NIRB Uuktuutinga Ihivriuqhikhamut #126354

CRISTAL Airborne Survey

Uuktuutinga Qanurittuq:	New
Havaap Qanurittunia:	Scientific Research
Uuktuutinga Ublua:	Wednesday, March 4, 2026
Period of operation:	from 2026-04-05 to 2026-04-13
Havauhikhaq Ikayuqtinga:	Walton Williamson California Institute of Technology, Jet Propulsion Laboratory (NASA) 4800 Oak Grove Ave Pasadena CA 91108 United States Hivayautit Nampanga:: 626-375-4164, Kayumiktukkut Nampanga::

QANURITTUT

Tukihiannaqtunik havaariyauyumayumik uqauhiuyun

Qablunaatitut: See Documents Tab.

Uiviititut: See Documents Tab

Inuktitut: See Documents Tab

Inuinnaqtun: See Documents Tab

Personnel

Personnel on site: 10
Days on site: 10
Total Person days: 100
Operations Phase: from 2026-04-05 to 2026-04-13

Hulilukaarutit

Inigiya	Hulilukaarut Qanurittuq	Nunannga Qanurittaakhaanik	Initurlinga qanuritpa	Initurlinga utuqqarnitat unaluuniit Ingilraaqnitat Uyaranngugtut akhuurninnga	Qanitqiyauyuq qanitqiamut nunallaat kitulluuniit ahiruqtailiyainnit nuna
We are flying a Kenn Borek Basler BT-67. We will land in Cambridge Bay and fly 1 to 2 flights per day within the specified area. We are primarily intrested in Sea Ice.	Aerial surveys	Marine	N/A	N/A	We only plan to take off and land at Cambridge Bay.
We are flying a Kenn Borek Basler BT-67. We will land in Cambridge Bay and fly 1 to 2 flights per day within the specified area. We are primarily intrested in Sea Ice.	Aerial surveys	Marine	N/A	N/A	We will fly over our colleagues experiment CEMSIE run by Dr. John Yackel from CHARS. It is important that we fly and take data over the same region his team is surveying on the ground.

Nunaliin Ilauyun, Aviktuqhimayuniitunullu Ikayuuhiarunguyun

Nunauyuq	Atia	Timiuyuq	Upluani Uqaqatigiyaungmata
Ikaluktuttiak	Junna Ehaloak	Kitikmeot Inuit Association	2026-01-09

Angiuttauvaktunik

Naunaiqlugu nunanga talvani havauhikhaq ittuq:

Transboundary
Kitikmeot
North Baffin

Angiuttauvaktunik

Munariniqmut Ayuittiaqtuq	Angirutinga Qanurittuq	Tadja Qanurittaakhaanik	Ublua Tuniyauyuq/Uuktuqtuq	Umikvikhaa Ublua
Nunavut Kavamanga, Nunavunmi Ihivriuqniqmut Timiqutigiyanga	In progress with Mosha Cote.	Applied, Decision Pending		
Tingmiliqiyiitkut Kaanatami	Applied for aircraft and instruments safety review.	Applied, Decision Pending		
Nunavunmi Ihivriuqniqmut Timiqutigiyanga	Information copied into this application.	Applied, Decision Pending		

Project transportation types

Transportation Type	Qanuq Atuqtauniarmangaa	Length of Use
Air	We will fly into the region with our own Kenn Borek Air Basler.	
Land	We will rent cars in Cambridge Bay to drive from our hotels to the airport and to CHARS.	

Project accomodation types

Nunauyuq

Ihuaqutivaluin Atuqtauyukhan

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

Hanalrutit Qanurittuq	Qaffiuyut	Aktikkulaanga – Qanurittullu	Qanuq Atuqtauniarmangaa
Aircraft	1	50x50	We will fly the Kenn Borek Basler BT-67 into the Cambridge Bay airport. From that airport, we will fly over the sea ice taking measurements. We will only land at the airport.
Rental Car	2	TBD	Travel in Cambridge Bay, at the airport, and to CHARS.

Qanurittuq Urhuqyuaq unalu Qayangnaqtut Hunavaluit Aturninnga

Qanurittuq urhuqyuaq hunavaluit aturninnga:	Urhuqyuaq Qanurittuq	Qaffiuyut qattaryut	Qattaryuk Aktikkulaanga	Atauttimut Qaffiuyut	Ilanga	Qanuq Atuqtauniarmangaa
Aviation fuel	fuel	0	0	0	Liters	We will only take Fuel at the Cambridge Bay Airport. The plane consumes 600 Liters per flight hour.

Imaqmik Aturninnga

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

Iqqakuq

Ikkakunik Munakgiyauyunik

Havauhikhaq Hulilukaarut	Qanurittuq Iqqakut	Ihumagiyauyuq Qanuraaluktut Atuqtait	Qanuq Iqqakuurniarmangaa	Halummaqtirarnirutikhan piyutin
Information is not available				

Avatiliriniqmut Ayurhautingit:

Using our data and the data from our University of Calgary colleagues, we will be able to better measure the change of sea ice seasonally. The data will help us calibrate the CRISTAL satellite mission (https://www.esa.int/ESA_Multimedia/Images/2020/09/CRISTAL) scheduled for launch in 2028. This mission will last 7.5 years and measure the change of sea ice in the polar regions. From this data, which will be shared worldwide, we can better understand our climate and also understand the impact to the Inuit people living there.

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

We do not plan to change the environment. We are measuring the environment in order to enable long term measurement of sea ice extant and thickness from our spacecraft, CRISTAL.

Qanurittuq Ittunik Avatinga: Inuuhimayunut Avatinga

Qanurittuq Ittunik Avatinga: Inungit-maniliurutingit Avatinga

Miscellaneous Project Information

We are working with our colleagues at CHARS and University of Waterloo. Dr. John Yackel of the University of Calgary is already leading a team out onto the ice at Cambridge Bay. He will have additional aircraft flying over the team on the sea ice. Dr. Richard Kelly from the University of Waterloo is also flying an aircraft at the same time. Our aircraft has instruments that are different but complimentary to the other aircraft in this experiment. We want to fly at the same time these other aircraft are flying so that we collect data over the same regions and at the same time and can use all of the data to help predict how well we can measure sea ice from space.

Naunaiyainiq ukuninnga Ayurhautingit unalu Piumayaat Ikikliyuumiutinahuarutit

We would be happy to fly with a spotter in our airplane to help us avoid wildlife. Please contact me at 626-375-4164 if needed. All flights will originate in Cambridge Bay.

Tamatkiumayunik Ihuikgutivaktunik

Impacts

Ilitariyauniq Avatiliriniqmut Ayurhautingit

	PHYSICAL	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	BIOLOGICAL	Vegetation	Wildlife, including habitat and migration patterns	Birds, including habitat and migration patterns	Aquatic species, incl. habitat and migration/spawning	Wildlife protected areas	SOCIO-ECONOMIC	Archaeological and cultural historic sites	Employment	Community wellness	Community infrastructure	Human health
Havakvinga																									
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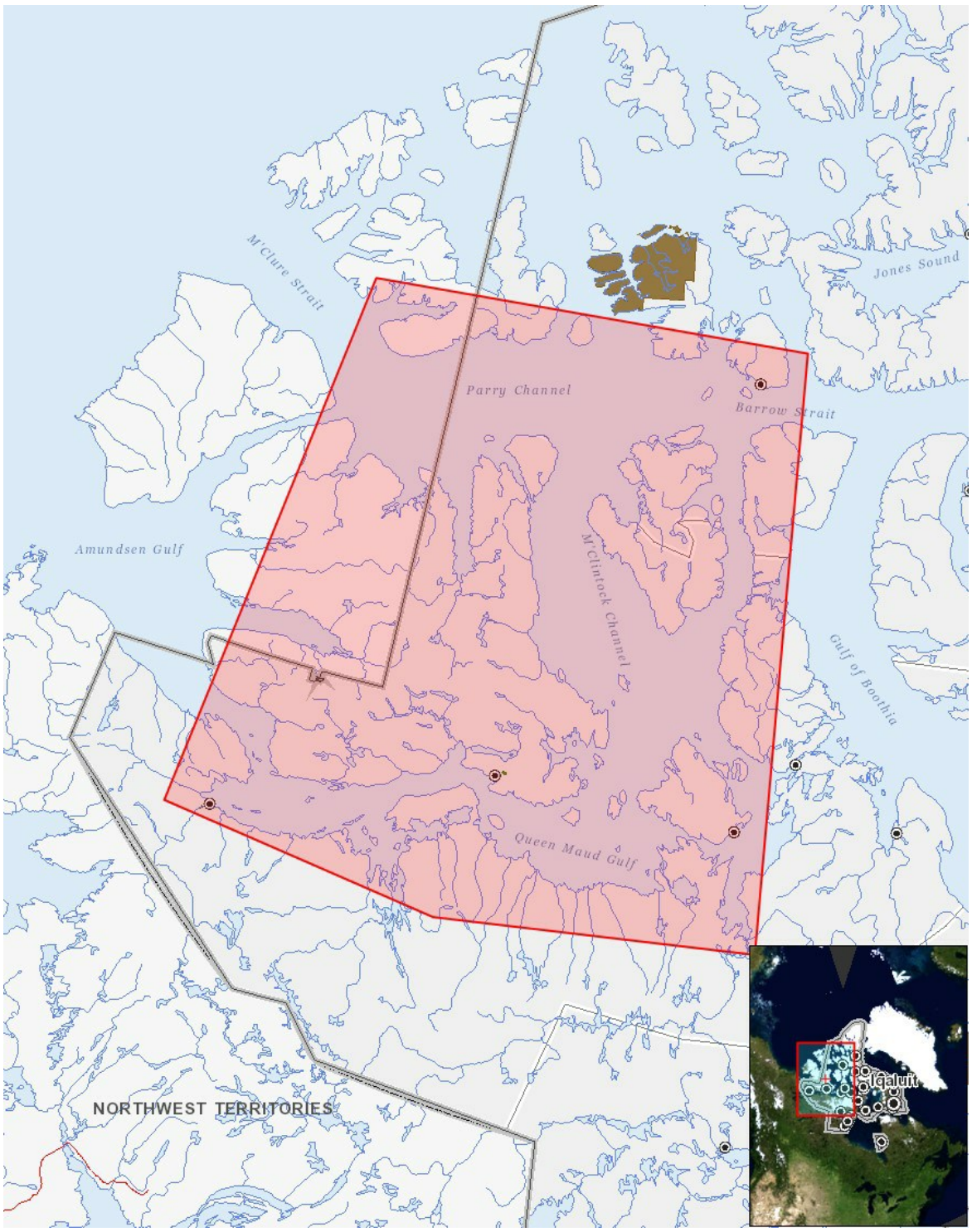
Aulapkaininnga																									
Aerial surveys		-	-	-	-	-	P	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-
Piiqtauniq																									
-		-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-

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

Havaariyauyukhamut Nayugaa



List of Project Geometries

1 polygon	We are flying a Kenn Borek Basler BT-67. We will land in Cambridge Bay and fly 1 to 2 flights per day within the specified area. We are primarily intrested in Sea Ice.