

## OP NEVUS 2019 PROJECT DESCRIPTION



## GENERAL

Operation NEVUS is conducted annually by the Canadian Armed Forces (CAF) in Canada's North to perform regular maintenance on the High Arctic Data Communications System (HADCS). Operation NEVUS 2019 will be conducted from 12 June to 17 July out of Eureka and Canadian Forces Station (CFS) Alert, NU. CAF personnel and aircraft will conduct maintenance of the HADCS system at sites located between Eureka and CFS Alert (Table 1). There will be small command, control and support activities operating out of the DND facilities at Eureka (Fort Eureka) or CFS Alert depending on the stages of the operation. Military personnel will stay in and work from CAF accommodations whenever possible (Table 2).

## EUREKA

Fort Eureka is located on the south side of the runway (Fig. 1), approximately 2 km east of the Environment and Climate Change Canada (ECCC) facilities at Eureka, and will act as a hub for support of this operation. Military aircraft (Table 3) will be operating out of the airport including and 2x CH-146 Griffon 1x CH-147 Chinook (TBD) and 2x CC-138 Twin-Otters for transportation of personnel and supplies to and from CFS Alert and remote sites. Helicopter slinging operations may be required to perform maintenance operations. Military personnel will use the Environment and Climate Change Canada (ECCC) facilities for accommodations and mess until DND facilities at Fort Eureka has been established.

Eureka is the location of the active fuel cache to be used by DND during the operation.

Maintenance to facilities and infrastructure located at Eureka will also occur during the Operation, including repairs to buildings and roads to local sites in Eureka.

## CFS ALERT

CFS Alert will serve as a Headquarters for a portion of the Operation. Elements of the headquarters and air task force will operate out of CFS Alert while maintenance operation to the HADCS sites near Alert are conducted.

## HADCS SITES

Each HADCS site will be occupied by maintenance staff for short period to conduct maintenance operations. Members may be required to camp for one night per site. In the event that camping is required a maximum of one portable 10 man tents will be used for sleeping quarters. Potable water will be brought in, and all waste will be removed for appropriate disposal at Eureka or CFS Alert.

## TANQUARY FIORD

Tanquary Fiord is the location of an alternate fuel cache to be used by DND pending fuel testing.

## ADDITIONAL SITES

Additional sites shown on Fig. 2 may be visited during the duration of the operation to inspect and maintain abandoned fuel caches.

## LOCATIONS

Table 1. Facility coordinates for Ops Nevus 2019.

Facility	Location (Lat/Lon)	Description
EUREKA	80.00 - 85.43	Eureka. As shown in attached diagram.
CFS ALERT	82.50 - 62.30	CFS Alert
SKULL POINT	80.00 - 86.38	DND
BLACKTOP	80.00 - 85.43	HADCS Site
YANKEE	80.70 - 81.01	HADCS Site
WHISKEY	81.03 - 76.91	HADCS Site
VICTOR	81.33 - 74.76	HADCS Site
IDA	81.57 - 69.38	HADCS Site
GRANT	82.49 - 65.08	HADCS Site
TANQUARY FIORD	81.48 - 76.51	Fuel Cache

## CANADIAN ARMED FORCES PERSONNEL BY LOCATION

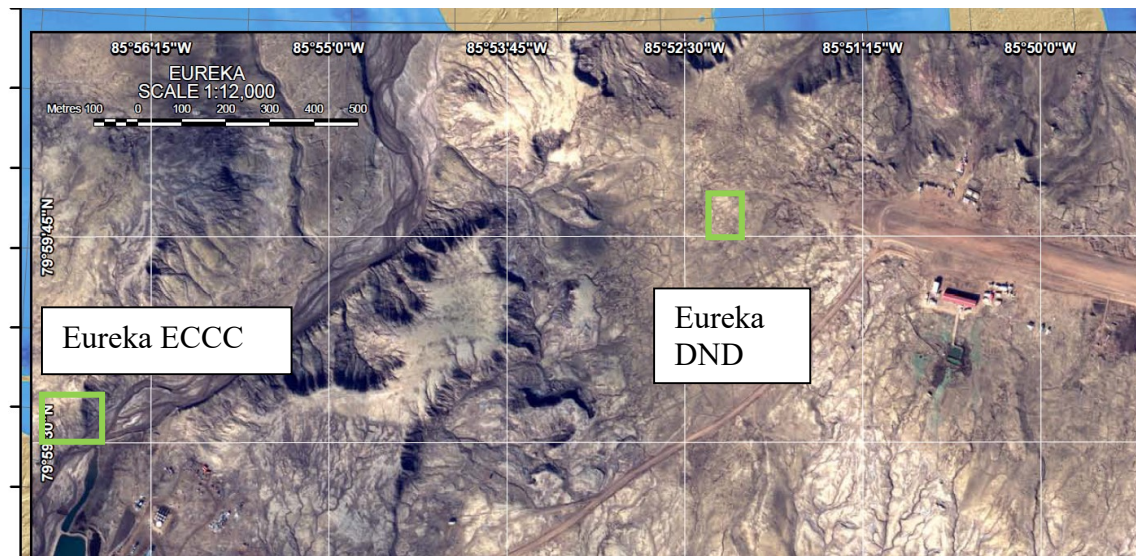


Fig. 1. Locations of facilities at Eureka.

## CAMP DETAILS

Approximately 110 personnel will be involved with Op NEVUS 2019. Personnel will be stationed at both locations with the bulk being at either CFS Alert or Fort Eureka, depending on which HADCS sites are to be accessed. For a short duration at the beginning of the operation, Op NEVUS personnel will be located at the ECCC weather station in Eureka until the facilities at Fort Eureka are made ready, at which point, they will move into Fort Eureka.

Table 2. An estimate of the maximum number of personnel expected in each location including personnel that will be transiting through that location as they move forward.

Personnel	Dates	
	12-15 June	15 June-17 July
Fort Eureka	15	100
CFS Alert	50	10

## ROUTES

All major movements will be by air. Ground movement will be restricted to defined roadways and limited to road vehicles and all-terrain vehicles (ATVs) in the vicinity of Eureka for operational and maintenance purposes only.

## MAJOR EQUIPMENT INVOLVED

Table 3. Equipment for Ops Nevus 2018

Equipment type and number	Size – dimensions	Proposed use
2 x All-Terrain Vehicle (ATV)	L3.00m/W1.30m/H1.20m/Wt140kg	Transportation of troops and equipment
2 x CC-138 Twin Otter Aircraft	L15.1m/W9.81m/H5.66m/Wt5600kg	Transportation of troops and equipment
2 x CH-148 Griffon Helicopters	L17.1m/W14m/H4.6m/Wt3500kg	Transportation of troops and equipment
1 x CC-130 Hercules	L30m/W40m/H11m/Wt34,400kg	Transportation of troops and equipment
1 x CH-147 Chinook	L30.1m/W18.3m/H5.7m/Wt22,680kg	Transportation of troops and equipment

## ENVIRONMENTAL CONSIDERATIONS

It is important to note that DND operates under strict environmental guidelines. Some of the environmental protection measures that will be implemented include but are not limited to:

All CAF personnel will be briefed with respect to general environmental awareness, including spill response and reporting procedures;

All hazardous materials, 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;

All hazardous materials and fuel will be stored in approved storage containers and facilities, including compliant secondary containment;

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

Local treatment systems and landfill or incineration at CFS Alert and Eureka will be used for the disposal of human waste wherever possible. Waste generated by personnel on the land 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 centres, 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); and

Hazardous waste will be appropriately packaged and transported to a suitable facility for disposal, in accordance with appropriate regulations – provided by an approved third party waste disposal facility if required.

The following is a list of potential impacts that 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, because all activities will be temporary and all wildlife will be actively avoided, impacts are expected to be minimal.

Emission from vehicles involved in the operation 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 efforts to ensure that all waste material is to be properly contained and transported back to municipal facilities for disposal, the potential exists for waste material produced during the Operation 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 ground water resources, soil and/or surface water. However, all units traveling on the land 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.

Although 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 exercise 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 to avoid sensitive areas where possible. In the event that 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 that waste material and litter is collected on the site prior to departing the camp location. All waste produced on site will be packed out to municipal facilities for proper disposal.

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

Personnel will be made aware of the potential for threats from local wildlife and instructed to avoid encounters or disrupting any wildlife.

All activities that generate excess noise will be minimized to the furthest extent possible.

Vehicles and equipment will be maintained in good repair to prevent leakage of fluids and fuel.

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

All fuel storage systems and containers used in the proposed operation will be transported, stored, protected and handled according to proper legislation, regulation, codes and guidelines.

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.

Photographs will be taken of all locations before during and after use.

Based on available information regarding the proposed operation and the surrounding environment, if designed and carried out using the identified mitigation measures, best management practices and follow-up monitoring, the operation is not likely to cause any significant effect on the environment.



## FUEL AND HAZMAT INVOLVED

All fuel used or hazardous materials generated will be handled, stored, and disposed of in accordance with municipal, territorial, and federal regulations. Small amounts of naphtha (up to 10L per site), gasoline (up to 25L per site), and diesel (up to 40L) may be used at each HADCS site for heater and generator fuel respectively. All aircraft fuel will be taken from existing caches at Eureka and (pending testing) Tanquary Fiord. Empty fuel drums will be removed as airlift permits.

## CONCLUSION

The information provided is the most accurate information available at this time, and that 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.

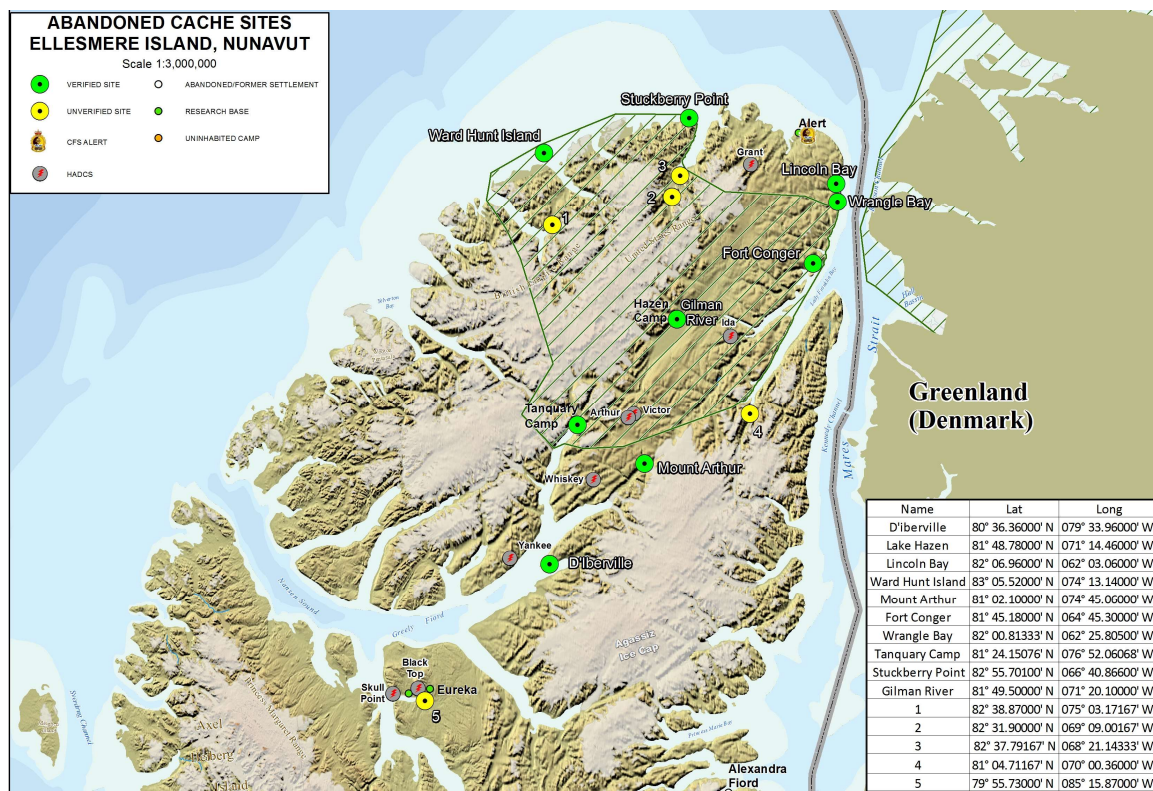


Fig. 2. Locations of site relevant to Op NEVUS