

URI Northwest Passage Project 125457/18YN029 Request for Clarification Response

We have responded below to the requests for clarification about the 2019 URI NPP NIRB application. Questions 1 and 3 have a combined response. We are happy to provide any additional information.

1. *Please clarify at which locations you will be conducting shore-based visits. You have indicated your expedition will be landing at the communities of Resolute Bay and Pond Inlet. Are there any additional landings planned? If so, please indicate the locations.*

3. *Please clarify what mode of transportation will be used for transport of personnel from the IB Oden to shore for shore visits (i.e. inflatable/zodiac, etc.).*

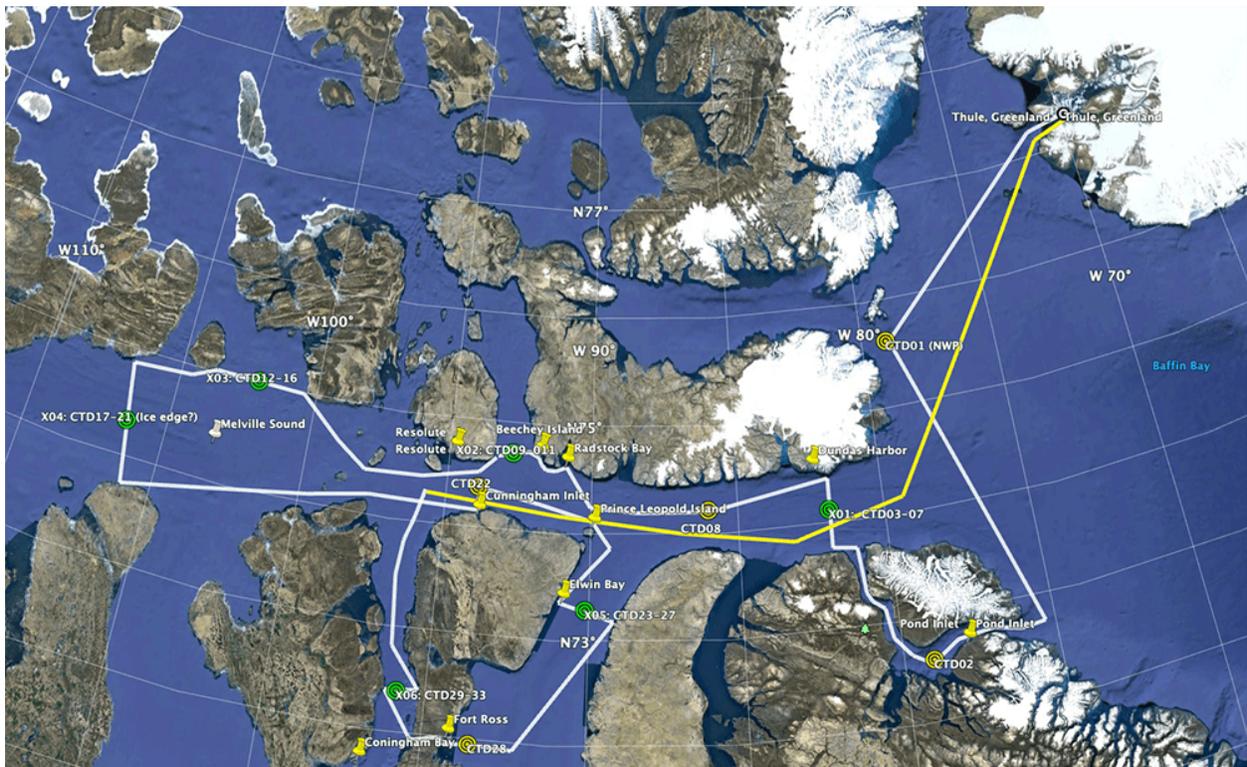
Yes, the NPP expedition has planned additional shore visits. Transportation from the IB *Oden* to shore will potentially happen with zodiacs, small aluminum boat, or helicopter. The decision at each location will depend on the sea conditions, ice conditions, and what is appropriate at that location. The decision to go ashore or operate a small boat in nearshore waters and the mode of transportation (where optional) will be up the IB *Oden* captain. The IB *Oden* operators have expressed a strong preference for helicopter transportation. Locations where a helicopter is not appropriate are indicated in the list. Locations in small boats nearshore and most shore locations, are for the film crew only (approximately six individuals).

The list below contains all the planned activities ashore or in nearshore waters. Locations where a boat is necessary are indicated in the activity description. Please note the dates of the cruise have changed slightly as of April 17, 2019, essentially pushing back the start date with a departure from Thule, Greenland of July 17, returning to Thule by Aug 4.

Date	Location	Approximate latitude and longitude
July 20	Pond Inlet	
	-Film and activities with community, customs, additional expedition members ashore, zodiac or small boat if possible	
July 21	Pond Inlet	
	-Film and activities with community, additional expedition members ashore, zodiac or small boat if possible	
July 22	Low Point & Sirmilik National Park	73°09'N 80°35'W
	-Film glaciers, Low Point Inuksuk stone structures	
July 23	Dundas Harbor	74°32'N 82°26'W
	-RCMP post, walrus haul-out, Film Thule/Inuit structures	
July 24	Radstock Bay	
	-Film from zodiac (no landing), polar bears, beluga whales, Caswell Tower cliffs	
July 25	Beechey Island	74°43.06'N 91°51'W
	-Film Franklin graves, monuments, Northumberland house remains, if by zodiac then potential additional expedition members ashore	
July 26	Resolute Bay	

- Most likely by helicopter, Film Inuit elders, sculpture, swap expedition member
- July 28 Cunningham Inlet 74°11'N 93°80.35'W
 - Film from zodiac (no landing), beluga whales, polar bears
- July 29 Prince Leopold Island 74°9'37.04N 91°4'4.84W
 - Film seabird sanctuary, whale bones, additional expedition members potentially ashore, zodiac only for access
- July 30 Elwin Bay 73°32'N 91°56'W
 - Film protected fjord, wildlife, whale bones
- July 31 72° Fort Ross 00.42'N 94° 14.67'W
 - Film Hudson's Bay Company post, past Inuit habitation and graves
- August 1 Coningham Bay 71°49,08'N 96°45'W (only if transit Bellot Strait – see Q4 below)
 - Film from zodiac (no shore landing) concentrations of beluga whales and polar bears

NPP has applied for these additional permits relating to shore based activities: Canadian Wildlife Service permit for visiting and filming at the Prince Leopold Island Migratory Bird Sanctuary, a permit to visit Inuit owned land from the Qikiqtani Inuit Association, a Nunavut Wildlife Observation Permit, Nunavut Department of Culture and Heritage - Class 1 Archaeology Permit, Parks Canada Nunavut Field Unit for permission to visit and film in Low Point and Similik National Park.



NPP Cruise plan with small boat filming in nearshore waters and land filming locations included.

2. Regarding the research vessel IB Oden – can you confirm that this research vessel will be used exclusively for the activities provided in your proposal? Also, please clarify whether to your knowledge this vessel has been previously screened by the NIRB for any other project activities or will be used as part of any other projects outside the scope of your current proposal.

The *IB Oden*, operated by the Swedish Polar Research Secretariat, will be the ship used for NPP. A memorandum of understanding will be in place between the Swedish Polar Research Secretariat and the US National Science Foundation for the *Oden* to be the cruise platform for the NPP cruise and will be used exclusively for the NPP expedition during the dates of the NPP expedition. The Swedish Polar Research Secretariat will oversee the operation of the *IB Oden* during the NPP cruise.

To the best of our knowledge, the last time the *IB Oden* was in Nunavut waters was in the Summer of 2005.

4. In further reviewing your application, it is noted that the R/V IB Oden has icebreaking capabilities. It is also noted that the route planned for your expedition has the potential to encounter icepack. Please confirm whether your project plans to employ icebreaking activities if icepack is encountered and to what extent.

The NPP expedition does expect that the *IB Oden* will conduct icebreaking activities if icepack is encountered. The extent of those activities is limited, as the *Oden* will not have the fuel to use (due to a cruise planned after NPP) or the time for extensive icebreaking to reach all the proposed science stations unless there is a very limited icepack.

The 2019 Northwest Passage Project will follow the proposed plan described below. Sections of the proposed cruise plan are heavily dependent on the ice conditions, fuel, and time. The plan is constructed under an assumption of very favorable ice conditions. It was constructed that way so that if the icepack is minimal, the expedition is prepared to take advantage of those conditions. If the icepack is not favorable in summer 2019, the plan is not to break ice to get to all the station locations. Those parts of the plan that depend on ice conditions have been highlighted below. The most likely area for icebreaking is in the area around Resolute Bay and to the west of Resolute Bay, presuming similar ice conditions to past years.

The Northwest Passage Project will take place in the Canadian Arctic Archipelago in the waters of the Nunavut Territory, Canada. The NPP will set sail on board the research vessel ice breaker *Oden* from Thule, Greenland on July 17. The communities of Resolute Bay and Pond Inlet are stops on the expedition. The first science station is planned just northeast of Devon Island.

The ship will then travel south to the first port stop at Pond Inlet where it will spend two days. After Pond Inlet the ship will proceed north toward Lancaster Sound for the first hydrographic transect. The map shows the ship proceeding up Navy Board Inlet, but it is more likely tha the ship will travel around Bylot Island to reach Lancaster Sound. The expedition will then continue west toward Radistock Bay and Beechy Island, stopping for filming and a CTD station, and then

take the second hydrographic transect on the way to Resolute Bay. The ship may only get close enough to Resolute Bay to reach it by helicopter.

After Resolute Bay the expedition will proceed west through Barrow Strait into Melville Sound as far as time and the ice conditions allow, conducting two hydrographic transects along the way. The map indicates that the ship will reach as far west as 106°W. However, we understand that this would only be possible under ideal ice conditions. Regardless of how far west the expedition reaches, we expect to take two hydrographic transects in this area. If there is icepack it is expected that the ship will not break ice to get past the area around Lowther Island, or around 98°W. If conditions allow the ship to proceed further west without icebreaking, then the science stations will likely be planned the edge of the icepack.

The ship will then travel back to the east for stops at Cunningham Inlet and Price Leopold Island for filming with a hydrographic station in between. The ship will then head south in Prince Regent Inlet to Elwin Bay and Fort Ross while conducting the fifth hydrographic transect.

If ice conditions allow, the ship will transit Bellot Strait and visit Coningham Bay and then take a hydrographic transect of Peel Sound. If ice conditions are favorable the ship will proceed north in Peel Sound back to Barrow Strait and transit Lancaster Sound to return to Thule, Greenland. The *Oden* will very likely not break ice to reach or transit Bellot Strait or to transit Peel Strait. If the ice conditions prevent the transit of Bellot Strait, or Peel Strait, then the ship will remain in Price Regent Inlet for another day or two and then proceed to return to Thule via Lancaster Sound. Under these conditions, the sixth transect, proposed in Peel Sound, could potentially occur at the northern end of Peel Sound earlier in the expedition when returning from the west in Barrow Strait.