

2024

AIRCREW BRIEFING MANUAL ENVIRONMENT AND CLIMATE CHANGE



Government of
Northwest Territories



April 1, 2024

**WELCOME TO THE GOVERNMENT OF THE NORTHWEST TERRITORIES'
DEPARTMENT OF ENVIRONMENT AND CLIMATE CHANGE.**

We are pleased to have you and your aircraft working for our department and look forward to productive and rewarding assignments together.

This information package has been designed to help you become familiar with our department and the operating procedures presently in use throughout the Northwest Territories. The intent is to provide for safe and efficient operations of all aircraft.

Please do not hesitate at any time to bring forth your thoughts and ideas that could help improve our aviation system. Our Aviation Services' email address is aviation@gov.nt.ca

ECC websites:

www.ecc.gov.nt.ca

www.nwtfire.com

Standing Offer Agreement for Aircraft Services

<https://www.gov.nt.ca/ecc/en/services/wildfire-operations/2024-aircraft-services-soa-information>

TO REPORT A WILDFIRE CALL: 1-877-698-3473 (NWT FIRE)

TERRITORIAL 24-HOUR REPORT A POACHER LINE: 1-866-762-2437

TERRITORIAL 24-HOUR SPILL REPORT LINE: 1-867-920-8130
(collect calls accepted)

AIRCREW BRIEFING MANUAL

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Introduction

This manual is intended to guide aircrew and departmental personnel to become familiar with operating procedures presently in use throughout the Northwest Territories and provide for safe and efficient operations of all aircraft.

For the purpose of this manual, departmental personnel are defined as:

- a) Employees of the GNWT; and
- b) Department contractors and/or individuals whose duties require them to use Rotary Wing and Fixed Wing aircraft for transport or who are involved in loading or unloading such aircraft.

A. ORGANIZATION AND ADMINISTRATION

The Mandate of the Minister and the Department of Environment and Climate Change (ECC), as part of the Government of the Northwest Territories (GNWT), is to manage land, water, air, wildlife, and forests and lead and coordinate the Government of the Northwest Territories in understanding and adapting to a changing climate. This includes promoting, planning, and supporting the wise and sustainable use of natural resources, and protecting, restoring, and stewarding the environment for the social and economic benefit of all Northwest Territories residents, while maintaining ecosystem health.

The GNWT shares this responsibility with Indigenous and community governments, federal and territorial departments, boards and agencies, and every resident of the NWT.

ECC has five (5) administrative regions in the NWT consisting of South Slave Region, North Slave Region, Dehcho Region, Sahtu Region and Beaufort Delta Region. ECC's primary headquarters is located in Yellowknife with satellite headquarter offices in Fort Smith and Hay River.

The following identifies some of the core functions ECC executes in support of natural resource management and protection of the environment to ensure resources are used sustainably and wisely.

Forest Management

The Forest Management Division headquarters (FMD) is located in Fort Smith, NT and includes 5 sections: Fire Operations, Aviation Services, Logistics, Program Management, and Forest Resources. The Fire Operations section provides for the analysis of wildfire and protection of people, property, and values at risk from wildfire through planning and response. Aviation Services procures aircraft, controls and coordinates wildfire air attack operations, including managing GNWT's aircraft fleet and airtanker bases. The Logistics section manages warehouse operations, procurement, equipment refurbishment, facilities, assets, and a host of networks. Program Management oversees finance, human resources, and administration. The Forest Resources section provides for sustainable forest management for economic and social needs, the determination of ecological

diversity and forest health and manages forest renewal, forest harvest planning, forest health monitoring, forest growth and yield and all other forestry related matters.

The division coordinates and facilitates the implementation of forest management programs and services among the five (5) regions of ECC. The regional offices have the primary responsibility for delivery of programs. Regional staff implements forest resource and wildfire management programs for ECC. Regional personnel receive applications for approval to harvest, supervise harvesting activities, ensure compliance with standards, support community protection planning efforts and carry out forest and wildfire management activities under the direction of FMD.

The key strategy used to protect the land and forest resources is the safe, rapid and aggressive initial attack of all wildfires in NWT. It is important that the aircraft pilot is well trained, competent and has a well-maintained aircraft. In addition to wildfire operations, aircraft are also used for other ECC resource management projects.

Wildlife Management

The Wildlife division includes Biodiversity Conservation, Field Operations and Wildlife Research and Management. The Biodiversity Conservation section is responsible for monitoring wildlife biodiversity, managing species at risk programs, implementing the Species at Risk (NWT) Act, developing wildlife legislation, and maintaining a wildlife data repository. The Field Operations section undertakes wildlife surveys and involves communities and co-management boards in these activities. The Wildlife Research and Management section is responsible for guiding the overall direction of departmental wildlife research and monitoring programs, developing management plans and range plans, and providing technical expertise and advice on wildlife issues in environmental assessment and regulatory processes. This work includes supporting the needs of other wildlife management authorities and co-management partners to achieve shared goals and priorities.

Compliance and Officer Services

The Compliance and Officer Services division provides regional and divisional support on activities related to licensing, compliance and enforcement, and employee training. This unit also coordinates the ECC's occupational health and safety activities.

Environmental Protection and Waste Management

The Environmental Protection and Waste Management division includes Contaminated Sites, Waste Management, Air Quality Monitoring and Environmental Protection. The Contaminated Sites section manages the remediation of contaminated sites that fall under the responsibility

of the GNWT as well as managing the assessment and remediation of sites that are a priority due to environmental, health and safety issues. The Environmental Protection section provides information and technical advice through environmental assessments, Land and Water Board processes, and delivers programs with respect to hazardous substances, as well as solid and hazardous waste management.

Water Monitoring and Stewardship

The Division includes Water Partnerships and Agreements, Water Research and Monitoring, and the Taiga Environmental Laboratory. The Water Partnerships and Agreements section coordinates and supports implementation of the NWT Water Stewardship Strategy. It leads the establishment and implementation of Transboundary Water Management Agreements, provides support to the Mackenzie River Basin Board, and delivers programs related to Source Water Protection and Aquatic Ecosystem Indicators. The Water Research and Monitoring section is responsible for long-term baseline monitoring programs, including water quality, water quantity, weather conditions and snow surveys. The Taiga Environmental Laboratory performs a wide range of organic and inorganic chemical analyses on water, industrial effluents, sewage, and soil and provides scientific training and public education.

Land Use and Sustainability

The Land Use and Sustainability division coordinates the Department's responses to broad regional land and resources initiatives advanced by the GNWT and leads the GNWT's approach to, and participation in, regional land use planning. The Division works with external planning partners, including Indigenous governments, Planning Boards, and Non-government organizations, to strengthen capacity for land use planning. It leads policy and framework development to support the effective and efficient management and administration of land resources including efforts to develop implementation tools to support effective decision-making under the GNWT Land Use and Sustainability Framework.

Conservation Planning and Sustainable Livelihoods

The Conservation Planning and Sustainable Livelihoods division advances a comprehensive and collaborative approach for conservation planning and protected area establishment across the NWT that recognizes the need to balance conservation and economic development, and respects Indigenous rights and existing third-party interests, for example, a land lease. This division is also responsible for sustainable livelihoods programming which designs, develops, and implements activities, programs and research related to traditional and local knowledge, traditional economy, country foods, indigenous and community-based research and on the land collaboration.

B. AIR ATTACK OPERATIONS

Territorial Air Attack Operations are controlled and coordinated through FMD's Aviation Services section. Pre-season helicopter and airtanker contracts are arranged for and distributed through Aviation Services. Although long-term contract helicopters and airtankers are assigned to a specific base of operations, it should be remembered that aircraft and crew under contract to ECC's wildfire operations program as a Territorial resource and can be used anywhere in the NWT even if assigned to a particular base.

Essentially you are under the user authority of the Director, Forest Management who has in most cases delegated this authority to the *Territorial Duty Officer (TDO)*, the *Regional Duty Officer (RDO)*, or in the case of airtanker groups, the *Air Attack Officer (AAO)*. For helicopters and in some cases fixed wing aircraft assigned to wildfire incidents, the control will be delegated to the Incident Commander. The pilot will be kept informed when this control is delegated or withdrawn.

Each region is responsible for the management and utilization of its assigned aircraft within the operational guidelines set out for wildfire management. Each region is also expected to request (and justify) additional aircraft as required through the TDO in order to maintain resources for initial attack and ongoing wildfire operations activities.

The management and operations of the airtanker bases (ATB's) are the responsibility of FMD. When an airtanker group is stationed at an ATB within the region, that region's Duty Officer has the authority to prioritize fires and dispatch the group at their discretion. The group may not carry out inter-region dispatches, unless approval has been granted through the TDO.

AAO's and ATB personnel are part of FMD's headquarters staff and as such come under the general supervision of the Manager, Aviation Services. Once a group has been assigned to a wildfire target and dispatched, the AAO and his or her group must become part of the regional team.

C. COMMUNICATIONS

All pilots of aircraft operating under hire for ECC are required to file a Flight Note/Plan with the appropriate region, base camp and/or Nav Canada (if after office hours or requested by ECC). A Flight Note/Plan must be filed by the aircraft's pilot with Nav Canada, if the ECC Regional Radio Operator/Fire Clerk is not available (off-season, etc.).

1. Flight Following/Flight Watch

Pilots on an ECC Flight/Note Plan will continuously monitor designated radio frequencies and report their position every thirty (30) minutes to regional dispatch centre after take-off time.

Aircraft on contract with ECC must be equipped with a satellite tracking device that meets

Automated Flight Following (AFF) Standards. It is the responsibility of the air operator to notify FMD, Aviation Services when changing tracking units into different aircraft. Air operators must ensure their tracking is **turned on** and the data stream feeds through their AFF service provider in such a way that it can be viewed by FMD, Aviation Services – Dispatch Northwest Territories via a Selkirk Systems, Inc. AFF feed. If an aircraft is not tracking, it will be considered unserviceable and removed from service until FMD is able to track them.

It is the responsibility of the pilot to establish and maintain mandatory 30 minute flight watch calls over radio to the regional dispatch centre, to which the aircraft has been assigned.

When aircraft are assigned to a region, or working on a wildfire, the regional Radio Operator will remain on duty until the aircraft has landed and ceased operation for the day. The exception to this rule is through prior mutual agreement with the regional office and the pilot. Then, flight following may be transferred from one station to another:

- Remote regional office to regional centre;
- Remote regional office to wildfire incident (if aircraft terminates day at wildfire incident); or
- Regional centre to Nav Canada

When departing a base or pad, the pilot will follow their company flight following/flight watch procedures. In addition, the pilot shall inform the regional Radio Operator of the following details to be entered into station radio log:

- **Aircraft call sign**
- **Where they are lifting off from and flight plan/destination**
- **Passenger call signs/name**
- **Total payload, including dangerous goods if applicable**

The transferring regional center/office will ensure that the new flight watch transfer is established with new regional center/office before closing down operations AND that the pilot is aware of this transfer.

2. Loss of Radio Communications

It is ECC's policy that loss of VHF AM/FM radio communications in any contracted or chartered aircraft constitutes an unserviceable aircraft and is to be removed from services until resolved. If an in-flight radio failure occurs, the aircraft must return directly to the appropriate base. An Aircraft Unserviceable Report must be completed for the period (start and end) of time the aircraft was removed from service. Pilots on contract with ECC must ensure their onboard VHF AM/FM radios are operational and programmed with all ECC radio frequencies at the start of the contract.

Please refer to Communications Directory (Appendix 12) for current frequencies.

3. VHF-FM Interagency Border Zone Frequency (NT/AB/WBNP/BC/Yukon)

CH	RX	TX	DESIGNATION
5	153.47 MHZ	153.47 MHZ	FIRE

(Wideband – no tones)

NOTE: CH 8 (154.37 MHz) for Airtanker Base Operations only.

4. VHF-AM Interagency Border Zone Frequency (NT/AB/WBNP/BC/Yukon)

AM	RX	TX	DESIGNATION
	129.80 MHZ	129.80 MHZ	FIRE

OR

AM	RX	TX	DESIGNATION
	126.70 MHZ	126.70 MHZ	FIRE

5. Mode C Transponder

Airtanker and birddog aircraft on contract with FMD are equipped with a Traffic and Collision Avoidance Device (TCAD) as a safety enhancement. TCAD provides these aircraft with additional airborne traffic target information, it is mandatory that aircraft on contract have a serviceable Mode "C" Transponder and operate with the unit "ON".

D. AIR TRAFFIC CONTROL OVER WILDFIRES

The area over and surrounding a wildfire is a Restricted Air Space, under Canadian Aviation Regulation (CAR) 601.15. This airspace restriction is defined as "over a forest fire area, or over any area that is located within five nautical miles of a forest fire area at an altitude of less than 3,000 feet Above Ground Level (AGL), pursuant to CAR 601.16." All flights between points within restricted airspace must be coordinated in such a manner as to entirely remove any possibility of collision.

When airtankers are deployed to a wildfire, the birddog pilot is charged with the responsibility for control of air traffic over and in the immediate vicinity of the wildfire. In the absences of a birddog, this responsibility will be assumed by the Incident Commander or his/her designate. On dispatch, the AAO will make contact with the regional office on the assigned VHF-FM frequency and will remain so for the duration of the mission. **All** aircraft enroute to a wildfire will monitor **VHF-AM 126.70 MHz** after clearing the airport control zone. Once an aircraft is five (5) minutes back of a wildfire, contact must be made with the birddog pilot for clearance into the area on 122.05. All other aircraft will maintain communication on the airtoair frequency

(**122.05 MHz**). In the event the Incident Commander is on the ground, the assigned FM frequency is to be utilized. The working Birddog aircraft will be on their dedicated bombing frequency, which are:

- Group 1 – 122.650 VHF-AM;
- Group 2 – 131.850 VHF-AM;
- Group 3 – 129.950 VHF-AM;
- Group 4 – 122.400 VHF-AM;
- Group 5 – 122.250 VHF-AM.

Additional assigned bombing frequencies will be 122.425 or 122.625 or 122.950, as operationally required.

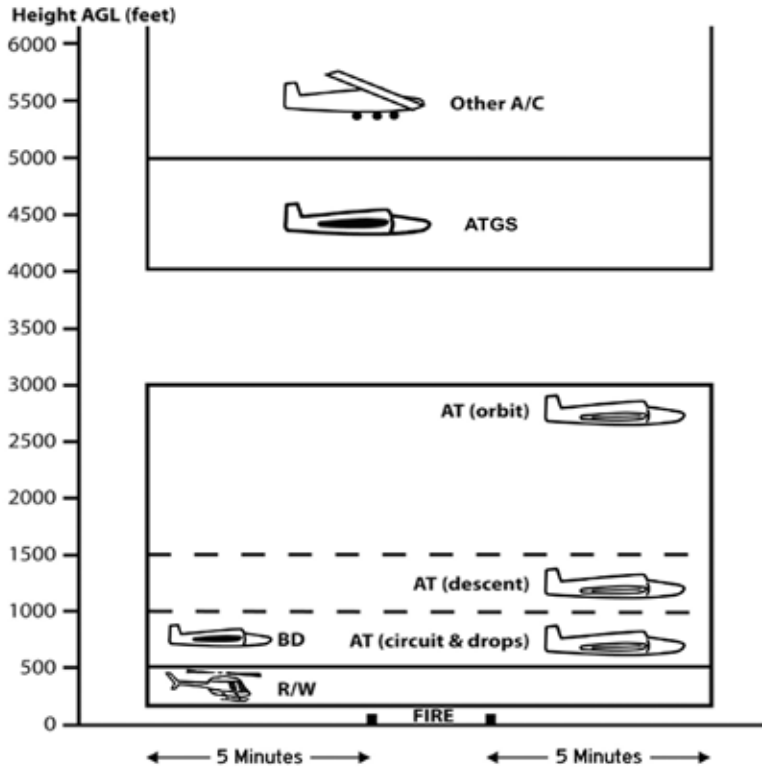
While at a wildfire, airtankers will use the dedicated bombing frequency for communication with the AAO. The birddog pilot must be advised of and clear all other intended aircraft movement in the zone (take offs, landings, altitude, direction, etc.) on **122.05 MHz**. On aircraft other than airtankers, **only the Pilot-in-Command (PIC)** will communicate with the Birddog regarding air traffic control.

The VHF-AM radios are only to be used by the aircraft pilots and their AAO. Passengers will use the VHF-FM radio (if available) for communications. Passengers will announce their own call sign in conjunction with the aircraft identification when using the radio (i.e. SS5/C-GASG). Crew names or fire numbers will be used for these individuals.

The only exception to this policy occurs when working a wildfire within controlled airspace of a local airport. **Aircraft operations** carried out within these areas will be conducted in conjunction with the local controller. **Fire operations** remain the same as areas out of controlled airspace.

Helicopter:	100 - 500 ft. (30-150 m) AGL
Working Birddog Aircraft:	100 - 1,000 ft. (30-305 m) AGL
Orbiting Airtankers:	1,500 - 3,000 ft. (457-914 m) AGL
Air Tactical Group Supervisor (ATGS):	4,000 - 5,000 ft. (1,220 – 1,524 m) AGL
Others:	Over 5,000 ft. (1,524 m) AGL until cleared to

Corridor and Approach/ Departure within the Wildfire Control Zone



1. Flight Priorities

Flight priorities will be adjusted at the discretion of the airspace controller to suit existing conditions. Normally, the flight priorities are assigned according to fire behavior and necessity (i.e., multi-lightning starts). The following guidelines are used to assign the aircraft flight priorities as listed in order below:

1. Human emergencies;
2. Airtankers;
3. Helicopters (bucketing);
4. Servicing wildfire; and
5. Reconnaissance.

E. NOTICE TO AIRMEN (NOTAM)

Airspace over fires can be extremely busy. The nature of the work involves low flying, frequently reduced visibility, and often several aircraft working in close proximity to each other. Fire airspace area is intended for aircraft involved in fire response only. To address this situation, the federal government has imposed general restrictions to aircraft flying over fires. These can be found in sections 601.15, 601.16, 601.17, and 601.18 of the CAR's.

A NOTAM will be initiated with Nav Canada by the Manager of Aviation Services, with detailed information from a wildfire *Incident Management Team (IMT)* or RDO, according to CAR's:

601.15 Forest Fire Aircraft Operating Restrictions

No person shall operate an aircraft:

- (a) over a forest fire area or over any area that is located within 5 nautical miles of a forest fire area at an altitude of less than 3,000 feet AGL; or
- (b) in any airspace that is described in a NOTAM issued pursuant to Section 601.16.

601.16 Issuance of NOTAM for Wildfire Aircraft Operating Restrictions

The Minister may issue a NOTAM that relates to restrictions on the operation of aircraft in the case of a forest fire and that describes:

- (a) the location and dimensions of the forest fire area; and
- (b) the airspace in which forest fire control operations are being conducted.

601.17 Exceptions

Section 601.15 does not apply to:

- (a) persons who are operating an aircraft at the request of, or with the authorization of, an appropriate fire control authority for the purpose of assisting the fire control authority in the conduct of its operations;
- (b) persons who are operating an aircraft with the authorization of the Minister issued under subsection (2); or
- (c) Department of Transport personnel who are operating an aircraft in the performance of duties related to surveillance and the enforcement of aviation legislation.

This is an automatic airspace flight restriction for any forest fire. NO advisory to pilots is given. **REMINDER: Pilots are reminded to check NOTAMs before flying near wildfires.**

F. AIRCRAFT MANAGEMENT/SUPERVISION

1. A department employee will be assigned the responsibility of on-site aircraft management and/or supervision when:
 - (a) more than one aircraft is assigned to a project or region;
 - (b) medium size helicopters or larger (greater than a six-passenger capacity) are assigned to a project or region; or
 - (c) helicopters are being used to bucket water or fire retardants or in slinging operations.
2. All persons involved in aircraft operations will be given adequate instructions including safety procedures before operations commence.
3. Regular aircrew briefing and debriefing will be conducted by ECC staff prior to and at termination of activities involving aircraft utilization.
4. It is the responsibility of the aircraft user to ensure the information on the flight ticket/loadsheet is accurate and factual and will validate the flight ticket/loadsheet by his or her signature.

G. AIR ATTACK AND AIRTANKER BASE OPERATIONS

1. Airtanker/Air Attack and Airtanker Base (ATB) operations are the responsibility of FMD. Aircraft and associated support staff will be positioned at a specified region by wildfire load, hazard, and risk. Once positioned at an ATB, inter-regional dispatches can be made directly to the group, as required.
2. All contact with an airtanker group will be via the AAO in charge of that group only.
3. All requests for airtankers located/positioned outside the regional boundaries must be channeled through the TDO who will be responsible for actioning or denying the request.
4. If an airtanker group has been dispatched by the TDO to a wildfire incident or base changed to another region, it may only be cancelled or rerouted by the TDO.
5. When the AAO and airtanker aircraft are over a wildfire and no ground authority (i.e., Incident Commander) is present, the AAO assumes role as the Incident Commander until their departure or an appointed Incident Commander assumes this role.
6. The AAO is responsible for the safe operations of the airtanker group and, as such, may remove the group from any wildfire he or she deems hazardous to life or property.

7. As airtankers are primarily an initial attack tool, initial attack on new wildfires shall take priority over support action on an ongoing wildfire with the exception where life or property may be threatened.
8. Airtanker Group Alert System - Alerts for various airtanker groups will be set by the TDO with input from the region. The local region may **upgrade** an individual ATB alert to increase preparedness while undertaking smoke patrols, possible smoke patrols and unforeseen thunder shower/lightning activity. However, a local region cannot lower the established ATB alert without the approval of the TDO.
9. Resource Alert System – The Alert Status for all resources within each region will be set by respective RDO with the exception of airtanker group(s). All resource alerts will be established by the respective RDO after careful analysis of the most current:
 - Lightning Activity Preparedness Planning System (LAPPS);
 - Preparedness Forecast; and
 - Fire Weather Forecast

ALERT STANDARDS are as follows:

Alerts are posted daily by 17:00 hours for the following day and amended by TDO, as required.

- (a) **Red** Designated personnel, aircraft, and equipment ready for **immediate departure**. No aircraft maintenance to be done while on red alert.
- (b) **Yellow** Designated personnel, aircraft, and equipment ready for departure within thirty (30) minutes or less of call out. Minor maintenance may be carried out.
- (c) **Blue** Designated personnel, aircraft, and equipment ready for departure within sixty-one (61) minutes or less. More significant maintenance may be carried out.
- (d) **Green** Designated personnel, aircraft, and equipment are stood down for a specified period of time.

Aircrews must be prepared to be dispatched anywhere in the NWT and should always carry their overnight bag for this instance.

H. AIRCRAFT SAFETY

1. Unserviceable Radio Equipment

All aircraft employed on fire operations will have operative radio equipment capable of communication with other aircraft, ground crews and ECC base facilities (VHF-AM or VHF-FM). No aircraft will be allowed on operations without radio communications. Chartered aircraft without acceptable or serviceable radios will be considered unserviceable.

2. Unserviceable Emergency Locator Transmitter (ELT)

All aircraft must be equipped with a **serviceable** 406 MHZ Emergency Locator Transmitter (ELT). An unserviceable ELT will render the aircraft unserviceable for operational use.

3. Weight and Balance Calculations

Load Calculations will be completed before each flight for rotary wing and fixed wing transport. Under no circumstances will ECC staff or aircrews overload an aircraft. The pilot is responsible for securing internal loads, so they do not block exits or shift in flight. The pilot will be provided with the weights required to calculate weight and balance. The pilot or a responsible aircraft company representative must be in attendance for loading of the aircraft for safety reasons.

4. Refueling

- (a) Department personnel **will not** refuel aircraft.
- (b) During refueling operations, department personnel will vacate the aircraft until the refueling has been completed.
- (c) Hot refueling of rotary wing aircraft **will not** be allowed at any ECC operated heliport facility. Department personnel are NOT to be involved in **any way** in hot refueling operations away from an ECC's facility.
- (d) Aircrews must ensure there is proper grounding and bonding of refueling equipment.
- (e) Pilots may refuse refueling aircraft from any storage facility. Including unsealed, improperly sealed, or aged drums. ECC **will not** use fuel that is more than 12 months past the fill or recertification date.

5. Transporting Fuel

Outlined in the International Air Transport Association (IATA) Dangerous Goods Regulations (DGR) manual states that passenger and cargo are forbidden to carry petroleum distillates UN1268 in excess of 60 liters when a passenger is onboard. For specific information regarding the Transportation of Dangerous Goods (TDG), please refer to the DGR manual.

6. Pre-Job Briefing

All persons involved in aircraft operations will be given adequate instructions, including safety procedures prior to commencement of operations (See Appendix 9).

Deplaning will only be conducted by trained personnel engaged in wildfire suppression or specialized wildlife/water work who have received department training. Department personnel must receive training every season **before** hover exiting.

Deplaning from hover can be done only during day Visual Flight Rules (VFR) conditions while the helicopter maintains a stabilized hover with a **maximum skid height of FIVE (5) feet above the ground (high hover)**.

Procedures for hover exiting are set out in the ECC's Hover Exit and Entry Manual and Air Operator's Company Operations Manual.

9. Aircrew and Aircraft Considerations

Air Operators conducting flight operations under Part VII **subpart 2** will follow Division X - **Flight Time, Flight Duty Period Limitations and Rest Periods regulations** as required in their company operations manual.

Air Operators conducting flight operations under Part VII **Subpart 3, 4 and 5**, will follow Part VII Division III – **Flight Crew Member Fatigue Management** regulations as defined in their Company Operations Manual.

Aside from CAR 702 – Aerial Work assignments, no flight crew member shall be assigned regular duties and no flight crew member shall accept such an assignment, if the flight crewmember's flight duty period will, as a result, exceed twelve (12) consecutive hours in any 24 consecutive hours.

To ensure safety is not compromised by factors contributing to pilot fatigue, the following guidelines will be followed provided they do not exceed the flight time limitations or flight duty time limitations and rest periods as specified in the Air Operators Certificate/Specifications or Flight Operations Manual.

When in extenuating circumstances a need exists to exceed the flight time and flight duty time limitations and rest period as specified in the Commercial Air Service Standards (CASS) it will be the Pilot-in-Command responsibility to ensure that the necessary authorizations are obtained.

All Transport Canada Exemptions/Authorizations issued regarding Flight Time, Flight Duty Period Limitations and Crew Rest Periods and/or Flight Crew Member Fatigue Management must be provided to FMD Director, or delegate (TDO) or Manager, Aviation Services) and receive approval/authorization prior to the air operator complying with them. To be clear, exemptions are caused by events, i.e., emergencies and events that are not planned.

Approved exceptions require a detailed explanation written on the applicable flight ticket by the ECC representative.

Due to the nature of the services required it is understood that the Air Operator will provide crews with adequate Time Free From Duty, as per CAR 702.96. Transportation costs for these crew relief periods shall be at the expense of the Air Operator.

- (a) **Flight Duty Day:** Aircrews working under CAR 702 – Aerial Work assignments will be limited to fourteen (14) hours of Duty Day. Aircrews working under CAR 703 – Air Taxi, CAR 704 – Commuter Operations, and CAR 705 – Airline Operations assignments for ECC will be limited to twelve (12) hours of duty time (dependent on start of Duty Day) in a twenty-four (24) hour period, which includes one (1) hour of pre and post flight preparation time.
- (b) **Flight Duty Period:** Aircrews working for ECC will not fly more than eight (8) hours in any twenty-four (24)-hour consecutive period (8 hours per day). The eight (8) hour maximum daily flight time will also include any non-departmental flying. If a pilot flies for another customer, the eight hour limit shall be reduced accordingly.

For example: *If a pilot flies two (2) hours on another job, he/she will only be allowed to fly six (6) hours for the department during that 24-hour period.*

- (c) **Exceptions:** In the event of unforeseen operational circumstances flight duty time and flight time limitations may be extended by up to three (3) consecutive hours provided that:
 - Where flight duty time is extended, the subsequent minimum rest period shall be increased by an amount at least equal to the extension to the flight duty time;
 - The pilot-in-command shall notify the air operator, in accordance with procedures outlined in the company operations manual, of the length of and the reason for the extension;
 - The air operator shall retain the notifications until the completion of the next Transport Canada audit; and
 - The air operator shall notify Minister of Transport Canada as soon as practical.

All flights shall be planned to be completed within the maximum flight time and maximum flight duty time taking into account the time necessary for pre-flight and post-flight duties, the flight or series of flights, forecast weather, turnaround times and the nature of the operation.

- (d) **Rest Periods:** For every four (4) hours of flying time; pilots must have a thirty (30) minute rest period **away** from the aircraft. This thirty (30) minutes does **not** include aircraft maintenance or refueling time.
- (e) **Maintenance:** Maintenance is an essential function for the safe operation of all aircraft. Maintenance requirements vary greatly depending on aircraft type and operator requirements. To ensure safety is not compromised by lack of, or the inability to perform maintenance adequately, engineers are not to be separated from the aircraft for any period longer than twenty-four (24) consecutive hours. When in extenuating circumstances, a need

exists to exceed these limits, it is the responsibility of the user to advise the pilot, engineer, and Director, Forest Management before the limits are exceeded. The Director, Forest Management may extend these limits only after all factors contributing to aircraft safety have been considered and an agreement reached with the aircrew concerned.

- (f) **Food and Lodging:** It is the responsibility of all ECC staff involved in aircraft operations to ensure the aircrew is provided with adequate accommodations and nutrition.

Accommodation for aircrews will be shared with the aircraft company's crew members only, or where required with other aircrew. Every effort is to be made to provide or locate aircrew accommodations that ensure an atmosphere conducive to sleep and relaxation. (Note: Aircrews, especially engineers' hours of work may differ from those of the general work place.)

The aircrew will be expected to camp out at field locations. Aircrew are expected to have in their possession adequate personal amenities (sleeping bag, pillow, toiletries, medication, cot and or foam mattress etc.) to work from remote locations.

ECC will supply aircrew with suitable accommodations. This means a single occupancy bedroom that is subject to a minimal level of noise, is well ventilated and has facilities to control the levels of temperature and light where such a bedroom is not available, an accommodation that is suitable for the site and season is subject to a minimal level of noise and provides adequate comfort and protection from the elements as outlined in Canadian Aviation Regulations.

- (g) **Rotations from Remote Bases:** The positioning of aircrews at remote Fire Attack Bases, Base Camps, Staging Areas or Work Projects will only be for a short duration, with a maximum of up to five (5) days before rotated out to a regional centre or closest community where commercial accommodations are provided. Determination of the application for this rotation will be based upon the RDO's evaluation of the following factors:

- (i) requirement of aircraft on site;
- (ii) status of aircrew fatigue and morale factors;
- (iii) living conditions and facilities on site; and
- (iv) location and availability of alternate accommodations.

These limitations are guidelines and may vary depending upon the situation. Aircrews rotated out from a remote base must be relocated to a community or base location with access to the following services and facilities:

- (i) electrical and washing facilities for aircraft maintenance;
- (ii) secure storage for aircraft equipment and spares;
- (iii) commercial transportation for movement of spares and aircrew personnel;
- (iv) commercial or ECC accommodation complete with beds, showers and telephone access; and

- (v) laundry and incidental services.

The rotation period should **not be less** than thirty-six (36) hours.

10. Helicopter Equipment Requirements

ECC short term hire contract helicopters are to be equipped, as outlined in the Standing Offer Agreement (SOA).

Aircraft Requirements (casual hire):

- One (1) fire-bombing bucket is mandatory; bucket is to be sized to the sling capacity of the aircraft. Bambi collapsible type with instant deployment system, or equivalent
- two (2) sets of barrel slings and two (2) cargo nets with lanyards; one (1) barrel sling to be capable of handling the sling capacity of helicopter
- portable remote refueling equipment
- cargo securing equipment rated for the capacity of the aircraft, in compliance with Transport Canada regulations
- one (1) 50 foot and one (1) 100 foot long lines with remote hook
- high skid gear with bear paws
- high visibility rotors
- red or white strobe lights visible from all directions
- survival equipment in compliance with CAR with CAR 602.61 and CASS 723.82, 724.84 and 725.90 as appropriate. The survival equipment shall be suitable for the season and area of operation
- portable refueling equipment
- mode “C” transponder, **must** be turned on at all times
- global positioning system (GPS) unit
- convex mirror

11. Unmanned Aerial Vehicle (UAV) in Restricted Airspace Response

If an UAV is in the restricted wildfire airspace, the following procedures shall be followed:

- All aircraft that are impacted by the incursion will be grounded by the Birddog team or Incident Commander (IC).
- One aircraft (light helicopter preferable) will be assigned for assessment over top the affected airspace at a safe altitude to monitor.
- The assessment aircraft will perform three (3) functions, in order of priority:
 - (1) Act as a lookout to ensure the continued safety of ground operations that may be affected by the exclusion of aerial response efforts.
 - (2) If safe to do so, maintain visual contact with the UAV and assist ground resources in locating the UAV operator.
 - (3) Determine when it is safe to return to normal operations.
- A ground-based search for the UAV operator will be initiated by the IC. If contact is made, ECC staff shall notify the UAV operator they are illegally operating a UAV in a restricted airspace.

- Request UAV operator to cease their operations immediately and document their name and contact information for submission to Transport Canada to action. Contact the RCMP for assistance, if required.
- Ensure all documentation and notification procedures are followed as per the GNWT Unmanned Aircraft Systems Policy, noted in section 10 - Internal Reporting of Unmanned Aircraft Systems Incidents and Accidents. A UAV airspace incursion is considered an aviation incident.
- FMD, Aviation Services will ensure UAV airspace incursions are reported to Transport Canada.

12. Aquatic Invasive Species (AIS) Prevention

To assist with preventing the spread of Aquatic Invasive Species (AIS) into Northwest Territories from other jurisdictions, all skimmer airtanker aircraft will **only** be required for a hot pressurized wash-down if the skimmer airtanker (CL-215, CL-215T, CL-415, and AT802A FireBoss, excluding Birddog aircraft) aircraft have scooped water from water bodies with known AIS. **Note:** *At this time, no lakes or water bodies within Northwest Territories are infected; however, we aim to mitigate this from occurring.*

All Skimmer Airtanker aircraft Imported into NWT will be required to fly to Fort Smith or Yellowknife ATB for AIS wash-down procedures prior to wildfire operations. When released from NWT, these aircraft will fly to appropriate ATB for final AIS wash-down procedures. GNWT Skimmer Airtanker aircraft Exported will be required fly to Fort Smith or Yellowknife ATB for AIS wash-down procedures prior to departure and upon return from Export.

Aviation Decontamination Procedures:

- Chemicals such as bleach and quaternary ammonium compounds do not meet corrosion requirements for aluminum and shall not be used on aircraft fuselages or water delivery components such as helicopter buckets and foot valves
- Visually inspect aircraft surfaces (floats, tanks, intakes, water buckets, snorkels) daily, during maintenance, and after every water dropping mission
- Remove visible plants and mud from external surfaces
- Decontaminate all exposed surfaces by power washing with hot water ($\geq 90^{\circ}\text{C}$) for 5-10 sec (up to 5 minutes preferred) before moving to new water sources
- If a helicopter bucket has a butyl (rubber) valve seal, avoid prolonged application of hot water spray to the seal to prevent softening of this vulnerable material
- Allow all surfaces to thoroughly dry
- If drying is not possible for a quick turnaround, carry spare, clean gear to switch out with wet gear

13. Accident Definition

All accidents involving departmental use of aircraft will be reported immediately in a confidential manner to the Director, FMD and Manager, Aviation Services.

An accident is an occurrence in which a person suffers injury or death and/or an aircraft is damaged.

See ECC's **Aircraft Accident Response Manual** for further information regarding aircraft accidents, as well as missing or overdue aircraft.

14. Incident Definition

All incidents involving departmental use of aircraft will be reported immediately in a confidential manner to the Director, FMD and the Manager, Aviation Services.

An incident means an aviation occurrence, other than an accident, that affects or could affect the safe operation of an aircraft.

Some examples of incidents are:

- any illuminated warning lights at any time (chip lights, etc.);
- any aborted take-offs;
- any problems with landings (flapless landings, landing gear up, etc.);
- dropping a load during slinging operations;
- unsecured items at landing sites including debris;
- low fuel problems;
- weather related problems;
- helipad construction problems;
- fuel pump failure;
- engine starting problems;
- unauthorized hover exiting;
- loading/weight problems;
- where an object comes in contact with an aircraft where contact was not intended or is detrimental to the aircraft;
- a deviation from standard operating procedures; or
- dangerous goods unlawfully transported.

The above are just a few examples of incidents that must be reported for the following reasons:

- to monitor aircrew and passenger safety;
- to monitor pilot fatigue;
- to monitor individual aircraft capabilities;
- to monitor various aircraft components (i.e., if several incidents were reported on the dropping of water buckets, perhaps it might be a malfunction with the hook);
- to detect any patterns or trends in the incidents and then take a preventative course of action (one of the reasons for developing the Hover Exit Procedure Manual);
- to explain delays in departures/arrival; or
- to identify what ECC may need to improve in support of program delivery.

15. SHELL Analysis Report

A SHELL Analysis Report is to be **completed by the aircrew** involved in the incident. (An incident report is to be **completed by the ECC personnel** involved in the incident).

**IDENTIFY UNACCEPTABLE RISKS AND HAZARDS:
PRIORITIZE AND REDUCE OR ELIMINATE THEM.**

The SHELL Analysis Report is made up of five (5) categories that are to be reported to the Aviation Services section for any aircraft incident.

The five (5) categories are:

SOFTWARE:

Policy, regulations, manuals, procedures, pamphlets, posters, charts, maps...

HARDWARE:

Aircraft - type, condition, A/C systems, auxiliary equipment, fuelling and loading systems, instrumentation, communications equipment...

ENVIRONMENT:

Weather, work area conditions, time factors, terrain, visibility, daylight, type of flying - remote, production...

LIVEWARE (OTHER PEOPLE):

The people who interact with the pilot and who have the opportunity to influence the pilot...

LIVEWARE(PILOT/AIRCREW):

Personality (human factors), pressures, training and experience, fatigue (flight hours/duty days, rest and meals, briefing and preparation...

The following pages contain an example of an Incident Report and the accompanying SHELL Analysis.



The following is an example of a completed Aircraft Incident Report.
This report is to be completed by the ECC personnel involved in the incident.

AIRCRAFT INCIDENT/OCCURRENCE REPORT

Please fill in all the fields below and submit to: **AVIATION SERVICES**
Email: aviation@gov.nt.ca • Fax: (867) 872-2148

A. Details of Incident/Occurrence	
Date of Incident: (dd/mm/yy) 24/06/2x	Time of Incident: 00:00 (24 hr) 24/06/2x
Location of Incident: Cameron Hills	
B. Name of Carrier XYZ Helicopters Ltd.	C. Name of Pilot Joe Pilot
D. Type of Aircraft AS350B2	E. Aircraft Registration C-GOLF
F. Aircraft Assigned to Hay River Duty Officer – John Smith	G. Function of Aircraft Mountain Pine Beetle bait traps
H. Purchase Order Number 123710	I. Routing of Aircraft YHY – Cameron Hills – YHY
J. Passenger Name(s) Sam Black, Jane Jones	
K. Nature of Incident/Occurrence: (use separate page if required) <p>The aircraft was required to land on the cut-lines as these were the only suitable landing areas. Hover exits were not intended and both the pilot and the passengers were instructed that hover exits would not be permitted.</p> <p>The pilot took the necessary precautions before landing to ensure the landing site was suitable. As well, the passengers were watching nearby trees to ensure clearance was adequate. The pilot adjusted the aircraft slightly to his right, just before touchdown, and the machine went a little too far to the right and the end tip of the main rotor clipped a black spruce tree, hitting the bark of the tree. Nothing was felt during the landing but after shutting down a portion of bark was noticed missing from a tree and the tie down strap at the end of the rotor blade was bent from the impact.</p> <p>Another aircraft was ferried in to return the passengers to Hay River. The pilot tested the blades by hovering and the machine operated normally, whereas it was ferried to the highway where engineers determined there was no damage to the rotor blade and the tie down clips could be repaired with little effort.</p>	

Reported by: Sam Black Date: 24/06/2x Time: 18:30
(dd/mm/yy) 00:00 (24 hr)

SHELL ANALYSIS ATTACHED



Government of
Northwest Territories

The following is an example of a completed Shell Analysis Report.
This report to be completed by the aircrew involved in the incident.

SHELL ANALYSIS REPORT

Complete all the fields below and submit to: **AVIATION SERVICES**
Email: aviation@gov.nt.ca • Fax: (867) 872-2148

SHELL ANALYSIS	
Identify Unacceptable Risks And Hazards: Prioritize and reduce or eliminate them	
<p>Software:</p> <ul style="list-style-type: none"> • Policy • Regulations • Manuals • Procedures • Pamphlets • Posters • Charts • Maps 	<p>Hardware</p> <ul style="list-style-type: none"> • Aircraft – type • Condition • A/C systems • Auxiliary equipment • Fuelling and loading systems • Instrumentation • Communications equipment
<p>Environment:</p> <ul style="list-style-type: none"> • Weather • Work area conditions • Time factors • Terrain • Visibility • Daylight • Type of flying – remote • Production 	<p>Liveware (Other People):</p> <ul style="list-style-type: none"> • The people who interact with the pilot and who have the opportunity to influence the pilot <p>Liveware (Pilot/Aircrew):</p> <ul style="list-style-type: none"> • Personality (human factors) • Pressures • Training and experience • Fatigue (flight hours/duty days, rest, and meals) • Briefing and preparation
<p>Aircraft Registration: C-GOLF</p>	<p>Date of Incident: (dd/mm/yy) 24/06/2x</p>
<p>Software: (use separate page as required)</p> <p>All aspects of XYZ Helicopters Ltd. flight operations are covered in the class, referenced, or experienced in flight during the training period.</p> <p>In the classroom, general discussion is encouraged and varies from class to class. Annual incidents and accidents are de-sensitized and discussed along with TC CADORS with all classes.</p> <p>Specifically, confined areas and situational awareness are dealt with during the “flight” phase of the training. Certain aspects of these items would be discussed, if they were noted, as incidents/accidents in the previous year as a weak area operationally.</p> <p>All helicopter pilots receive confined area theory and practical training constantly from the start of their career. It is one of the most experienced aspects of a bush pilot’s job. It is also one of those high risk aspects of the job.</p> <p>I would venture to say that as long as we are dealing with humans and mother nature we will not eliminate this risk. We are constantly modifying our recurrent training programs to mitigate this and other risks of the job.</p>	
<p>Hardware: (use separate page as required)</p> <p>From the pilot’s line of sight or view, in this particular aircraft, the pilot does not have 360 degree visibility to see all external physical hazards. The helicopter AS350 BA was equipped and met the standards of the contract.</p>	

Environment: (use separate page as required)

Two environments here; the internal environment in the aircraft between passenger and pilot and the external physical environment (the landing zone). Lots of human factors happening within the internal environment. The external environment (landing zone) could have been modified by physically making it larger or by choosing another landing area. The landing zone should be preplanned and approved in advance of utilization. It is assumed that the traps would be monitored and the helicopter would have to land again at least once again at site.

The weather conditions on June 24 were excellent. The pilot was requested to land on the Cameron Hills, which is an area that is difficult to find a landing area. The pilot found a cutline and circled 3 times before deciding to land. The pilot felt the area was large enough to accommodate the helicopter. He hovered over the site and checked the left side clearance. The pilot inadvertently moved the helicopter too far right and the main rotor blades hit a Black Spruce tree. He moved the helicopter a little to the left and landed. He then observed that the tree bark had been skinned and the main rotor blades were bent.

Liveware (Other People): (use separate page as required)

The pilot's decision to accept the landing area could have been influenced by a natural desire to please the customer and carry out their request.

Liveware (Pilot/Aircrew): (use separate page as required)

The pilot is a very experienced pilot and has worked in many different geographical areas. He has had annual recurrent flight training every year during his career. He felt there was no question of fatigue because the air crew has excellent accommodations and meals. He also felt flight hours and duty days were not a factor. There has never been any pressure from ECC in his role as the pilot. The customer was briefed on the day of the occurrence and the usual preparations were made for the job that day. He had accumulated 80 hours of flight time so far this year.

Observations and recommendations:

It is well known that it can be difficult to find a proper safe landing area below the tree line. Initial attack crews have one power saw operator on board which allows a hover exit. The power saw operator exits and cuts out a pad suitable for the landing.

Trap landing sites and other project sites should possibly be treated the same way. Especially if the landing site is going to be used time and time again.

It would be prudent to have these project sites preplanned, prepared and approved prior to the project start.

Completed by: Joe Pilot

Date: 30/06/2x
(dd/mm/yy)

Time: 18:30
00:00 (24 hr)

Photos/Images Submitted

NW9206/0224

3 of 3

I. **PILOTS RESPONSIBILITY**

(In addition to Transport Canada's Canadian Aviation Regulations (CARs), Commercial Air Service Standards (CASS), and the Company Operations Manual (COM))

- i) Ensure the aircraft is fueled, serviceable and available for dispatch in accordance with the regional/territorial alert standards.
- ii) Advises the local ECC authority of any deficiencies or problems in the operation.
- iii) Records all flight times and crew expenses on the appropriate flight documents.
- iv) Ensures all flight tickets/loadsheets are certified by a designated department employee.
- v) Conducts operational checks of all navigational, safety, communications, and cargo/water dropping systems prior to alert time.
- vi) May assist in training of fire crews, wildlife crews and resource operational field staff in the safe and efficient use of helicopters.
- vii) Keeps the current dispatch authority of their whereabouts at all times while on contract with the GNWT.
- viii) Ensures that all routine checks and maintenance are scheduled and carried out in accordance with current regulations and specifications.
- ix) Ensures that the aircraft is kept reasonably clean and ready for missions as required.
- x) Conducting flight operations under Part VII, Subpart 2, the pilot will follow Division X – Flight Time, Flight Duty Period Limitations, and Crew Rest Period Regulations.
- xi) Advising if relief pilot is required due to fatigue.
- xii) Being prepared to remain over night at field camps (i.e. sleeping bag, foamy, air mattress and other camping accessories).
- xiii) It is the pilot's sole responsibility as to whether it is safe to land or takeoff. The pilot must **always** make his or her determination on the side of safety first!
- xiv) Directs the loading and/or off-loading of the aircraft. Aircraft will not be overloaded.
- xv) Operating the aircraft in accordance with the Canadian Aviation Regulations.

J. MANIFESTING

It is imperative that the identity of everyone on-board the aircraft are known during all flight operations. The Pilot-in-Command shall ensure that a manifest of all crewmembers and passengers on board has been completed.

A copy of this manifest shall remain at the point of initial departure. Manifest changes will be left at subsequent points of departure when practical. In those instances where multiple short flights will be made in a specific geographical area, which involves frequent changes of passengers, a single *Master Manifest* list of all passengers involved shall be provided to the Pilot-In-Command and maintained by ECC.

A written manifest including the names of all persons on board the aircraft is required for every flight conducted by ECC. The originating radio room or person responsible for initiating flight following, until the flight is completed, must retain a copy of the manifest information.

K. WEATHER

Aviation weather is available from Flight Service stations in: Fort Smith, Yellowknife, Hay River, Fort Simpson, Norman Wells, and Inuvik. In addition, complete coverage and forecasts are available from the FMD and at ECC Regional Offices on a daily basis during the summer months.

Aviation weather can also be found at the Nav Canada: www.flightplanning.navcanada.ca

L. GOVERNMENT VEHICLE POLICY

All Government vehicles, whether owned or rented by ECC, are restricted to government business. Government vehicles may ONLY be operated (driven) by government employees due to insurance restrictions. ECC disclaims any responsibility in cases of any accident where the driver was not carrying out business for the department.

M. ALCOHOL AND DRUGS

The possession and/or consumption of alcoholic beverages and drugs in any aircraft, vehicle or on any premise owned, occupied or under the control of ECC is strictly prohibited. As ECC Camps and Fire Attack Bases are classified as departmental premises, this policy will apply to all locations. All personnel under employment, contract or on hire to ECC will be made aware of this policy and adhere to it.

N. AIR CHARTER PURCHASE ORDERS

The Air Charter Purchase Orders are formal agreements between ECC and the Air Operator.

When does a short-term contract start?

If a helicopter is hired from the location it is presently located and ferry time is agreed upon by ECC, then the contract starts the minute the helicopter leaves in order to ferry to or within the NWT.

This information can be obtained from the *Air Charter Purchase Order under the section Point-of-Hire.*

If the helicopter company has a machine located elsewhere (Point A) but informs ECC they will be positioned at some other point (Point B) within the NWT or some closer point and ECC agrees to hire them if they arrive at Point B by a certain time, then the contract will start only when the helicopter arrives (and is ready to work) at Point B.

Note: If the helicopter arrived at Point B very late in the day, which would not allow flight minimums to be flown off, **then the contract would start the following morning OR there would be no flight minimums for that day.**

Also see *Point-of-Hire on the Air Charter Purchase Order.*

On the Air Charter Purchase Order see ***Point-of-Release*** to determine what locations ECC will pay ferry time to when the helicopter is released at the end of the contract.

An example of an Air Charter Purchase Order is on the next page.

TERMINATION OF THE CONTRACT MAY RESULT FROM THE FOLLOWING SITUATIONS

(also see current Standing Offer Agreement (SOA) for aircraft services):

1. Non-compliance with Transport Canada and ECC regulations;
2. Prolonged unserviceability of aircraft;
3. Aircrew is either insufficiently experienced or incompatible with the ECC's management team;
4. Unserviceable radios/ELT;
5. Failure to carry out reasonable orders from authorities in charge or by mutual agreement;
6. The aircraft fails to perform according to the manufacturer's specifications; or
7. Failure to operate the aircraft within the normal safety guidelines that are acceptable within the Resource Management Industry.

SAMPLE AIR CHARTER PURCHASE ORDER



PURCHASE ORDER - CH -064610

(This report was generated on 04/Mar/2024 at 11:18 AM)

To	No Name Air Ltd.	Invoice Address	Forest Management Division, C/O Financial Shared Services, Government of the Northwest Territories
	PO Box 1, Fort Simpson, Northwest Territories, X0E0N0, Canada		PO Box 1230, 182B McDougall Road, Fort Smith, Northwest Territories, X0E 0P0, Canada
		Email To	aviation_invoice@gov.nt.ca
Supplier ID No.:	00010012345	S.O.A. No.:	400147
		Order Date:	07/jan/2024

Region/Division:	ECC-HQ-Aviation	Engineer:	
Aircraft Registration:	GDDE	Point of Hire:	NORMAN WELLS
Aircraft Type:	206-(Cessna)	Point of Release:	NORMAN WELLS
Configuration:	1-Wheels	<input type="checkbox"/> Crew Expense at Point of Hire	
Special Equipment:	wobble pump and headsets	<input checked="" type="checkbox"/> Crew Expense at Other Locations	
Aircraft Assigned To Name:	Jane Biologist	<input type="checkbox"/> Ferry To and From Point of Hire	
Aircraft Assigned To Phone:	(867) 587-5555	<input type="checkbox"/> Entering/Leaving Helicopter in Flight Approved	
Aircraft Assigned To Alt. Phone:			
Pilot:	Pilot, Fred	Co-Pilot:	

Purpose: Aerial reconnaissance survey of BWHT barren ground caribou below treeline in Sahtu. Routing: three day trips from Norman Wells to follow survey lines between Great Bear Lake, treeline, Inuvialuit /Sahtu border and Mackenzie River as per emailed map. Company to have full Jerry cans on board for refuelling at Ft Good Hope.

Comments: Three passengers including one ECC Biologist and two Norman Wells observers. Variable low level flying to allow observation of wildlife and tracks. End points of survey lines to be provided to pilot as per emailed map. Based from Norman Wells we will go to Fort Good Hope to pick up observer(s) before the survey and drop the observer off at Ft Good Hope each day.

PERIODS OF HIRE			
07/jan/2024 - 10/jan/202X			
Departure:	Norman Wells	Time:	09:00
Arrival:		Time:	

COST			
Number of Days:	4	Total Guaranteed Hours:	0.00
Daily Minimum:	0.00	Total Guaranteed Hours To-Date:	0.00

Costing Details						
Commodity	Unit	Rate	Quantity of Unit	Days	Total	Comments
Flight Service	Hours	\$2.00	6.00	4	\$48.00	
AC Company Fuel	Hours	\$2.00	6.00	4	\$48.00	
Other	Estimate	\$1.00	1.00	4	\$4.00	est. Crew Exp away from home base
Other	None	\$1.00	1.00	4	\$4.00	Nav Canada Fee
Calculated Total:					\$104.00	

ESTIMATED COST									
Org	Account	Fund	Area	Sett	Program	PC Bus	Project	Activity	Amount
55555	55555	55	55	555	55555				\$135.00
Estimated Total:									\$135.00

We certify that the goods being purchased by the GNWT are being purchased with Crown funds and therefore not subject to the Goods and Services Tax.	CERTIFIED PURSUANT TO SUBSECTION 44(1)(A) OR 49(2)(A) OF THE FINANCIAL ADMINISTRATION ACT
The terms and conditions of the standing offer agreement (SOA) shall apply whenever the SOA number appears on the face of the purchase order.	SPENDING AUTHORITY AUTH NO.

O. FLIGHT TICKETS AND AIRCRAFT LOADSHEET/TRIP LOGS

Flight tickets and the Aircraft Loadsheet/Trip Log **must** be filled out daily. This procedure is important to ensure daily expenditures are current. A flight ticket is required if no flying is done, however a loadsheet is not necessary unless there are crew expenses. Note on the flight ticket the reason why no flying was done. If the aircraft is unserviceable, enter the start time as well as the time the aircraft becomes serviceable. Flight tickets and Loadsheet/Trip Logs (white and yellow copies) are to be submitted at the end of each day and verified correct and complete by the ECC representative, preferably the RDO.

Should an air operator provide a substitute aircraft due to unserviceability, it must be indicated on the Loadsheet/Trip Log and the accumulative hour totals must be carried on until the original aircraft is back in serviceable condition.

HOW TO COMPLETE EACH SECTION OF THE AIRCRAFT LOADSHEET/TRIP LOG

Section One – Aircraft Information

<i>Flight Date</i>	Enter the date the flight occurs.
<i>Aircraft Company</i>	Enter the full company name of the Air Operator.
<i>Aircraft Registration</i>	Enter the last four letters of the current aircraft registration.
<i>Aircraft Type</i>	Enter the aircraft model and type.
<i>Flight Ticket No.</i>	Enter the <i>Air Operator's</i> flight ticket number.
<i>Contract No.</i>	Enter the air charter purchase order (PO) number (i.e. CH 169810) or the long-term contract number.
<i>Pilot/Engineer</i>	Enter the first and last names of the Pilot and/or Engineer.

Section Two – Flight Information

<i>Departure Location</i>	Record the location of takeoff. (i.e. Fire #, Base Camp, Tower, Settlement, etc.)
<i>Departure Time</i>	Record the time of the takeoff using the 24-hour clock.
<i>Arrival Location</i>	Record the location of landing (i.e. Fire #, Base Camp, Tower, Settlement, etc.).
<i>Arrival Time</i>	Record the time of the landing using the 24-hour clock.
<i>Passengers (number)</i>	Record the number of passengers on each flight.
<i>Cargo or # of Drops</i>	Record what type of cargo or the number of drops of water made when bucketing.
<i>Fire #/Project</i>	<u>Fire #</u> - if working on a fire, record the fire number <u>Project</u> – if working on a project, the ECC Officer will enter the project code.
<i>Flight Code</i>	Enter the Aircraft Flight Purpose code for each flight. (see Appendix 1)

Section Three – Flight Time

Rotary Wing

Enter the total time from the moment the helicopter first moves under its own power for the purpose of taking off until the moment it comes to rest at the end of the flight (or in other words, from the time the helicopter commences hovering until it ceases to hover after landing).

When operations involve a continuous succession of flights, each **less** than ten minutes duration **and** the engine is not shut down between such flights, flying time shall be computed from the time the helicopter commences to hover for the first flight until the helicopter ceases to hover after the final landing.

This flight time should be recorded to the nearest six minutes using the decimal system as noted in Appendix 3.

ECC defines and will reimburse a minimum start up flight time at 0.1 hours (not 0.2).

Fixed Wing

This flight time **must** be entered in **miles** for all point-to-point flights where flight distances are measurable (**excluding airtankers**).

The flight time will **only** be entered by the **hour** if engaged in operations involving flights or parts thereof where flight distances are not measurable, such as reconnaissance flights or detection patrols. The flight time for fixed wing aircraft where the distances are **not** measurable will be the total time from the moment the aircraft first moves under its own power, until the moment it comes to rest at the end of the flight (wheels roll to wheels stop).

When applicable, flight time should be recorded to the nearest six minutes using the decimal system in Appendix 3.

Section Four – Remarks

Remarks Enter any **new fires discovered** and any additional information or explanations of the flight. When transporting fuel drums, enter the number of drums and whether they are empty or full.

Always note the individual crew member call signs or passenger names on the GNWT Loadsheet/Trip Log.

Section Five – Hours

Total Hours Flown Today Enter the total of **all** flight time for the day.
Previous Accumulated Hours Enter the total of **all** previous hours flown for the contract.
Total Accumulated Hours to Date Enter the total hours flown to date.

Section Six – Fuel Obtained

This section is to record the amount of **ECC Fuel only**. Include the fuel cache location, number of drums (or partial drums) taken, note the **date of fuel** (fill date) and **batch number** of the fuel. Fuel from a bulk transfer system should be recorded by **cache location** and **litres taken**. This procedure is required to keep ECC fuel inventory up-to-date. See example on page 32.

INCLUDE THE DATE OF FUEL AND BATCH NUMBER OF THE DEPARTMENT'S DRUMMED FUEL ON THE DEPARTMENT'S LOADSHEET/TRIP LOG.

Note: **Aircraft Company Fuel**, fuel the company pays for themselves, should be indicated on company flight tickets **only**.

Failure to record Company Fuel Charges on the Company flight ticket will result in non-payment.

Section Seven – Crew Expenses

Meals Check off all applicable meals that were not provided by the department. Record the dollar amount of accommodations and transportation (**Excluding GST**). These are the expenses incurred for company payment.

Failure to record expenses incurred in the Crew Expenses Section of the Loadsheet/Trip Log will result in no reimbursement to the company.

Section Eight – Expense Authorization

This section **must be** approved, signed and dated by the ECC Officer in charge.

**No Changes will be permitted on the Aircraft
Loadsheet/Trip Log and Company Flight Tickets after Certification.
Changes made prior to certification must be initialed by the appropriate Authority.**

The ECC representative certifying the Loadsheet / Trip Log and flight tickets should **check all entries** to make sure they are correct before signing the documents. This includes verifying that claimed expenses were authorized and correct.

Note: Double check up and down times and conversions to hours system (see Appendix 3). These amounts must match the Flight Time Conversion Table. **Any discrepancies will be calculated to the lowest time entered by the department.**

**If the flight time for the day is over eight (8) hours
(for which prior approval was given), a detailed explanation
as to why must be written on the applicable flight ticket/loadsheet
by the ECC representative and provided to Aviation Services.**



Government of Northwest Territories

AIRCRAFT LOADSHEET/TRIP LOG

Flight Date (dd-mm-yy) 26/07/202x	Aircraft Company Fixed Wing Aviation Ltd.		
Aircraft Registration C-GOLF	Aircraft Type C185	Flight Ticket No. 1348	
Contract No. CH 123610	Pilot Jim Pilot	Engineer John Engineer	

Time Reported for Duty: 1400 hours **Time Released from Duty: 2100 hours**

Departure		Arrival		Passengers (number)	Cargo or # of Drops	Fire #/ Project	Flight Code	Flight Time Hours/Miles	Remarks (Required)
Location	Time	Location	Time						
1. YFS	1431	YSM	1706	1			WRO	336 SM	Ferry flight with Joe Biologist
2. YFS	1710	YSM	1815	1			WRO	1.1 hrs	Caribou productivity survey
3. YFS	1819	YSM	1931	1			WRO	1.2 hrs	Caribou productivity survey
4. YFS	1948	YFS	2100	1			WRO	336 SM	Ferry flight – return to FS
5.									
6.									
7.									
8.									
9.									
10.									
11.									
12.									
13.									
14.									

HOURS

Total Hours Flown Today:	672 SM + 2.3 hrs
Previous Accumulated Hours:	
Total Accumulated Hours to Date:	

FUEL OBTAINED

Fuel Location	DRUMS			Bulk – Litres
	No.	Date of Fuel	Batch Number	
4 Mile Lake	1	May 202x	SL1217045A	

CREW EXPENSES

MEALS	Breakfast/Lunch/Dinner/Incidentals				Hotel (No GST)	Vehicle (No GST)
	B	L	D	I		
Pilot	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	\$	\$
Engineer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	\$	\$

EXPENSE AUTHORIZATION

NOTE: Reimbursable expenses (GST excluded) are allowable only while away from home base and must NOT be for services provided by Department of Environment and Climate Change.

X Joe Biologist's signature 26/07/202x
Signature of ECC Representative Date (dd-mm-yy)

Data Entered By:	Verified By:
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INCLUDE THE DATE OF FUEL and BATCH NUMBER OF THE DEPARTMENT'S FUEL ON LOADSHEET/TRIP LOG.



Government of Northwest Territories

AIRCRAFT LOADSHEET/TRIP LOG

Flight Date (dd-mm-yy) 14/06/202x	Aircraft Company No Name Helicopters Ltd.		
Aircraft Registration C-GDAF	Aircraft Type AS350 B2	Flight Ticket No. 56890	
Contract No. CH 123810	Pilot Jane Pilot	Engineer John Engineer	

Time Reported for Duty: 1000 hours **Time Released from Duty: 2000 hours**

1.	Departure		Arrival		Passengers (number)	Cargo or # of Drops	Fire #/ Project	Flight Code	Flight Time Hours/Miles	Remarks (Required)
	Location	Time	Location	Time						
1.	YZF	1103	YZF	1107				H	0.1 hrs	Min start – reposition for fuel
2.	YZF	1546	ZF014	1700	4		ZF014	H	1.2 hrs	IA ZF014 w/NS2
3.	ZF014	1727	ZF014	1746	4		ZF014	H	0.3 hrs	P/U ____ CREW @ base -> ZF014
4.	ZF014	1800	ZF014	1820	-	7	ZF014	E	0.3 hrs	Bucketing
5.	ZF014	1830	YZF	1943	-	1 drum	ZF014	H	1.2 hrs	Rtn w/drum – discovered
6.										
7.										
8.										
9.										
10.										
11.										
12.										
13.										
14.										

HOURS

Total Hours Flown Today:	3.1 hrs
Previous Accumulated Hours:	10.0 hrs
Total Accumulated Hours to Date:	13.1 hrs

FUEL OBTAINED

Fuel Location	DRUMS			Bulk – Litres
	No.	Date of Fuel	Batch Number	
ZF Base – bulk	-	May 202x	A1144-17	120 L
Awry Lake (ECC fuel)	1	April 202x	SL0717045A	

CREW EXPENSES

MEALS	Breakfast/Lunch/Dinner/ Incidentals				Hotel (No GST)	Vehicle (No GST)
	B	L	D	I		
Pilot	X	X	X	X	\$ 159.00	\$ 200.00
Engineer	X	X	X	X	\$ 145.00	

EXPENSE AUTHORIZATION

NOTE: Reimbursable expenses (GST excluded) are allowable only while away from home base and must NOT be for services provided by Department of Environment and Climate Change.

Duty Officer's signature _____ 14/06/202x
Signature of ECC Representative Date (dd-mm-yy)

Data Entered By:	Verified By:
------------------	--------------

INCLUDE THE DATE OF FUEL and BATCH NUMBER OF THE DEPARTMENT'S FUEL ON LOADSHEET/TRIP LOG.

P. AIRCREW EXPENSES AND AIR OPERATOR INVOICING

All aircraft crew must record their full daily expenses, meals, accommodations and transportation in the “Crew Expenses” section of each Aircraft Loadsheet/Trip Log. Each Aircraft Loadsheet/Trip Log must be approved and signed daily by a department representative. Failure to indicate the total daily aircrew expenses on the Aircraft Loadsheet/Trip Log will result in no reimbursement being made to the air operator.

The GNWT cannot accept and is not liable for third party billing. Crew expenses, such as accommodations or vehicle rentals cannot be billed directly to the GNWT.

Crew Expenses are reimbursable only when indicated as such on the Air Charter Purchase Order. Generally, they are reimbursable if the aircrew is away from home base or point of hire.

Meals

Aircrews will be responsible for paying their own meals and the aircraft company will invoice ECC as per the current GNWT Duty Travel Rates (see Appendix 5) for each person on site. Receipts are not required for meal reimbursement.

Aircrews **may not** claim for meals, incidentals or private accommodations while staying at GNWT facilities, satellite bases or camps. Meals **cannot** be claimed if supplied by the GNWT.

Incidentals may only be claimed if the aircrew overnights in a place other than their air operators’ *main (home) base of operations* and they may also be claimed on the last day of any contract longer than one day, provided the crew has been away from their home base. Where the return trip is made in one day, the amount claimable shall be on the basis of meals only. **Incidentals cannot be claimed for a one-day trip.**

Depending on the time of day the aircraft is hired, some meals may not be claimed. For instance, on the first day of the contract, we expect not only the aircraft to be fueled and ready to go but the pilot as well. Therefore, on **Day 1** of the contract, **breakfast will not be claimed.**

Claims cannot be made for meals when the aircrew is at their home base within a reasonable time frame (i.e., at home base by 16:30 hrs. -no claim for dinner can be made).

Reimbursement will not be provided when the departure of the aircraft from home base or Point-of-Hire is:

- for breakfast, expenses are not eligible for reimbursement
- for lunch, later than 13:00 hours
- for dinner, later than 18:30 hours

Reimbursement **will not** be provided when the arrival of the aircraft at home base or Point-of-Release is:

- for breakfast, earlier than 07:30 hours
- for lunch, earlier than 12:30 hours
- for dinner, earlier than 18:30 hours

ECC will approve accommodation and/or meals for the following number of people (ppl) actually on the working site for the period the meals or accommodations are being charged:

Helicopters:

Light Helicopters (Bell 206B, Hughes 500) – 2 ppl (1 pilot & 1 engineer)

Intermediate Helicopters (Bell 206L, AS350 models) – 2 ppl (1 pilot & 1 engineer)

Medium Helicopters (Bell 205, Bell 212) – 2 ppl (1 pilot & 1 engineer)

Heavy Helicopters (Sikorsky 64) – 4 ppl (1 pilot, 1 crewmember & 2 engineers)

Fixed Wing:

Single Engine (C185, Beaver, Baron, C310, C337) – 1 person (1 pilot)

Small Multi-Engine (C310, Baron55, Piper Seneca, Piper Navajo, Twin Otter)

– 2 ppl (1 pilot & 1 crewmember/engineer)

Multi Engine, Medium (Twin Otter) – 2 ppl (1 pilot & 1 crewmember/engineer)

Airtankers:

4 AT802 FireBoss and 1 Birddog aircraft – 7 ppl (5 pilots & 2 engineers)

2 CL-215s and 1 Birddog aircraft – 7 ppl (3 pilots, 2 co-pilots & 2 engineers)

2 CL-215Ts and 1 Birddog aircraft – 7 ppl (3 pilots, 2 co-pilots & 2 engineers)

2 CL-415s and 1 Birddog aircraft – 7 ppl (3 pilots, 2 co-pilots & 2 engineers)

1 Electra and 1 Birddog aircraft – 5 ppl (2 pilots, 1 co-pilot & 2 engineers)

1 C580T and 1 Birddog aircraft – 5 ppl (2 pilots, 1 co-pilot & 2 engineers)

Accommodations/Transportation

All aircrews are to use their proper names along with their **respective company name** when reserving and/or paying for accommodations and rental vehicles. **Do not** use the GNWT or ECC's name as you are not employed by the GNWT.

Aircrews will be responsible for paying their own accommodations/transportation and **must** submit receipts to their company, so the air operator can submit the receipts (excluding the GST) along with respective flight tickets and invoice to Aviation Services.

In the event of a sudden base change, where the aircrew pays accommodations at two locations, an explanation must accompany the invoice and flight ticket.

Accommodations **cannot** be claimed for the **day the aircraft is released**. If unforeseen circumstances arise where accommodations are necessary for the date of release, an explanation must accompany the invoice and flight ticket.

Invoices for vehicle rentals, accommodations, and taxis **must be** supported by a receipt with the applicable dates listed.

Aircrews must ensure that all accommodation/transportation charges are recorded on the appropriate flight ticket/aircraft loadsheet. Failure to comply with this guideline will result in no reimbursement to the air operator.

Fuel

All fuel is supplied by ECC, either by the GNWT owned fuel system or by the air operator purchasing fuel and then invoicing the department.

Rotary Wing Aircraft:

When a Rotary Wing Aircraft is hired, it is assumed that the aircraft is fueled and ready to go. ECC **does not** pay for fuel at the Point-of-Hire. ECC does pay/or provide fuel for the ferry flight enroute to its base of operation **from** the Point-of-Hire. The department will also pay/or provide fuel for the ferry flight from the base of operations to the Point-of-Release, and will top it up upon return to the Point-of-Release.

Fixed Wing Aircraft:

When a Fixed Wing aircraft is hired, the fuel rate will be fixed on either a Mileage or Hourly Rate, along with any applicable surcharges supported by receipts.

Airtanker Aircraft:

For airtankers, the aircraft will arrive on base at the beginning of the season with fuel to perform the first of the season's missions. This is defined as four (4) hours of fuel.

Fuel purchased or supplied by the air operator must be supported by a receipt and itemized on the company invoice.

Fuel purchased or supplied by the air operator must be detailed on the appropriate company flight ticket. **Failure to comply with this guideline will result in no reimbursement to the air operator.**

INCLUDE THE DATE OF FUEL AND BATCH NUMBER OF THE DEPARTMENT'S FUEL ON THE DEPARTMENT'S LOADSHEET/TRIP LOG.

Crew Change

Air operator initiated crew changes will be paid by the air operator. Crew expenses related to such crew changes will be also be paid by the air operator. Aircrew changes requested by the GNWT will be paid by the GNWT with the exception of unsatisfactory aircrew performance.

The air operator must advise the Forest Management Division, Aviation Services section of any crew changes **48 hours** in advance (see Appendix 14).

No substitutions for aircraft and pilots will be accepted without prior authorization from the Forest Management Division, Aviation Services Section.

Daily Minimums

Aircraft hired on a casual basis, less than one day, **are not** compensated for daily minimums unless the aircraft is booked as such or the accumulated waiting period charge exceeds the daily minimum.

Aircraft hired on a short-term basis, more than one day, the daily minimums are averaged.

If prior to termination an aircraft is extended, the daily minimums for the aircraft will be recalculated. This is based on the minimums that would have applied had the original air charter purchase order (PO) included the period of the extension. The daily minimums are cumulative over the life of the air charter purchase order, which includes all subsequent extensions.

For example: If the daily minimums for the charter are **4.0 hours a day** for the period of May 1 to May 5, the guaranteed hours would be 20 hours. (5 days x 4 hrs/day = 20 hours).

If the Air Charter Purchase Order were extended for another 2 days, then the guaranteed hours would now be 28. (5 days + 2 day extension x 4 hrs/day = 28 hours). The daily minimums are averaged.

In the event of an unserviceable or unavailable aircraft, the daily minimum hours **will not** be paid and no other charges or recoverable expenses including crew expenses will be considered.

An aircraft will be considered to be unavailable or unserviceable during any 24-hour period commencing at 07:00 hours, local time, when the aircraft cannot due to mechanical failure of the said aircraft, inability of the crew to perform duties including but not limited to where the crew has exceeded statutory flight and duty time limitations, or failure of specialized equipment to complete contracted assignments.

Unserviceable ELT, radio equipment and accessories are to be considered as rendering the aircraft unserviceable for operational use.

Other

Aircraft are normally released at a time of day that will allow de-positioning to the Point-of-Release (as noted on the Air Charter Purchase Order) on the same day. Additional expenses will not be accepted or reimbursed should the aircrew or air operator delay their departure and/or stay overnight unless circumstances dictate, or prior approval is given.

Air operators are responsible for the transportation and costs of transportation for spare parts and special equipment that is required to service the aircraft unless prior written approval has been given. The air operator must ship all freight directly to the aircrew, whenever possible.

Fire Suppression activities are **exempt from Nav Canada charges**. Noted at the bottom of the Purchase Order.

It is expected that all air operators should deal with Northern Registered Companies for services, such as vehicles or hotels as opposed to fellow company employees or private citizens.

Invoicing

All invoices for air charter purchase orders or long-term contracts undertaken by Environment and Climate Change must be submitted to:

ECC, Forest Management Division
C/O Financial and Employee Shared Services
Government of the Northwest Territories
PO Box 1230, Fort Smith, NT X0E 0P0
Email: aviation_invoice@gov.nt.ca
Subject: PO # and Invoice # (example: CH123610 and Invoice 4321)

All invoices must be submitted **no more than fourteen (14) calendar days after the final release date** on any air charter purchase order or long-term contract.

Invoices with errors will be returned via email with an explanation for correction and resubmission. Should you require further information or clarification regarding invoice procedures, please contact the FMD, Aviation Services section at (867) 872-7700.

Each company invoice should reference only **one (1)** Air Charter Purchase Order number (all extensions included). Invoices should state the correct Purchase Order number and aircraft registration of the aircraft flown.

The rates shown on the Air Charter Purchase Order reflect the rates provided through the Standing Offer Agreement (SOA). These are the only rates considered for reimbursement.

Fixed Wing

When invoicing for **Fixed Wing Aircraft** (excluding airtankers), Aviation Services will **only** pay the **rate per mile** for all Point-to-Point flights where the distances are measurable and we will pay the **rate per hour** for flights or parts thereof where the flight distances are not measurable, such as detection patrols or reconnaissance/survey flights.

Hours

It is **recommended** that flight hours be invoiced at the end of the entire contract, with extensions (or every 2 weeks if the contract has several extensions). Flight times should be double checked for accuracy before invoicing.

Daily Minimums are averaged over the life of the contract, including all extension. Daily Minimums can only be determined at the end of the last day of the contract.

It is **recommended** that flight hours be invoiced separately from the crew expense charges to ensure there are no delays in your company receiving payment. For example, a small error could hold up an entire invoice audit process.

Singed GNWT Loadsheet copies and company flight tickets should be included with the final invoice as supporting documentation. There is more information about GNWT Loadsheet on page 28 of this manual.

Crew Expenses

Crew expenses can be claimed if the aircrew is working away from the **Point of Hire** (on the PO). Crew expenses cannot be claimed if the GNWT has provided the aircrew a meal (as per all GNWT staff).

GNWT cannot do third party payments, so it is vital to remind your aircrew to pay for hotels and vehicles upon check out or being base changed to another community.

It is **recommended** that crew expenses be invoiced separately from the flight time charges to ensure there are no delays in your company receiving payment.

Invoices for crew expenses **must** be supported by hotel and vehicle receipts and should be separated into individual days and by individual air charter purchase order numbers (extensions included). Meal receipts not required. There is more information about meals on page 34 of this manual.

Aviation Services has a **Crew Expense Calculation Sheet** that accurately calculate crew expenses at current GNWT rates. This excel spreadsheet is sent out twice per year (April and October). Complete the form and include with the crew expense invoice. Request this form by emailing aviation_invoice@gov.nt.ca

The Goods and/or Services purchased by the Government of the Northwest Territories are being purchased with Crown Funds and are therefore not subject to the Goods and Services Tax (GST). GST must be deducted from hotel bills, vehicle rentals, fuel etc. that are submitted to the GNWT for reimbursement.

Even though the Contractor will not charge GST, the contractor may be eligible to receive input tax credits with respect to any GST liability incurred by the Contractor in providing the property and services if such a refund would be available in other circumstances.

It is the Government of the Northwest Territories' (GNWT) policy not to pay any invoice until it is due. Therefore, we cannot receive any invoice in our office until services have been rendered.

Fuel

Chargeable company fuel should be identified on the company flight ticket. An invoice must be included for fuel purchased away from **Point of Hire**. More information about fuel on page 36 of this manual and page 13 of this SOA.

Crew Changes

Aviation Services will not reimburse for flight hours or crew expenses associated with crew changes. Associated flight hours on GNWT Loadsheets and company flight tickets should be clearly identified as **non-revenue**.

Landing and Terminal fees

Aviation Services will not reimburse for landing fees at home base. Landing fees in other communities must be supported by an invoice/supporting documentation. More information on page 14 or the SOA.

Nav Canada fees

Fire Response flights are excluded from Nav Canada fees. Nav Canada fees require supporting documentation included with the invoice for reimbursement.

SUMMARY OF AIRCRAFT FLIGHT PURPOSE CODES**AIRTANKER OPERATIONS**

ATA	Fire Bombing ** (Airtankers)
ATB	Birddogging for Fire Bombing** (Birddog Aircraft)
ATC	Base Change
ATD	Training Practice
ATE	Administration
ATF	Positioning Flights
ATG	Fire Standby
ATH	Other
ATI	False Alarm
XP_	Export

** Requires Fire Number

FIXED WING AND ROTARY WING

A =	RECONNAISSANCE**
B =	BIRDDOGGING
C =	COMMUNICATIONS
D =	DETECTION
E =	WATER-BOMBING**
F =	FUEL TRANSPORT
G =	FIRE TRANSPORT & SERVICE**
H =	HELITACK**
I =	INTRA-RED SCANNING**
IM =	IMPORT MARS CREWS
K =	AERIAL IGNITION**
L =	PERSCRIBED BURNING**
M =	MERCY
N =	FERRY
O =	OTHER
P =	TOWERS
Q =	FIRE MANAGEMENT
R =	PREVENTION
S =	GENERAL TRANSPORT
T =	TRAINING
U =	STANDBY
V =	FALSE ALARM
W =	ENFORCEMENT
X =	EXPORT
Y =	FOREST DEVELOPMENT
Z =	FOREST SCIENCE

** Requires Fire Number

FIXED WING AND ROTARY WING – OTHER DIVISION FLYING**REGIONAL OPERATIONS**

ERO/	ROE	Enforcement
GRO/	ROG	South Slave Bison Ecologist
ORO/	ROO	Other
PRO/	ROP	Environmental Protection
RRO/	ROR	Resource Development
WRO/	ROW	Wildlife

HEADQUARTERS OPERATIONS

EHQ/	HQE	Enforcement

OHQ/	HQO	Other
PHQ/	HQP	Environmental Protection
RHQ/	HQR	Resource Development
WHQ/	HWQ	Wildlife

AIRTANKER OPERATIONS FLIGHT CODING

CODE	PROJECT	PURPOSE
ATA	FIRE BOMBING	Flight time charged against AIRTANKER fire bombing mission/targets FIRE # REQUIRED
ATB	BIRDDOG FOR FIRE BOMBING	Flight time charged against birddogging fire bombing mission/targets FIRE # REQUIRED
ATC	BASE CHANGE	Flight time charged for base changing AIRTANKER groups.
ATD	TRAINING PRACTICE	Flight time charged for AAO training and aircrew proficiency practice.
ATE	ADMINISTRATION	Flight time charged for administration trips such as airtanker base crew moves, contract administration etc. Passenger name(s) required.
ATF	POSITIONING LIGHTS	Flight time charged for the ferry flights to and from their point of hire to a predetermined location.
ATG	FIRE STANDBY	For all AIRTANKER group standby
ATH	OTHER	Flying not covered in listed codes. Flight details required.
ATI	FALSE ALARM	Flight times for fires that were not found. Flight details required.
XP_	EXPORT	Flight times charged while in the service of other cooperative agencies. Use the last letter to indicate type of activity. (i.e., XPC = aircraft base changed while in another agencies jurisdiction.

Current as of April 2024

ENVIRONMENT AND CLIMATE CHANGE
AIRCRAFT FLIGHT PURPOSE CODES – FOREST MANAGEMENT

The following codes and required remarks must be indicated on the appropriate flight tickets/loadsheets and the Aircraft Costing screens. **All new fires discovered and reported during any flight or portion of a flight regardless of flight purpose will be noted** along with the fire number of the fire discovered on the flight ticket or loadsheet and in the Remarks field of the Aircraft Costing screen.

CODE	PROJECT	PURPOSE
A	RECONNAISSANCE	Flights around fire or series of fires to plan fire response strategy, map, or monitor fire activities. REQUIRES FIRE #
B	BIRDDOGGING	Aircraft used as an aerial platform to direct air attack operations (bucketing or bombing). A department air attack supervisor would be on board. Requires flight details in Remarks section of Aircraft Costing screen. REQUIRES FIRE #
C	COMMUNICATIONS	Flights to service radio equipment or installations, construct new installations, survey of new locations, install and service remote weather stations, etc. Requires flight details in Remarks section of Aircraft Costing screen.
D	DETECTION	Planned aerial patrols by fixed or rotary wing aircraft for the purpose of fire detection. Includes aerial patrols with fire crews on board. <div style="background-color: yellow; text-align: center; padding: 5px;">SHOULD NEVER HAVE A FIRE #</div> REMARKS SECTION OF THE FLIGHT TICKET OR LOADSHEET AND AIRCRAFT COSTING SCREEN MUST INCLUDE ALL FIRES DISCOVERED DURING A PATROL. Also, requires flight details in Remarks section of Aircraft Costing screen.
E	WATER-BOMBING	Time Spent while actually carrying out water bombing drops. <u>Does not include refueling times or travel to/from bombing zone.</u> REQUIRES FIRE #

CODE	PROJECT	PURPOSE
F	FUEL TRANSPORT	Transport of fuel for the purpose of fuel cache restocking, fuel cache inventory, or support of fire operations. Includes flights required to remove or return empty fuel containers. Requires flight details in Remarks section of Aircraft Costing screen.
G	FIRE TRANSPORT AND SERVICE	Includes all fire suppression flying required to transport any personnel, equipment, and or supplies involved in fire suppression activities. This includes flying between main bases to or from fire camps or the fire line as well as on the fire. INITIAL ATTACK FORCES MUST ALREADY BE IN PLACE. REQUIRES FIRE #.
H	HELITACK	Delivery of initial attack crew and suppression gear to a new fire and return flight to designated base. Includes all successive flights by same aircraft to supply initial attack fire activities until end of first burning period or fire declared beyond Initial Attack (i.e.: R/W drops off crew, returns to base for more equip. and personnel, delivers to fire and returns to base. All Codes = H). REQUIRES FIRE #.
I	INFRA-RED SCANNING	All flights required for the use of any infrared scanning devices. REQUIRES FIRE #
IM	IMPORT MARS	All aircraft hired for importing crews from other provinces (and return) NWT FIRE # - if applicable
J	VALUE-AT-RISK	All flights or portions of flights for the purpose of value-at-risk inspections. Requires flight details in Remarks section of Aircraft Costing screen.
K	AERIAL IGNITION	Use of helicopters for the purpose of utilizing or supervising aerial ignition devices on wildfire to prescribed burning operations. REQUIRES FIRE OR PRESCRIBED BURN #.
L	PRESCRIBED BURNING	All flying associated with planning, preparing for, and executing a prescribed burn. A prescribed burn that exceeds prescription and requires suppression action flying will be coded to the appropriate code. Requires flight details and Prescribed Burn # or project # in Remarks section of Aircraft Costing screen.

CODE	PROJECT	PURPOSE
M	MERCY	Search and rescue, evacuation, medevac, RCMP, etc. Requires flight details in Remarks section of Aircraft Costing screen.
N	FERRY	Positioning and depositing of aircraft from operating base to a predetermined point. Includes flights from and to Point-of-Hire. Requires flight details in Remarks section of Aircraft Costing screen.
O	OTHER	Forest Management flying not covered in listed codes. Requires flight details on the Flight Ticket or Loadsheet and in Remarks section of Aircraft Costing screen.
P	TOWERS	All flights or portions of flight required for the purpose of operating, maintaining, and servicing fire lookout towers. Includes flights to survey and/or construct new facilities. Requires flight details in Remarks section of Aircraft Costing screen.
Q	FIRE MANAGEMENT	All flights or portions of flights for the purpose of community consultation. Requires flight details in Remarks section of Aircraft Costing screen. REQUIRES FIRE #.
R	PREVENTION PROGRAMS	Flight time attributed to the transportation of personnel, equipment, and supplies, required to administer FireSmart activities and/or conduct prevention programs (i.e.: workshops, school demonstration, road signs etc.) Requires flight details in Remarks section of Aircraft Costing screen.
S	GENERAL TRANSPORT	Transportation of personnel, equipment and supplies to or from Primary or Secondary Bases, Base Camps, work projects etc. Not to be used for actual fire-line flying or in direct support of fire activity. Requires flight details in Remarks section of Aircraft Costing screen. SHOULD NEVER HAVE A FIRE #

CODE	PROJECT	PURPOSE
T	TRAINING	Flight time of aircraft attributed to the training of, or transportation for the purpose of training fire crews and fire staff. Requires flight details in Remarks section of Aircraft Costing screen.
U	STANDBY OR UNUSED MINIMUMS	The unused or not flown hours of contract and casual hired aircraft AND/OR crew expenses when no flying is required. Aircraft and crew were on standby for dispatch. If an aircraft is <u>not</u> used due to weather or unserviceability or on standby it must be specified in Remarks section of Aircraft Costing screen and on the Flight Ticket or Loadsheets.
V	FALSE ALARMS	All flights or portions of flights attributed for flying to and from reported fires but which are not found or turn out to be no fire. Requires flight details in Remarks section of Aircraft Costing screen.
W	ENFORCEMENT	All flights or portions of flights for the purpose of conducting fire investigations, enforcement activities and/or actions. Requires flight details in Remarks section of Aircraft Costing screen.
X	EXPORT	All hours flown by ECC contract aircraft while in the service of other cooperative fire control agencies, RCMP, or private industry. Requires flight details in Remarks section of Aircraft Costing screen.
Y	FOREST DEVELOPMENT	All flights in support of Forest Development projects, timber cruising, and/or activities. These projects/activities include: silviculture, forest inventory, reforestation, regeneration, pre-harvesting, post-harvesting, and harvesting. Requires flight details in Remarks section of Aircraft Costing screen.
Z	FOREST SCIENCE	All flight in support of Forest Science projects and/or activities. These projects and/or activities include: fire and forest ecology, fire history, FIDS (Forest Insect Disease Survey), vegetation classification and PSP (Permanent Sample Plots) etc. Requires flight details in Remarks section of Aircraft Costing screen.

OTHER DIVISIONS – REGIONAL OPERATIONS

CODE	PROJECT	PURPOSE
ENFORCEMENT		
ERO	Other Division's Budget	All regional operations authorized flights in support of enforcement activities and/or actions. Includes enforcement actions for environmental protection, forest development, wildlife management programs, and land and water inspections. Requires name of authorizing officer on flight ticket or loadsheet and Aircraft Costing screen.
ROE	Presup/Suppression Budget	
SOUTH SLAVE BISON ECOLOGIST		
GRO	Other Division's Budget	All regional authorized flights by the South Slave Bison Ecologist or delegate in support regional wildlife management projects and/or activities. Requires name of authorizing officer on flight ticket or loadsheet and Aircraft Costing screen.
ROG	Presup/Suppression Budget	
OTHER		
ORO	Other Division's Budget	All regional operations authorized flights in support of flying activities not covered in codes. Requires flight details and authorizing officer name on flight ticket or loadsheet and in Remarks section of Aircraft Costing screen.
ROO	Presup/Suppression Budget	
ENVIRONMENTAL PROTECTION		
PRO	Other Division's Budget	All regional operations authorized flights for the purpose of inspections, monitoring or cleanup of agents, substances or material deemed harmful to the environment. Requires name of authorizing officer on flight ticket or loadsheet and Aircraft Costing screen.
ROP	Presup/Suppression Budget	
RESOURCE DEVELOPMENT		
RRO	Other Division's Budget	All regional operations authorized flights in support of conservation education and resource development designated projects. Requires name of authorizing officer on flight ticket or loadsheet and Aircraft Costing screen.
ROR	Presup/Suppression Budget	
WILDLIFE MANAGEMENT		
WRO	Other Division's Budget	All regional operations authorized flights in support of regional wildlife management projects and/or activities. Includes all bear deterrent and removal activities. Requires name of authorizing officer on flight ticket or loadsheet and Aircraft Costing screen.
ROW	Presup/Suppression Budget	

IF Regional Operations or HQ use the Department's rotary or fixed wing aircraft
– use the appropriate Presup/Suppression Budget Purpose Code.

OTHER DIVISIONS – HEADQUARTER OPERATIONS (Headquarters in Yellowknife)

CODE	PROJECT	PURPOSE
ENFORCEMENT		
EHQ	Other Division's Budget	All headquarters authorized flights in support of enforcement activities and/or actions. Includes enforcement actions for environmental protection, forest development, wildlife management programs, and land and water inspections. Requires name of authorizing officer on flight ticket or loadsheet and Aircraft Costing screen.
HQE	Presup/Suppression Budget	
OTHER		
OHQ	Other Division's Budget	All headquarters authorized flights in support of flying activities not covered in codes. Requires flight details and authorizing officer name on flight ticket or loadsheet and in Remarks section of Aircraft Costing screen.
HQO	Presup/Suppression Budget	
ENVIRONMENTAL PROTECTION		
PHQ	Other Division's Budget	All headquarters authorized flights for the purpose of inspections, monitoring or cleanup of agents, substances or material deemed harmful to the environment. Requires name of authorizing officer on flight ticket or loadsheet and Aircraft Costing screen.
HQP	Presup/Suppression Budget	
RESOURCE DEVELOPMENT		
RHQ	Other Division's Budget	All headquarters authorized flights in support of conservation education and resource development designated projects. Requires name of authorizing officer on flight ticket or loadsheet and Aircraft Costing screen.
HQR	Presup/Suppression Budget	
WILDLIFE MANAGEMENT		
WHQ	Other Division's Budget (ie.:Wildlife's budget)	All headquarters authorized flights in support of regional wildlife management projects and/or activities. Includes all bear deterrent and removal activities. Requires name of authorizing officer on flight ticket or loadsheet and Aircraft Costing screen.
HQW	Presup/Suppression Budget	

IF Regional Operations or HQ use the Department's rotary or fixed wing aircraft
– use the appropriate Presup/Suppression Budget Purpose Code.



Government of
Northwest Territories

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of _____

AIRCRAFT LOADSHEET/TRIP LOG

Flight Date (dd-mm-yy)		Aircraft Company	
Aircraft Registration		Aircraft Type	Flight Ticket No.
Contract No.		Pilot	Engineer

Time Reported for Duty:				Time Released from Duty:				Remarks (Required)	
Departure		Arrival		Passengers (number)	Cargo or # of Drops	Fire #/ Project	Flight Code		Flight Time Hours/Miles
Location	Time	Location	Time						
1.									
2.									
3.									
4.									
5.									
6.									
7.									
8.									
9.									
10.									
11.									
12.									
13.									
14.									

HOURS

Total Hours Flown Today:	
Previous Accumulated Hours:	
Total Accumulated Hours to Date:	

FUEL OBTAINED

Fuel Location	DRUMS			Bulk – Litres
	No.	Date of Fuel	Batch Number	

CREW EXPENSES

MEALS	Breakfast/Lunch/Dinner/Incidentals				Hotel (No GST)	Vehicle (No GST)
	B	L	D	I		
Pilot	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	\$ _____	\$ _____
Engineer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	\$ _____	\$ _____

EXPENSE AUTHORIZATION

NOTE: Reimbursable expenses (GST excluded) are allowable only while away from home base and must NOT be for services provided by Department of Environment and Climate Change.

X _____
Signature of ECC Representative

_____ Date (dd-mm-yy)

Data Entered By:	_____	Verified By:	_____
------------------	-------	--------------	-------

Transport Canada's Aeronautical Information Manual (AIM) Canada (section: AIR 4-1)

FLIGHT TIME CONVERSION TABLE
(rounding of Air Time and Flight Time)

00 – 02 minutes=	0.0 hour
03 – 08 minutes=	0.1 hour
09 – 14 minutes=	0.2 hour
15 – 20 minutes=	0.3 hour
21 – 26 minutes=	0.4 hour
27 – 32 minutes=	0.5 hour
33 – 38 minutes=	0.6 hour
39 – 44 minutes=	0.7 hour
45 – 50 minutes=	0.8 hour
51 – 56 minutes=	0.9 hour
57 – 60 minutes=	1.0 hour

NO FLIGHT SHALL BE CONSIDERED TO HAVE A DURATION OF LESS THAN 0.1 HOUR.

ECC defines and will reimburse a minimum start up flight time as 0.1 hours (not 0.2)

METRIC CONVERSION TABLES

TO CONVERT	INTO	MULTIPLY BY
Centimetres	Inches	.394
Feet	Metres	.305
U.S. Gallons	Litres	3.785
Imp. Gallons	U.S. Gallons	1.201
Imp. Gallons	Litres	4.546
Inches	Centimetres	2.540
Inches Hg.	Lbs. sq. in.	.490
Kgs./Litre	Lbs./Imp. Gal	10.023
Kgs./Litre	Lbs./U.S. Gal	8.333
Kilograms	Pounds	2.205
Kilometres	St. Miles	.621
Kilometres	N. Miles	.540

TO CONVERT	INTO	MULTIPLY BY
Lbs./Imp. Gal	Kgs./Litre	.998
Lbs./U.S. Gal	Kgs./Litre	.120
Lbs. sq. in.	Inches Hg.	2.040
Litres	U.S. Gallons	.264
Litres	Imp. Gallons	.220
Metres	Feet	3.281
N. Miles	Kilometres	1.852
N. Miles	St. Miles	1.152
Pounds	Kilograms	.454
St. Miles	Kilometres	1.609
St. Miles	N. Miles	.868
U.S. Gallons	Imp. Gallons	.833

AIRTANKER
LOAD JETTISON AREAS

Inuvik (EV)	Location: One mile south east of Campbell Lake Coordinates: 68° 15' 30" N x 133° 13' 30" W
Norman Wells (VQ)	Location: On north slope of Franklin Mountain Range Coordinates: 65° 22' 00" N x 126° 40' 00" W
Fort Simpson (FS)	Location: Fort Simpson Town Dump Coordinates: 61° 50' 00" N x 121° 18' 30" W
Yellowknife (ZF)	Location: Fifteen miles east/northeast of Yellowknife Coordinates: 62° 26' 00" N x 113° 59' 00" W
Hay River (HY)	Location: North east of Cameron Hills Coordinates: 60° 35' 30" N x 116° 55' 00" W
Fort Smith (SM)	Location: Northwest of airport out of control zone Coordinates: 60° 00' 00" N x 112° 00' 00" W

MEALS AND INCIDENTAL EXPENSES – APRIL 01, 2024

The allowance for meals and incidental expenses when traveling in NWT and Canada are now:

Breakfast	\$28.20
Lunch	\$34.25
Dinner	\$73.25
Incidentals	\$17.30

	\$153.00

FOREST MANAGEMENT DIVISION

Department of Environment and Climate Change
Box 7, #149 McDougal Road, Fort Smith, NT X0E 0P0

Office Phone: (867) 872-7700
Fax: (867) 872-2077

AVIATION SERVICES

Office Phone: (867) 872-7719
Office Phone: (867) 872-7723
Fax: (867) 872-2148

FORT SMITH AIRTANKER BASE

Office Phone: (867) 872-2959
Fax: no fax

SOUTH SLAVE REGIONAL OFFICE

Department of Environment and Climate Change Office
Box 900 Fort Smith, NT X0E 0P0

Phone: (867) 872-6400
Fax: (867) 872-2035
Fire Clerk: (867) 872-6422

FORT RESOLUTION

Office Phone: (867) 394-4596
Fax: (867) 394-5101

HAY RIVER AREA OFFICE

Department of Environment and Climate Change
156 Miron Drive, Hay River, NT X0E 0R2

Office Phone: (867) 875-5550
Fax: (867) 875-5559
Fire Clerk: (867) 875-5555

HAY RIVER AIRTANKER BASE

Office Phone: (867) 874-2280
Fax: (867) 874-2295

FORT PROVIDENCE

Office Phone: (867) 699-3014
Fax: (867) 699-3031

HAY RIVER FOREST RESOURCES OFFICE

Department of Environment and Climate Change
Box 4354, #173 Hay River Dene Reserve
Hay River, NT X0E 1G3

Switchboard: (867) 874-8225
Fax: no fax

NORTH SLAVE REGIONAL OFFICE

Department of Environment and Climate Change
Box 2668 Yellowknife, NT X1A 2P9 Fire Ops

Switchboard: (867) 767-9238
Fax: (867) 873-0403
Fire Clerk: Ext. #53245

YELLOWKNIFE AIRTANKER BASE

Office Phone: (867) 873-3778
Fax: (867) 920-2096

FRANK CHANNEL FOREST FIRE CENTRE – SEASONAL ONLY

Office Phone: (867) 371-3133
Fax: (867) 371-5281

LUTSEL K'E

Office Phone ECC: (867) 370-3141
Office Phone Forestry: (867) 370-3930
Fax: (867) 370-3008

TLICHO OFFICE - BEHCHOKÖ

Office Phone: (867) 392-6511
Fax: (867) 392-6339

SAHTU REGIONAL OFFICE

Department of Environment and Climate Change
Box 130 Norman Wells, NT X0E 0V0

Switchboard: (867) 587-3500
Fax: (867) 587-3535
Fire Clerk: (867) 587-3511

NORMAN WELLS AIRTANKER BASE

Office Phone: (867) 587-2923
Fax: (867) 587-2661

DELINE

Office Phone: (867) 589-3421
Fax: (867) 589-4906

FORT GOOD HOPE

Office Phone: (867) 598-2271
Fax: (867) 598-2708

TULITA

Office Phone: (867) 588-3441
Fax: (867) 588-3907

DEHCHO REGIONAL OFFICE

Department of Environment and Climate Change
Box 240, Fort Simpson, NT X0E 0N0

Switchboard: (867) 695-7450
Fax: (867) 695-2381
Fire Clerk: Ext. #1018

FORT SIMPSON AIRTANKER BASE

Office Phone: (867) 695-2717
Fax: (867) 695-2727

FORT LIARD

Office Phone: (867) 770-4300
Fax: (867) 770-4600

BEAUFORT DELTA FORESTRY OFFICE – SHELL LAKE

Department of Environment and Climate Change
PO Box 2749, Inuvik, NT X0E 0T0

Office Phone: (867) 678-8091
Fax: (867) 678-6659
Fire Clerk: (867) 678-8091 Ext. 53678

AKLAVIK

Office Phone: (867) 978-2248
Fax: (867) 978-2061

FORT MCPHERSON

Office Phone: (867) 952-2200
Fax: (867) 952-2269

PAULATUK

Office Phone: (867) 580-3021
Fax: (867) 580-3022

SACHS HARBOUR

Office Phone: (867) 690-3060
Fax: none

TSIIGEHTCHIC

Office Phone: (867) 953-3055
Fax: none

TUKTOYAKTUK

Office Phone: (867) 977-2350
Fax: (867) 977-2335

ULUKHAKTOK

Office Phone: (867) 396-4505
Fax: (867) 396-3033

AERODROME LOCATION INDICATORS FOR NWT SETTLEMENTS

RE2	Behchokö (Rae/Edzo)
WJ	Deline (Fort Franklin)
PY	Fort Chipewyan, Alberta
GH	Fort Good Hope
JF	Fort Liard
FM	Fort McPherson
JP	Fort Providence
FL	Fort Reliance
FR	Fort Resolution
FS	Fort Simpson
SM	Fort Smith
FB2	Frank Channel
RA	Gameti (Rae Lakes)
HY	Hay River
EV	Inuvik
LK	Łutsel K'e (Snowdrift)
VQ	Norman Wells
CEU9	Sambaa K'e (Trout Lake)
FN	Tulita (Fort Norman)
WE	Wekweètì (Snare Lake)
EM3	Whatì (Lac La Marte)
XY	Whitehorse, Yukon
WY	Wrigley
ZF	Yellowknife

AIRCREW BRIEFING FORMAT

Air Operators are required to follow the applicable subpart when providing a passenger briefing. When an aircraft arrives on a Fire or a Project (i.e., Caribou Survey, Fuel Caching, Wildfire Incident, etc.) or at a region, a full briefing **must** be done with the aircrew. Aircrews should also be briefed every morning on the jobs or activities anticipated for that day. This will assist in planning of meals, rest periods and/or maintenance requirements. Remember to update the briefing when circumstances change. The following is a checklist that may be used when briefing aircrews (Note: some items may not be applicable depending on the job).

1. **Agency Policy and Procedures**

- (a) Flight and duty time limitations
- (b) Fueling procedures
- (c) Persons authorized to order flights
- (d) Mandatory flight following
- (e) Air traffic control over wildfires
- (f) Rotations schedule policy
- (g) Initial Response Officer standard operating procedures

2. **Administration and Operations**

- (a) Flight tickets and codes
- (b) Meals, lodging, and vehicles
- (c) Maintenance requirements, equipment & parts storage, washing facilities
- (d) Emergency response procedures (down or overdue/missing aircraft)
- (e) Communications directory (frequencies, repeaters, call signs)
- (f) Dispatch procedures (grid, bearing, distance, etc.)
- (g) Mandatory radio procedure
- (h) Current fire history and background
- (i) Resources deployment (camps, bases, other aircraft locations)
- (j) Fuel cache locations
- (k) Forest / Wildlife survey routes (maps of survey area etc.)
- (l) Type of flying required such as low level, straight line transects, radio tracking etc.
- (m) Air attack procedures
- (n) Load configurations and load calculations
- (o) Passenger briefings
- (p) Assignment for the day (i.e., retrieving wildlife collars, fuel caching, fire servicing etc.)
- (q) Crew they are working with (call sign, names if no call sign)
- (r) Aircrew history (type and amount of hours flown, time spent in remote bases, maintenance schedule etc.)

PASSENGER SAFETY BRIEFING FORMAT

No ECC employee will be allowed to board an aircraft until they have been briefed by the Pilot-in-Command of the aircraft of the following:

1) How to Approach and Depart from Aircraft

- Dangers from prop and/or rotor wash (loose objects, hats, debris, etc.)
- Wait for signal from pilot – hand gestures with positive eye contact
- Move calmly (no running)
- Crouched position and in pilots view (as applicable for RW)
- Slope of the ground (as applicable for RW)
- Never approach the rear of the helicopter - danger from tail rotors (as applicable)
- When aircraft propellers are running, never walk beyond the red painted line on float or on fuselage when walking from back to front of aircraft

2) Boarding and Exiting Procedures

- Functioning of doors (inside and out)
- Use of seatbelts and shoulder harness
- Use of electronic devices (headsets, cell phones etc.)
- No smoking inside or around the aircraft

3) Equipment and Cargo

- Cargo must be carried in or out, not thrown
- No objects above shoulder height
- Carry long equipment horizontally
- Functioning of cargo doors and cargo compartment load limits
- Cargo must be secured (cabin and cargo compartment)
- Storage of bear spray, guns, ammunition, sharp objects (as authorized by TC and TDG Directorate)
- Storage of car batteries, gasoline, dangerous goods (as authorized by TC and TDG Directorate)

4) Emergency Procedures

- Position for emergency landing
- Wait for pilot instructions before exiting (if conscious)
- Emergency calls
- Exiting when helicopter is on its side (as applicable)
- Helping each other
- Location and use of fire extinguisher
- Location and use of emergency location transmitter (ELT)
- Location and use of first aid kit
- Location and use of survival kit

Location and use of satellite phone
Battery switch/disconnection, fuel switch shut-off

5) Additional Briefing

No pilot distractions during take-off, maneuvering or landing
Landing area, helipad housekeeping, and debris to be picked up (as applicable for RW)
Sling loads (as applicable for RW)
Winter hazards (as applicable)
Life vests and raft (as applicable)
Clothing dependent on season (for job/weather/season)
Personal equipment requirements (earplugs, etc.)

STANDARD DISPATCH FORMAT

After the aircrafts' engine has been started and the radio master turned on, the *Initial Response Officer* or *Crew Leader* contacts base for the dispatch information. The information is given in the following order:

- (1) Incident (fire) #:** Regional identifier (EV, ZF, FS, etc.) followed by fire #
- (2) Coordinates:** Latitude and longitude
- (3) Bearing:** Magnetic bearing from your location
- (4) Distance:** To be given in statues miles measured in a straight line from your location
- (5) Other Aircraft:** Other aircraft dispatched, their frequencies and call signs
- (6) Remarks:** Geographic references, Incident Commander, other crews and their calls signs or other relevant information

On dispatch, the Initial Response Officer or Crew Leader is given some critical pieces of information.

To be certain that this information has been received correctly, the Initial Response Officer or Crew Leader will read back this information to the dispatcher.

The dispatcher responds, "Read back correct" if no errors have been made. Once the dispatch has been received the Initial Response Officer or Crew Leader plots the fire on his/her map, shows the pilot the location marked on the map and passes on the bearing and distance to the pilot.

This is done as soon as possible so the pilot can inform the Flight Services Station of the outbound track and distance.

FORT SMITH SERVICE DIRECTORY**ACCOMMODATIONS**

Pelican Rapids Inn	872-2789
(Kitchenettes, air-conditioning, fridges in suites)	
Wood Buffalo Inn	872-3222
Cell: 872-0811	
(Suites with separate bedroom, living room, kitchenette, free wireless)	
Whispering Pines Cottage.....	872-2906
(Air-conditioning, washer & dryer) cell: 621-0254	
Breynat Hall Residence	872-0135
Whopping Crane	872-3426
River Side Bed & Breakfast.....	872-8304
(2 rooms and 1 basement suite)	

VEHICLES

Pelican Rapids Inn	872-2789
Fort Smith Construction	872-2229

RESTAURANTS

The Pelican Boardroom	872-2729
Berro's Pizzeria.....	872-3332
Pelican Rapids Golf and Country.....	872-4653
Anna's Restaurant.....	872-2582

NORMAN WELLS SERVICE DIRECTORY**ACCOMMODATIONS**

Heritage Hotel.....	587-5000
(Dining room, AC, some suites with kitchenettes)	
Yamouri Inn	587-2744
Toll Free: 800-661-0841	
(Coffee shop, apartment units with kitchen available)	
Whiponic Wellputer Camp	587-2389
MacKenzie Mountain Inn (3 Camps)	322-6092
Trumpeter Camp Company	780-832-1061
Northridge Contracting	587-2050
(1 camp, 20 rooms)	
Sahtu Dene Inn.....	587-2511
(Private bathrooms, shared kitchen, internet)	

VEHICLES

Norman Wells Transportation.....	587-2416
Northridge Contracting	587-2050
Whiponic Wellputer Camp	587-2389
McCoy Enterprises Ltd.....	587-2499

RESTAURANTS

Heritage Hotel (Take out only)	587-5000
Yamouri Inn	587-2744

HAY RIVER SERVICE DIRECTORY**ACCOMMODATIONS**

Cambridge Executive Suites	874-2233
(Apartments with full kitchen, cable TV)	
Harbour Guest House (Old Town location)...	874-2233
Anchorage Guest House (Old Town location)...	874-2233
Ptarmigan Inn.....	874-6781
(Cable TV, lounge, restaurant, air-conditioned rooms)	
Northern Country Inn	874-6792
(Satellite, kitchenette, internet, air-conditioning)	
Hay River Suites	874-2332
(Kitchenette, microwave, air-conditioning, TV, laundry, Wi-Fi, BBQs/picnic tables)	
Hay River 2 Season Adventure Campsites ...	875-7112
(Campsites and yurts)	

VEHICLES

Budget Rentals	875-7677
Hay River 2 Season Adventure Camp	875-7112
Buffalo Airways	874-3333

RESTAURANTS

The Board Room	874-2111
The Red Rooster.....	874-6349
The Keys (At the Ptarmigan Inn)	874-6781
Big Lake Eatery.....	874-3330
The Sub on the Hub.....	874-6898
Super A Foods (Pizza).....	875-4888 ext.285
Woodland Wok & Grill	875-4100

For other accommodations, refer to:

<https://spectacularnwt.com>

Area code: (867) (Unless otherwise noted)

FORT SIMPSON SERVICE DIRECTORY**ACCOMMODATIONS**

The Gardens	695-2456
(2 & 3 bedroom, furnished apartments, cable TV, internet, jacuzzi and sauna)	
Bannockland Inn	695-3337
Janors Guest House	695-2077
Willows Inn	695-2077
Dehcho Suites	695-2309
(A three bedroom suite w/2 bathrooms. Four self-contained suites sharing one kitchen. Suites with internet and satellite TV and air-conditioning)	
Maroda Motel	695-2201
(Cable TV, kitchenettes, air-conditioning)	
Nahanni Inn (Cable TV, restaurant)	695-2201
Executive Suites	695-2007
(Two bedroom suites with full kitchen, satellite TV, internet, exercise machines and laundry)	
Lady Slipper Lodge	695-2357
(B&B, 6 rooms, air-conditioning and internet)	
Fort Simpson Lodging	695-3253
Granny Suites	445-2338
Liidlii Kue Cottage Rentals	780-405-9451
W. Burrill and Sons	446-9466
(Campers)	
Beauty Rest	695-6561
(1 apartment)	

VEHICLES

Willows Inn	695-2077
Lady Slipper Lodge	695-2357
W. Burrill and Sons	446-9466

RESTAURANTS

Nahanni Inn	695-2201
Pizza Hut Take Out (Northern Store)	695-2391
Pandaville	695-3080

INUVIK SERVICE DIRECTORY**ACCOMMODATIONS**

Mackenzie Hotel	777-2861
(Dining room and lounge, business area, exercise room, banquet and meeting facilities, cable TV, chiller units)	
Capital Suites	678-6300
(Cable TV, business/fitness area, some kitchenettes, air conditioning)	
Nova Inn	777-6682
Toll Free: 866-374-6682	
(High speed internet access, fridges in all guests rooms, AC, satellite TV, laundry facilities)	
Cynthia's B&B	678-4151
Arctic Chalet	777-3535
(Cabins with fans)	
Arctic Char Suites	613-979-7471

VEHICLES

Arctic Chalet	777-3535
Driving Force	777-2346
North Circle Ventures	613-979-7471

RESTAURANTS

Mamaqtuq	777-4919
Alestine's (Take out)	678-5188
Pizza Hut & KFC (At the Northern)	Take away
The Roost	777-2727
Cloud 9 (Airport)	TBD
Lil Ava's Pizza + Pasta	777-5800

For other accommodations, refer to:

<https://spectacularnwt.com>

Area code: (867) (Unless otherwise noted)

YELLOWKNIFE SERVICE DIRECTORY**ACCOMMODATIONS**

Anderson Thompson Tower	873-5701
Capital Suites	669-6400
(2-3 bedrooms, apartments have 2 full baths, satellite TV, close to downtown, air-conditioning, furnished suites also available)	
Chateau Nova	766-6682
(Satellite TV, close to downtown, air-conditioning, microwave/mini fridge, restaurant on site)	
Discovery Inn.....	873-4151
(Cable TV, AC, kitchenettes available, restaurant)	
Explorer Hotel	873-3531
Toll Free: 1-800-661-0892	
(Cable TV, dining lounge, air-conditioning, parking)	
Stanton Suites Hotel	873-6686
(Suites, fully equipped kitchens, satellite TV, internet)	
Nova Inn	873-9700
(Satellite TV, dining room, lounge, air-conditioning, restaurant, parking, downtown, fitness centre, business centre, and internet)	
Old Town Log Cabins.....	445-4727
Super 8	669-8888
Quality Inn.....	873-2601
(Cable TV, dining room, lounge, mini bars, portable air-conditioning, downtown location, connected to Centre Square Mall)	
The Watermark Tower	873-5701

VEHICLES

Budget Rentals.....	920-9209
cell: 445-6167	
National Car Rental.....	920-2970
Gas Town - Rent A Relic	873-3400
Hertz.....	766-3838

RESTAURANTS

Boston Pizza	920-2000
Bruno's Pizza	920-2130
Monkey Tree	920-4914
Red Apple	766-3388
Mark's Family Restaurant.....	920-7878
Gold Range Bistro	873-4567
A Taste of Saigon	873-9777
Fat Burger.....	920-2900
Vietnamese Noodle House.....	873-3399
Subway (Downtown).....	920-2727
Sushi North.....	669-0001
Zehabesha Traditional Ethiopian Restaurant.....	873-6400
Bluebell Eatery (formerly Shwarma House)....	920-7667
The Woodyard.....	873-2337
The Copperhouse.....	920-5500
Korea House	669-0188

For other accommodations, refer to:

<https://spectacularnwt.com>

Area code: (867) (Unless otherwise noted)

ECC – COMMUNICATION DIRECTORY

Yellowknife XLJ-214			Behchokö (Rae/Edzo)			Frank Channel XLJ-70		
FREQ.	FM	F4	FREQ.	FM	F14	FREQ.	FM	F14
RPTRS	Edzo	F13	RPTRS	Edzo	F13	RPTRS	Edzo	F13
	Faber	F15	Whati			Lutsel K'e XMP-208		
	McCrea	F7	FREQ.	FM	F16	FREQ.	FM	F1
	YK City	F3	RPTRS	Faber	F15	RPTRS	McLean Bay	F2

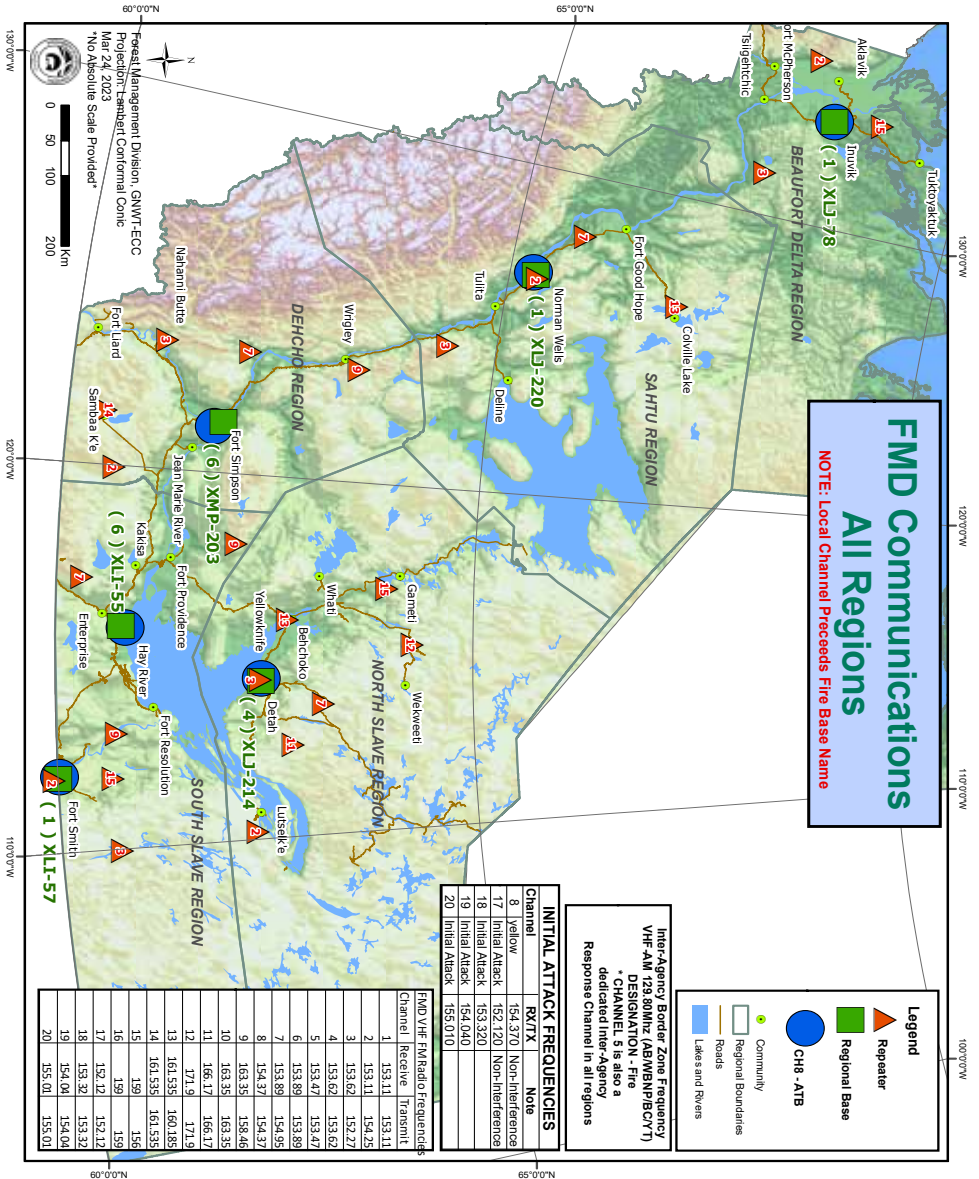
Fort Smith XLI-57			Fort Providence XMP-204			Hay River XLI-55		
FREQ.	FM	F1	FREQ.	FM	F6	FREQ.	FM	F6
RPTRS	Fort Smith	F2	RPTRS	Horn	F9	RPTRS	Cameron	F7
	Tsu Lake	F15		Cameron	F7		Horn	F9
	Long Island	F9	Fort Resolution XLJ-83					
	Hill Island	F3	FREQ.	FM	F10			
			RPTRS	Long Island	F9			
				Tsu Lake	F15			

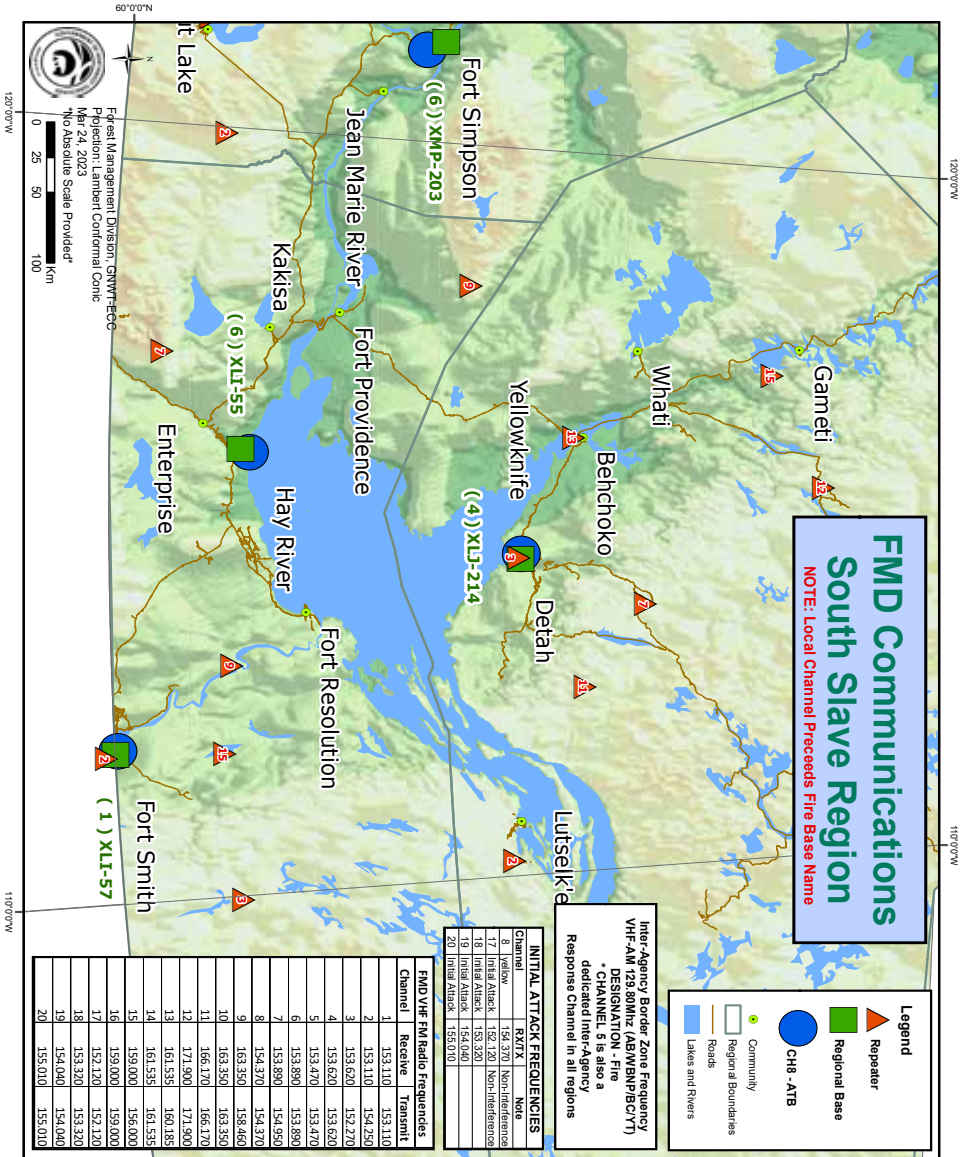
Inuvik XLJ-78			Aklavik			Fort McPherson CBF-213		
FREQ.	FM	F1	FREQ.	FM	F1	FREQ.	FM	F1
RPTRS	Travaillant	F3	RPTRS	Goodenough	F2	RPTRS	Goodenough	F2
	Goodenough	F2						
	Parsons	F15						

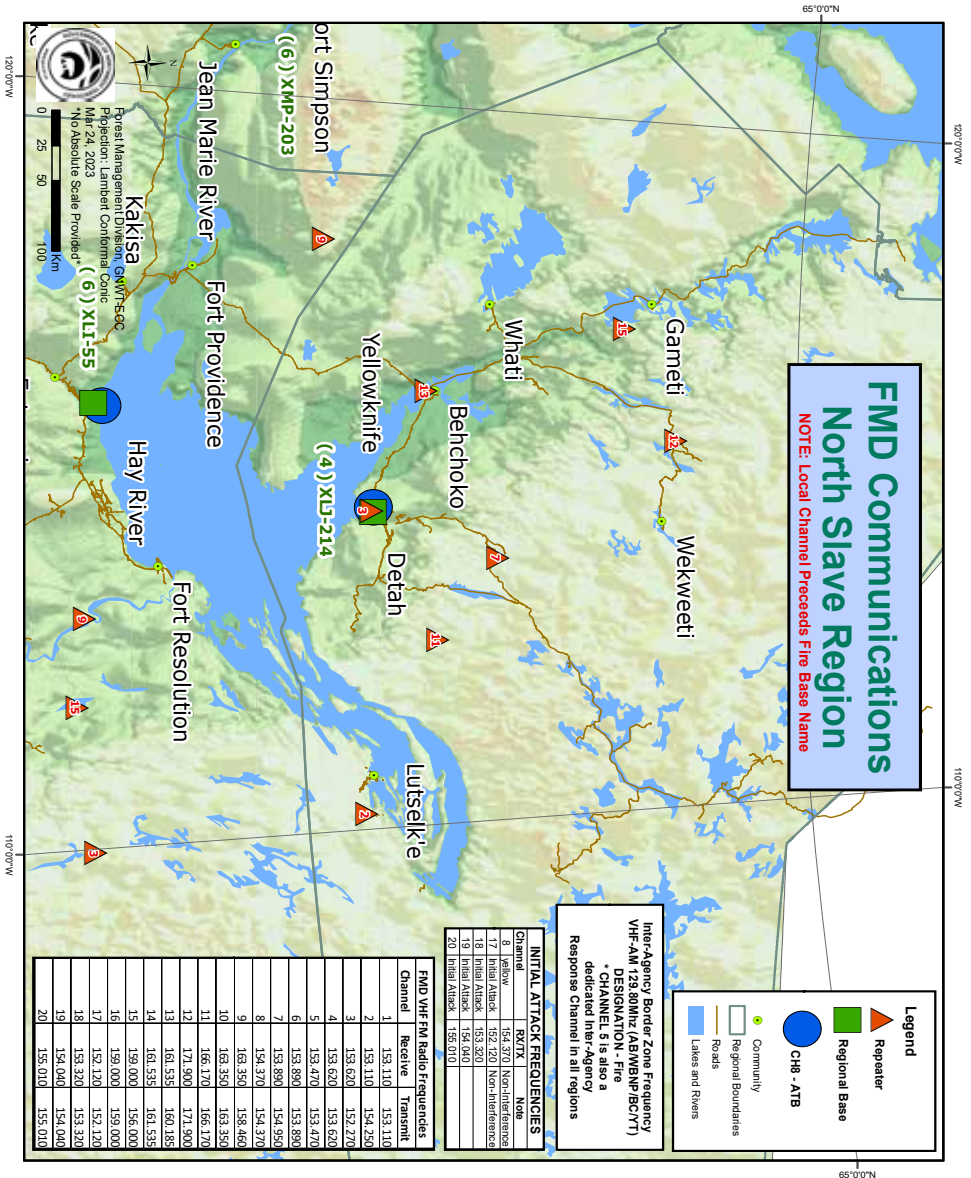
Norman Wells XLJ-220			Fort Good Hope XMB-317			Tulita XMB-890		
FREQ.	FM	F1	FREQ.	FM	F6	FREQ.	FM	F4
RPTRS	Hammer	F2	RPTRS	Gibson	F7	RPTRS	Clark	F3
	Gibson	F7	Deline XLI-822					
	Clark	F3	FREQ.	FM	F4			
	Colville	F13	RPTRS	Clark	F3			

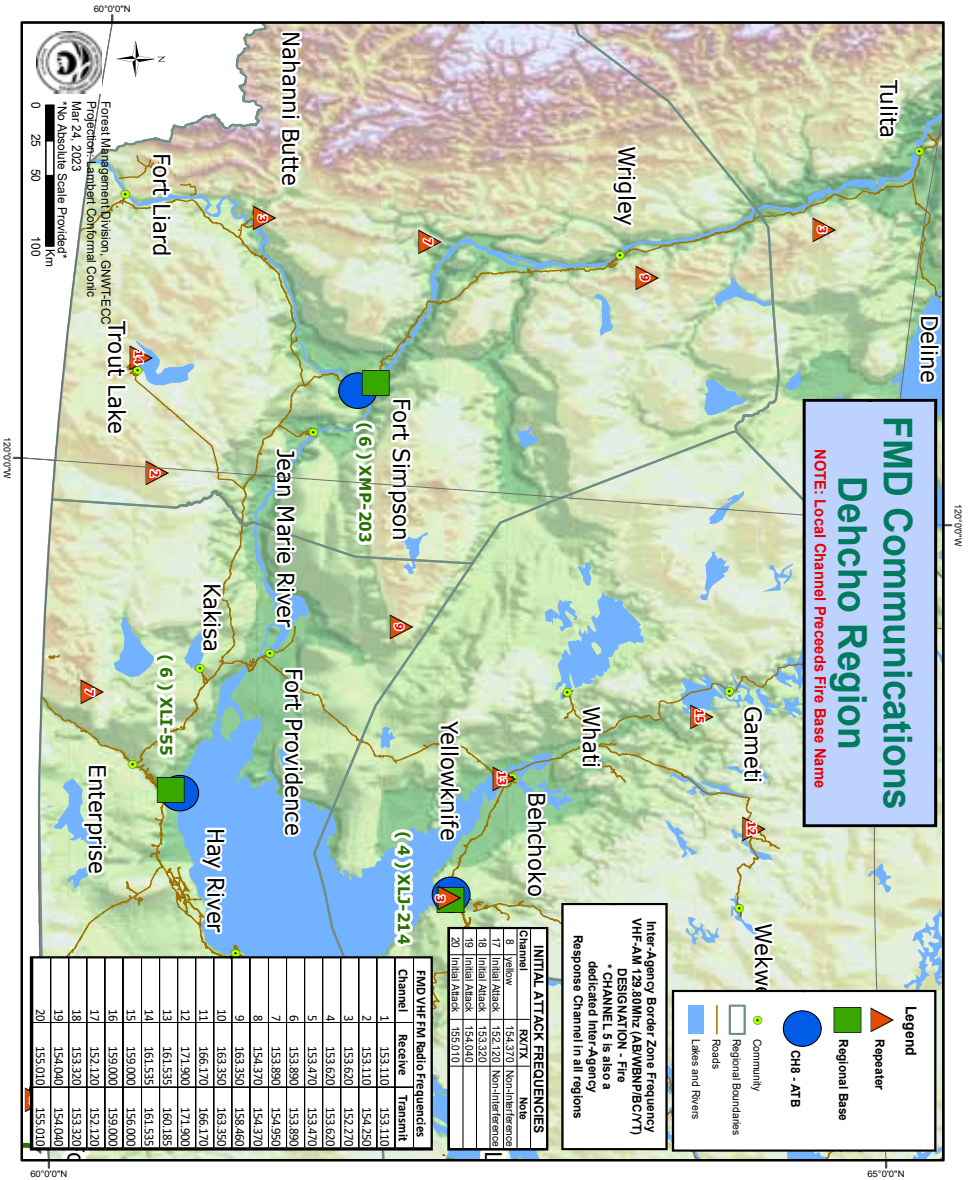
Fort Simpson XMP-203			Fort Liard XLJ-215			Wrigley		
FREQ.	FM	F6	FREQ.	FM	F4	FREQ.	FM	F6/F10
RPTRS	Camsell	F7	RPTRS	Nahanni	F3	RPTRS	Cap Mountain	F9
	Cap Mountain	F9	Sambaa K'e					
	Nahanni	F3	FREQ.	FM	F14			
	Redknife	F2						

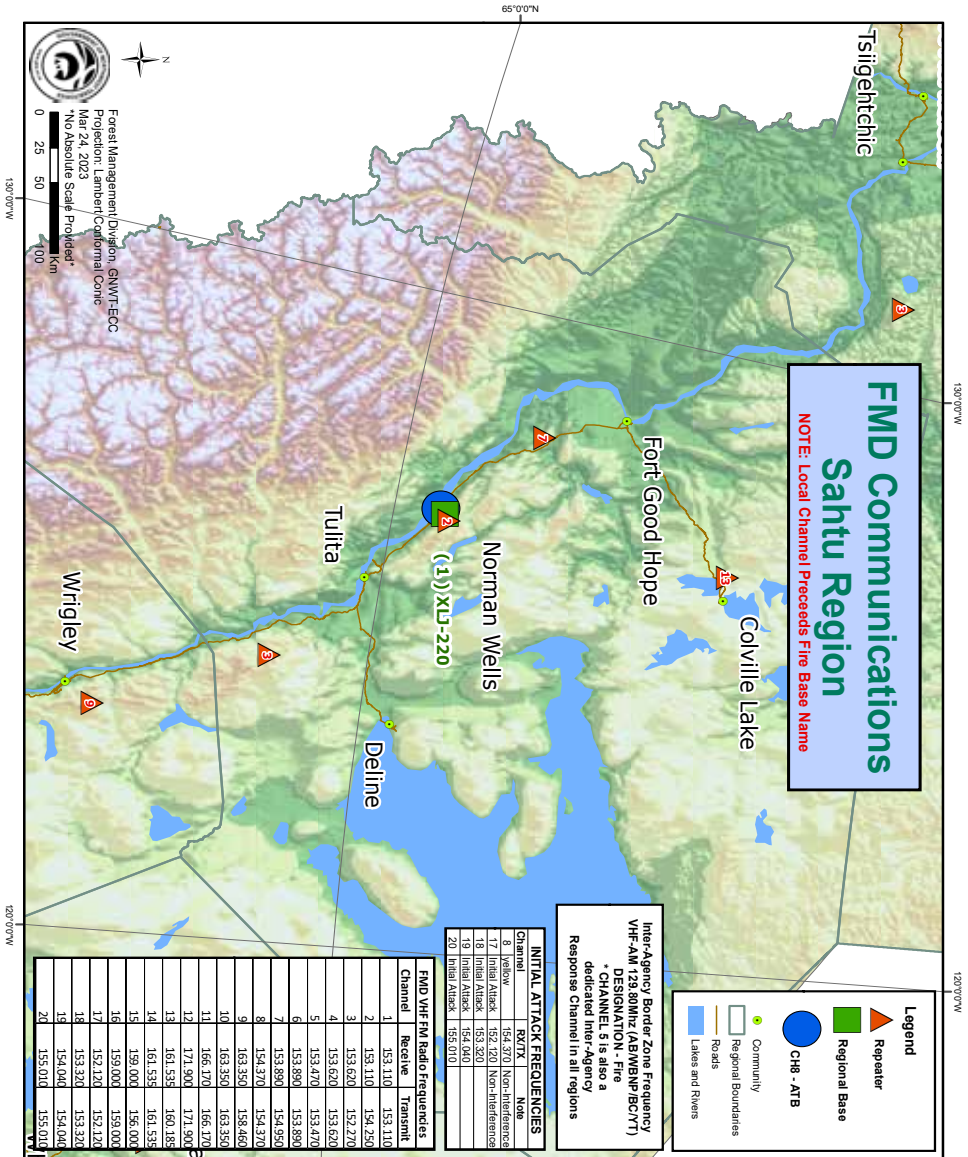
AIR ATTACK RADIO FREQUENCIES				BORDER ZONE FREQUENCIES (NT, AB, WBNP, BC, YT)			
122.05	Air to Air	Assigned VHF-AM Frequencies		122.425	Assigned	VHF-FM	CH5
122.650	ATBs/Group 1			122.625	Assigned	VHF-AM	129.80 or 126.70
131.850	Group 2			122.950	Assigned		
129.950	Group 3						
122.400	Group 4						
122.250	Group 5						

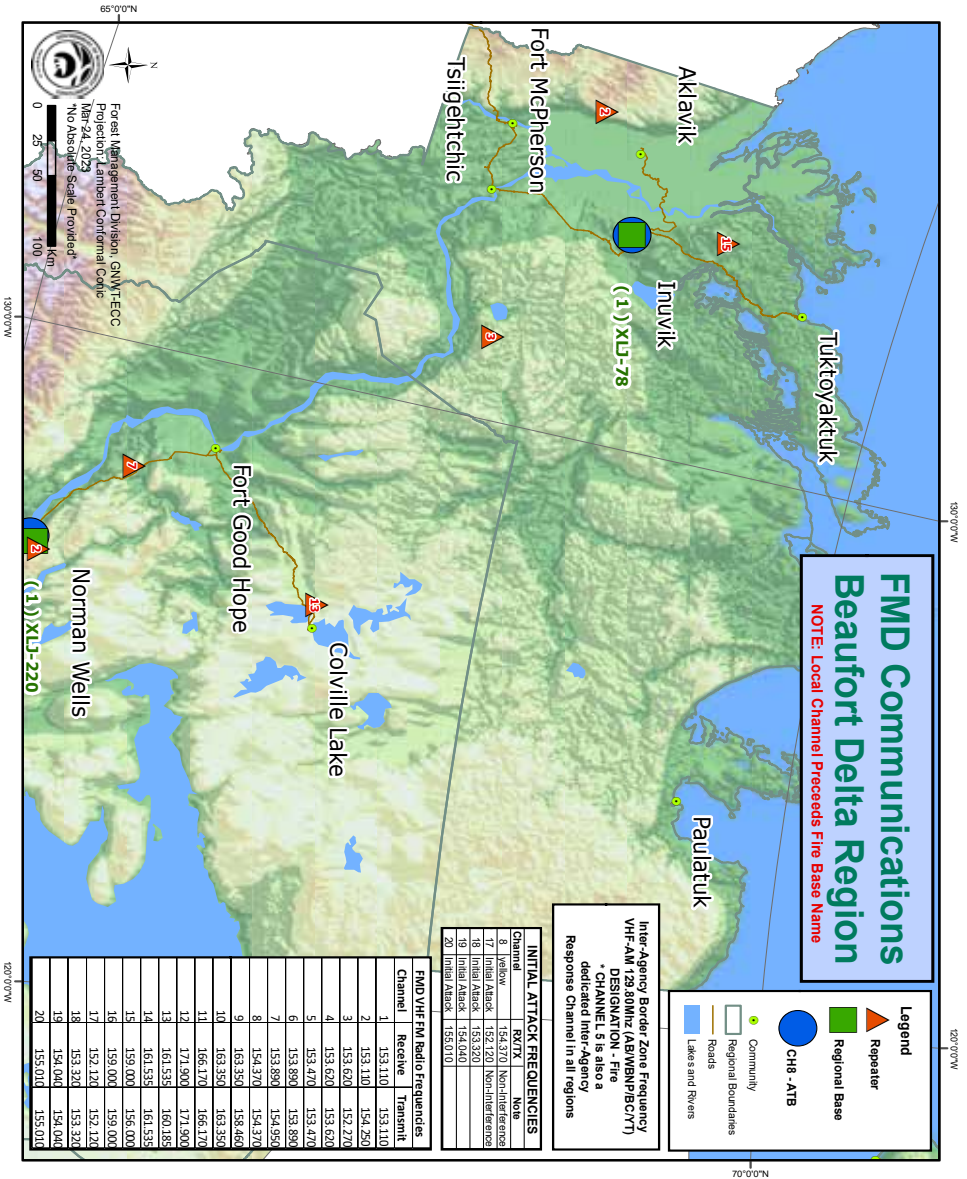












FLIGHT SERVICES COMMUNITY AERODROME RADIO STATION
(C.A.R.S) CONTACT NUMBERS

Fort Smith	867-872-2376
Norman Wells	867-587-2555
Hay River	867-874-2441
Inuvik	867-777-2522
Yellowknife	867-873-4049
Fort Simpson	867-695-2491
Toll Free NavCanada Weather Briefing	1-866-992-7433



Government of
Northwest Territories

NOTICE OF CREW CHANGE

AVIATION SERVICES

Email: aviation@gov.nt.ca • Fax: (867) 872-2148

FOREST MANAGEMENT DIVISION

Phone: (867) 872-7700

Company Name: _____	
_____ <small>Name of Authorized Representative (please print)</small>	X _____ <small>Signature of Authorized Representative</small>
Contract Number and Aircraft Registration: _____	
We hereby give notice of not less than forty-eight (48) hours in advance that a crew change will take place as follows:	Effective Date: _____ <small>(dd/mm/yy)</small>
The following crew meet the specifications for flight and maintenance crews as required by the contract and/or standing offer agreement:	
Pilot Name: _____	To replace Pilot: _____
Cell No.: _____	
License No.: _____	
Engineer Name: _____	To replace Engineer: _____
Cell No.: _____	
License No.: _____	
Remarks:	



NOTICE OF AIRCRAFT CHANGE

AVIATION SERVICES

Email: aviation@gov.nt.ca • Fax: (867) 872-2148

FOREST MANAGEMENT DIVISION

Phone: (867) 872-7700

Company Name: _____

_____ X _____
Name of Authorized Representative (please print) Signature of Authorized Representative

Contract Number: _____

We hereby give notice of not less than forty-eight (48) hours in advance that an aircraft change will take place as follows: Effective Date: _____
(dd/mm/yy)

Aircraft Reg. #: _____ To replace Aircraft Reg #: _____

ESN/IMEI: _____ ESN/IMEI: _____

Aircraft Type: _____ To replace Aircraft Type: _____

Remarks:

STOCK #	DESCRIPTION	LBS	KGS
100LLDR	Aviation Fuel 100LL 205 Litre Drum	365.0	165.56
JETA1DR.....	Aviation Fuel JETA1 205 Litre Drum	400.0	181.44
FA105	Axe Boys 2.5 LB Head 28" Handle	4.5	2.04
FA105L.....	Axe Mans 3.5 LB Head 36" Handle	5.5	2.49
RG0100BX	Bag Hose Nylon Orange (10/BX)	23.0	10.43
RG0100BX	Bag Hose Nylon Orange (20/BX).....	52.0	23.59
RG1396	Bar Soldier Fuel Energy (90/BX)	15.0	6.80
RG0879BX	Batteries "AA" Cell (144/BX)	5.0	2.27
RG0882BX	Batteries "D"Cell (72/BX)	23.0	10.43
282	Battery NI-CAD NIFE SUNICA	61.5	27.90
RG01014	Battery Non-Spillable Sunlyte Auto WX ST	69.1	31.34
RG1360.....	Bladder Water Slip-On Neoprene (110 GAL).....	23.0	10.43
RG0445	Board Spine w/Restraints	21.0	9.53
TYPE3R	Box Battery Metal WX STN QD.....	55.2	25.04
TYPE3R	Fullbox Battery Metal WX STN QD w/2 Batteries	193.0	87.54
RG0419BN	Box Packing Chainsaw (10/BN)	50.0	22.68
RG0419BN	Box Packing Chainsaw (5/BN)	26.5	12.02
RG0105BN	Box Packing Hose Waxed (15/BN)	28.5	12.93
RG0105BN	Box Packing Hose Waxed (25/BN)	52.0	23.59
RG0420BN	Box Packing Power Pump (10/BN).....	57.0	25.86
RG0420BN	Box Packing Power Pump (5/BN)	26.0	11.79
RG0731BX.....	Bucket Water Collapsable FMD (25/BX).....	15.0	6.80
RG0683	Cabinet First Aid Station Uility	50.0	22.68
W520	Can Jerry Fuel Plastic Wedco 5 GL.....	3.3	1.47
W520BX	Can Jerry Fuel Plastic Wedco 5 GL (6/BX)	19.0	8.62
W150BX.....	Can Jerry Fuel /Oil Plastic Wedco (6/BX).....	16.3	7.37
W150	Can Jerry Fuel /Oil Plastic Wedco 2.5 GL	2.2	1.00
A9901-2-5-7B ...	Cap Safety All Colours (18/BX)	24.0	10.89
A9901-2-5-7B	Cap Safety All Colours 20/BX)	26.0	11.79
550XP	Chainsaw Husqvarna 16" Bar w/Guard	13.6	6.17
550XPBX	Chainsaw Stihl 16" Bar w/Guard (2/BX)	32.2	14.61
066	Chainsaw Stihl 36" Bar w/Guard	25.5	11.57
066BX	Chainsaw Stihl 36" Bar w/Guard	31.0	14.06
RG0733BX.....	Container First Aid NWT #1 M/T (6/BX).....	32.0	14.52
RG0734	Container First Aid NWT #2 SF/T (10/BX)	35.0	15.88

STOCK #	DESCRIPTION	LBS	KGS
RG0734BX	Container First Aid NWT #2 M/T (3/BX)	22.3	10.12
RG0735BX.....	Container First Aid NWT #3 M/T (2/BX).....	30.0	13.61
RG0735	Container First Aid NWT#3 SF/T	7.2	3.27
891002BX	Container Water 20 Litre (6/BX).....	12.0	5.44
5286	Cooler Food 64.3 Litre	14.5	6.58
RG0923MT	Drum Waste Storage/Trans 45 Gal Metal	46.0	20.87
RG0923PL	Drum Waste Storage/Trans 45 Gal Plastic	25.0	11.34
RG1408.....	Decant Funnel.....	15.0	6.8
	Decant Pond	10.0	4.5
	Decant Stacker.....	30.0	13.6
	Decant Pallet	70.0	31.75
20-96-6.....	Fencing Game (330' x 8' Roll)	400.0	181.44
RG0654	Flash 21 (6/BX)	35.0	15.88
RG0134.....	Fly/Tarp Canvas w/Rope > or = 12 X 14'	24.5	11.11
FT104DR	Foam Fire (205 Litre Drum)	490.0	222.26
3-8	Gate Game Fence 3' x 8' Single	49.0	22.23
RG01677	Gazebo Camp Shelter	27.0	12.27
RG0325.....	Generator Honda EM3000C.....	71.0	32.21
RG0072	Hose Fire Cotton Q/C 1.5" x 100'	12.5	5.67
RG0072BX	Hose Fire Cotton Q/C 1.5" x 100' (5/BX)	65.0	29.48
RG0072FD	Hose Fire Cotton Q/C Folded (4/BX)	56.0	25.40
RG0072.....	Hose Fire Synthetic Q/C 1.5" x 100'	11.0	4.99
RG0072BX	Hose Fire Synthetic 1.5" x 100' (6/BX)	68.0	30.84
RG0072FD	Hose Fire Synthetic Folded (4/BX).....	50.0	22.68
RG1227	Hose Fire Synthetic Q/C 2.5" x 100'	20.0	9.07
RG0777.....	Hose Suction Draft EX 2" x 10/8'	5.0	2.27
RG0892	Hose Suction Draft EX 2" x 5'	2.0	0.91
MK10110	Hose Suction Rubber 2" x 10/8'.....	14.5	6.58
RG0291	Kit First Aid NWT #1 Complete	7.5	3.40
RG0415.....	Kit Foam Suction/Induction Injection	31.01	4.06
RG1476	Kit Medical CSA Standard Type 3 Complete (2-25 workers)	7.0	3.18
RG0004	Kit Mess 25 Man Complete w/Wooden Box	190.0	86.18
RG1318	Kit Spill Response Universal	110.0	49.90
RG0011MB	Kit Tool Fire Chainsaw Complete Metal BX.....	13.5	6.12
RG0007	Kit Tool Fire Pump Complete	33.4	15.15

STOCK #	DESCRIPTION	LBS	KGS
RG1288	Kit Tool HD Fire HD Kit (BB4)	45.2	20.50
RG0918	Kit Tool Sprinkler Complete Rainbird	58.2	26.40
RG0924	Kit Tool Utility Pump Complete (WICK100)	11.0	4.99
RG0152BX	Mattress Air Cotton/Vinyl (10/BX)	57.0	25.86
RG1395BX	Meals Ready To Eat - MRE'S (12/BX)	21.0	9.53
ATP08BX	Oil Mixing Synthetic 2 Cycle 8oz (12/BX)	7.0	3.18
RG0414	Oouthose Portable Nature's Own	69.0	31.30
RG0156BX	Pack Personal EFF (40/BX)	124.0	56.25
RG0607BX	Pack Personal FI Seasonal/Perm (12/BX)	48.0	21.77
RG0069	Polythene	31.0	4.06
	Post Game Fence Galvanized HD 10'	21.0	9.53
	Post Game Fence Galvanized HD 11'	24.0	10.89
	Post Game Fence Galvanized HD 8'	17.0	7.71
	Post Road Sign "I Put It Out" Steel 10'	20.0	9.07
	Post Road Sign "I Put It Out" Steel 42"	6.5	2.95
FA107	Pulaski Mattock and Axe 5 LB 36" Handle	5.5	2.49
HPO2BX	Pump Back Pack - Piss Complete (10/BX)	72.0	32.66
1216	Pump End MK3	16.0	7.26
RG1162	Pump Fire Fighting Pressure HD BB4	172.0	78.02
RG1159BX	Pump Fire Fighting Pressure MK3	64.0	29.03
RG1159	Pump Fire Fighting Pressure MK3	58.0	26.31
RG1159BX	Pump Fire Volume Yamaha	64.0	29.03
RG1159	Pump Fire Volume Yamaha	58.0	26.31
RG1160BX	Pump Utility Pressure Wickman 100	19.5	8.85
RG1160	Pump Utility Pressure Wickman 100	18.0	8.16
RG0170BX	Robe Sleeping Summer (24/BX)	74.0	33.57
RG0173	Rope Roll 1/2" x 335' Roll	17.5	7.94
RG0171	Rope Roll 1/4" x 1200' Roll	16.0	7.26
RG0174	Rope Roll 3/4"	19.0	8.62
RG0172	Rope Roll 5/16" (or 3/8") x 600' Roll	16.0	7.26
RG0583	Shelter Weather Instruments Large (FG)	45.0	20.41
FA109	Shovel Fire Fighting 36" Handle	4.0	1.81
10A	Shower Portable Propane No Pump	98.5	44.68
SCG	Shower Suitcase Type No Pump	51.0	23.13
	Shower Zodi Small Crew	12.0	5.44

STOCK #	DESCRIPTION	LBS	KGS
RG0611	Sign Outdoor Plywood "Forest Fire Danger	85.0	38.56
RG0642.....	Sign Outdoor Plywood 4' x 8' "Hold It.....	77.0	34.93
RG1397	Sign Road "I Put It Out" 4 x 4' Alum 2ML	18.5	8.39
	Sign Road "Rap" 4 x 4' Alum 2ML	18.5	8.39
4S	Sink Wash Hand/Face Folding Frame w/Box	86.0	39.01
RG0093BX	Socks Work Wool (96/BX).....	46.0	20.87
AB7BX	Sparkplug NGK - MK3 (100/BX)	19.0	8.62
RG0442.....	Splint Kit Set of 15 Wood Assorted	39.0	17.69
RG1388	Stand Log Holder	49.5	22.5
RG0190.....	Stove Wood Airtight 18"	11.0	4.99
RG0191	Stove Wood Camp 4 Hole w/Oven and Legs	33.0	14.97
RG0023.....	Stretcher Basket Type w/Straps	25.0	11.34
RG0196	Stretcher Canvas Folding DF99	18.5	8.39
RG0022.....	Stretcher Scoop Break-Apart w/Straps	26.0	11.79
FA452	Tank Fuel Poly (Marine) BB4 Pump	7.0	3.18
FA552QBX.....	Tank Fuel Poly OR/GR 5 Gal (4/BX).....	28.0	12.70
FA552Q	Tank Fuel Poly OR/GR 5 Gal w/Insert	7.0	3.18
RG0317	Tank Relay Free Standing 0500 GL Rubber.....	36.0	16.33
RG0596	Tank Relay Free Standing 1500 GL Rubber	64.0	29.03
RG0319.....	Tank Relay Free Standing 2500 GL Rubber.....	81.0	36.74
RG0203	Tent Canvas 12' x 14' x 3.5'	45.0	20.41
RG0730.....	Tent First Aid Station	40.0	18.14
RG204	Tent Poly 12' x 14' x 3.5' w/Rope	25.0	11.34
RG0063.....	Tent Polyester/Vinyl Cascade Shower.....	158.0	71.67
RG0062	Tent Polyester/Vinyl Habitat Office	328.0	148.78
RG0061.....	Tent Polyester/Vinyl Ranger Kitchen.....	291.5	132.22
QESC1014A-B	Tent Portable Rigid Frame 10x14x11 FT	190.0	86.18
RG0207	Torch Drip Sealite.....	5.0	2.27
RG1474	Thermarest Mattress REG	2.2	1.0
RG1475	Thermarest Mattress LG.....	2.8	1.3
RG1476	Thermarest Mattress XL	4.0	1.8
RG1159	Watson Pump	45.0	20.41

NWT BASE CAMP COORDINATES

REGION	BASE	COORDINATES DECIMAL DEGREES (DD)				COORDINATES DECIMAL MINUTES SECONDS (DMS)					
		LATITUDE		LONGITUDE		LATITUDE			LONGITUDE		
Dehcho	Fort Simpson Heliport	61	.8322	121	.3173	61	49	.55	121	19	.02
Dehcho	Fort Liard Base	60	.2463	123	.4598	60	14	.46	123	27	.35
Dehcho	Sambaa K'e Base (Trout Lake)	60	.4349	121	.2598	60	26	.05	121	15	.35
Dehcho	Wrigley Base	63	.2078	123	.4273	63	12	.27	123	25	.38
Beaufort Delta	Fort McPherson Base	67	.4098	134	.8778	67	24	.34	134	52	.40
Beaufort Delta	Shell Lake Heliport	68	.3255	133	.6387	68	19	.31	133	38	.18
Beaufort Delta	Sunny Lake Base Camp	67	.8507	132	.5884	67	51	.02	132	35	.18
Beaufort Delta	Tsiigehtchic (Arctic Red River)	67	.4358	133	.7200	67	26	.09	133	43	.12
North Slave	Awry Lake Base Camp	62	.9418	114	.9404	62	56	.31	114	56	.27
North Slave	Faber Lake Base Camp	63	.9134	117	.1772	63	54	.48	117	10	.38
North Slave	Francois Lake Base Camp	62	.4854	112	.4025	62	29	.08	112	24	.09
North Slave	Frank Channel Base	62	.7863	115	.9449	62	47	.10	115	56	.41
North Slave	Lutsel K'e (Snowdrift)	62	.4155	110	.6951	62	24	.56	110	41	.42
North Slave	Yellowknife Heliport	62	.4754	114	.4628	62	28	.31	114	27	.46
North Slave	Gameti (Rae Lakes)	64	.1158	117	.3129	64	06	.56	117	16	.46
North Slave	Wekweeti (Snare Lake)	64	.1928	114	.0773	64	11	.34	114	04	.38
North Slave	Whati (Lac La Marte)	63	.1337	117	.2446	63	08	.01	117	14	.40

NWT BASE CAMP COORDINATES

REGION	BASE	COORDINATES DECIMAL DEGREES (DD)				COORDINATES DECIMAL MINUTES SECONDS (DMS)					
		LATITUDE		LONGITUDE		LATITUDE			LONGITUDE		
Sahtu	Colville Lake Base	67	.0204	126	.1216	67	01	.14	126	07	.18
Sahtu	Deline (Fort Franklin)	65	.1921	123	.4273	65	11	.32	123	25	.39
Sahtu	Fort Good Hope Base	66	.2423	128	.6388	66	14	.32	128	38	.32
Sahtu	Kelly Lake Base Camp	65	.4178	126	.3250	65	25	.06	126	19	.33
Sahtu	Norman Wells Heliport	65	.2762	126	.7818	65	16	.34	126	46	.55
Sahtu	Tulita (Fort Norman)	64	.9072	125	.5601	64	54	.26	125	33	.36
South Slave	Fort Providence Base	60	.3177	117	.6030	60	19	.05	117	36	.12
South Slave	Fort Resolution Base	61	.1651	113	.6580	60	09	.54	113	39	.29
South Slave	Hay River Heliport	60	.7862	115	.8241	60	47	.10	115	49	.27
South Slave	Fort Smith Heliport	60	.0029	111	.9082	60	00	.09	111	54	.19

- Beaufort Delta is formerly known as the Inuvik Region.
- North Slave Region is formerly known as the Yellowknife Region.
- South Slave Region is formerly known as the Fort Smith Region.
- Dehcho Region is formerly known as the Fort Simpson Region.
- Sahtu Region is formerly known as the Norman Wells Region.

