ᓄᓇᕗᒻ ᐊᓂᑎᓕᓵᕆᔨᒃᑯᑦ ᑲᑎᒪᔨᖏᑕᒍᑦ ᑐᓴᕆᔨᒃᑯᑦ ᑐᑭᓯᒪᔭᕐᓂᖅ #126354

CRISTAL Airborne Survey

ᑐᓴᕆᔨᒃᑯᑕᐅᔪᖅ ᖃᓄᐃᓕᒃ:	New
ᐱᓕᓵᐊᓱᐅᔪᓐᓇᖅᓯᒪᔪᑦ ᖃᓄᐃᓕᒃ:	Scientific Research
ᐅᓪᓗᖓ ᑐᓴᕆᔨᒃᑯᑎᓕᐊᓂᐅᔪᓐᓃᑦ:	Monday, March 9, 2026
Period of operation:	from 2026-04-09 to 2026-04-23
ᐱᓕᓵᐊᖏᑭᒋᔪᖅ:	Walton Williamson California Institute of Technology, Jet Propulsion Laboratory (NASA) 4800 Oak Grove Ave Pasadena CA 91108 United States ᐅᖏᓪᓕᐅᑎᑦ: 626-375-4164, ᓯᑲᖅᑯᑦ:

ᑐᓴᐅᒪᔭᒃᓴᑦ

ᖃᓄᐃᑦᑑᑎᓂᒃ ᐱᓕᕆᐊᖃᕐᓂᐊᕆᐊᖓᓐᓂᒃ

ᖃᓪᓗᓈᑎᑐᑦ: The CRISTAL project is a satellite experiment that will measure sea ice thickness in the polar regions of the Earth for the purpose of climate research. The project is a joint experiment between NASA and the European Space Agency (ESA). You can find out more about our satellite here:https://sentiwiki.copernicus.eu/web/cristal In preparation for the launch, my team would like to test our instruments in the regions around Cambridge Bay in April of 2026. We propose to fly an aircraft (Kenn Borek Basler) with instruments that are similar to the instruments we will fly on the satellite. The aircraft will take measurements over the sea ice helping us develop algorithms to correctly estimate sea ice thickness. We will be flying at an altitude of 300-600 meters over the sea when we are taking measurements, but much higher over land to avoid any conflicts with air traffic. We will be operating out of Cambridge Bay airport. Our intention is only to fly into and out of the airport. We do not plan to land anywhere except this airport. Our crews will stay in Cambridge Bay between flights. We plan to fly in Inuvik April 1-8 and Cambridge Bay April 9-23, although these dates could change based on weather. We want to fly out of Cambridge Bay in order to collect data with our colleagues Dr. John Yackel at the University of Calgary and Dr. Richard Kelly from the University of Waterloo who will be conducting similar sea ice related tests at the same time. Please see the image below for the proposed flight area. Research results will be published in scientific literature regarding Sea Ice and Climate Change.

ᐅᐃᕖᑎᑐᑦ: N/A

ᐃᓄᒃᑎᑐᑦ: CRISTAL ᐱᓕᕆᐊᒃᓴᖅ ᖃᖓᑦᑕᖅᑎᑕᐅᓯᒪᔪᒃᑯᑦ ᖃᐅᔨᔭᓇᐅᕈᑎᒋᔭᐅᓇᓱᐋᕐᒪᑦ ᐆᒃᑐᖅᓯᓂᐋᕐᓗᓂ ᐃᓚᕕᐅᑉ ᓯᑯᖓᑕ ᐃᔾᔪᓂᖓᓂᑦ ᐅᑭᒃᑐᖅᑑᑉ ᐊᕕᒃᑐᖅᓯᒪᓂᖏᓐᓂ ᓄᓇᕐᔪᐊᕐᒥ ᐱᓕᕆᐋᕆᔭᐅᔾᔪᑎᖃᕐᓗᓂ ᓯᓚᒥᒃ ᖃᐅᔨᓇᓱᐊᖅᓯᓂᕐᒥᑦ. ᐱᓕᕆᐊᒃᓴᖅ ᑲᑐᑎᔭᐅᓪᓗᓂ ᖃᐅᔨᔭᓇᐅᕈᑎᒋᔭᐅᓇᓱᐋᖅᑐᖅ ᐊᓂᕐᓂᖃᕐᓇᖕᒋᑦᑐᒦᓐᓂᕐᒥᑦ ᐊᐅᓚᑦᑎᕙᖓᓂᑦ (NASA) ᐊᒻᒪᓗ ᐃᐆᐊᕋᑉ ᐊᓂᕐᓂᖃᕐᓇᖕᒋᑦᑐᒥ ᑭᒡᒐᑦᑐᐃᔨᖏᓐᓂᑦ (ESA). ᖃᐅᔨᒃᑲᓂᕈᓐᓇᖅᑐᓯ ᖃᖓᑦᑕᖅᑎᑕᐅᓯᒪᔪᖅᑯᑎᑦᑎᓐᓂᑦ ᐅᕘᓇ:https://sentiwiki.copernicus.eu/web/cristalᐱᕙᒌᔭᕐᓂᑦᑎᓐᓂᑦ ᐱᒋᐋᖅᑎᑕᐅᓂᖓᓄᑦ, ᐱᔨᓇᖅᑎᒋᒃᑐᖁᑎᒃᑲ ᐆᒃᑐᕋᒃᓯᔪᒪᖕᒪᑕ ᐱᓕᕆᔾᔪᑎᑦᑎᓐᓂᑦ ᐊᕕᒃᑐᖅᓯᒪᓂᐅᔪᓂ ᐊᕙᑎᖏᓐᓂ ᐃᖃᓗᒃᑑᑦᑎᐊᑉ ᐊᐃᕆᓕ 2026−ᒥ. ᑐᒃᓯᕋᒃᑐᒍᑦ ᖃᖓᑕᔪᒪᓪᓗᑕ ᖃᖓᑕᓲᒃᑯᑦ (ᑭᐊᓐ ᕗᐊᕆᒃ ᕚᔅᓗᖅ) ᐱᓕᕆᔾᔪᑎᖃᓪᓗᑕ ᐊᔾᔨᓪᓗᐊᐸᓗᖏᓐᓂᒃ ᐱᓕᕆᔾᔪᑎᖏᓐᓂᒃ ᖃᖓᑕᔾᔪᑎᒋᓂᐋᑦᑕᑦᑎᓐᓂᒃ ᖃᖓᑦᑕᖅᑎᑕᐅᓯᒪᔪᒃᑯᑦ. ᖃᖓᑕᓲᑉ ᐆᒃᑐᖅᓯᖅᑕᑦᑕᓂᐋᖅᑐᖅ ᖁᓚᐅᓪᓗᒍ ᐃᓚᕕᐅᑉ ᓯᑯᖓ ᐃᑲᔪᖅᓱᓂ ᐅᕙᑦᑎᓐᓂᑦ ᐋᖅᑭᒃᓯᑎᓪᓗᑕ ᖃᐅᔨᓴᓇᐋᓂᐅᔪᓂᒃ ᑕᒻᒪᖏᓪᓗᒋᑦ ᒥᒃᓴᐅᓴᓪᓗᒍ ᐃᒪᕕᐅᑉ ᓯᑯᖓ ᐃᔾᔪᓂᖓ. ᖃᖓᑕᓚᒐᔭᖅᑐᒍᑦ ᖁᑦᑎᓈᕐᓂᖅᓴᖅᑐᑕ 300-600 ᒦᑕᓂᒃ ᖁᓚᐅᓪᓗᒍ ᐃᒪᕕᒃ ᐆᒃᑐᖅᓯᑎᓪᓗᑕ ᐃᔾᔪᓂᖅᓯᐅᕆᓗᑕ, ᑭᓯᐊᓂ ᖁᕝᕙᓯᖕᓂᖅᓴᒃᑰᕋᔭᖅᑐᒍᑦ ᖁᓚᐅᓕᕈᑦᑎᒍ ᓄᓇ ᐊᑲᐅᙱᓕᐅᕈᑎᖃᖁᓇᑕ ᖃᖓᑕᓲᓂᒃ ᓇᓕᐋᓄᐋᖅᑐᓂᒃ.ᐊᐅᓚᑕᐅᓂᐋᕋᑦᑕ ᑕᐃᑲᙵᑦ ᐃᖃᓗᑦᑑᑦᑎᐊᑉ ᖃᖓᑕᓲᒃᑯᕕᖓᓂᑦ. ᐱᓕᕆᐋᕆᓇᓱᒃᑕᑐᐋᕆᓂᐋᖅᑦᑎᒍ ᑎᑭᑉᐸᓪᓗᑕ ᑕᕝᕗᖓ ᐊᒻᒪᓗ ᐊᐅᓪᓚᐸᓪᓗᑕ ᖃᖓᑕᓲᒃᑯᕖᖕᒥᑦ. ᐸᓇᒃᓯᒪᖕᒋᑦᑐᒍ ᒥᖅᑕᑦᑕᕋᔭᖅᓂᑦᑎᓐᓂᒃ ᐊᓯᐋᓄᑦ ᑕᕝᕙᖓᑐᐊᖅ ᖃᖓᑕᓲᒃᑯᕖᖕᒧᑦ. ᐃᖅᑲᓇᐃᔭᖅᑎᕗᑦ ᑕᕝᕙᓃᖕᒋᓇᓂᐋᖅᑐᑦ ᐃᖃᓗᒃᑑᑦᑎᐊᒥ ᖃᖓᑕᖃᑦᑕᖅᑎᓪᓗᑕ. ᐸᓇᒃᓯᒪᔪᒍᑦ ᖃᖓᑕᖃᑦᑕᓵᖅᓂᑦᑎᓐᓂᒃ ᐃᓅᕕᖕᒥ ᐊᐃᕆᓕ 1-8 ᐊᒻᒪᓗ ᐃᖃᓗᒃᑑᑦᑎᐊᕐᒧᑦ ᐊᐃᕆᓕ 9-23, ᑕᒪᒃᑯᐊ ᐅᓪᓗᖏᑦ ᐊᓯᕈᕈᓐᓇᖅᑐᑦ ᑐᙵᕕᒋᓗᒋᑦ ᖃᓄᐃᑦᑑᓂᖏᑦ ᓯᓚᒋᔭᑦᑕ. ᐊᐅᓪᓚᕈᒪᒪᔭᕋᑦᑕ ᐃᖃᓗᒃᑑᑦᑎᐊᕐᒦᑦ ᓄᐊᑦᑎᔭᖅᑐᖅᓯᓗᑕ ᖃᐅᔨᒪᔾᔪᑎᒃᓴᓂᒃ ᐃᓚᒋᓗᑎᒍ ᐃᖅᑲᓇᐃᔭᖃᑎᒋᔭᕗᑦ ᑑᒃᑖᖅ, ᔮᓐ ᔭᒃᑭᓪ ᓯᓚᑦᑐᖅᓴᕐᕕᒃᔪᐊᖓᓂᑦ ᑲᐅᒃᒍᓇᐅᑉ ᐊᒻᒪᓗ ᑑᒃᑖ ᓇᑦᓯᑦ ᑭᐊᓕ ᓯᓚᑦᑐᖅᓴᕐᕕᒃᔪᐊᖓᓐᓂᑦ ᐅᐋᑐᓘᑉ ᑕᐃᓐᓇᓗ ᐱᓕᕆᓂᐋᖅᑐᓂ ᐊᔾᔨᓗᐊᐸᓗᐊᓂᒃ ᐃᒪᕕᐅᑉ ᓯᑯᖓᓄᙵᓕᖕᓂᒃ ᖃᐅᔨᓴᕐᓂᐋᖅᑕᐅᓗᓂ ᐊᑕᐅᑦᑎᒃᑯᑦ. ᐊᑏ ᑕᑯᓚᐅᒃᑭᑦ ᑕᐅᑦᑐᓕᐅᖅᓯᒪᔪᑦ ᑕᐅᓇᓃᑦᑐᑦ ᑐᔾᓯᕚᓇᔫᐅᔪᓂ ᐊᐅᓪᓚᕐᕕᒋᔭᐅᖃᑦᑕᖅᑭᒪᔪᓂᒃ.ᖃᐅᔨᓴᕐᓂᐋᕐᓂᖏᑦ ᓴᖅᑭᑎᑕᐅᔪᑦ ᐅᖃᓕᒫᒐᓕᐊᕆᔭᐅᓂᐊᕐᒪᑕ ᖃᐅᔨᓴᕐᓂᐊᓂᐅᑉ ᑎᑎᕿᓇᔾᔪᓯᖕᒋᑎᒍ ᐱᓕᕆᐋᖃᒃᑐᑦ ᐃᒪᕕᐅᑉ ᓯᑯᖓᓂᑦ ᐊᒻᒪᓗ ᓯᓚᐅᑉ ᐊᓯᔾᔨᑉᐸᓪᓕᐋᓂᖓᓂᒃ.

Inuinnaqtun: Nainaqhimayuq tamna Havanguyuq Unniqtut:Tamna CRISTAL havanguyuq tamna qangattaqhimayuq uuktugauyuq uuktutauniaq tariup hikua ipyutiginianik tahamani ukiuqtaqtumi avikhimanini Nunaqyuaq piplugu hilap naunaiyaqnia. Tamna havanguyuq katutyiqatigit uuktuta tapkunanga NASA-kut tapkuatlu European Qilainnaqmi Havakvia (ESA). Nuanaiqhivallilaqtutit qangattaqhimayutiptingnik hamani:https://sentiwiki.copernicus.eu/web/cristalHannaiyaqhugu atuliqtittanga, havaqatitka uukturumayai hanalrutivut tahamani nunaliit avikhimaniani avataani Ikaluktutiak talvani Aipuru 2026. Uuktutiliuyugut tingminia tingmit (Kenn Borek Basler) hanalrutiqaqtitlugu ayyikkutapyainik tapkuat hanalrutit tingmipkaqlugit qangattaqhimayunut. Tamna tingmit uukturaqniaqtai qulaagut tariup hikua ikayuqluta pivaliatitni uukturautikhat nalaumayumik mikhautnit tariup hikua ipyunia. Tingminiaqtugut puqtunianik 300-600 miitat qulaagut tariuqmit uukturailirupta, kihimik puqtutqiyaqpianganik qulaulirangat nuna pittailinahuaqhugit kitutliqak ihuilittautit tingmitinut ingilorayut.Aulattiniaqtugut talvanga Ikaluktutiak milvianit. Piniaqhimayavut kihimik tingminiq talvinga aulaqvigivaklugulu milvik. Mittaqniaqhimangittugut kihianik talvunga milvikmut. Havaktivut nayuqniaqtat Ikaluktutiak

akunngini tingmittaqnit. Parnakhimayugut tingminiq talvunga Inuvik Aipuru 1-8 tamnalu Ikaluktutiak Aipuru 9-23, kihianik tahapkuat ublut ahiangulat hilamut. Tingmiyumayugut talvanga Ikaluktutiakmit piyakhai katitiqni tuhagakhat havaqatiptingnut Dr. John Yackel talvani Universitynga Calgary tamnalu Dr. Richard Kelly talvanga Universitynga Waterloo havariniaqtai ayyikkutapyai tariup hikua turangayut uuktuutit atauttikkut. Takulugu tamna piksa ataani uuktutmut tingmiyakhaq inaa.Naunaiyagat qanuritnit makpiraliugauniat talvani naunaiyainiq taiguat piplugu Tariuq Hikua tamnalu Hilap Ahianguqnia.

Personnel

Personnel on site: 10

Days on site: 10

Total Person days: 100

Operations Phase: from 2026-04-09 to 2026-04-23

ᐱᓕᓐᐊᓐᖏᐅᓂᐊᖅᑐᑦ

ᓇᒥ	ᖁᓄᐃᓪᑐᑎᑦ ᐱᓕᓐᐊᖁᔨᓂᐊᖅᐸ	ᑭᒃᑯᑦ ᓄᓇᕀᑦᑐᓂ	ᑐᐊᐅᒪᓕᒃᖏᓴᑦ ᓄᓇᐅᐸ ᖁᓄᖅ ᐊᑐᒍᐅᓪᓕᐊᑦᑕᐅᓂᖅᓯᒪᔨᓐᓂᒃ	ᐃᑦᓴᔨᓂᑕᖁᔨᐃᐅᔪᓪᓕᐅᖅᐸ ᐃᓄᖕᓄᑦ ᓇᐁᖅᑕᐅᖁᔨᑦᑕᔨᓂᒋᔪᓐ ᑕᐃᑦᓯᒪᓂᑐᖁᐅᓕᖅᑐᖅ	ᖁᓂᓐᓂᖅᐸᑦ ᓄᓇᓕᒋᐅᐁᖅ ᐊᒻᒪᓗ ᓴᐳᒋᒃᓯᐃᐅᔪᓐᓇᓗ ᓯᓇᓄᑦ
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 interested 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 interested 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.

ᓄᓇᕀᐅᐸ ᐃᒪᐅᖁᕆᐅᓂᖓ ᓄᓇᓕᓪᓗ ᐊᐃᒃᑐᖁᒪᐅᔨᓂᖓᓄᑦ ᐃᑲᔪᕆᐅᔪᓂᓇᖁᑦᑐᑦ

ᓄᓇᕀᑎᖅᑐ	ᐊᑎᑦ	ᑲᑐᔾᔨᐊᖁᑎᑎᕈᑎᖅᑐ	ᖁᓕᓂᒃ ᑐᐊᐅᒪᓕᒃᖏᓴᑦ ᓴᓇᓕᓐᓂᖓᓂᒃ
ᐃᖁᓗᓴᐅᑎᔪᐊᖁᑦ	Junna Ehaloak	Kitikmeot Inuit Association	2026-01-09
ᐃᖁᓗᓴᐅᑎᔪᐊᖁᑦ	Dr. John Yackel	CHARS	2026-01-03

ᓕᐃᓴᓐᓂᑦ ᐱᒍᓐᓇᐅᑎ ᐊᓐᑭᖅᑕᐅᓯᒪᔪᑦ

ᓇᒃᑎᐊᓐᑭᓐᓂᒃ ᐱᓕᕆᐊᓱᐃᐅᓂᐊᖅᑐᑦ ᑎᑎᕋᓗᑕᑦ:

Transboundary
Kitikmeot
North Baffin

ᓕᐃᓴᓐᓂᑦ ᐱᒍᓐᓇᐅᑎ ᐊᓐᑭᖅᑕᐅᓯᒪᔪᑦ

ᑲᔪᒪᑎᐅᐅᔨᑉ ᐊᐃᒃᑐᖅᓯᒪᐅᕋᓂᓐᓂ ᒪᓕᑎᕋᓄᑦᓂᒃᓂᓂ ᐱᕋᔨᓄᑦᓂᒃᓂᓗ ᑲᒪᒋᑦ ᐱᔪᓐᓇᐅᑎᑕᐅᓂᖅᑐᑦ ᓕᐃᓴᓐᓂᔪᓄᑦᓂᒃ ᑲᔪᓯᖅᓴᐅᓂᖅ	ᖃᓄᐃᑦᑐᓕᕆᔨᖅᑐᑦ ᓕᐃᓴᓐᑭᑕᑭᑕᐅᔨᖅᑐᑦ ᐱᔪᓐᓇᐅᑎᑕᑭᑕᐅᔨᖅᑐᑦ ᐊᐅᓐᓇᐅᑎᓂᔪᓐᓂᖅᑕᑦ	ᐃᓐᓇ ᖃᓄᐃᑦᑐᓐᓂᒃᓴᒃ	ᐅᓪᓗᒥ ᑐᓂᔭᖅ/ ᑐᓴᕐᑐᑎᑕᐅᓕᐅᖅᑐᓄᑦᓯᒪᔪᖅᑐᑦ	ᑭᓚᖃᖅᓴᐃᓐᓇ
ᓄᓇᕗᑦ ᑲᔪᒪᓐᓇ, ᖃᐅᔨᓴᖅᑐᑎᓕᕆᓂᖅᓯᑦ	In progress with Mosha Cote.	Applied, Decision Pending		
ᑲᓇᑕᒥ ᐃᓕᓴᕐᕕᓕᕆᓂᖅᓯᑦ	Applied for aircraft and instruments safety review.	Applied, Decision Pending		
ᓄᓇᕗᒻᒥ ᖃᐅᔨᓴᖅᑐᑎᓕᕆᓂᖅᓯᑦ	Information copied into this application.	Applied, Decision Pending		

Project transportation types

Transportation Type	ᓄᓇᒧᑦ ᐊᑐᐊᐅᓂᐊᖅᐸ	Length of Use
Air	We will fly into the region with our own Kenn Borek Air Basler. We will fly with other aircraft in the Icebird Project (126338) and CEMSIE (126247) data collection activities.	
Land	We will rent cars in Cambridge Bay to drive from our hotels to the airport and to CHARS.	

Project accomodation types

ᓄᓇᕗᑦᑐᖅ

ᐊᑐᓚᐅᓂᐊᖅᑐᖅ

ᐱᖏᑦ ᐊᖓᔪᖅ ᐊᑐᖅᑕᐅᓂᐅᓴᖅ ᐃᓕᖅᑲᓂᐅᑎᓗᑦ ᐃᑯᑕᐃᑦ, ᒥᓪᓗᐊᕿᑎᑦ, ᖁᖏᖅᑲᓂᓗ ᐊᓂᔪᓪᓗ

ᐊᖓᔪᖅ ᐱᖏᑦ ᐊᑐᖅᑕᐅᓂᐊᖅᑐᖅ ᖃᓄᐃᓕᓴᕐᓂᖅ	ᖃᑦᑲᐅᐊᓪᓚᑦ	ᐊᖓᔪᓂᖓᑦ - ᐳᖅᑐᓂᖓᑦ	ᓄᖏᒧᑦ ᐊᑐᖅᑕᐅᓂᐊᖅᐸ
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.

ᑎᑎᕆᐅᓄᒍᒍ ᐅᖅᓄᓴᐃᓕᑦ ᐊᑦᑕᓇᖅᑐᖅᑕᓪᓕᐊᓗᓂ ᐊᑐᖅᑕᐅᓂᐊᕐᓂᖓᑦ

ᓄᖏᒧᑦ ᐅᖅᓄᓴᕐᓗᐊᖅᑐᐊᖅ ᐊᖓᔪᖅᐸ	ᖃᖅᑲᐅᐊᓪᓚᑦᑐᐊᖅ ᐅᖅᓄᓴᕐᓗᐊᖅᑐᐊᖅ	ᖃᖅᑲᓄᓴᖃᐅᑎᑦ ᐅᖅᓄᓴᕐᓗᖃᐅᑎᑦ	ᐳᖅᓴᐅᑦ ᐃᓕᖅᖃᖅᑎᑦᓯᐊᖅᓯᓂᖓᑦ	ᑲᑎᓪᓗᒍ	ᐳᖅᓴᐃᑦ ᐊᒥᓄᓂᖓᑦ	ᓄᖏᒧᑦ ᐊᑐᖅᑕᐅᓂᐊᖅᐸ
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.

ᐃᒪᖅ ᐊᑐᖅᑕᐅᔨᒪᖅᑐᖅ

ᐅᓪᓗ ᑕᐃᒪᖅ ᐊᑐᖅᑕᐅᓂᐊᖅᑐᖅ	ᖃᖅᑲᖅ ᐃᒥᖅᑕᖃᖅᑕᕐᓂᐊᖅᐸᑦ	ᓇᑭᑦ ᐃᒥᖅᑕᖃᖅᑕᕐᓂᐊᖅᐸᑦ
0		

ᐊᑲᑕᑾᑦ

ᐊᑲᑕᑾᓕᓂᐊᕐᓂᖅ

ᐱᓕᓐᐊᓐᔨᐅᔾᓚᔾᔪᒍᑦ ᐱᓕᓐᐊᓐᔨᐅᓂᐊᖅᑐᖅ	ᖃᓄᐃᑦᑐᖅ ᐊᑲᑕᑾᖅ	ᖃᓄᐅᑎᒋ ᐊᑲᑕᑾᑦ ᓴᖅᑭᐊᓂᐊᖅᑐᓐᔨᐅᐳᑦ	ᖃᓄᐅᖅ ᐊᑲᑕᖅᑕᐅᓂᐊᖅᐸ	ᓴᓗᒪᖅᓴᐅᑎᑲᓴᖅᓂᐅᓂᐊᖅᑐᑦ
Information is not available				

ᐊᐸᑎᒥᐅᑕᓂᖅᑐᑦ ᐊᑲᑐᖅᑕᐅᓯᒪᔪᑦ

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

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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.

ᐃᓕᓴ ᐊᐸᑎᐅᐸ ᖃᓄᐃᑦᑐᓕᕆᔨᓂᖏᓐᓄᑦ: ᐅᒪᔪᖅᑕᖃᖏᑦᓂᖏᓐᓄᑦ

ᐃᓕᓴ ᐊᐸᑎᐅᐸ ᖃᓄᐃᑦᑐᓕᕆᔨᓂᖏᓐᓄᑦ: ᐃᓄᓕᕆᓂᖏᑦᒧᒍᓐᓇᑦ-ᐱᐸᓕᐊᔪᕆᓂᖏᑦᒧᒍᓐᓇᑦ

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 in the CEMSIE Experiment (126247). 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 in project IceBird (126338). 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.

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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.

Cumulative Effects

Impacts

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	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
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ᐅᓴᖅᑕᕐᓂᖅ																									
Aerial surveys		-	-	-	-	-	P	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-
ᐃᑐᑦᑎᓗᓂᖅ																									
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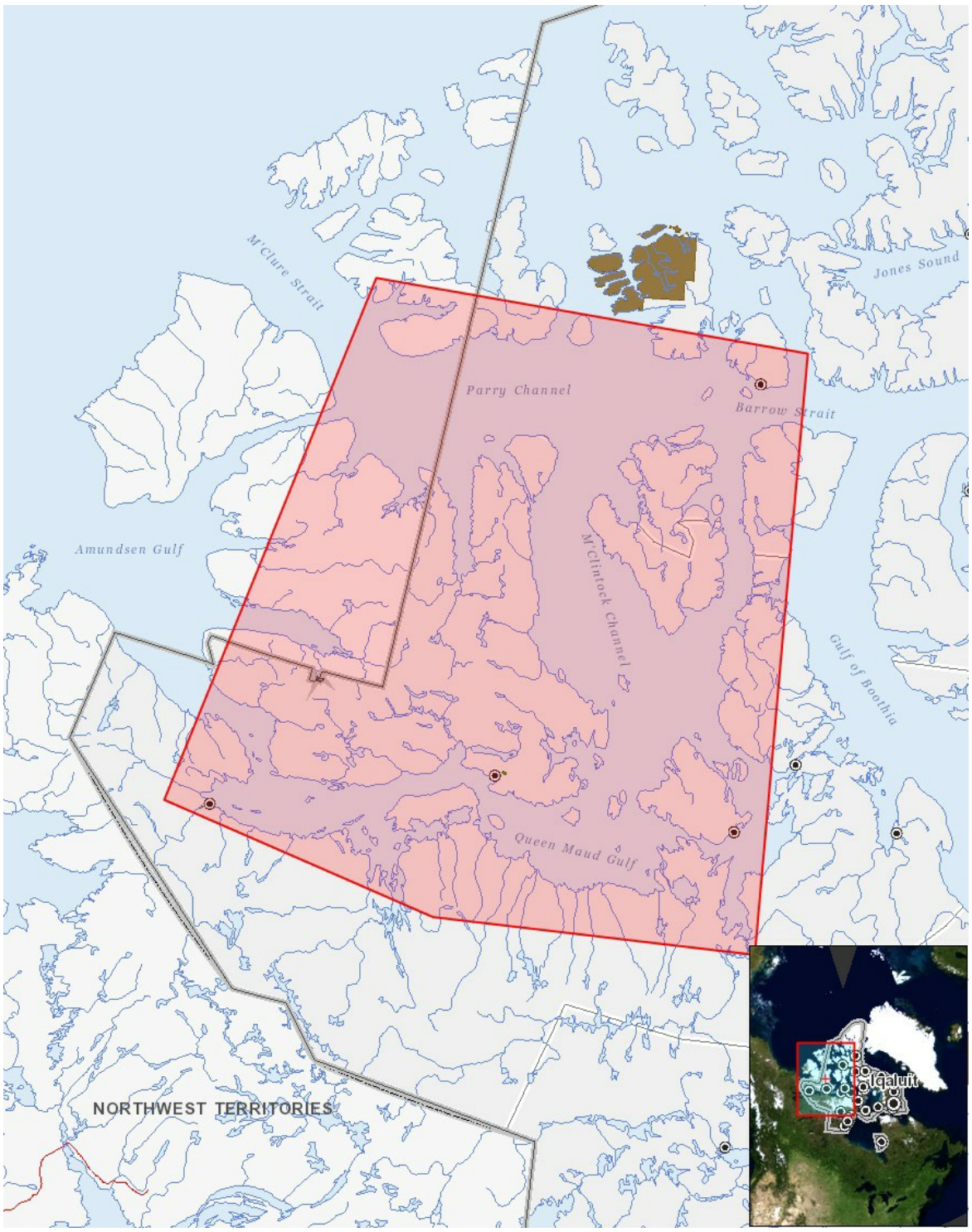
(P = ᐊᑲᐅᔨᑭᑎᐊᓕᓇᖅᑐᑦ, N = ᐊᑲᐅᓕᕆᔨᐸᑕᐅᐊᓕᓇᖅᑐᑦ ᐸᓪᐅᒥᔨᐊᓯᖅᑐᑦᑕᐅᐊᓕᓇᖅᑐᑦᓗᓐᓄ, M = ᐊᑲᐅᓕᕆᔨᐸᑕᐅᐊᓕᓇᖅᑐᑦ ᐸᓪᐅᒥᔨᐊᓯᖅᑐᑦᑕᐅᐊᓕᓇᖅᑐᑦᓗᓐᓄ, U = ᖃᐅᔨᓪᓚᓕᓕᕆᑦᑐᖅ)

ᓇᒋᒪᖏᓂᖅ ᐱᓕᕆᐊᒃᑲᐅᔪᖅ



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 interested in Sea Ice.