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OPERATION NANOOK-NUNALIVUT 2022

KIVALLIQ REGION

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REFERENCES

- A. [DAOD 8007-0, Notification of DND and CF Activities within the JTFN AoR](#)
- B. [Bill C-15 – Backgrounder: United Nations Declaration of the Rights of Indigenous Peoples Act](#)
- C. [Canadian Species at Risk Act \(SARA\) \(S.C. 2002, c. 29\) Schedule 1](#)
- D. [Op NA-NU 22 Wng O](#)
- E. <https://acims.mil.ca/sp/CADL/DoctrineLibrary/B-GL-381-001-TS-001.pdf>

GENERAL

Joint Task Force North (JTFN) will conduct Operation NANOOK-NUNALIVUT 2022 (Op NA-NU 22) from 20 February 2023 until 27 March 2023, based out of Rankin Inlet, Nunavut. The aim of the operation is to enhance the Canadian Armed Forces (CAF) ability to operate in the harsh arctic environment in austere conditions, to demonstrate our ability to operate alongside our federal and territorial partners in the north, as well as our international partners.

Op NA-NU 22 will involve up to 400 personnel supported from the Hamlet of Rankin Inlet. This will involve soldiers, sailors, airmen and airwomen from across the CAF, Canadian Rangers from Nunavut, foreign military partners, as well as scientists and researchers from the Defence Research and Development Canada (DRDC). The personnel forming Task Force Nunavut (TF NU) will conduct overland patrols, deliver supplies by air, and conduct ice diving operations. These activities will be commanded and controlled by a Joint Task Force (JTF) Headquarters (HQ) situated in Rankin Inlet.

The Joint Operations Area (JOA) will encompass the three communities of Rankin Inlet, Baker Lake as well as Chesterfield Inlet. This area will allow TF NU to accomplish a series of tasks while challenging the leaders at all levels due to the vast area, and harsh winter conditions. While the Land Task Force (LTF) will conduct patrols across the land, and on the sea ice, they will be guided by Canadian Rangers, and sustained by a robust Joint Task Force Support Component (JTFSC) who will ensure that their movement is uninhibited due to logistical issues.

The LTF will receive medical support, logistical sustainment as well as personnel movement support from the Air Detachment, which will consist of rotary wing air craft from the Royal Canadian Air Force (RCAF). These aircraft will be based out of the Rankin Inlet Airport, and will include large RCAF transport conducting personnel and equipment movement from CAF bases into Rankin Inlet.

The Dive Task Force (DTF), which will be led by divers from the Royal Canadian Navy (RCN), and will have divers from the Canadian Army (CA) and international participants from various countries, will conduct ice diving operations.

Overall TF NU will begin to arrive in Rankin Inlet as early as 20 February 2023 to begin receiving equipment by air. The main operations will be conducted between 4 and 17 March 2023, with a small trail party remaining in Rankin Inlet until approximately 27 March 2023.

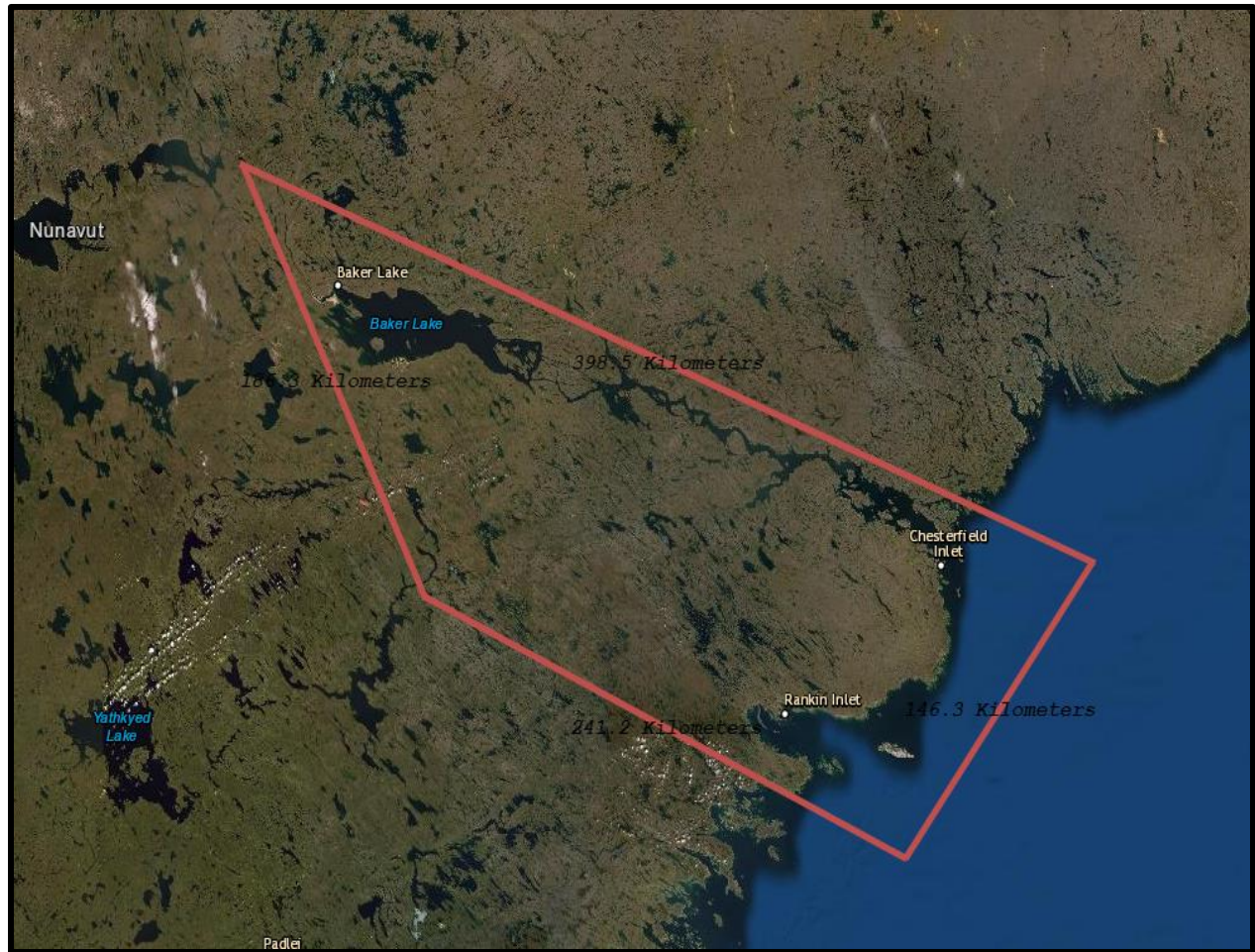


Fig 1 – Joint Operations Area for Op NA-NU 22

### LAND TASK FORCE OPERATIONS

The LTF will arrive in the JOA in a staggered deployment. The first group of soldiers of the Royal Canadian Dragoons (RCD), from the 4<sup>th</sup> Canadian Division, will arrive on approximately 5 March 2023, and will begin preparations for an overland patrol using Light Over Snow Vehicles (LOSV) (skidoos). The patrol will consist of approx. 40 personnel, using up to 25 LOSV's, and will see them patrol from Rankin Inlet towards Baker Lake. It is expected that this patrol, with an approximate distance of 255 kms, will commence on or about the 6<sup>th</sup> of March, and take up to four days. This will give the patrol enough time to move safely, tactically, and maximize the hours of daylight.

The patrol will be led by a commander from the RCD's, however they will be advised on movements and routes by rangers from the 1<sup>st</sup> Canadian Ranger Patrol Group (1 CRPG) who will accompany them. During the patrol, the group will stop each night and set up 10 person bell style arctic tents. They will remain in these bivouacs during the night hours, and may possibly remain in location if the weather is deemed to be too bad to travel. As well, while unconfirmed as of the writing of this project description, the patrol may conduct a small arms range en route. This range will consist of soldiers firing their service weapons, to better understand the effects of the

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cold weather on the weapon and the soldiers' ability to fire it effectively. The range will be conducted in accordance with the Canadian Forces Training Safety (reference E, Chapter 3, Sections 1 and 2).

Upon reaching the limits of Baker Lake the patrol will stop, set up tents and conduct a resupply, where they will return their garbage, and empty fuel cans to the JTFSC, and receive rations, water and other supplies. At this time the patrol will either re-fuel their jerry cans using local purchase of gas from Baker Lake, or receive it during the re-supply from stocks held in Rankin Inlet. This re-supply will be effected using rotary wing helicopters, or a Twin Otter from the RCAF. The determination of the manner in which this re-supply will be conducted will be further defined during the planning process.

It is at this time that the commander, in consultation with the rangers from 1 CRPG, will determine if the patrol will travel EAST towards Chesterfield Inlet, or return on the same route towards Rankin Inlet. If the patrol continues towards Chesterfield Inlet they will again cover the approximately 275 kms in upwards of four days. Again they will stop short of Chesterfield inlet and set up camp, and again conduct re-supply. The patrol will also be re-supplied as necessary along the routes, by RCAF air craft when necessary. They will not be limited to one re-supply once they reach the limits of the two aforementioned communities.

Simultaneously, on or about the 9<sup>th</sup> or 10<sup>th</sup> of March, another group of approx. 24 to 28 soldiers from the RCDs, supported by rangers from 1 CRPG, will commence a patrol from Rankin Inlet NORTH to Chesterfield Inlet, approximately 92 kms, using up to 15 LOSVs. This patrol, like the other RCD patrol may conduct a small arms range en route, further details on these ranges will be provided below in section "Conventional Ranges". Once they reach the outer limits of Chesterfield Inlet they will set up a tented camp, and be re-supplied.

On or around the 11<sup>th</sup> of March, the second group of soldiers from the Arctic Response Company Group (ARCG), of 31 Canadian Brigade Group (CBG) will arrive in Rankin Inlet and commence preparations for a patrol from Rankin Inlet NORTH towards Chesterfield Inlet. They will begin the patrol NORTH on or about the 13<sup>th</sup> or 14<sup>th</sup> of March. There will be a determination made further in the planning process whether the ARCG will be inserted, via RCAF helicopter, into Chesterfield Inlet and relieve the patrol from the RCD's, or if they will move over land using LOSV's to Chesterfield Inlet, thus conducting a link up with the RCD patrol en route.

Exact patrol routes have not been determined at the time of the writing of this project description, and will be determined in due course by the LTF HQ staff. Each patrol will return to Rankin Inlet no later than the 17<sup>th</sup> of March in order to prepare equipment and personnel for re-deployment back to their home unit locations.

## DIVE TASK FORCE OPERATIONS

RCN divers from the DTF will execute ice diving in vicinity of Rankin Inlet. The divers will dive on areas of interest, which have been supplied by the Canadian National Hydrological Service (NHS), and will assist DRDC in testing of equipment. The holes created for the divers will be covered by military tents and the dive site will be manned daily for the duration of the



operation. At the end of the operation, the holes used for the diving ops will be marked so that they are clearly visible to anyone working or traversing the area.

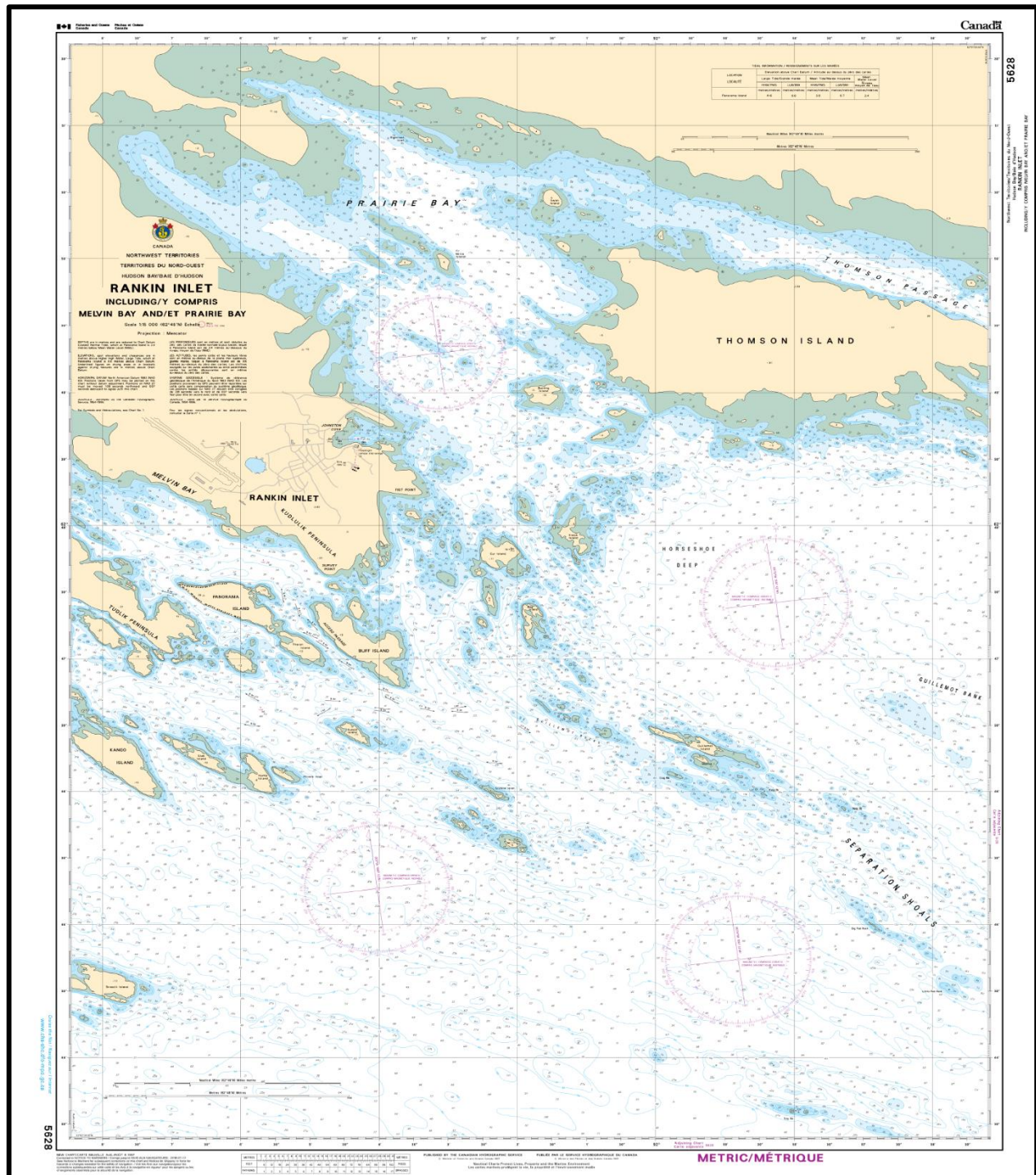


Fig 2 – Proposed DTF dive locations

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### AIR DETACHMENT OPERATIONS

Currently the aircraft types which will support the operation have not been confirmed. It is expected that the Det will use a CH-147 Chinook, during the duration of OP NA-NU 22 for transport of personnel and supplies within the Joint Operations Area (JOA). All aircraft used during the operation will fly using Visual Flight Rules (VFR) regulations. All Chinook aircraft will carry either a .308, or 12 gauge shot gun to be used for predator control if necessary. These weapons will be secured inside the aircraft during flight operations.

The RCAF could support the movement of personnel and equipment into the JOA with the CC-177 Globemaster, as well as the CC-130J Hercules. It is expected that the Det will operate out of the Rankin Inlet airport during the operation.

### 1<sup>ST</sup> CANADIAN RANGER PATROL GROUP OPERATIONS

1 CRPG will endeavor to deploy rangers from the communities of Rankin Inlet, Baker Lake and Chesterfield Inlet. If there are insufficient rangers available for the operation, it is assumed they will support with rangers from the Kivalliq Inuit Region, and then from other areas of Nunavut. The rangers will accompany all patrols, as well as assist the divers, to advise on the best routes to travel, as well as act as subject matter experts on the land which the operation will take place. The rangers will also be the primary members responsible for predator control for patrols on the land, and will direct other CAF members on actions to be taken in the occurrence that a threatening animal is encountered.

### JOINT TASK FORCE SUPPORT COMPONENT OPERATIONS

The JTFSC will be staffed by CAF members from across the 4<sup>th</sup> Canadian Division, and will be the subject matter experts providing logistical support to the operation. The JTFSC will consist of mechanics, cooks, material management technicians, traffic technicians as well as medical staff. Each patrol will be accompanied by mechanics, as well as medical personnel.

The JTFSC will be based out of Rankin Inlet, and commanded from the same location. They will coordinate all logistical support requested from the LTF, DTF and Air Det, as well as act as the lead element for the catch team, which will deploy to Rankin Inlet as early as 20 February 2023, and will also form the majority of the trail party, which remains in location until all equipment has been shipped out of the JOA, and all infrastructure and lands have been cleared out of.

### JOINT TASK FORCE HEADQUARTERS

The JTFHQ will be the nucleus of all command and control responsibilities for the entirety of the Operation. The HQ will be based out of the Forward Operating Location (FOL) in Rankin Inlet and will be the lead point of contact for all interactions with external agencies, and Other Government Departments (OGD's). The JTFHQ will employ all the operations staff, communications staff as well as public affairs, environmental and engineering staffs to name a few of its enablers.

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### DEFENCE RESEARCH AND DEVELOPMENT CANADA OPERATIONS

As in previous iterations of the operation, a small team from DRDC will be present, and they will be conducting experiments and fact finding for research projects ongoing. This year will see them conduct a study on frost injuries in soldiers, field testing of search and rescue reflectors, and field testing of ice drilling equipment in conjunction with the DTF. This research and studies will have no effects on the environment, and will involve only a small team of approximately 3 to 5 scientists.

### INTERNATIONAL PARTICIPATION

International participation is expected during OP NA-NU 22. The current plan sees a small contingent of international divers participating. All international participants will arrive in Canada up to two weeks prior to the operation to conduct familiarization training with the DTF in eastern Canada.

### CONVENTIONAL RANGES

All conventional austere ranges will be conducted in accordance with Training Safety (reference E), and will be staffed with qualified teams to ensure that safety is adhered to at all times. All ranges will be template using the Canadian Forces Range Information System (CFRIS) to ensure that the maximum safety distances are determined and therefore adhered too. All ammunition will be carried separate from weapons during the conduct of patrols, and no weapons will be loaded until the conduct of the range. All empty casings and salvage from the ranges will be picked up and returned to the JTFSC at the closure of the range or during re-supply.

A detailed list of ammunition natures and quantities is not available at the writing of this project description, however, it can be supplied in due course once determination is made.

### ENVIRONMENTAL CONSIDERATIONS

All activities planned in the JOA are assessed as low environmental impact and any wildlife sightings will be recorded and reported.

It is important to note the Department of National Defence/Canadian Armed Forces operates under strict environmental guidelines. Clearances will be conducted at each location used for resupply or bed down. Digital images of locations will be taken before, during and after use and will be included in the Post-Operation In/Out Clearance Report.

The permitting process requires detailed information regarding the nature and locations of operations, the information contained in the following document is all known information at the time of production. Minor variances may occur during the conduct of the operation. Such variances will be captured in a post-operation report and will include the precise locations used during the operation, along with an overall review of the execution.

The following is a list of potential impacts which could result from the proposed activities:

Activity and vehicle traffic from the proposed activities is expected to increase ambient noise levels and may also cause minor disturbance to the wildlife within the vicinity of activity locations. However, since all activities will be temporary, impacts are expected to be minimal;

Vehicles involved in Op NA-NU 22 will release particulate into the atmosphere and contribute to greenhouse gas emissions. Air quality in the vicinity of activities may be temporarily reduced due to the increased fumes. However, due to the relatively short duration of the activity, and the use of new, lower emission vehicles, impacts to the atmosphere are expected to be minimal;

Despite direction to ensure all waste material is to be properly contained and transported back for disposal, the potential exists for waste material produced during Op NA-NU 22 to litter property or be windblown onto surrounding locations. However, every effort will be made to ensure this does not happen; therefore, the impact is considered to be easily mitigated and insignificant;

Should a fuel leak and/or spill occur from vehicles, equipment, etc., the possibility exists for contamination of soil, ground water and/or surface water. However, all units will have spill cleanup supplies, and will be instructed on their use; therefore, the potential for a malfunction and/or accident to cause any significant impact is low; and

Caribou are a species of special concern and are known to live in the JOA. Human activities have the potential to disturb these animals, however any caribou seen will be avoided minimizing the potential disturbance of any individual caribou or caribou herds.

While there is potential for activities to impact the environment, mitigation measures have been established to minimize their significance. These mitigation measures include, but are not limited, to:

An environmental brief will be provided to personnel involved in the operation to ensure they have the required general level of environmental awareness and knowledge, and are aware of requirements related to wildlife prevention, response and reporting;

Vehicle movement will be restricted in sensitive areas. In the event established trails are impassable, personnel will be instructed to use alternate routes for as limited a distance as necessary;

Individuals will be tasked to ensure waste material and litter is collected on the site prior to departing the camp location. All waste produced on site will be properly disposed of in accordance with territorial, municipal, and federal regulations;

In order to prevent any unnecessary wildlife encounters, all waste will be appropriately contained, stored and removed from the sites as soon as possible;

All caribou will be avoided and not disturbed in any way;



Personnel will be made aware of the potential for threats from local wildlife and instructed to avoid encounters or disruption of any wildlife unless absolutely necessary;

Local treatment systems and municipal landfill or incineration will be used for the disposal of human waste. Waste generated during patrols or when municipal services are otherwise unavailable, will be bagged and packed out for appropriate disposal;

Local landfill or incineration will be used for the disposal of combustible waste. Disposal will occur in accordance with territorial and municipal regulations (waste will be handled by contract);

Local landfill, incineration or recycling centers, where available, will be used for the disposal of non-combustible wastes. Disposal will occur in accordance with territorial and municipal requirements (waste will be handled and disposed by contract);

All noise making activities will be limited as much as possible;

Vehicles and equipment will be maintained in good repair to prevent leakage of fuel, oil, or other lubricants;

Generators will be placed within suitable containment throughout the operation, and will be emptied for transportation;

All vehicle refueling will occur in commercial locations;

Aircraft fueling operations in Rankin Inlet will comply with Municipal, Territorial and Federal regulations. Fuel storage may include the use of temp bulk storage, including bladders, drums or portable bulk containers;

Use of spill containment items including drip pans or mobile plastic berms will be maximized during refueling;

All fuel storage systems and containers to be used during Op NA-NU 22 will be transported, stored, protected, etc. according to proper legislation, regulation, codes and guidelines;

All hazardous materials (HAZMAT) and fuel will be stored in approved containers and facilities, including compliant secondary containment and will be stored in accordance with municipal, territorial, and federal regulations;

HAZMAT prevention/response resources (spill pans, hydrocarbon spill pads, absorbent, etc.) will be available and ready for use if required. Spill kits will be specifically located at all fuel storage areas, vehicle maintenance areas and refueling areas;

All HAZMAT, fuel storage, generator and vehicle parking areas are subject to inspection by environmental support staff. **All involved elements will appoint an environmental representative**, accountable for the supervision of best environmental practices;

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HAZMAT waste will be appropriately packaged and transported to a suitable facility for disposal, in accordance with appropriate regulations provided by a third party waste disposal facility if required; and

Photographs will be taken of all training location sites, and temporary camp locations before, during and after use.

With the environmental training given to all CAF members, in addition to the identified mitigation measures, and follow-up programs and monitoring, OP NA-NU 22 is not likely to cause any significant effect on the environment.

## LOCATIONS

Table 1 – Joint Operations Area Coordinates

Corner	Latitude	Longitude
NW	64.757345	- 96.883053
NE	63.095030	- 89.148350
SE	62.310160	- 90.376470
SW	63.235620	- 95.384856

Table 2 – Dive Task Force Dive Locations (proposed)

Site Number	Latitude (Approximate)	Longitude (Approximate)
1	62.73333	- 92.13333
2	62.85000	- 92.13333
3	62.85000	- 91.93333
4	62.73333	- 91.93333

## CAMP DETAILS

With the exception of the LTF and 1 CRPG, all personnel deployed on OP NA-NU 22 will be bed down in hard accommodations infrastructure owned by DND in the Hamlet of Rankin Inlet. The LTF and 1 CRPG will be bed down in arctic tents set up on the land, with exact locations to be determined at a later date.

## PERSONNEL

All personnel who are not conducting patrols will be accommodated in DND infrastructure.

Table 3 – Estimated number of person days (Pers per day x number of days)

Personnel	Dates	Total Person Days	Notes
100	2 Mar – 11 Mar	100	100 pers days living on the land
150	12 Mar – 20 Mar	150	150 pers days living on the land

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PETROLEUM, OILS AND LUBRICANTS

Table 4 – Est fuel usage to be used on the Operation

Location	Diesel (Generators, Heaters)	Gasoline (LOSV)	Naphtha (Colman Stove and lanterns)	Oil (LOSV)	AV-Gas (Aircraft)
Rankin Inlet	900L (stored in 205L drums)	7000L (stored in 20L Jerries')	500L	400L (stored in 4L containers)	To be delivered by airport svcs

MAJOR EQUIPMENT INVOLVED

Table 5 – Major equipment to be used on the Operation

Equipment type and number	Size – dimensions	Proposed use	Location
80 x Light Over Snow Vehicles (LOSV) With Qamutiik	L3.00m/W1.30m/H1.20m/Wt140kg	Transportation of troops and equipment	Rankin Inlet / Baker Lake / Chesterfield Inlet
10 x Heaters	Example Dimensions: L1.24m/W2.55m/H1.20m	Heating tents	Rankin Inlet
10 x 7kW Generator	Example Dimensions: L 0.9m/0.6m/H0.6m	Temporary power	Rankin Inlet
25 x Tent Group including Coleman Stove and lantern	L 3m/W 3m/H 2.5m	Potential Shelter	Rankin Inlet / Baker Lake / Chesterfield Inlet
CH-147 Chinook Helicopter	L15.9m/W18.28m/H5.77m/Wt24,494kg	Transportation of troops and equipment	Rankin Inlet
CC-130 Hercules	L30m/W40m/H11m/Wt34,400kg	Transportation of troops and equipment	Rankin Inlet
CC-177 Globemaster	L53m/W52m/H17m/Wt128,100kg	Transportation of troops and equipment	Rankin Inlet

## WATER AND WASTE

The following is the estimated quantities of waste which may be generated by the operation, during peak times. These quantities will fluctuate and the numbers given are the maximums for the expected time period.

Date	Waste Water per day (m <sup>3</sup> )	Waste per day (m <sup>3</sup> )
22 – 28 Feb 2023	13.4	6.1
1 – 20 Mar 2023	57.7	14.4
21 – 27 Mar 2023	1.7	0.2

## AMMUNITION

Ammunition nature to be used on the Operation will be confirmed as the planning process continues. The table below represents the probable nature to be used, however, it is not exhaustive.

Table 7 – Ammunition nature and quantities to be potentially used

Ammunition Type	Quantity
5.56 mm Ball	TBD
5.56 mm Link 4B1T	TBD
7.62mm Link 4B1T	TBD
.308 mm	TBD
Shotgun Slug	TBD
Signal, Diver Recall SC810	TBD

## INUIT OWNED LANDS

The operation will occur on lands belonging to the Kivalliq Inuit Association and the Nunavut Land Claims Agreement. Initial consultations have occurred with each of the respective parties through face to face meetings in early September, and will continue through written correspondence in the coming weeks.

## CONCLUSION

The information provided is the most accurate information available at this time, dates and locations may change slightly due to unpredictable circumstances such as weather. Regardless of circumstance, the CAF is accountable to environmental stewardship, and will conduct the operation with due diligence towards the environment.