

ALBERTA

AGENCY BRIEFING



Alberta Wildfire

Alberta

TABLE OF CONTENTS

1. INTRODUCTION..... 3

PURPOSE OF THE PACKAGE.....3

ALBERTA INFORMATION.....3

PERSONAL GEAR6

CHAINSAW BOOTS.....6

2. RESPECTFUL AND INCLUSIVE WORKPLACESERROR! BOOKMARK NOT DEFINED.

3. WILDFIRE MANAGEMENT 8

WILDFIRE OPERATIONS SECTION.....9

WILDFIRE WEATHER SECTION.....9

INVASIVE SPECIES PREVENTION10

4. INCIDENT COMMAND SYSTEM..... 10

INCIDENT MANAGEMENT TEAMS10

5. INITIAL ATTACK PREPAREDNESS 11

WILDFIRE CREWS11

ALERT LEVELS/STANDBY TIMES FOR WILDFIRE CREWS12

ALERT LEVELS AND STANDBY TIMES FOR AIRTANKERS13

6. AIRCRAFT13

MONITORING OF AIRCRAFT13

AIRCRAFT EMERGENCY PROCEDURES14

7. HEAVY EQUIPMENT14

DOZER GROUPS14

ALL-TERRAIN VEHICLES (ATV)14

8. ADMINISTRATIVE REQUIREMENTS15

9. NECESSARY INFORMATION15

MAPPING SYSTEM - THE ALBERTA THIRD SYSTEM OF SURVEY15

MAPPING SYSTEM – LATITUDE/LONGITUDE.....18

FUEL CACHE STOCKING18

NUMBERING WILDFIRES19

FIRE REPORTS.....20

FIRE DRIVE AND FIELD MAPS.....20

RADIO COMMUNICATIONS.....20

PIPELINE CROSSINGS21

10. SAFETY21

WILDFIRE MANAGEMENT DUE DILIGENCE.....21

SAFETY BRIEFINGS21

PROTECTIVE CLOTHING AND EQUIPMENT.....22

IMMINENT DANGER AND THE RIGHT TO REFUSE22

NIGHT OPERATIONS.....22

EMPLOYEE RESPONSIBILITY REGARDING DRUGS AND ALCOHOL.....23

EMERGENCY FIRST AID23

WHIMIS23

HYDROGEN SULPHIDE (H₂S) AWARENESS.....23

ACCIDENT REPORTING24

11. DEBRIEFING 24

12. PHONE CONTACT LIST 25

1. INTRODUCTION

Purpose of the Package

This briefing package will allow you to:

1. Obtain general information on the province of Alberta.
2. Become familiar with Alberta wildfire operations and suppression activities in Alberta.
3. Reduce the required time to integrate into Alberta's suppression team.

Upon arrival in Alberta, you will receive two (2) briefings. The initial briefing conducted upon arrival will provide general details on Alberta's Wildfire Management Program. The second briefing will occur when you arrive at the location of your assignment and will provide information specific including:

- Assignment orientation (job site)
- Duty day, hours of work
- Emergency procedures
- Local contacts
- Fireline communications
- Reporting procedures

We hope you will enjoy your assignment in Alberta, learn from it, work safely, and share your knowledge and ideas with your team.

Alberta Information

The Ministry of Alberta Forestry and Parks (AFP) is responsible for protecting Alberta's forested base and the people who live, work, and recreate within these areas.

Forests cover just over half of Alberta's 66.3 million hectares (163.7 million acres). The majority of these forests grow on public lands known as the "green zone", where they are managed by private companies operating under tenured Forest Management Agreements (FMAs). The remainder of the province consists of largely privately owned urban and agricultural lands that are concentrated in the southeast and commonly referred to as the "white zone".

The Forest Protection Area (FPA) is the legal boundary over which the Province maintains jurisdiction and responsibility over wildland fire response. It is comprised of the green zone and fringe settlement areas, where rural and agricultural development intersects forested areas. The FPA totals 39.6 million hectares (97.9 million acres) or 151,687 square miles, equating to approximately 60% of the province.

Wildfire Management is divided into 10 Forest Areas as shown in Figure 1. Each Forest Area has facilities in place to deliver Alberta's fire program e.g., a fire centre, warehouse, air tanker and initial attack bases, lookout towers and aviation fuel sites.

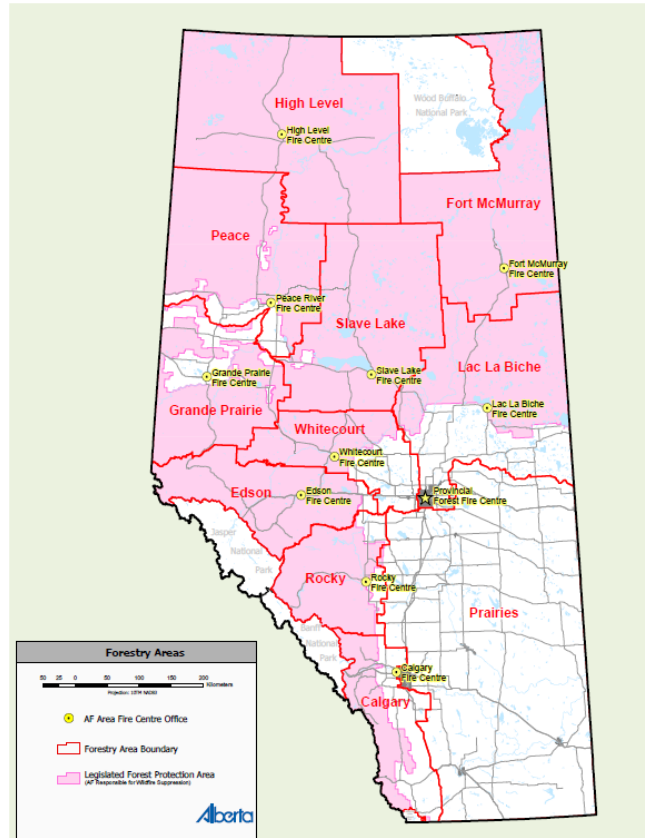


Figure 1. – Forest Areas

Northeast part of the Province – Fort McMurray and Lac La Biche Forest Area

Individuals given an assignment in the Northeast part of the Province should be aware that the terrain consists of Canadian Shield and muskeg to the north and personnel are required to come with proper footwear. This area is remote (covering 60,810 square kilometers of northern boreal forest) and aircraft can often be the only means of transportation. June and July provide longer burning days as the sun sets late and rises early. Legal flying time could commence as early as 0400 hrs. in addition, carry on until 2300 hrs. The major fuel type is boreal spruce (C2). This fuel type is characterized by pure, moderately well stocked black spruce stands on lowland (excluding Sphagnum bogs) and upland sites. Tree crowns extend to or near the ground and dead branches are draped with bearded lichens (Usnea). This type of fuel demonstrates extreme fire behaviour on high hazard days. Expect many insects in the summer.

Northwest part of the Province – Peace River and High Level Forest Area

The High Level Forest Area shares a border with British Columbia to the west, the Northwest Territories to the north, and Wood Buffalo National Park to the east. Like the Peace River Forest Area, expect predominantly flat areas to gently rolling topography. The Caribou Mountains in the northeast part of the area ranges up to +850m. Fuel types range from boreal spruce (C1 and C2) to aspen (D1). Some areas are very remote so personnel can expect helicopter to be one of the major types of transportation. Grizzly and black bears are common. Expect many insects in the summer.

Central part of the Province – Slave Lake Forest Area

This area is generally flat terrain with rolling, somewhat rugged hills in the Swan Hills and Pelican Mountains. Predominant fuel types are black spruce (C1 and C2); some mature stands of lodgepole pine (C3) and mixed wood (M2). All fuel types are to be considered critical prior to green-up.

A large percentage of the area is muskeg; i.e., swampland and bog. Some prefer the use of rubber boots, however, be warned, it seems that no matter what the choice of footwear is, your feet will get wet. Crews should come with, mosquito netting, rain gear and insect repellent.

The entire area is considered "bear country" - predominantly black bears, however grizzlies have been seen in most areas. Bear spray will not be issued in Alberta and it is highly recommended crews do not come with it as it is considered a dangerous good and requires proper containers to transport in a helicopter.

Muskeg is very hard to work in; i.e., soft, uneven ground and can easily lead to fatigue and injuries such as sprained and twisted ankles and knees. Seasonal variances in temperature require a good selection of outdoor clothing. Spring and all temperatures can easily reach the high 20's during the day and go well below freezing at night. Fuels at this time of year change very rapidly from minimal too volatile within a few hours. Hours of daylight vary according to time of year. June has upwards to 20 hours of daylight/twilight.

Central west part of the Province – Edson, Whitecourt, and Grande Prairie Forest Area

The western part of this area borders Jasper National Park, the east agriculture land. The west consists primarily of mature lodgepole pine stands (C3), to the east black spruce (C2), green mixed woods (M2) and standing and matted grass (0-1a and 0-1b). Due to extreme slopes in some areas, crews must be aware of changes in fire behaviour and hazards caused by rolling debris. Grizzly bears, black bears and cougars inhabit the area, and personnel need to practice bear-cougar aware procedures. Caution the handling of deer and field mice, as Hantavirus can spread to human beings. The swamp and muskeg areas are great breeding grounds for the variety of bugs (i.e., deer and black flies, wasps, hornets and yellow jacks). During the fall and early winter seasons the area further west is subject to very strong and erratic Chinook winds that cause extreme fire behaviour and can be a danger to ground forces.

Southwest Part of the Province – Rocky Mountain House and Calgary Forest Area

This area consists of numerous communities, hundreds of industrial facilities and committed timber resources. The terrain ranges from elevations of 300 meters (984 feet) to 3,000 meters (9,842 feet) and consists primarily of black spruce (C2), and mature jack pine stands (C3). There are areas of pure, mature trembling aspen stands (D1) to the east. The west is bordered by National Parks, Jasper and Banff. Firefighters need to be aware of grizzly bears, black bears, wolves and cougars. The mountainous areas tend to cool off significantly even in the summer, so it is important that the appropriate sleeping bag and clothing are brought. Work boots with good ankle support is recommended due to the steep terrain.

The primary method of travel for firefighters is via helicopter. Water supplies are limited, and initial attack can expect to employ the use of portable tanks fed by water buckets of the helicopter or through long hose lays. Water can be delivered to the fire through a gravitational system or Wajax pumps while utilizing extensive relays systems.

Personal Gear

You will be responsible for providing your own clothing, toiletries, overnight gear, rain gear, and personal protective equipment in accordance with your agency's policies. Prior to deployment, you will be advised if additional equipment is required. Personal gear must not exceed the weight restrictions as listed in the resource sharing agreement or in the resource order form.

Commissary is not provided, and should you require additional items during your deployment to Alberta, your Agency Representative may be able to purchase those items on your behalf.

Chainsaw Boots

For chainsaw operations, Alberta requires Class 2 (24 m/s) or Class 3 (28m/s) cut protection. Alberta has adopted CSA Z195-02 and ASTM F2413-05. CSA compliant footwear is identified by the green fir tree symbol, indicating that the footwear provides Class 3 (28 m/s) cut protection. Your agency may already require this boot or your agency may have an exemption from requiring this boot based in training and competency standards. Check with your home agency before departure to determine requirements.

2. WORKPLACE SAFETY

Occupational Healthy and Safety (OHS) Act and Right to Work Refusal

Alberta OH&S Legislation exists to protect workers from incurring physical or psychological harm on the job, either from their assigned work duties or a work environment that exposes them to harassment or abuse.

Reporting Incidents

Please notify your assigned supervisor immediately should an incident occur. Alternatively, you may inform the Forest Area Manager in the area where you are working, your Agency Representative, or anyone you trust. Contractors and partners for external agencies must fill out an E6 Offline OHS Incident Report. Additional paperwork may be required from your home agency. Alternatively, you may send your complaint directly to rwp.complaint@gov.ab.ca to launch an investigation but know that responses are rarely immediate through this channel.

For any questions about OH&S policies and procedures you may contact Alberta Forestry Division OH&S directly at 780-893-8213 or wf.ForestryOHS@gov.ab.ca.

Right to Dangerous Work Refusal

All workers have the right to refuse unsafe work in situations where workers are physically or psychologically at risk of imminent danger or harm. In this case, please notify your supervisor of the dangerous conditions and complete a Record of Refusal. Any subsequent workers assigned the same task must be made aware of the original worker's reason for refusal until the employer determines that no dangerous conditions exist. No disciplinary action may be taken against a worker who refuses work on the reasonable belief that dangerous conditions could exist.

Retaliation

Anyone who, in good faith, enquires about making a complaint, makes a complaint or participates in

an investigation under this Policy is protected against retaliation. Retaliation consists of any deliberate action taken in response to an inquiry, complaint, or investigation under the Policy by an employee that adversely affects the employment relationship of the individual who experiences the retaliation. Retaliation will not be tolerated and is considered a breach of the Policy

Respect in the Workplace

The Government of Alberta's Respectful Workplace Policy that states:

"The Government of Alberta is committed to ensuring a strong, inclusive, healthy and respectful workplace that is free of harassment, violence and discrimination... The Government of Alberta will not tolerate harassment or violence in the workplace from anyone and is committed to eliminating and doing everything reasonably practicable to prevent this inappropriate and unacceptable behavior."

It is everyone's responsibility to prevent and address workplace harassment, workplace violence and sexual harassment. If employees or others witness or experience behaviour that they believe violates Alberta's Respectful Workplace Policy, they are expected to report this behaviour.

Definitions

- **Workplace harassment** is objectionable or unwelcome conduct by an employee, that the employee knew or ought reasonably to have known would harm or cause offence, humiliation, degradation, or embarrassment, or which generally causes a hostile, intimidating, or abusive work environment or otherwise adversely affects the health and safety of an employee. Workplace harassment includes bullying, which is a form of harassment.
- **Discrimination:** Harassment can also be a form of discrimination when it relates to a person's race, religious beliefs, colour, gender, gender identity, gender expression, physical disability, mental disability, age, ancestry, place of origin, marital status, source of income, family status, sexual orientation or political affiliation, or any other protected ground of discrimination.
- **Sexual Harassment** means any single or repeated incidents of objectionable or unwelcome conduct of a sexual nature, that an employee knows or ought reasonably to know would cause offence, humiliation, degradation, embarrassment or would reasonably be understood to place a condition of a sexual nature on the employment relationship. Sexual harassment is a form of sex-based discrimination.
- **Workplace violence** is the threatened, attempted or actual conduct of an employee that causes or is likely to cause physical or psychological injury or harm and includes domestic or sexual violence.
- **Good Faith Requirement:** All complaints must be made in good faith. If an investigation concludes that a complaint was made in bad faith, the complainant may be subject to discipline, up to and including termination. This is not meant to deter complainants from coming forward.

Respect, Integrity, Accountability, Excellence

Alberta Forestry does not condone the following behaviour:

- Harassment, bullying, threats, intimidation, insults or deliberate exclusion.
- Accessing, distributing or publishing material of a sexual or derogatory nature, including intimate images.
- Unwelcome requests of a sexual nature, verbal abuse of a sexual nature or offensive sexual remarks, voyeurism or indecent acts.
- Actions that perpetuate stereotypes and modes of thinking that devalue people on the basis of their gender, sexual identity, sexual orientation, religious beliefs or ethnicity.
- Hazing or unacceptable and demeaning language or jokes.
- Malicious gossip or rumors that result in humiliation or embarrassment.
- Inappropriate use of authority.



BE A LEADER – ACT!

- | | |
|---------------------|--------------------------------------|
| Be accountable | Respect yourself and others |
| Support one another | Act with integrity |
| Get involved | Don't be a bystander |
| Report issues | Build excellence in the organization |

If you have been affected, impacted by or witnessed inappropriate behaviour:

REPORT

- Talk to anyone you trust.
- Local manager, supervisor and/or Human Resources who can provide options to resolve issues internally and confidential support.
- Respect in the workplace rwp.complaint@gov.ab.ca
- Alberta Union of Provincial Employees (A.U.P.E.) [1-800-232-7284](tel:1-800-232-7284)

SUPPORT

- Talk to anyone you trust.
- Employee and Family Assistance [1-877-890-9052](tel:1-877-890-9052)

ILLEGAL ACTIVITY OR EMERGENCIES **Call 911**

Bruce Mayer, Assistant Deputy Minister



3. WILDFIRE MANAGEMENT

Alberta's Ministry of Forestry and Parks is responsible for growing our manufactured wood products and forestry sector, preserving and managing our public lands and provincial parks. Forest Management's goal is to protect Alberta's forests from wildfire while maintaining a healthy sustainable forest landscape and providing direction, resources and expertise to forestry stakeholders.

The Wildfire Management policy, Wildfire Personnel Safety states, *'Firefighter and public safety is the first priority. All wildfire operations and activities must reflect this commitment. People are responsible for their own safety, and the safety of others. The Forestry Division must show due diligence in all operations.'*

The priority for the allocation and deployment of firefighting resources is as follows (listed in order of highest priority:

1. Human life
2. Communities and associated critical infrastructure to support communities
3. Major environmental and economic values
4. Other values

Wildfire Management has its headquarters in Edmonton and the Alberta Wildfire Coordination Center (AWCC), coordinates activities for the entire province. Structurally, the Forestry Division is organized into the following sections/programs:

- Forest Operations (includes wildfire operations)
- Forest Management and Wildfire Mitigation
- Strategy, Policy, and Economics

- Central Services
- Wildfire Strategic Policy and Transformation

Wildfire Operations Section

The Wildfire Operations section is responsible for wildfire response, predictive services, and wildfire prevention and investigations.

Duty Officers are responsible for ensuring that sufficient initial attack resources are available and in place to carry out immediate, effective fire suppression action on all wildfires within the Forest Protection Area.

Duty Officers have a mandate to act in anticipation of fire potential and risk, and to coordinate the placement and dedication of all fire control resources at their disposal within their jurisdiction.

The AWCC Duty Officer will assign crews coming into the province to various locations. Once assigned to a Forest Area, crews will report to the Forest Area Duty Officer for the second briefing that will focus on the local situation and for assignment.

The AWCC coordinates the arrival, monitoring and use of crews and airtankers brought into Alberta. In addition, any problems or operational questions that cannot be resolved by the Forest Area Duty Officer are referred to the AWCC Duty Officer.

Edmonton also houses the Provincial Warehouse Service Centre that is responsible for providing fire management services to Wildfire Management. This includes the refurbishing of equipment used for wildfire suppression, management of an inventory system for tracking the quantity and location of fire equipment throughout the province. The Provincial Warehouse is also responsible for receiving, storing and distributing fire equipment and supplies. The Warehouse Service Centre works with the Forest Area warehouses to ensure equipment needs are met.

Wildfire Weather Section

Wildfire Management maintains a year-round fire weather forecast office consisting of five (5) Fire Weather Meteorologists and two (2) seasonal technicians. The weather section is responsible for:

- Producing two (2) fire weather forecasts and briefings per day during the fire season
- Providing weather expertise for fire management activities
- Managing and archiving fire weather and lightning data from remote sensing network
- Providing support to wildfire courses, especially fire weather and fire behaviour instruction
- Supplying weather forecasts and updates to other provincial agencies, such as the Alberta Environment and River Flow Forecast team

Current and forecasted wildfire weather information is located:

<https://www.alberta.ca/fire-weather-forecasts-and-observations>

Weather briefings are at 1030 hrs. and 1530 hrs. daily during the fire season. The most current briefing is located: <ftp://ftp.env.gov.ab.ca/pub/pffcwx/WXBRIEF/FireWcBrief.mp4>

Invasive Species Prevention

To assist with preventing the spread of aquatic invasive species (AIS) into Alberta from other jurisdictions, any skimmer airtanker or helitanker aircraft assisting from another agency will proceed to an airtanker base designated by the Provincial Aircraft Coordinator. Prior to be utilized in Alberta water bodies, the aircraft will be washed as per the AIS Wash-down Procedures.

Fire engines and fire equipment from another fire agency must be washed as per the AIS Wash-down Procedures.

Whirling Disease is also entering waterbodies in the southern part of the province and prevention procedures will be covered upon arrival in those Forest Areas that have confirmed locations of Whirling Disease.

4. INCIDENT COMMAND SYSTEM

Alberta utilizes the Incident Command System (ICS) in managing wildfire incidents.

Project fires demand the most resources and commitment from fire fighters and management. The routine fire suppression structure in a Forest Area is centered on initial attack, with fires controlled in the first burning period. Project fires require more specialized, intensive management. To accommodate this, specialized teams have been developed to assist the Forest Areas with managing campaign fires.

Alberta types wildfires on a scale of 1 to 5, with Type 1 incidents being the most complex and Type 5 incidents being the least complex. Alberta has two types of management teams in addition to the basic fire crew to be deployed to an incident.

Incident Management Teams

Alberta has four (4) Incident Management Teams rostered for the fire season made up of Type 1 and Type 2 individuals. These teams include the following positions.

Team members

- Incident Commander
- Operations Section Chief
- Planning Section Chief
- Logistics Section Chief
- Finance Section Chief
- Information Officer
- Safety Officer
- Operations Branch Director
- Air Operations Branch Director
- Air Support Ground Supervisor
- Division Supervisor
- Fire Behaviour Analyst
- Resource Unit Leader

Facilities Unit Leader
Supply Unit Leader
Time Unit Leader
Radio Operators x2

5. INITIAL ATTACK PREPAREDNESS

Initial attack is the action taken by the first firefighting resource to arrive at the wildfire to halt the spread or potential spread of a fire. Alberta has a strong commitment to presuppression preparedness and the control of forest fires by initial attack.

Alberta's Airtanker Program will consist of the following airtanker groups:

- Group 1: Amphib Air Tractors AT802 (4) and C208
- Group 2: CL215T (2) and TC690
- Group 3: CL215T (2) and TC690
- Group 4: Electra L188 (1) and TC695
- Group 5: Wheeled Air Tractor AT802 (4) and C208
- Group 6: Q400 (1) and TC690
- Group 7: Electra L188 (1) and TC690
- Group 8: Electra L188 (1) and TC690
- Group 9: Amphib Air Tractors AT802 (4) and C208
- Group 10: Q400 (1) with TC690

*All birddog aircraft are Forward Looking Infrared (FLIR) equipped

Casually hired airtankers and bird dogs can also be sourced when the fire hazard and activity increases and will either be brought on as a group or the airtanker added to one of the groups listed above.

Wildfire Management has 23 dedicated helicopters contracted for wildfire operations and additional helicopters are hired on a casual basis when required. The fleet consists of:

- Six (6) conventional configured intermediates (two configured with night vision capabilities)
- Fifteen (15) conventional configured mediums (three configured with night vision capabilities and three configured for hoist operations)
- Two (2) conventional configured heavies (both configured with night vision capabilities)

Wildfire Crews

Throughout the years, Alberta has changed the naming schemes of the Wildfire Crews to clarify the type of firefighter that is employed with such a crew. Currently Alberta employs four (4) types of Wildfire Crews:

- Helitack Crew
- Unit Crew
- Hoist Crew
- Firetack Crew

Helitack Crews

Helitack crews are comprised of four (4) individuals – leader and three (3) Members or eight (8) individuals – leader, subleader and six (6) members. Individuals, who are selected for training, must first pass the required physical fitness test, and then attend two weeks of Wildfire Crew Member Training. Helitack crews are located throughout the Forest Area and are general-purpose initial attack forces that travel by either vehicle or helicopter.

Unit Crews

Unit crews are Alberta's sustained action force and are comprised of 20 individuals – Leader, five (5) Subleaders, and 14 Members. Individuals, who are selected for training, must first pass the required physical fitness test, and then attend two weeks of Wildfire Crew Member Training. Unit crews are used on expanded attack wildfires and depending on distance and location of the wildfires will travel by either vehicle or helicopter.

Hoist Crews

Hoist crews are comprised of five (5) individuals – leader, sub-leader and three (3) members. These individuals attend the same wildfire specific training as the Unit and Helitack crews, but also complete Hoist specific training. Hoist crews are provincial resources without a home area and are deployed as needed to provide access to remote fires and can conduct emergency extractions via helicopter.

Firetack Crews

Firetack crews are another sustained action force and are comprised of eight (8) individuals – Leader, Subleader, and six (6) Members. The Firetack program consists of contracts and 'hire when needed' individuals with local Indigenous Communities. Individuals, who are selected for training, must first pass the required physical fitness test, and then attend two weeks of Firetack Crew Member Training. These crews do not complete the WFX-Fit Test therefore are not exported outside of Alberta until such time that the nation is experiencing a shortage of resources. If needed, these crews will complete the WFX-Fit test to be exported out of province.

Alert Levels/Standby Times for Wildfire Crews

Initial Attack

The initial attack location, and the initial attack objective, i.e., stand-to and stand-down times, for the following day shall be set daily by the Forest Area Duty Officer. This information will be given to the crews before stand-down on the previous day using the Presuppression Preparedness System (PPS).

There are five levels of alert:

Immediate (5 minutes) (very high and extreme fire hazard)

Crews must depart from their staging point immediately upon a fire call. Five (5) minutes maximum getaway for light and intermediate helicopters, with 10 minutes maximum for a medium helicopter.

10 Minutes (moderate and high hazard)

Crews must depart from their staging point within 10 minutes.

30 Minutes (low-moderate hazard)

Crews must depart from their staging point within 30 minutes

60 Minutes (low hazard)

Crews must depart from their staging point within 1 hour, i.e., 60 minutes.

Project Status

No getaway objective. Crew working on projects.

Alert Levels and Standby Times for Airtankers

The daily alert times for Airtanker aircraft is set by the Provincial Airtanker Coordinator in consultation with Forest Area Duty Officers and approval by the AWCC Duty Officer. Definitions of the alerts are as follows:

Red

- Personnel must be on base for the specified standby period.
- Birddog must be available to depart (wheels roll) within 10 minutes of dispatch notification.

Yellow

- Birddog must be available to depart (wheels roll) within 30 minutes of dispatch notification.

Blue

- Birddog must be available to depart (wheels roll) within one-point-one (1.1) hours of dispatch notification.
- If the group was advised of a Blue alert status at least twelve (12) hours in advance of the start of the alert and the airtanker group does not fly, or alert is not increased, the day will be considered a "Day Free from Duty".

Green

- Personnel are off duty and can be away from the base.

Day Base

- Aircraft is moved to an alternate base for the day.

6. AIRCRAFT**Monitoring of Aircraft****Presuppression**

Forest Areas are responsible for communications with aircraft under its direct command (i.e. presuppression rotary wing, air patrol fix wing, airtankers in the Forest Area). When the aircraft

crosses over to another Forest Area, the responsibility is transferred over to that particular Forest Area. Ground crews are equipped with handheld radios. Airtanker bases are equipped with VHF-AM radio with frequencies of 122.05.

Suppression

Ground crews will be equipped with VHF-FM radios where frequencies will be designated by sector and divisions of the wildfire. The base camp has VHF-AM radios. The base camp is responsible to monitor helicopter assigned to the incident and airtankers providing support. As soon as the aircraft clears the incident, the Forest Area takes over monitoring.

Aircraft Emergency Procedures

In the event of an occurrence with a Ministry hired aircraft, the procedures and protocols of the Emergency Response Procedures Manual shall be followed. This manual will be distributed upon arrival if required.

7. HEAVY EQUIPMENT

Alberta utilizes heavy equipment (i.e., dozers, excavators, all-terrain vehicles) on the fireline to construct fire guard, transport personnel on the fireline, and around staging areas and camps to support the logistical needs of wildfires. All heavy equipment is under contract with the department and will come with a heavy equipment operator. The local forest area office is responsible for the administration and hiring of the heavy equipment.

Each piece of heavy equipment will complete an equipment daily time ticket (FP167) and this must be signed by the fireline supervisor and submitted to finance at the incident or in the forest area.

Dozer Groups

Each Forest Area will configure their dozer groups specific to terrain in the area and based on the needs of the wildfire. Typically, a dozer group is configured with three (3) dozers and then each area will have additional equipment such as an excavator, skidder, or water truck. The dozer group will also be assigned a Dozer Boss who will report to the fireline supervisor and their primary responsibility is to locate and flag fireline for the dozers to construct guard as per the plan of action. They are also responsible for the safe and effective operation of the equipment and are responsible to ensure all heavy equipment time records are completed daily. In expanded heavy equipment operations on incidents, the IMT will have a Heavy Equipment Group Supervisor (HEGS) to support the IMT.

Dozer groups are hired for presuppression and suppression needs and all orders to the forest area/IMT should identify the kind, type and number of heavy equipment pieces required and any special considerations.

All-terrain Vehicles (ATV)

Alberta uses tracked ATV's to transport water or personnel (often call a hagglund or sherp) to the fireline. All ATV personnel carriers must come equipped with seatbelts for each passenger and at no point will personnel ride on top of or hang off the side of the personnel carrier.

Before entering an area of steep slope (uphill, downhill, or side) or highly uneven ground, personnel should disembark and walk to where the grade of the terrain is safe to be transported inside again. This is to avoid injury in the event of a rollover or equipment malfunction (ex. Brake malfunction leading to a runaway). It is at the discretion of the operator and/or personnel riding inside of the Personnel Carrier to determine if they are comfortable being inside of the equipment over this steep or uneven terrain.

All personnel working with ATV Personnel Carriers should receive a safety briefing on safe loading/unloading of personnel/gear, as well as the day's assignment. This should include loading/unloading and securing gear in a top-mounted rack, if applicable. This briefing should be conducted by the operator.

8. ADMINISTRATIVE REQUIREMENTS

During your assignment in Alberta all personnel costs are covered as per the CIFFC Mutual Aid Resource Sharing implementation guidelines, CanUs operational guidelines, the Northwest Compact cooperative operating plan, or one of the non-North American resource sharing agreements. Hours worked must be signed off by an Alberta Forestry and Parks representative, and/or supervisor for processing with the home agency. Commissary is not provided. Agency Representatives will manage all incidentals not included in the agreement.

9. NECESSARY INFORMATION

Mapping System - The Alberta Third System of Survey

Maps produced and used by Wildfire Management emphasize the township grid system as the major reference system.

Meridians

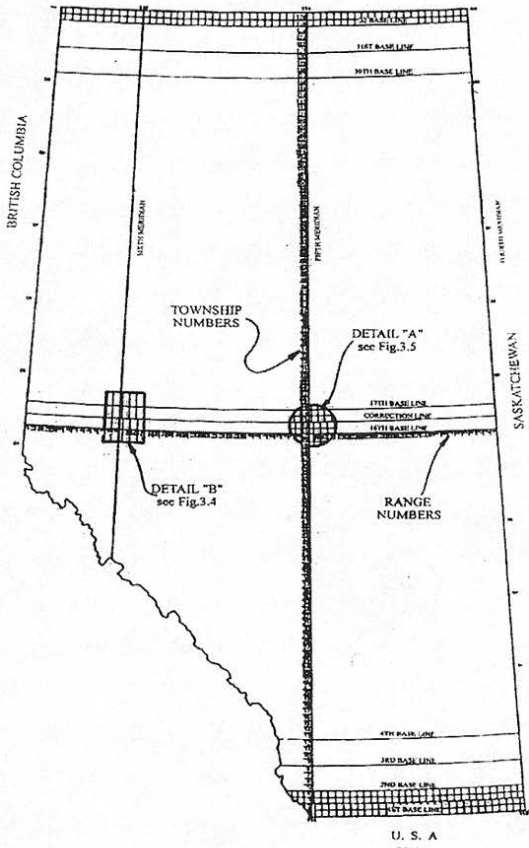
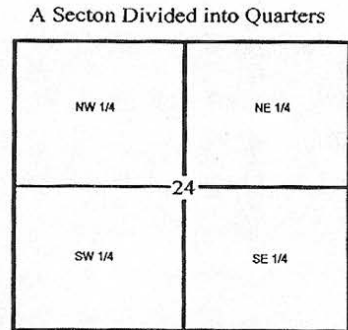
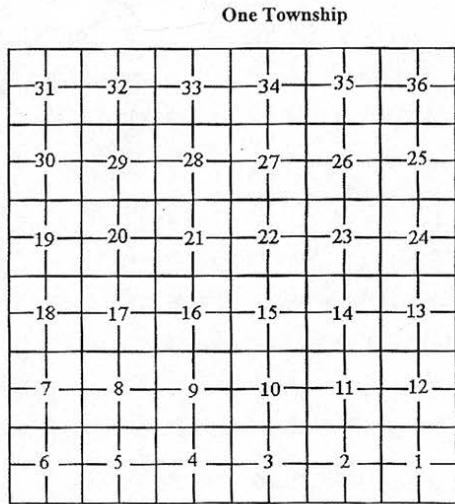
The province is split into three large north/south strips four degrees of longitude wide. These three areas are separated by special numbered meridians. The meridian along the Alberta/Saskatchewan boundary (along the 110° of western longitude) is the 4th meridian, while the 5th meridian follows 114° and the 6th 118° west. Hence, the area west of the 4th is the area between the 4th and the 5th meridian, and the area west of the 5th is the area between the 5th and the 6th meridian and so on.

The Correction Line

Along each horizontal (east-west) line the shift in the range column as shown below is called the "Correction Line".

Range Columns

In order to be able to denote an individual township square in a township strip, additional numbering from east to west was introduced. Again, six-mile-wide strips were established in a **north/south pattern**.



A Section Divided into Legal Sub-divisions

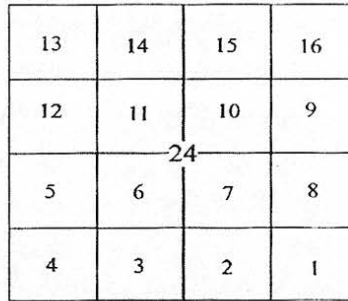


Figure 3 – Alberta Third System of Survey

How to describe a location under the township grid system

The description of a location, also referred to as legal description, must adhere to the following order:

1. First comes the smallest unit either the quarter section or the legal subdivision, give either one only, not both. If you use a legal sub-division, establish the number of it using the township grid template and write it down as follows: "LSD 2" (legal sub-division 2). If you prefer to use a quarter-section you must indicate whether you mean the NW, NE, SW or SE quarter-section since the quarters are not numbered.
2. Second comes the section number as per township template or section number of the map.
3. Third is the township (strip number).
4. Fourth is the range column number.
5. Fifth is the meridian, always add the letter "W" to the meridian as a reminder that you are referring to the area west of the meridian.

While you must adhere to the standard order when you give a legal description, it is permissible to abbreviate.

The following examples illustrate different ways of writing down a location.

LSD 2, Sec. 12, Twp.56, Rge.4, W.5

SE 12-56-4-W.5

How to find a location given by legal description

When a legal description is received over the radio, the reverse procedure of transmitting is followed to find it on the map.

First, find the meridian, then the township at the intersection of the range column and township strip. Then find the section with the township template and last, the quarter section or legal subdivision.

Mapping System – Latitude/Longitude

In addition to the Alberta Third System of Survey, Alberta uses latitudes and longitudes to assist with navigation and wildfire locations. The Alberta standard is **degrees, minutes, decimals**.

Data collection for your hand-held GPS should be set to collect data using the **WGS84 datum**

Fuel Cache Stocking

Fuel cache locations are throughout the province. The number and location of each fuel cache is available from the Forest Area. Each Forest Area is responsible for ensuring there is a good supply of aircraft fuel at these locations at all times.

Numbering Wildfires

Wildfires in Alberta will be numbered consecutively commencing April 1st of each year and may carry-over into the following fire season until extinguished.

A wildfire is an unplanned or unwanted natural or human-caused fire. Wildfire numbers shall be issued for any burning, or evidence of burning, within the Forest Protection Forest Area and mutual aid agreement areas i.e.) when there has been on-the-ground wildfire suppression or when there has been on-the-ground confirmation by Wildfire Management staff that there was a fire that was extinguished. The only exceptions to this are:

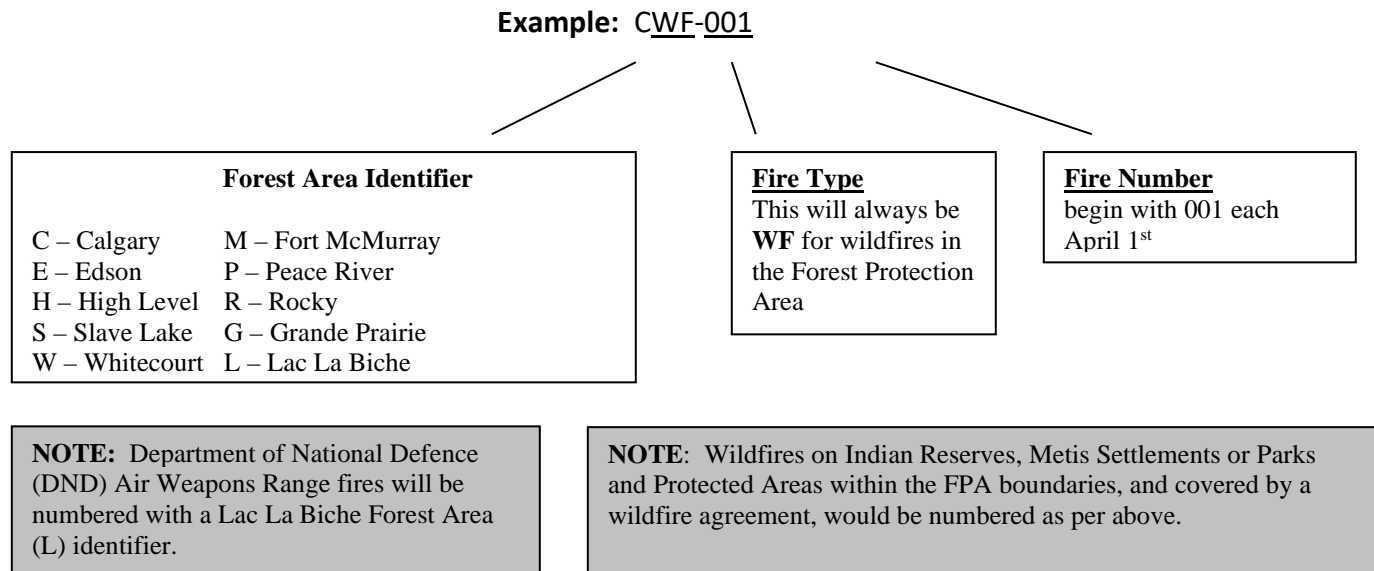
- a fire burning under the conditions of a valid permit,
- a prescribed fire
- an attended cooking or warming fire provided there is no Ministerial Order banning such
- an unattended or abandoned cooking and warming fire in an engineered facility within a designated campground

Any excursion on an “under control” wildfire will be issued a new wildfire number until an investigation proves that the excursion was the result of the original wildfire. The only exception to this is when the excursion is witnessed.

Airtanker groups require a wildfire number or a detection message number at the time of dispatch. Once an airtanker group drops on a wildfire, it shall be issued a wildfire number.

The following is the numbering process:

A wildfire’s point of origin determines the Forest Area to which it is assigned.



Fire Reports

Reports on fire actions are required in Alberta and should be completed as accurately and quickly as possible. Initial attack resources will be required to complete an initial fire assessment message (FP41) and log the appropriate information required in the fire report notebook. The notebook with instructions will be given to imported personnel on arrival to the Forest Area.

Fire Drive and Field Maps

FireDrive is a file-sharing site that allows Wildfire Management to publish and share documents with wildfire personnel, contractors and supporting partners to maintain their situational awareness or perform business processes. This site is intended to share content required for wildfire operations but not all business of wildfire management. A username and password are required to access Fire Drive and will be provided at the provincial briefing and/or at the forest area briefing.

Wildfire incident data will be collected using ESRI Field Maps application. Field Maps is aligned with ICS Canada and consists of fire points, fire lines, event polygon (fire polygon and other features), hotspots and fire grid, which is generated by assigned GIS support. The traditional wildfire mapping program still exists and is available for deployment for Type 1 and or requested Type 2 incidents. A username and password are required to access Field Maps and will be provided at the provincial briefing and/or at the forest area briefing. Training videos can be found here: [Wildfire Field Maps Training Videos](#)

Radio Communications

Alberta is on the VHF-FM System. The VHF/AM system is used in all Forest Areas for air-to-air and air-to-ground communications on both administrative and fire frequencies.

There are two (2) types of radio channels in use in Alberta – Fireline channels and Firenet channels. It is important to understand the difference between them and know when to use each type of channel.

Fireline Channels

These channels work using line-of-sight with the station being contacted. The signal goes directly from the radio to the intended receiver. Fireline channels work well when crews are working within a close range (less than 5 km apart) or from air to the ground where obstacles that block your line-of-sight are minimal. Channels range in numbers on your hand-held radio from 1-50. Fireline channels can be used on the fireline, for dozer communications, on initial attack, and for camp communications.

FireNet Channels

In the FireNet system, the radio has to first hit a repeater, go up to a satellite, then be broadcasted out to the station that is to be reached. The FireNet system is good for long range communication. Once you hit the repeater and the signal goes up to the satellite, the signal can transmit anywhere in Alberta from the ground. Channels range in numbers on your hand-held radio from 201-248. All transmissions are recorded, and help can be reached any time day or night. FireNet channels are

used for each Forest Area, as a base channel on large fires, for lookout towers, and at airtanker bases.

Radio Priorities

- 1) Distress calls
- 2) Urgency calls
- 3) Safety
- 4) Aircraft
- 5) Priority smoke message
- 6) Fire messages
- 7) Administration

Pipeline Crossings

In Alberta, there are numerous pipelines throughout each of the Forest Areas. Should you need to cross a pipeline, you will have to contact the local Forest Area Duty Officer to get permission from the company before crossing and instructions on how to cross the pipeline safely.

10. SAFETY

Wildfire Management policy, Wildfire Personnel Safety states, *'Firefighter and public safety is the first priority. All wildfire operations and activities must reflect this commitment. Every person is responsible for their own safety, and the safety of others. Forestry Division must show due diligence in all operations.'* The following Standard Operating Procedures are important for incoming personnel to be aware of:

Wildfire Management Due Diligence

The concept of due diligence is based on a constantly changing standard of reasonable care (to prevent harm to others) as determined by law (common law and statute law) and industry and professional standards.

Wildfire Management must provide for safety first in all operations. In addition, every person is responsible for their own safety, and the safety of others.

The OH&S Codes of Practice defines "competent", in relation to a worker, as adequately qualified, suitably trained and with sufficient experience to safely perform work, without or with only a minimal degree of supervision,

Where the work to be done may endanger any worker, Wildfire Management will not allow an employee who is not "competent" to work without direct supervision. A supervisor or competent worker shall have continuous visual contact and be able to readily and clearly converse with the worker.

Safety Briefings

Fireline supervisors and duty officers must hold daily safety briefings / tailgate safety briefings each morning before work commences, and as required when work assignment or conditions change from what was covered in the original briefing.

Protective Clothing and Equipment

Personnel working in presuppression or suppression operations, or a work site with specific hazards, shall wear the required protective clothing and equipment. Failure to comply will result in corrective actions being taken.

Imminent Danger and the Right to Refuse

Under the Occupational Health and Safety Act, all employees have the right to refuse to work if the work poses an “imminent danger”. *‘Imminent danger is any danger that is not normal for that occupation or a danger under which a person engaged in that occupation would not normally be exposed to’.*

No worker shall:

- Carry out any work if, on reasonable and probable grounds, he believes there exists an imminent danger to the health or safety of that worker,
- Carry out any work if, on reasonable and probable grounds, he believes that it will cause to exist an imminent danger to the health or safety of that worker or other workers present at the work site, or
- Operate any tool, appliance or equipment if, on reasonable and probable grounds, he believes that it will cause to exist an imminent danger to the health or safety of that worker or other workers present at the work site, or
- Carry out any work if environmental conditions make the work unsafe, or
- Carry out any work if the worker(s) lack the necessary qualifications or experience to carry out the assignment.

An employee who gave notification may be asked to remain at the worksite and may be temporarily assigned to other work that he is capable of performing. A temporary assignment shall not be considered a disciplinary action; there will be no loss in pay.

Where an employee continues to refuse to work despite a decision by the supervisor that there is no ground for refusal, the Ministry’s Human Resources Section and the Occupational Health and Safety Office shall be notified. A facilitator may be appointed to act as a resource and mediator in situations where there are no grounds for refusal.

Night Operations

Night operations is defined as any firefighting that occurs between 30 minutes after legal sunset until 30 minutes before legal sunrise. Each day, prior to any night operations starting the Forest Area Duty Officer or IMT must ensure the following steps have been completed:

- Completion of the Night Operations Matrix for Ground Resources (FP207).

- A defined achievable objective that directly relates to the protection of an identified high priority value(s) at risk, to meet specific incident objectives, or to contain a new wildfire start within the first burning period.
- A specific FP113 Fire Safety Briefing, including forecast overnight weather and fire behaviour potential will be provided for the overnight period. Site specific hazards and mitigation measures need to be discussed, briefed and documented before works begins.

A night operations reference manual is available and covers considerations for initial attack night operations, transition from initial attack to sustained night operations, and sustained action night operations.

Employee Responsibility Regarding Drugs and Alcohol

The use and possession of non-prescription drugs and alcohol are not permitted at any wildfire, work site, or project site. Possession or use of these substances will result in disciplinary action.

During off-duty rest and recreation periods, all employees, contractors, and volunteers, are responsible for maintaining proper conduct and fitness for duty. Drug and alcohol abuse resulting in unfitness for duty could affect an individual's personal safety, as well as the personal safety of the other employees, and may result in disciplinary action.

Emergency First Aid

At least one person on each wildfire crew must have a current Standard First Aid certificate. Alberta Overhead personnel are required to have a Standard First Aid Certificate to advance in the certification process.

WHMIS

The Workplace Hazardous Material Information System (WHMIS) provides a way to obtain information on hazardous materials and instructions on how to use them properly. The program has been designed to protect workers and help prevent injuries and illness caused by exposure to chemicals. Incoming personnel will be briefed on hazard materials on the worksite at the safety briefings. All fireline personnel must have WHMIS.

Hydrogen Sulphide (H₂S) Awareness

Hydrogen Sulphide or H₂S or sour gas is a naturally occurring gas formed by the decomposition of organic matter in the absence of oxygen. It is commonly found in conjunction with oil and gas development and can be found anywhere in Alberta.

Characteristics of H₂S include:

- Rotten egg smell
- Soluble in water
- Denser than air
- Flammable

- Colorless

Symptoms of H₂S include:

- Loss of smell
- Nausea, headaches
- Eye and respiratory irritation
- Loss of balance
- Out of character behaviour
- Death

It is important to have situational awareness, and avoidance is the best protection against H₂S exposure. When working around gas facilities monitor each other for symptoms of exposure and if any personnel show signs of exposure, evacuate the area immediately. The company is responsible to post a sign at the location identifying if H₂S is present at the site. If there is a potential safety risk to personnel, wildfires will not be actioned until alternate strategies are implemented.

If H₂S is present within the Forest Area you will be working in, additional operational procedure information will be provided during your Forest Area briefing.

Accident Reporting

All individuals that have an accident in Alberta will be required to fill out an Alberta accident report along with Worker's Compensation Board (WCB). Your Agency Representative will advise you if you are required to fill out your agency's forms.

Should you be involved in a vehicle accident while driving either an Alberta fleet vehicle or a rental, you will be required to fill out Alberta vehicle accident report forms.

All accidents should be reported your supervisor, Agency Representative, and an Alberta Wildfire Management staff member as soon as possible.

11. DEBRIEFING

Alberta recognizes that each Agency has their rules for establishing their own tour of duty; however, the length of assignment will be determined by CIFFC mutual aid resource sharing agreement. Should an assignment require extension to the receiving agency's tour of duty, the AWCC Duty Officer will contact CIFFC to seek direct approval from the sending agency.

All personnel prior to leaving Alberta will be given a debriefing at the incident or Forest Area in which they were assigned. Most resources will depart from Edmonton, AB and will be given one last opportunity to share debriefing prior to departure back to the lending agency. Alberta performance ratings will not be completed but one can be requested if the lending agencies requires one for their records.

Alberta encourages any comments imported personnel have regarding their assignment and / or comments on Alberta’s wildfire program. Feedback is one of the most efficient tools for enhancing our program.

12. PHONE CONTACT LIST

Fire Center	Main Office	Duty Room	Dispatch Room	Logistics
Calgary	403-297-8800	403-297-8822	403-297-8822	403-297-8826
Edson	780-723-8527	780-723-8361	780-726-8507	780-723-8379
Fort McMurray	780-743-7125	780-743-7218	780-743-7256	780-743-7293
Grande Prairie	780-538-5560	780-538-8093	780-538-8094	780-538-8064
High Level	780-926-3761	780-926-5405	780-926-5409	780-926-5417
Lac La Biche	780-623-5388	780-623-5245	780-623-5389	780-623-5377
Peace River	780-624-6190	780-624-6191	780-624-6214	780-624-6466
Rocky Mtn House	403-845-8272	403-845-8243	403-845-8266	780-845-8275
Slave Lake	780-849-5826	780-849-7429	780-849-7428	780-849-7431
Whitecourt	780-778-7153	780-778-7265	780-778-7272	780-778-7254

Alberta Wildfire Coordination Centre

Wildfire Operations Phone: (780) 415-6460

Wildfire Operations Email: AWCC@gov.ab.ca

*email monitored from 0800-1900 hrs from May to October

AWCC Duty Officer 24 hr Cell: (780) 913-2344

