian Arctic. Results are important for better understanding of climate change. They will also be used to improve satellite observations of ice conditions, for example for better generation of ice travel hazard maps, and to evaluate the feasibility of shipping in the Northwest Passage. In the past we have been granted permission to survey the sea ice in the vicinity of Resolute Bay, Pond Inlet, Eureka, and Alert. Here we ask for permission to survey the sea ice around Cambridge Bay, including in Dease Strait and Victoria Strait. We will avoid surveying in protected areas. Our surveys are planned between March 25 and April 13, 2025. We plan to repeat them every year for the next five years during the March and April time period.

Uiviitut: n/a

Inuinnagtun: n/a

Personnel

Personnel on site: 7

Days on site: 6

Total Person days: 42

Operations Phase: from 2025-03-25 to 2025-04-13

Hulilukaarutit

Inigiyá	Hulilukaarut Qanurittuq	Nunanngá Qanurittaakhaanik	Initurlingá qanuritpa	Initurlingá utuqqarnítat unaluuniit Ingilraaqnítát Uyarangnuqtut akhuurninngá	Qanitqiayuq qanitqiamut nunallaat kitulluuniit ahiruqtailiyainnit nuna
Cambridge Bay	Aerial surveys	Marine	n/a	n/a	>35 km

Nunaliin Ilauyun, Aviktuqhimayuniitunullu Ikayuuhiarunguyun

Nunauyuq	Atia	Timiuyuq	Upluani Uqaqatigyaungmata
Ikaluktuttiak	Daniel Kramer, U Sherbrooke	HTC	2025-02-13
Ikaluktuttiak	Trevor Bell	SmartIce	2025-02-03

Angiuttauvaktunik

Naunaiqlugu nunanga talvani havauhikhaq ittuq:

Angiuttauvaktunik

Munariniqmut Ayuittiaqtuq	Angirutinga Qanurittuq	Tadja Qanurittaakhaanik	Ublua Tuniayuuq/Uuktuqtuq	Umikvikhaa Ublua
Nunavunmi Ihvriuqnigmut Timiqutigiyanga	Research license from NRIPreviously 0201924R-M	Applied, Decision Pending		

Project transportation types

Transportation Type	Qanuq Atuqtauniarmangaa	Length of Use
Air	Airborne sea ice surveys with own DC3/Basler	

Project accomodation types

Nunayuuq

Ihuaqtivaluin Atuqtauyukhan

Hanalrutit atuqtaunahuat (ukuallu ikuutat, pampiutainnik, tingmitinik, akhaluutinik, hunaluuniit)

Hanalrutit Qanurittuq	Qaffiuyut	Aktikkulaanga – Qanurittullu	Qanuq Atuqtauniarmangaa
Basler BT-67 (DC3) airplane	1	N/A	Research flights and ferrying equipment & passengers

Qanurittuq Urhuqyuaq unalu Qayangnaqtut Hunavaluit Aturninnga

Qanurittuq urhuqyuaq hunavaluit aturninnga:	Urhuqyuaq Qanurittuq	Qaffiuyut qattaryut	Qattaryuk Aktikkulaanga	Atauttimut Qaffiuyut	Ilanga	Qanuq Atuqtauniarmangaa
Aviation fuel	fuel	1	16000	16000	Liters	For survey flights. Fuelling will take place at local community airports YCB, YRB

Imaqmik Aturninnga

Ubluq qanuraaluk (m3)	Aturumayain imavaluin utiqtittagaani qanuq	Atulirumayain imavaluin utiqtittagani humi
0		

Iqqakuq

Ikkakunik Munakgiyauyunik

Havauhikhaq Hulilukaarut	Qanurittuq Iqqakut	Ihumagiayuq Qanuraaluktut Atuqtait	Qanuq Iqqakuurniarlungaa	Halummaqtirarnirutikan piyutin
Information is not available				

Avatiliriniqmut Ayurhautingit:

Our surveys take place at 200, 1100, and 1500 ft flying altitude, with a speed of 120 knots. The only impact is short-term noise from the aircraft, particularly during the overflight at 200 ft. However, noise is limited due to the fact that only one overflight takes place at any location as the low altitude surveys take place along extended single lines. For the larger altitudes, aircraft presence is limited to a maximum of several overflights during one hour, and only on one day. The impact of these flights is minimal and we have permission to carry them out even in Antarctica where the strictest environmental requirements worldwide exist.

Additional Information

SECTION A1: Project Info

SECTION A2: Allweather Road

SECTION A3: Winter Road

SECTION B1: Project Info

SECTION B2: Exploration Activity

SECTION B3: Geosciences

SECTION B4: Drilling

SECTION B5: Stripping

SECTION B6: Underground Activity

SECTION B7: Waste Rock

SECTION B8: Stockpiles

SECTION B9: Mine Development

SECTION B10: Geology

SECTION B11: Mine

SECTION B12: Mill

SECTION C1: Pits

SECTION D1: Facility

SECTION D2: Facility Construction

SECTION D3: Facility Operation

SECTION D4: Vessel Use

SECTION E1: Offshore Survey

SECTION E2: Nearshore Survey

SECTION E3: Vessel Use

SECTION F1: Site Cleanup

SECTION G1: Well Authorization

SECTION G2: Onland Exploration

SECTION G3: Offshore Exploration

SECTION G4: Rig

SECTION H1: Vessel Use

SECTION H2: Disposal At Sea

SECTION I1: Municipal Development

Qanurittuq Ittunik Avatinga: Avatingalluanga

Qanurittuq Ittunik Avatinga: Inuuhimayunut Avatinga

Qanurittuq Ittunik Avatinga: Inungit-maniliurutingit Avatinga

Miscellaneous Project Information

Naunaiyainiq ukuninnga Ayurhautingit unalu Piumayaat Ikikliyuumiutinahuarutit

Tamatkiumayunik Ihuikgutivaktunik

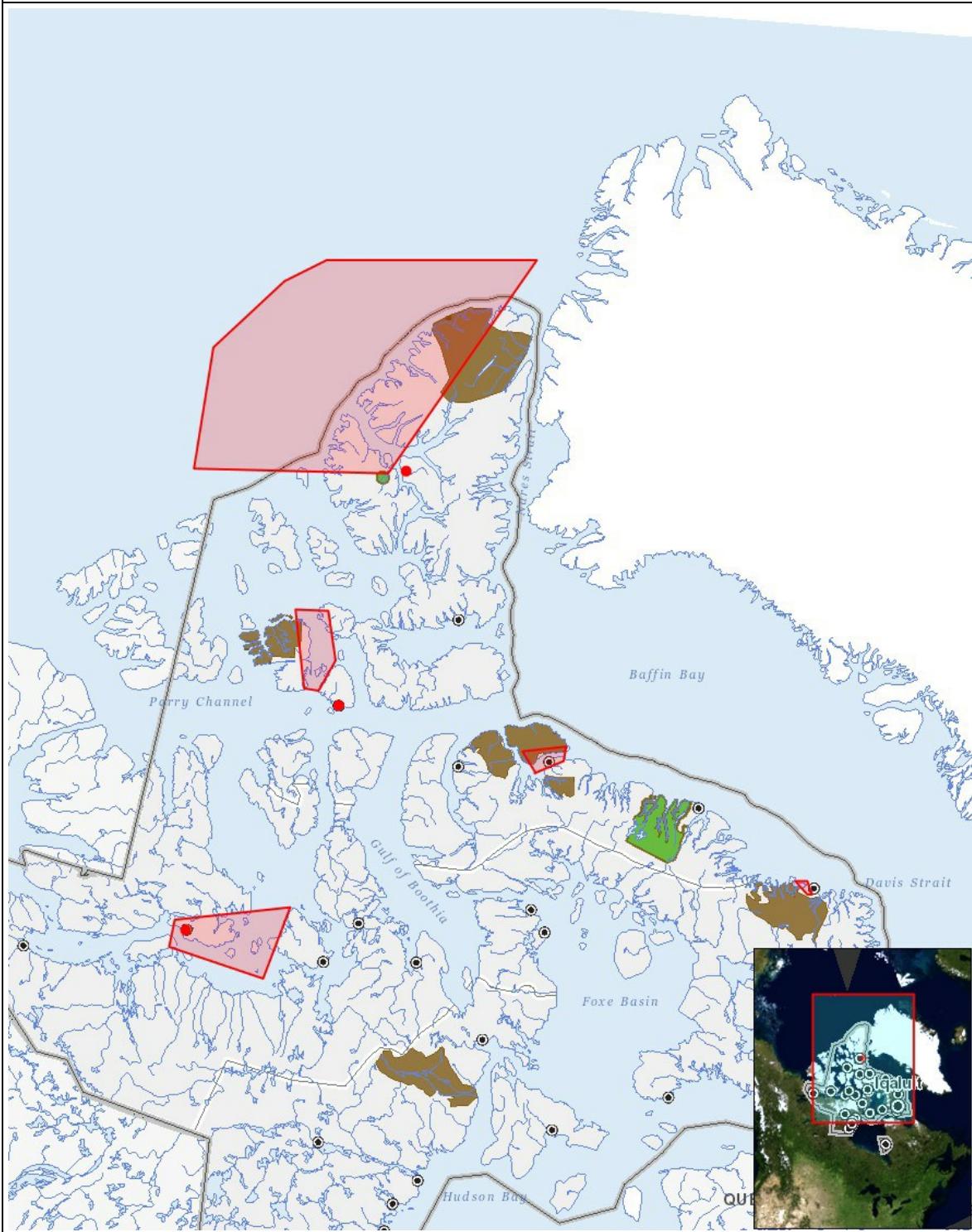
Impacts

Ilitariyauniq Avatiliriniqmut Ayurhautingit

PHYSICAL		BIOLOGICAL																		SOCIO-ECONOMIC																															
Designated environmental areas		Ground stability		Permafrost		Hydrology / Limnology		Water quality		Climate conditions		Eskers and other unique or fragile landscapes		Surface and bedrock geology		Sediment and soil quality		Tidal processes and bathymetry		Air quality		Noise levels		Vegetation		Wildlife, including habitat and migration patterns		Birds, including habitat and migration patterns		Aquatic species, incl. habitat and migration/spawning		Wildlife protected areas		Archaeological and cultural historic sites		Employment		Community wellness		Community infrastructure		Human health									
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Havakvinga																																																			
Aerial surveys		M	U	U	-	U	U	U	U	U	U	U	U	U	U	M	M		U	M	M	U	M		U	U	U	U	U	P	P	U	U																		
Aulapkaininnga																																																			
Piqauniq																																																			

(P = Nakuuyuq, N = Nakuungittut unalu mikhilimaittuq, M = Nakuungittut unalu mikhitaaqtuq, U = Naluyauyuq)

Havaariyaukhamut Nayugaa



List of Project Geometries

1	polygon	Last Ice Area
2	polygon	Victoria Strait
3	polygon	Penny Strait
4	polygon	Pond Inlet
5	polygon	Qikiqtarjuaq
6	point	Eureka
7	point	Resolute Bay
8	point	Cambridge Bay