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ᐅᓂᓗᓂᓗᓂᐅᓕ ᓂᓗᓂᓗᓂᐅᓕ: New

ᐃᓕᓂᓗᓂᓗᓂᐅᓕ ᓂᓗᓂᓗᓂᐅᓕ: Scientific Research

ᐅᓂᓗᓂᓗᓂᐅᓕ ᓂᓗᓂᓗᓂᐅᓕ: Tuesday, November 18, 2025

**Period of operation:** from 2026-03-15 to 2026-05-05

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Toutes les opérations logistiques, l'hébergement et les activités aériennes seront basés à CHARS, à Cambridge Bay. Les relevés aériens couvriront le détroit de Dease et s'étendront au golfe de la Reine-Maud et au détroit de Victoria. La zone d'étude se situe bien à l'extérieur des aires protégées et des refuges fauniques et est reconnue pour ses conditions de glace stables à la fin de l'hiver, propices à un travail de terrain sécuritaire et à une collecte de données de haute qualité. Quand le projet aura lieu Les activités sur le terrain auront lieu sur une période de six semaines au printemps prochain, débutant vers le 1er avril et se terminant le 15 mai 2026. Durant cette période, le manteau neigeux demeure froid et sec, ce qui est nécessaire pour obtenir des mesures radar fiables. Dès que la fonte commence à la mi-mai, les signaux radar se dégradent et les travaux doivent cesser. Bien que CEMSIE contribue à un effort international pluriannuel soutenant les futures missions satellitaires, tous les travaux effectués sur la glace près de Cambridge Bay se déroulent exclusivement dans cette courte fenêtre saisonnière.

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Introduction & What the Project Involves The Copernicus Expansion Missions Sea Ice Experiment (CEMSIE) una takuinnarmik ilihimaniqaqtuq havaaq, Kanatami universitetangata hivullit, havaktiqqatigiiktut tallimanik nunanit. Dr. John Yackel, University of Calgary-mi Ilinniaqtulijikkut Geographymi professor, taamna havaalliuriaqtuq, hivullitijuni, ilauqatigiillugit avinngaarutinin Kanatami universitetangit ilihimayut maligiaqtuqtaullutik, huli arvinginnut nunarjuami ilihimalik ilihimayut. Havaaq ilauqatigijaujuq Kanatami governmentmi ilihimayut huli university-mi ilinniarniaqtut. Havaaq suna tunngavinga "Copernicus Expansion Missions" taapkuat nutaangat satilaangit European Space Agency-mit aullaqtinniangannga 2027-mi 2029-milu. Taapkuat satilaangit ikajuqtigiinnianganmata Kanatami inungnut, ikayuutigianginnianganmata ikia qinginniq hiku pimmarianguqnikkut, ubluumikkut qanurittaanginnik. Taanna pinguaqtut nunallaami inungnut, ukiumi hikuqaqtumi tikittianit angunirmilu. Havaaq CEMSIE katitirniaqtuq ilihimayut manniit, hiku, huli satilaangit qingirijuuq qinirhiinniq, ikajuutillu qanuq takujaqtauvillugu hikuup manniaqtanga huli hikup akittanga. Havaaq ikajuqtigijaujuq Polar Knowledge Canada (POLAR), Canadian High Arctic Research Station (CHARS), Polar Continental Shelf Project (PCSP), huli Kanatami Europeanmi Space Agencies. Taapkuat havaqatiginiyaqtuq satilaangit nutaqqat, piniarniaqtuq silaqhimajuq akunniqaqtuq, qaujijaqtakhait. Havakviaqtuq ukiuqtaqtillugu 25-30 ilihimayut, ingijaarutiit, aulapkaiyitlu katimaqatigiillugit, tautuktillugit 12-14 havaktiit CHARS-mi ukiuqtaqtillugit. CEMSIE qaujijaqtaqniaqtuq qikiqtani hiku malirinnaqtuq (malikpiaqtuq) Cambridge Bay-mi hikuani, havaktiqatigiillugit qaujijahtiliurnirmik hikulirniq, aullaqtittillugit airplanengnik radaarikkut huli satilaangit. Ubluumiuuluni havakvik taimani atuinnaqtut 15 km Kangiani nunallaami. Taapkua igluitat, havaktiqarviallu piqaqtut, inuinnaqtunit piguinnariaqtuq havaap naammaqatigiinnaqtillugu. Pamitituaqtuallutik havaktiit ukiumi unnukut snowmachine-mik aullaqtillugit, qaujijaqtillugit manniit hikuqaqtullu. \_\_\_\_\_ Part 2: Community Engagement, Measurements & Field Methods CEMSIE ilauqatigiiktut Inuit Qaujijajatuqangit (IQ) pitquhiquaqtillugit, kangiqhidjutinik, katimadjutinik, huli inuit uqaudjutinik. Havaaq katimadjutikhaqaqtuq Kitikmeot Inuit Association, Hamlet of Cambridge Bay, POLAR, CHARS-lu, kangiqhidjutikharnik: • Nunallaami katimadjutit huli uqaudjutit EHTO-mit, John Yackel hivulliuuqtiulluni. • Kangiqhittiarniaqtut unipkaangit, mapit, posterallu uqausiaqtut nalungnangittut Cambridge Bay, EHTO, CHARS-milu. • Ilinniaqatigiingnikkut ikajuutit: angijuqtuqaqtut, logistics-mik ikajuqtaujut, atauhirmik pihimayunut nunaqaqtunut takujaqtut ukiuqtaqtillugu. Havakviaqtaullutik manniit manniutingit, hikuup akittanga, ukkuutit, pujjiit, salinity, huli hikup akunniqaqtanga. Taapkuat qinirhiinniq pitquhiquatigiingniaqtut airplanikkut radaarikkut qinirhiutinik, naunaiqtillugu qanuq takujaqtauvillugu satilaangit CIMR, CRISTAL, ROSE-L. Airplanengnik aullaqtuqiviaqniaqtut Cambridge Bay airport-mi, Dease Strait-mi, Queen Maud Gulf-mi, Victoria Strait-milu. Taapkua naunaiqtariaqaqtut qanuq hakuqhiqtut hikuup manniaqtanga satilaangitigut. Aullaqtitaullutik snowmachine-mik, qamutiit mikinut, airplanengnik (Twin Otter-mik), huli helicopter-mik naunaiqtillugu nunakkut aullaarutit. Angiyuqaqtumik havaktauhimaittuq. Airplanengnik radaarikkut aullaqtuqniaqtut April 10-15, 2026, sila pittiaqtillugu. \_\_\_\_\_ Part 3: Why the Project Is Needed Naunaiqhijut hikuup pimmariangit pinguaqtut silaqhimayut, silakkut naunaiqtakhat, ukiuqtaqtumi umiarjuqaqtut, huli nunallaami inuuhimayut. Satilaangitigut qinirhiinniq akittulluni, taima manniit qanuq ubluumikkut aqittuq, qanuq akunniingittuq, huli qanuq radaarimik aulatittijangat. Taapkuat uqaridjutikhait pinasungngujuq hikuup akittanga naunaiqtittillugit. CEMSIE-mit katimaqatigiingmata naunaiqhijut ikajuqatigiingniaqtut satilaangitigut akittuq takujaqhimayut, ihuaqhailutik sila naunaiqtitinirmik, umiarnirmik, huli qaujijaqtillugit hikuup sivulliqpaanik aulatsijuni. Hikuup akittanga pinguaqtut sila nunarjuami, qanuq sila aulatijangat imarmi, taima ihuaqhijangat ikajuqniaqtuq sila

qaujiaqniq. \_\_\_\_\_ Part 4: Where the Project Will Take Place Havaaq havaktiqarniaqtut hiku malirinnaqtuq sivulliqpaaq Dease Strait-mi, kanngiqpaani 15 km Cambridge Bay-mi. Tamaita logistics, accommodation, airplanengnik havaktiqniaqtut CHARS-mi. Airplanengnik qaujiaqtutik aullaaqtuqniaqtut Dease Strait, Queen Maud Gulf, Victoria Strait-mi. Taakkua naunaipqijaujut havaqatigiingnaqtuq, akhuqhinnigittuq naunaijautikhanut, huli hivulliqpaaq hikumik pisimajut ukiumi, takujaqtaujut pittiaqhutik data-khanik. \_\_\_\_\_ Part 5: When the Project Will Occur Havaaq havaktiqniaqtut ukiuqtaqtillugu 6 ublunik, April 1-mi angmaffaarluni May 15, 2026-milu naammaqtuq. Taamna ukiuq nakuuyuq, manniit qamanngittuq, qanuqtuq, pittiaqtuq radaarikkut qinirhiutinut. May-mi qanuittuqtuq manniit, radaarikkut pimmariangit akittuq, taima havaaq utirniaqtut. CEMSIE ilauqtuq multi-year satilaangit aulatsijuni, kihiani Cambridge Bay-mi hikuani havaktiqniaqtut una ubluumiqtuqtuq ukiuqpaami.

Inuinnaqtun: Copernicus Expansion Missions Sea Ice Experiment (CEMSIE) tuumatuq ihivriutiqatigiiktukhaq havaakhaq, taimaa piqpagitillugu Kanatami unipkaaqhuni haffumunga University-havaktinit, tautuktitut talimanik avataaniittunik nunarjuamit ublumiqatauyut. Dr. John Yackel, University of Calgary-mi Iitquhiriyauyimumut Uqautchiqtuiyuq, tuumatuq takiuqhijuuq havakviyuq, havaktiuyuq iluani pingahuuyut Kanatami University-mi ilihimayut, tautuktitillugu hitamanik avatinniittunik ilihimayunit. Havakvik CEMSIE-kut kiinauyatuq tautuknirmi ilihimayut, nunarjuami ilihimayut, nunallaammi ilihimayut, talvaniitut ilihimayat uqauhimalutik talvannguqtillugit makpiraqmi, havaqatigiikniqaqtut akhuurutiglu. Havakvikmi takkuhimaqtut tautuktiit, Government of Canada-mi ilihimayut, University-mi ilinniaqtiit, havakniqaqtut tamainni uumannguqtillugit hanaqatigiiknikkut. Copernicus Expansion Missions” unniqtitauttut nutaqqat satelliangat, aimavingmi havaariakhauyut 2027-miit 2029-mut European Space Agency-kunit. Taimaittut satelliangat ikayuqtukhauyut Kanatamiunut, ilitaqhugit nutaamigut ikayuutait imarmi havaktiit hailiurutikhanik, taimaatigut tuqungniaqtut imarmi avatingani aullaqniq, iqaluqtuqniq, piqpagitillugu tautuktitiyaangat hikuqpaamiuni. Havaakhaq CEMSIE-kut katimayut ilihimayut annuraaqmi, hikuqmi, satellianganani, ilihimayaangat qanuq hikuqpaamiuni hikuq atiqaqtiliqiyait satellianganani. Havaakhaq ikayuutigiyaa Polar Knowledge Canada (POLAR), Canadian High Arctic Research Station (CHARS), Polar Continental Shelf Project (PCSP), havaktillu Canadian and European Space Agencies-kunit. Hapkua havaqatigit ilihimayut katimayut satelliangat nakuuyaqhimagayut talvannguqtillugit qilamiuqhiurniqmi. Nunaat havakvikmi ikayuutauvakhimaqtut 25–30 ilihimayuliit, ingilrayuliit, ikayuutiliit, katimayut ikayuutikhainik, tautuktitlugit 12–14 hilamiittutik CHARS-mi Iqaluktuuttiaqmi tamainni ukiuqhailagiami. CEMSIE-kut ihivriugutaa landfast (hikunit itirniqhaq, aullaniqtuq) hikuq talvani Iqaluktuuttiaqmi. Havaqatigiiktut havaktititauyut ihivriutitlugit hikuq hamlat, annuraaq, hinnginnaqtumik ikayuutauvakhutik qanuriliurniqmut. Havaqatigiikniqmi aulaniqaqtut qajarnikkut, research aircraft-kunit radar-anginik, satelliangat, ihivriuqniaqtut hamna hikuq, annuraaq, qanuq ilihimayuq. Havautiqhaq siyaaqtuq, ukiuqhaq, havakvikmi angmaumaniqaqtuq ublukkut paunnaqtitillugit ilihimayaangat. Havaqatigiiktut maniqqami havakviaqtut talvunga 15 km-kut Iqaluktuuttiaqmit kangiani, havakviyuq ukiuqhailami atuqtauvakhimayuq, hiamittiarlugu ukiuqhailami. Tamapta tent-it, equipment shelters-it, havaktauyut atuqtauvakhimayut, aallanik ikayuutit, niggianiqaqtut havakvikmi pihimaniqtillugu. Havakviit CEMSIE-mi ihivriuqniaqtut qanuq annuraaq, hikuq, uvalu imaalu qanuq atugakhaat. Havaqatigiiktut ilihimalutik annuraaq miqhuqtit, hikumi uktuutit, annuraaqmi atuqhimayut, hikuqmi qayaqhimagayut, salinity-mi (saviannait), uvalu hikuq akhuqhiurutiit. Hapkua qauyihimayut ikayuutigiyaaat research aircraft-kunit radar-anginnut, ihivriutitlugit qanuq takujaaqtut satelliangat aulaniqniaqtut CIMR, CRISTAL, ROSE-L-kunit. Aircraft-angit aullaqniaqtut tingmidjutik Iqaluktuuttiaqmi airport-mit ublukkut. Aullaqniaqtut Dease Strait-mi, Queen Maud Gulf-mi, Victoria Straitmi, ilihimalutik ilihimayut nunami, qulimiguuliluni, satellianganani tautuktitillugit qanuriliuqniaqtut hikuq annuraaqpallu. Taimaatigut ilihimayut ihivriuqniaqtut qanuriliuriami qanuq satelliangat pittiarinaqtut tautuktitlugit hikuq annuraaqmik. Aullarniqmi atuqtauvakhimayut qamutit (snowmobiles), panigaqtuq sled-it, fixed-wing aircraft-angit (Twin Otter immaqallu atauttimik), uvalu qulimiguuliit (helicopter) atuqtauvaktuq hapkunani nunallaami tikikkani, ilihimalutik angirarniqmi. Hapkua atuqtauvakhimayut ikayuutigiyaaat havakviit amihuutikhainik, apqutikhainik, uvalu tiggummiit havagiikhutik. Hakuanginnaqtuq aanniaqtuqutauyukhauhimaittuq, taimaatigut no heavy equipment atuqtauvakhimaittuq. Tingmidjutik aullaqniaqtut apqutikhainut tautuktillugu April 10–15, 2026-mi, havaakhaq ublukkut hangaqtuqhailagiami, havaariakhauhimmaqtillugu havaangnaqhiurutinik. Hikuqmi ihivriuqhimayut qanuq atugakhaat ihariagrinqiaqtut havaqatigiikniqmi sila qanuqturnianni, ublukkut qauyihimalutik havangniqmut, aullarniqmut amihuni, uvalu ammiqsuutiglu Nunavunmiunut aanniaqtuqutikhainik. Satelliangat

tauktitiyaangat annuraaq hikuqmallu qanuq allaniqaqtut akhuqnaqtut, havakhimaaqtut qanuq pittiariniqtuq tautuktitillugit ukiumi. Annuraaq akhuqhimayuq, annuraaqmi akhuqhiurutikhanik, una uumaqtuq naglikitaaqtillugu radar-mi takujaaqtunik. Hakuanginnaqtuq allaniqaqtut hikuq annuraaqmi tautuktitillugit ilihimayayuq uqauhimalutik, taimaatigut tautuktittiniaqtuq ilihimayuq hakuanga ublukkut tamakpiaq ihivriuhimalugit. Ukiuqhaqmi hikuq amihut qangaaktuq, taimaatigut first-year ice atauttimiut, asuilaak pittiariniqtuq ihivriuhimayainik puiguqtailillugit. Taimaatigut CEMSIE-kut qauyihimayut ihariagrinqiaqtut ikayuqlutik qanuq pittiariniqtuq ilihimayut hikuq annuraaq talvani qilamiuqhiurniqmi. Hapo ilihimayut katimayut CEMSIE-kunit ikayuutitigiyaat ilihimayaangat algorithms aulatitayut satelliangkatigut. Una ikayuutigiya sila qauyihimalutik, aanniaqtuqutikhainik, aullarniqmut hikuqmallu, uvalu qanuqturniq talvani havaktitillugit hikuq ukiumi. Hikuq atuq & imaalu sila uqauhiqhimayut pittiariniaqtuq qanuqturniq, havaqatigiikniq havattainni sila qanuqturnirmi. Havaakhaq aulaniqtauyuuq landfast first-year ice-mi talvani Dease Strait-mi, hanganititillugu Iqaluktuuttiarmi 15 km-kut kangiani. Tamainni havaktitayut ilihimayut, akhuqhiurutit, uvalu aullarniqmut atuqtakhat pivakhimaaqtut CHARS-mi Iqaluktuuttiarmi, talvani ukiuqhailami tamainni katimayakhainni. Tingmidjutikmi (aircraft) ilihaqniaqtut havangniq, hivuliqtihaqniaqtut Dease Strait-mi, tautuktillugit Queen Maud Gulf-mi uvalu Victoria Strait-mi. Una tamainni ilihaqniq katimayut ihivriuqniaqtut hikuq annuraaqmi, qanuq ilihimayaangat satelliangani pittiariniqtuq. Havakhaq aulaniqtauyuuq hamna avatingani ikayuutigiikillugu, talvaniittuq avataani protected areas-tigut, niruarutitigutlu, taimaatigut hamanga ihivriuqniaqtut hikuq ukiumi ihivriuqtiullunilu, naunaiqhimmaaqtillugu ihivriuqnikkut qanuqturniqmi. Havaktitayut aulaniqtauyut hitamanik-avluni ublunuk ukiuqhaqmi tikikkaangat, havangniaqtut April 1-miit May 15-mut, 2026-mi. Taimai hivulliutigiplugu ukiuqhaqmi annuraaq aalangnaittumik, qiqutailaqtumik, hikuqmi anihatuqmi qanuqturniqmi. Una ublukkut hakuanga ihariagiplugu pittiariniqtuq radar-mi tautuktitillugu ilihimayut. Mid-May-mi tikikkaangat, qanuqturniq amihaaqtuq, annuraaq aanniqtuq, satelliangiitlu radar-anginnut takujaaqtuq aqittuuqtitillugu. Taimaatigut havakvikmi itqaumaniqtuq, niuhiqtaalu havakvingmi havaqatigiikniq upauttinniarpata. CEMSIE-kut ikayuutigiyaat multi-year international effort, ikayuqtugu tikinmi satelliangat nutaami, kihimi tamapta on-ice work talvani Iqaluktuuttiarmi pihimaniqtillugu ukiuqhaqmi ikayuutauyuuq hamna ikaarutillugu ublumi.

## **Personnel**

Personnel on site: 23

Days on site: 45

Total Person days: 1035

Operations Phase: from 2026-03-15 to 2026-05-05







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20	snow machine	Water will be periodically hauled to the ice camp from CHARS for human consumption purposes



# **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**

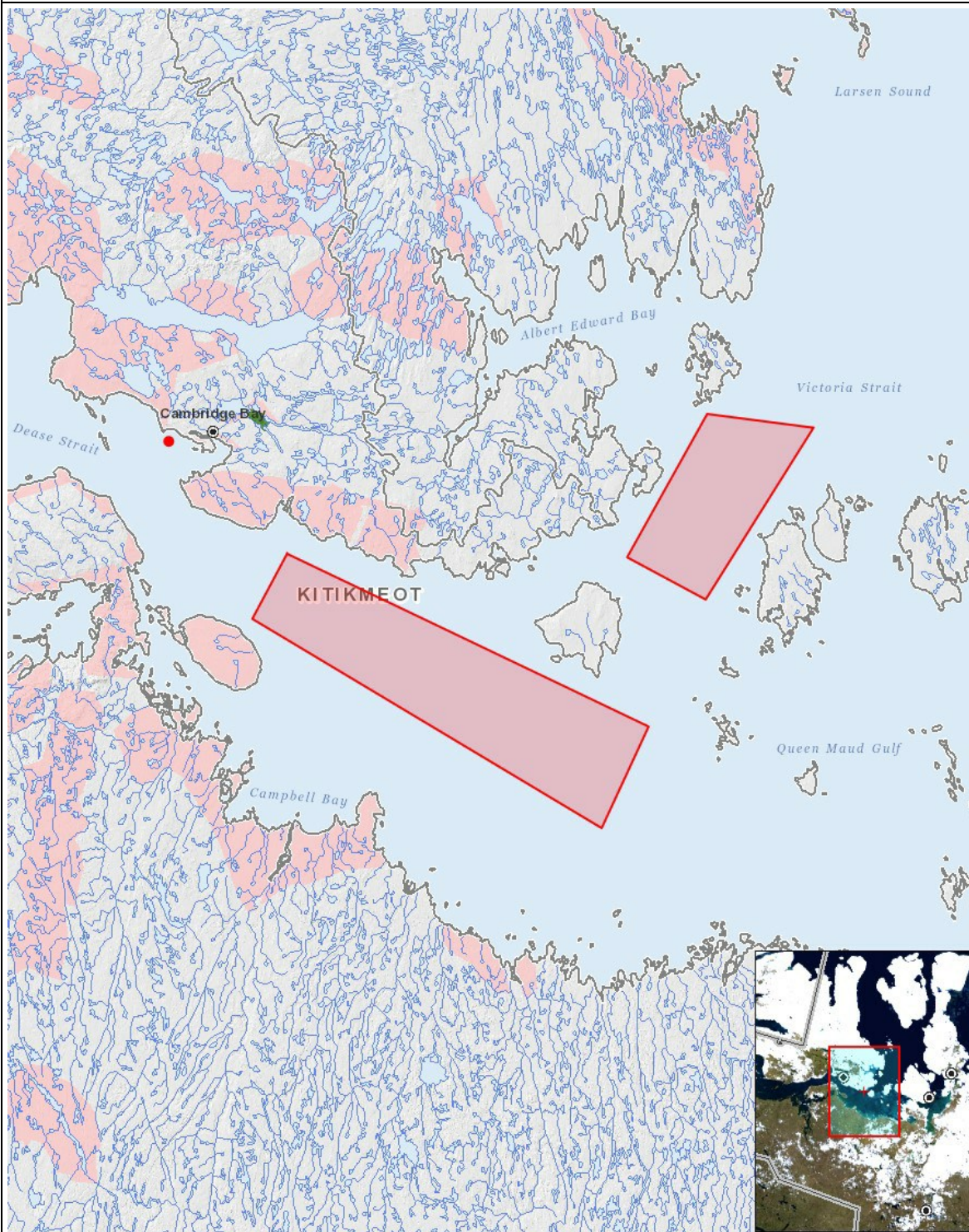
**SECTION E3: Vessel Use**



campaign, restoring the site as feasible.– Maintain real-time weather and visibility monitoring to avoid unnecessary flights and disturbance.

### **Cumulative Effects**





List of Project Geometries

- 1 polygon region for occasional aircraft flights in mid-April using radars to measure sea ice thickness
- 2 polygon region for occasional aircraft flights in mid-April using radars to measure sea ice thickness
- 3 point ice camp location (approx 15km SW of Cambridge Bay)