NIRB Application for Screening #126437

Ocean Change 2026

Application Type:	New
Project Type:	Scientific Research
Application Date:	Monday, June 1, 2026
Period of operation:	from 2026-07-30 to 2026-08-13
Project Proponent:	Clemens von Scheffer GEOMAR Helmholtz Centre for Ocean Research Wischhofstraße 1-3 Kiel Schleswig-Holstein 24148 Germany Phone Number:: +494316001724, Fax Number::

DETAILS

Non-technical project proposal description

English: A voluntary-based crew of eight people under captain and writer Arved Fuchs is undertaking a sailing cruise on the traditional sailing boat “Dagmar Aaen” in the Arctic region, starting at Hamburg and visiting Iceland and Greenland, and the territories of Nunavut and Nunatsiavut. The goal is to raise awareness about the ocean’s health and to speak with and learn from the local communities at the ports that are visited. The team is getting scientific support from GEOMAR ocean research centre in Kiel, Germany. From the boat, oceanographic measurements are conducted on they way, including temperature, salinity, carbon dioxide and oxygen to learn about the status of the ocean. If the communities of the coastal states allow, the measurements will be made publicly available and can be tracked live by the community on https://beluga.geomar.de and free to use by anyone. The journey will take place between early August 2026 and mid-August 2026. Arrival and departure are depending on the weather conditions at sea. The boat is coming from Sisimiut, Greenland, before crossing over to Nunavut territory. The track then leads southward, calling port at Pangnirtung, with final destination at Bridgewater (Nova Scotia), where the ship will overwinter. The sailing journey will be continued in 2027, crossing the Atlantic to sail back to Hamburg.

French: Un équipage de huit bénévoles, sous la houlette du capitaine et écrivain Arved Fuchs, entreprend une croisière à bord du voilier traditionnel « Dagmar Aaen » dans la région arctique. Le voyage part de Hambourg et fait escale en Islande, au Groenland, ainsi que dans les territoires du Nunavut et du Nunatsiavut. L'objectif est de sensibiliser le public à la santé des océans et d'échanger avec les communautés locales dans les ports visités afin d'apprendre à leurs côtés. L'équipe bénéficie du soutien scientifique du centre de recherche océanographique GEOMAR à Kiel, en Allemagne. Depuis le bateau, des mesures océanographiques sont effectuées en cours de route, notamment la température, la salinité, le dioxyde de carbone et l'oxygène, afin d'évaluer l'état de l'océan. Si les communautés des États côtiers le permettent, les mesures seront rendues publiques et pourront être suivies en direct par la communauté sur https://beluga.geomar.de et utilisées librement par tout le monde. Le voyage se déroulera entre début août 2026 et mi-août 2026. Les dates d'arrivée et de départ dépendent des conditions météorologiques en mer. Le bateau partira de Sisimiut, au Groenland, avant de traverser vers le territoire du Nunavut. L'itinéraire se poursuivra ensuite vers le sud, avec une escale à Pangnirtung, pour aboutir à Bridgewater (Nouvelle-Écosse), où le navire passera l'hiver. Le voyage se poursuivra en 2027, avec la traversée de l'Atlantique pour retourner à Hambourg.

Inuktitut: ᐊᑭᓕᖅᓱᖅᑕᐅᙱᓪᓗᑎᒃ ᐱᓕᕆᔩᖃᕐᓂᐊᖅᑐᑦ 8−ᓂᒃ ᐃᓄᖕᓂᒃ, ᓯᕗᓕᖅᑎᖃᖅᓗᑎᒃ ᑳᐱᑕᒋᔭᐅᔪᒥᒃ ᑎᑎᕋᖅᑎᒥᓪᓗ ᐋᕝᕙᑦ ᕘᒃᔅ−ᒥᒃ, ᐅᒥᐊᖅᑐᑲᑕᖕᓂᐊᖅᐳᑦ ᐃᓕᖅᑯᓯᑐᖃᒃᑯᑦ ᑎᖕᒥᔫᒃᑯᑦ ᐅᒥᐊᒃᑯᑦ Dagmar Aaen ᐅᑭᐅᖅᑕᖅᑐᒥ, ᕼᐋᒻᐳᒡ−ᒥ ᐱᒋᐊᕐᓱᑎᒃ ᐊᐃᔅᓛᓐᑐᐊᕐᓱᑎᒃ ᑲᓛᓪᓛᑦ ᓄᓈᓄᓪᓗ, ᐊᒻᒪᓗᑦᑕᐅᖅ ᓄᓇᕗᒻᒧᑦ ᓄᓇᑦᓯᐊᕗᒻᒧᓪᓗ. ᑐᕌᒐᓇᔭᐅᔪᖅ ᐅᔾᔨᕈᓯᓕᖅᑎᑦᑎᒃᑲᓐᓂᕐᓂᕐᒥᒃ ᐃᒪᐅᑉ ᖃᓄᐃᙱᓐᓂᖓᓂᒃ ᐊᒻᒪ ᐃᓚᐅᑎᓪᓗᒋᑦ ᐊᒻᒪ ᐃᓕᑦᑎᓗᑎᒃ ᓄᓇᓕᖕᓂ ᑐᓚᒃᑕᕐᕕᖕᓂ ᐅᐸᒃᑕᐅᕙᒃᑐᓂ. ᑖᒃᑯᐊ ᖃᐅᔨᓴᖅᑎᓄᑦ ᐃᑲᔪᖅᑕᐅᔪᑦ GEOMAR ᑕᕆᐅᕐᔪᐊᕐᒥ ᖃᐅᔨᓴᕐᕕᖕᒪᓂ ᑮᐅᓪ, ᔮᒪᓂᒥ. ᐅᒥᐊᕐᒥᑦ, ᑕᕆᐅᕐᔪᐊᑉ ᖃᐅᔨᓴᖅᑕᐅᓂᖓ ᐱᓕᕆᐊᖑᕙᒃᐳᖅ ᐊᖅᑯᑖᓂ, ᐃᓚᐅᓪᓗᓂ ᐆᓇᕐᓂᖓ, ᑕᕆᐅᖅᑐᓂᖓ, ᐳᔪᕐᓗᒃ, ᐊᒻᒪ ᐊᓂᕐᓂᒃᓴᖅ, ᑐᑭᓯᓇᓱᒃᓗᒍ ᖃᓄᐃᓕᖓᓂᖓ ᐃᒪᐅᑉ. ᓄᓇᓖᑦ ᓯᒡᔭᖅᐸᓯᖕᒥ ᐱᔪᓇᖅᑎᑦᑎᒃᐸᑕ, ᐆᒃᑐᖅᑕᐅᔪᑦ ᑭᒃᑯᐃᓐᓇᓄᑦ ᐊᑐᐃᓐᓇᕈᖅᑎᑕᐅᓂᐊᖅᐳᑦ ᐊᒻᒪ ᓇᓂᔭᐅᔪᓐᓇᕐᓱᑎᒃ ᐃᕐᖕᓰᓐᓇᖅ ᓄᓇᓕᖕᒥᐅᓄᑦ https://beluga.geomar.de, ᐊᑭᖃᙱᓪᓗᓂᓗ ᑭᓇᑐᐃᓐᓇᕐᒧᑦ ᐊᑐᖅᑕᐅᔪᓐᓇᕐᓗᓂ. ᐃᖏᕐᕋᓂᐅᔪᖅ ᐱᓕᕆᐊᖑᓂᐊᖅᐳᖅ ᐊᐅᒍᔅᑎ 2026 ᐱᒋᐊᕐᓂᖓᓂ ᐊᒻᒪ ᐊᐅᒍᔅᑎ ᕿᑎᐊᓂ 2026−ᒥ. ᑎᑭᑉᐸᓪᓕᐊᔪᑦ ᐊᐅᓪᓚᖅᐸᓪᓕᐊᔪᓪᓗ ᒪᓕᖕᓂᐊᖅᐳᑦ ᓯᓚᐅᑉ ᖃᓄᐃᓐᓂᖓᓂᒃ ᐃᒪᕐᒥ. ᐅᒥᐊᖅ ᓯᓯᒥᐅᓂᙶᖅᑐᖅ, ᑲᓛᓪᓛᑦ ᓄᓈᓐᓂ, ᓄᓇᕗᒻᒨᓚᐅᖅᑳᖅᑐᓂ. ᐊᖅᑯᑖ ᓂᒋᕐᒨᓕᖅᓱᓂ, ᐸᖕᓂᖅᑑᒧᑦ ᑐᓚᒃᑕᕐᕕᖕᒧᑦ, ᑎᑭᓪᓗᒍ ᐳᓇᒃᕼᐅᐊᑦ (ᓅᕙ ᓯᑰᓴ), ᐅᒥᐊᕐᔪᐊᖅ ᐅᑭᐅᒃᑯᑦ ᓇᔪᕐᓂᐊᖅᓗᓂᐅᒃ. ᐅᒥᐊᖅᑐᕐᓂᖅ ᑲᔪᓯᓂᐊᖅᐳᖅ 2027-ᒥ, ᑕᓇᐅᑉ ᐊᑭᐊᒍᑦ ᐃᑳᕐᓱᑎᒃ ᐅᑎᕐᓱᑎᒃ ᕼᐋᒻᐳᒡᒧᑦ.

Inuinnaqtun: Akiitumik pihimayuq iinik inungnik ataani atanguyap titiraqtilu Arved Fuchs havaliqtut qayaqtuqhutik pitquhikkut qayakkut Dagmar Aaen Ukiuqtaqtumi aviktungniani, aularutiblutik hamanga Hamburgmin pulaaqhugit Iceland unalu Greenland, aviktuqhimayullu Nunavunmi Nunatsiavunlu. Tikinnahuarutinga naunaipkaigiami tariuq aaniaqtailininnga uqaqatigilugillu ayuiriamilu nunamikni tulakvingit pulaaqtauyut. Iliqatigiiktun pihimaaqtun nalunaqtunik ilituqhainahuarnikkut ikayuutikharnik talvanga GEOMAR tariumi ihivriudjutikharnik katimaviani Kiel, Germanymi. Qayamin, tariumi aktilaangit havaktauyut aulatilugit, ilauyut uunaqniit, tariuq, carbon dioxide, uvalu aniqhaaktaqnikkut ilituriyaangani qanuginiit tariup. Nunallaat hinaani nunat pipkaikpata, aktilaangit inungnun piinarialaqiniaqtut naunaiyaqtaulutiklu inungnun https://beluga.geomar.de akiitumik aturiangini kinaliqaak. Aullaaruti piniaqtuq

atulihaaliqqat August 2026 unalu qitqani-August 2026.Tikitiqtut aulaqtiqtullu qanuriniitigut hilap qanuginiatigut tariumi. Qayaq tikihimayuq hamanga Sisimiut, Greenlandmin, ikaaqtinagu Nunavunmun. Apqutaat hivuraanut apqutauyuq, nutqaqhuni tulakvingmut Pangnirtuumut, kinggulliqpaaq tikilvikhaa Bridgewater (Nova Scotia), umiaq ukiiniaqtuq. Umiaqtuqtut aulahimmaarniaqtut 2027-mi, ikaaqhugu Atlantic-kut utiriamingni Hamburg-mut.

Personnel

Personnel on site: 9

Days on site: 15

Total Person days: 135

Operations Phase: from 2026-07-30 to 2026-08-13

Activities

Location	Activity Type	Land Status	Site history	Site archaeological or paleontological value	Proximity to the nearest communities and any protected areas
Area in which the sailing boat will operate and measure oceanographic parameters	Researching	Marine	N/A	N/A	The marked area will be sailed through, coming from Greenland and then going southward. The community and port of Pangnirtung will be visited.
approximate track	Researching	Marine	N/A	N/A	See the description of area. The port and community of Pangnirtung will be visited.

Community Involvement & Regional Benefits

Community	Name	Organization	Date Contacted
Pangnirtung	N/A	N/A	2026-04-22

Authorizations

Indicate the areas in which the project is located:

Transboundary
South Baffin

Authorizations

Regulatory Authority	Authorization Description	Current Status	Date Issued / Applied	Expiry Date
Other	Marine scientific research application to Canadian government.	Applied, Decision Pending		
Nunavut Research Institute	An application will be submitted as soon as we hear back from NIRB (this application).	Not Yet Applied		

Project transportation types

Transportation Type	Proposed Use	Length of Use
Water	wooden traditional sailing boat	

Project accomodation types

Other,

Material Use

Equipment to be used (including drills, pumps, aircraft, vehicles, etc)

Equipment Type	Quantity	Size - Dimensions	Proposed Use
Ocean Pack	1	100x50	To measure temperature, salinity, oxygen and pCO2 in ocean surface water
CTD sonde	1	ca. 50 x 10	Conductivity, Temperature, Depth measurements at certain points

Detail Fuel and Hazardous Material Use

Detail fuel material use:	Fuel Type	Number of containers	Container Capacity	Total Amount	Units	Proposed Use
Other	fuel	0	0	0	Kg	Sailing boat, wind
Diesel	fuel	5	900	4500	Liters	maneuvering in port

Water Consumption

Daily amount (m3)	Proposed water retrieval methods	Proposed water retrieval location
0	Fresh water for cooking, drinking, etc. is produced on board by a Spectra Cape Horn Extreme 330 from sea water.	Water is taken from the ocean along the sailing route.

Waste

Waste Management

Project Activity	Type of Waste	Projected Amount Generated	Method of Disposal	Additional treatment procedures
Camp	Greywater	500 L	Greywater produced during the cruise is stored in a tank and disposed at harbour/port facilities where possible (etc. Nain, Halifax).	N/A

Environmental Impacts:

There are generally no expected impacts, neither negative nor positive. However, there could be an indirect positive effect, as data about coastal waters and the ocean will be made available publicly and accessible for the community about water temperatures, salinity and oxygen. If spotted, marine plastic litter will be collected when feasible (e.g. ghost nets). Noise levels are negligible and no harmful substances or methods are being used.

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

Description of Existing Environment: Physical Environment

Although coastal waters will be sailed through, the maximum effort is to avoid disturbing wildlife. Since a sailing boat is used, no lasting impacts are expected.

Description of Existing Environment: Biological Environment

Description of Existing Environment: Socio-economic Environment

The boat will call port at Pangnirtung and hopefully meet and talk with people of the local communities.

Miscellaneous Project Information

No contacts were made beforehand, therefore N/A and an arbitrary date were put into the form. Regarding community involvement, the crew of the sailing boat would be happy to speak and get in touch with members of the community during the port stay in Pangnirtung.

Identification of Impacts and Proposed Mitigation Measures

No impact is expected, as the boat is mostly on the sea, sailing along its route. Waste will be collected on board, pressed and stored on board until it can be disposed at designated port facilities.

Cumulative Effects

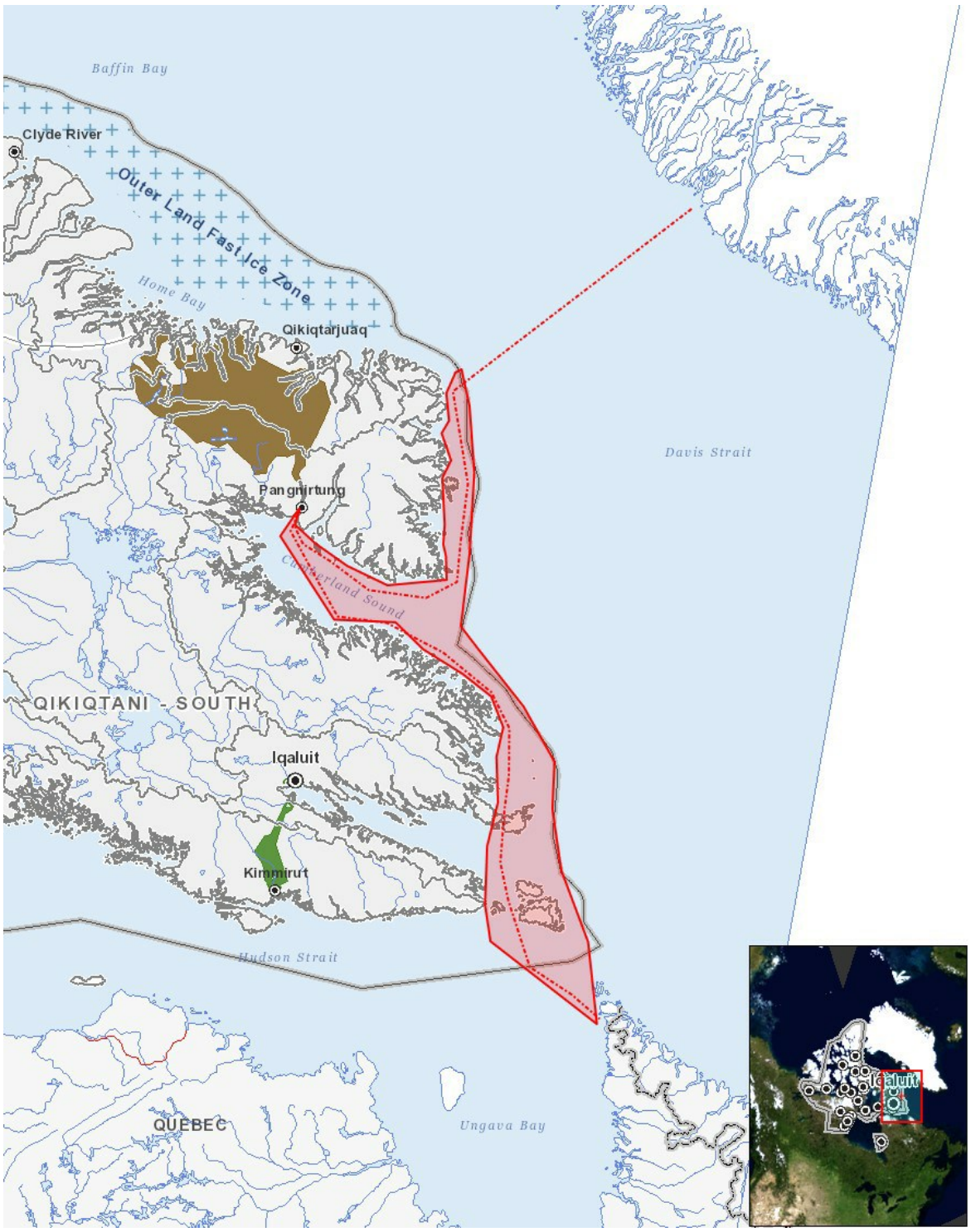
Impacts

Identification of Environmental Impacts

	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
Construction																									
-		-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-
Operation																									
Researching		-	-	-	-	-	-	-	-	-	-	-	-		-	P	P	P	-		-	-	-	-	-
Decommissioning																									
-		-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-

(P = Positive, N = Negative and non-mitigatable, M = Negative and mitigatable, U = Unknown)

Project Location



List of Project Geometries

1 polygon Area in which the sailing boat will operate and measure oceanographic parameters

2 polyline approximate track