Canadian Wildland Fire Glossary

CANADIAN INTERAGENCY FOREST FIRE CENTRE INC.
CENTRE INTERSERVICES DES FEUX DE FORÊT DU CANADA INC.

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Preface

The Canadian Wildland Fire Glossary provides the wildland fire community a single source for accurate and consistent wildland fire and incident management terminology used by CIFFC and its' member agencies.

Consistent use of terminology promotes the efficient sharing of information, facilitates analysis of data from disparate sources, improves data integrity, and maximizes the use of shared resources. The glossary is not intended to be an exhaustive list of all terms used by Provincial/Territorial and Federal fire management agencies. Most terms only have one definition. However, in some cases a term may be used in differing contexts by various business areas so multiple definitions are warranted.

The glossary is updated annually to better reflect the evolution of the terms. In addition, it is produced in three languages (French, English, Spanish) including their correspondence tables.

A user's guide has been developed to provide guidance on the development and review of glossary entries. Within this guide, users, Working Groups and Committees can find instructions on the glossary process; tips for viewing the glossary on the CIFFC website; guidance for Working Groups and Committees assigned ownership of glossary terms, including how to request, develop, and revise a glossary entry; technical requirements for complete glossary entries; and a list of contacts for support.

Abort

To cancel an intended maneuver.

Accuracy

In airtanker operations, the assessment of an airtanker drop in relation to the target.

Aerial Detection

A system for or the act of discovering, locating, and reporting wildfires from aircraft. May be planned or unplanned.

Aerial Detection Observer

A person specifically assigned to the detection of forest fires from an aircraft.

Aerial Ignition

The ignition of fuels by dropping incendiary devices or materials from an aircraft

Aerial Ignition Device (AID)

Any device used for the purpose of aerial ignition.

After Action Review (AAR)

A structured review or de-brief process of an event, focused on performance standards, that enables participants to discover for themselves what happened, why it happened, and how to sustain strengths and improve on weaknesses. After action reviews, informal or formal, follow the same general format, involve the exchange of ideas and observations, and focus on improving performance.

Agency

A division of government with a specific function offering a particular kind of assistance. In the Incident Command System, agencies are defined either as jurisdictional (having statutory responsibility for incident management) or as assisting or cooperating (providing resources or other assistance). Governmental organizations are most often in charge of an incident, though in certain circumstances private-sector organizations may be included. Additionally, nongovernmental organizations may be included to provide support.

Agency Dispatch

The agency or jurisdictional facility from which resources are sent to incidents.

Agency Executive or Administrator

The official responsible for administering policy for an agency or jurisdiction, having full authority for administering policy for an agency or jurisdiction, having full authority for making decisions, and providing direction to the management organization for an incident.

Agency Preparedness Level (APL)

Determined daily by provincial /territorial/ agency duty officers and entered as part of each agency's submission to the CIFFC National Situation Report. The Agency Preparedness Level (APL) is determined through an assessment of the following criteria: Agency Fire Danger, Current Fire Load, Anticipated Fire Load (7 days), Agency Resource Levels and Agency's Ability to Respond to CIFFC Resource Requests. The APL is provided as situational awareness to support and assist with interagency resource sharing decisions planning and to assist with determining the National Preparedness Level.

Agency Representative (AREP)

A person assigned by a primary, assisting, or cooperating agency to an incident who has been delegated authority to make decisions affecting that agency's participation at the incident.

Air Attack

A fire suppression operation involving the use of aircraft to deliver firefighting suppressants or retardants to a wildfire.

Air Attack Officer

The person responsible for directing, coordinating, and supervising a fire suppression operation involving the use of aircraft to deliver retardants or suppressants on a fire.

Air Cargo

All items for transport and delivery by aircraft.

Air Mass

A meteorological term referring to an extensive body of air within which the conditions of temperature and moisture in a horizontal plane are essentially uniform.

Air Operations Branch Director (AOBD)

The person primarily responsible for managing the resources within the air operations branch, as well as preparing and implementing the air operations portion of the Incident Action Plan. Also responsible for providing logistical support to helicopters operating on the incident.

Air Support Group Supervisor (ASGS)

The person responsible for planning and oversight of incident aircraft support functions (helibase, helispot and Fixed-Wing Air Bases).

Air Tactical Group Supervisor (ATGS)

The person primarily responsible for the coordination of all tactical missions of fixed- and/or rotary-wing aircraft operating in incident airspace. The function may be performed in an aerial platform or ground based.

Air Temperature

See Dry-bulb temperature.

Airtanker

A fixed-wing aircraft fitted with tanks and equipment for dropping suppressants or retardants on fires. They are divided into two categories, land-based and skimmer.

Airtanker Base

An operational base at which airtankers are held in readiness for action on fires.

Alert

A period when fire fighters, fire control equipment, and aircraft are kept ready for deployment on short notice, usually when the fire danger reaches a predetermined degree of severity.

All-Hazard/All-Risk

Describing an incident, natural or human-caused, that warrants action to protect life, property, environment, and public health or safety, and minimize disruption of government, social, and economic activities.

Allocated Resources

Resources dispatched to an incident.

Allowable Burned Area

A standard or objective of protection effort set for an area of managed forest or other land. The maximum average annual area burned by wildfire over a given period of years that can be tolerated and sustained for a given area without disrupting overall forest management and other land use objectives.

Anchor Point

An advantageous location, usually a barrier to fire spread, from which to start or finish construction of a control line. Used to minimize the chance of being flanked (or outflanked) by the fire while the line is being constructed. See LACES.

Anemometer

A general name for instruments designed to measure wind speed and direction.

Anticyclone

In meteorology, an area where the atmospheric pressure is high relative to the surrounding area at the same levels and whose centre has the highest pressure. Synonym - High pressure.

Area Command (AC)

An organization established to oversee the management of multiple incidents that are each being handled by a separate Incident Command System organization, or to oversee the management of a very large or evolving incident that has multiple incident management teams engaged. An Agency Executive/Administrator or other public official with jurisdictional responsibility for the incident usually makes the decision to establish an Area Command. An Area Command is activated only if necessary, depending on the complexity of the incident and span-of-control considerations.

Area Commander (ACDR)

The person responsible to manage a very large incident that has multiple IMTs assigned. These teams may be established any time the incidents are close enough that oversight direction is required.

Armed

A description used by the airtanker pilot to declare that the drop system is set to allow immediate release of the load or any part thereof as previously requested by the birddog.

Aspect

The direction that a slope is facing.

Aspirate

To draw in air by suction. The aspirating nozzle draws air into the nozzle to mix with foam solution.

Aspirating Nozzle

A foam generating device that mixes air at atmospheric pressure with foam solution in a nozzle chamber.

Assigned Resources

Resources checked in and assigned work tasks on an incident.

Assignments

Tasks given to resources to perform within a given operational period that are based on operational

objectives defined in the Incident Action Plan.

Assistant

Title for subordinates of the principal Command Staff positions. The title indicates a level of technical capability, qualifications, and responsibility subordinate to the primary positions. Assistants may also be assigned to Unit Leaders.

Assistant Area Commander, Logistics (ACLC)

The person responsible for providing facilities, services and material at the Area Command level, and for ensuring effective use of critical resources and supplies among the incident management teams.

Assisting Agency

An agency or organization providing personnel, services, or other resources to the agency with direct responsibility for incident management.

Atmospheric Pressure

The gravitational force exerted by a column of air extending from the point of concern to the outer limits of the atmosphere. Recommended unit is the kilopascal (kPa), although millibar (mb) has been the most common unit of measurement.

Atmospheric Stability

A meteorological term referring to the resistance of the atmosphere to turbulence and vertical motion (upward). With reference to fire management activities the atmosphere is usually described as neutral, stable, or unstable with respect to the dry adiabatic lapse rate.

Attack

The actual physical fire fighting operation.

Available Fuel

The quantity of fuel in a particular fuel type that would actually be consumed under specified burning conditions.

Available Resources

Resources assigned to an incident that are checked in and available for a mission assignment; normally located in a Staging Area.

Back

See Rear.

Backfire

A fire spreading, or set to spread, into or against the wind.

Backfiring

A form of indirect attack where extensive fire is set along the inner edge of a control line or natural barrier, usually some distance from the wildfire and taking advantage of indrafts, to consume fuels in the path of the fire, and thereby halt or retard the progress of the fire front.

Backpack Pump

A portable water container, equipped with carrying straps, discharge hose and hand pump carried on the back; used for applying water in suppression and mop-up operations. These are classified as a)collapsible (usually rubber) to reduce space required for storage and transportation or b) rigid (hard plastic or metal container).

Base

The location at which primary Logistics functions for an incident are coordinated and administered. There is only one Base per incident. (Incident name or other designator will be added to the term Base.) The Incident Command Post may be co-located with the Incident Base.

Base Leg

The leg of the bombing circuit immediately preceding and perpendicular to the final leg.

Base/Camp Manager (BCMG)

The person responsible for appropriate sanitation and facility management services in the assigned Base or Camp.

Batch Mix

Manually adding one suppressant ingredient to another to develop the final product. Batching can involve a powder and a liquid or two liquids. For foams, it is the process of manually pouring foam concentrate into water to make a foam solution. Foam is produced when the solution is pumped down a hose and out an aspirating nozzle. For fire retardants it is the process of adding powder to a measured amount of water and mechanically agitating it to produce fire retardant.

Batch Mixer

The container in which batching is done. In retardant mixing operations, it is a tank, usually 4550 litres (1,000 gallons), in which powdered retardant and water are mixed together by mechanical means to produce the final product.

Bay

That portion of a fire edge, usually between fingers, where fire spread is slower. This pattern usually results from the forest fuel or slope being less conducive to fire spread in the area where the bay is formed.

Beaufort Wind Scale

A method for estimating wind speed based on the observation of visual indicators of wind effects (e.g. smoke drift, flag and tree movement). Suggested for use when an anemometer is lacking or is not in operating condition.

Birddog Aircraft

An aircraft carrying the person (Air Attack Officer) directing the fire bombing action on the fire.

Bladder

Portable, collapsible, soft material container, transported externally by helicopter and used to transport water. Often used for providing small water supply to field staff in remote locations. The sealed unit has filling and discharge ports, most often in a triangular shape and has built in straps with rings for hook up for slinging by helicopter.

Blow-Up

A somewhat sudden, and sometimes unexpected, major increase in rate of spread and head fire intensity sufficient to upset overall fire suppression action or plans. Blow-ups can result from small or large fire situations.

Bomb Run

The path the airtanker flies on the approach up to the target.

Bombs Away Now

A voice signal from the birddog on a Show Me Run to indicate target location. May be given as Bombs Away Now, Target Now, Start Now.

Branch

The organizational level having functional or geographical responsibility for major aspects of incident operations. A Branch is organizationally situated between the Section Chief and the Division or Group in the Operations Section, and between Section and Units in the Logistics Section. Branches are identified by the use of Roman numerals or by functional name.

Branch Director

The person responsible for implementing the portion of the Incident Action plan applicable to the assigned Branch.

Break

In airtanker operations, a command for an aircraft to immediately turn left or right.

Broadcast Burning

Intentional burning of debris on a designated unit of land, where the fuel has not been piled or windrowed, allowing fire to spread freely over the entire area.

Bucker

An individual who is certified to operate a chainsaw on trees already on the ground.

Buildup

The hourly increase in cumulus cloud cover over the course of a day; also can refer to the increase in resources on a given fire.

Buildup Index (BUI)

A numerical rating of the total amount of fuel available for combustion that combines the Duff Moisture Code and Drought Code.

Bullseye

An assessment that the aircraft drop was placed exactly where requested.

Burn Severity

Organic matter consumption from flaming and smouldering combustion, and the resulting ecosystem impacts. Can be assessed in the field or using satellite remote sensing techniques.

Burn Window

A time period within a short-term planning horizon in which the forecasted fire weather is within the previously determined range in order to proceed with a prescribed burn. Typically incorporating aspects of both atmospheric conditions such as the Initial Spread Index, as well as fuel dryness, such as the Buildup Index.

Burn-P3

Short for probability, prediction, and planning, Burn-P3 is a spatial fire simulation model that is used for land-management planning and wildland fire research. It uses the Canadian Wildland Fire Simulation Model to determine the ignition and spread of a very large number of fires in order to determine fire likelihood.

Burning Conditions

The state of the combined components of the fire

environment that influence fire behaviour and fire impacting a given fuel type. Usually specified in terms of such factors as fire weather elements, fire danger indexes, fuel load, and slope.

Burning Off

A fire suppression operation where fire is set to consume islands of unburned fuel inside the fire perimeter usually during mop-up operations

Burning Out

A fire suppression operation where fire is set along the inside edge of a control line or natural barrier to consume unburned fuel between the line and the fire perimeter, thereby reinforcing the existing line and speeding up the control effort. Generally a limited, small-scale routine operation as opposed to backfiring.

Burning Period

That part of each 24-hour day when fires are generally the most active. Typically, this is from mid -morning to sundown, although it varies with latitude and the time of year.

Burning Prescription

A written statement and/or list defining the objectives to be attained from prescribed burning, as well as the burning conditions under which fire will be allowed to burn, generally expressed as acceptable ranges of the various parameters, and the limit of the geographical area to be covered.

Burnover

An event in which a fire moves through a location or overtakes personnel or equipment where there is no opportunity to utilize escape routes and safety zones, often resulting in personal injury or equipment damage.

Bust

Several forest fires usually ignited by lightning striking simultaneously in the same region.

Byram's Fireline Intensity

See Fire Intensity.

Cache

A pre-determined complement of tools, equipment, and/or supplies stored in a designated location, available for incident use.

Called Shot

A drop technique whereby the birddog triggers the airtanker drop by voice command, saying “3, 2, 1, now”.

Camp

A geographical site within the general incident area, (separate from the Incident Base), equipped and staffed to provide sleeping, food, water, and sanitary services to incident personnel.

Campaign Fire

A fire of such size, complexity and/or priority that its extinction requires a large organization, high resource commitment, significant expenditure, and prolonged suppression activity.

Canadian Forest Fire Behaviour Prediction System (FBP)

A subsystem of the Canadian Forest Fire Danger Rating System. The FBP System provides quantitative outputs of fire behaviour characteristics for certain major Canadian fuel types and topographic situations.

Canadian Forest Fire Danger Rating System (CFFDRS)

The national system of rating fire danger in Canada. The CFFDRS includes all guides to the evaluation of fire danger and the prediction of fire behaviour such as the Canadian Forest Fire Weather Index System and Canadian Forest Fire Behaviour Prediction System.

Canadian Forest Fire Weather Index System

A component of the Forest Fire Danger Assessment Methodology. The components of the Canadian Forest Fire Danger Index Method provide a relative numerical assessment of the potential fire danger in a benchmark fuel type (a mature jack pine stand) and in flat terrain. The results are based solely on successive observations, measured with a suitable weather station at noon each day (12:00 noon solar time or 1:00 p.m. daylight time), of four (4) weather parameters: air temperature, relative humidity, wind speed and precipitation. The method described above is applied uniformly across Canada.

Canadian Interagency Forest Fire Centre (CIFFC)

Founded in 1982, CIFFC has a mandate to provide operational wildland fire management services to member agencies that will, by agreement, gather, analyse, and disseminate fire management information to ensure a cost effective sharing of resources; and actively promote, develop, refine, standardise, and provide services to member agencies that will improve wildland fire management in Canada.

Canadian Interagency Forest Fire Centre

Representative (CREP)

The CIFFC Representative (CREP) utilizes a variety of skills and abilities to provide coordination services between the CIFFC Duty Officer/Operations Manager and the Receiving Agency Duty Officer and their associated support staff, along with liaising with any Senior Agency Representative (SREP) and Agency Representative (AREPs) from assisting CIFFC member agencies.

Canadian Wildland Fire Simulation Model

A deterministic wildland fire growth simulation model based on the Canadian Forest Fire Danger Rating System. The model computes spatially-explicit fire behaviour and spread outputs given fuel, topography and weather inputs.

Cargo Dropping

The dropping of equipment or supplies from an aircraft in flight, with or without a parachute.

Cargo Net

A special net, approved by the Ministry of Transport, attached by a lanyard to a helicopter cargo hook and used to haul supplies.

Centrifugal Pump

A pump that expels water by centrifugal force through the ports of a circular impeller rotating at high speed. This type of pump allows the discharge line to be shut off while the pump is running.

Certification

A formal process by which a recognized individual or body (government or non-government) assesses and recognizes that an individual has demonstrated competence in a specific position or role.

Chain of Command

A series of command, control, executive, or management positions in hierarchical order of authority.

Charcoal Phase of Combustion

Charcoal phase or solid phase, is when the output of flammable gases from the material is too low for persistent presence of flame and the charred fuel does not burn rapidly (just glows) and later smoulders.

Charged Line

A line of fire hose filled with water under pressure.

Check-In

Process in which all responders, regardless of agency affiliation, must report in to receive an assignment in accordance with the procedures established by the Incident Commander.

Chicot

A standing dead tree or a dead limb of a tree that may endanger a worker.

Chief

The ICS title for individuals responsible for management of functional sections: Operations, Planning, Logistics, Finance/Administration.

Circuit Altitude

The highest altitude in the circuit the airtanker will attain during skimming operations.

Claims Specialist (CLMS)

The person who is responsible for managing all claims related activities (other than injury) for an incident.

Clerk (CLRK)

The person responsible for providing administrative support to any Section as assigned.

Clock Method

A means of referencing a target or point by using the clock direction.

Closed Area

An area in which specified activities or entry are temporarily restricted by agency legislation to reduce the risk of human-caused fire. In some jurisdictions a closed area is called a restricted travel zone or a restricted fire zone.

Cold Trailing

A method of determining whether or not a fire is still burning, involving careful inspection and feeling with the hand, or by use of a hand-held infrared scanner, to detect any heat source.

Combination Nozzle

Used for applying water as either a solid stream or a fixed spray pattern.

Combustion

A chemical oxidation-type process in which heat is produced (i.e. a substance is combined with oxygen). In the case of forest fires, living and dead fuels are converted to mainly carbon dioxide and water vapour, and heat energy is released very rapidly. Flaming

combustion is characterized by the movement of a visible flame through the fuel bed. On the other hand, smouldering or glowing combustion is generally associated with the residual burning of forest fuels following flaming combustion.

Command

The act of directing, ordering, or controlling by virtue of explicit legal, agency, or delegated authority.

Command Post

See Incident Command Post.

Command Staff

The Command Staff consists of the Information Officer, Safety Officer, and Liaison Officer. They report directly to the Incident Commander. They may have (an) Assistant(s), as needed.

Commissary Manager (CMSY)

The person responsible for commissary operations and security.

Common Terminology

Normally used words and phrases-avoids the use of different words/phrases for same concepts, consistency.

Communications

The concept by which all personnel assigned to an incident must have a quick, reliable, and tested way to communicate with others. This may be by direct radio contact, or through a lookout or other relay point. See LACES.

Communications Technician (COMT)

The person responsible for installing, maintaining, and tracking communications equipment.

Communications Unit

An organizational Unit in the Logistics Section responsible for providing communication services to an incident.

Communications Unit Leader (COML)

The person responsible for developing plans for the effective use of incident communications equipment and facilities; installing and testing communications equipment; supervising the Incident Communications Center; distributing communications equipment to incident personnel; and maintaining and repairing communications equipment.

Communications/Dispatch Centre

Agency or interagency dispatcher centres, 911 call centres, emergency control or command dispatch centres, or any naming convention given to the facility and staff that handles emergency calls from the public and communication with emergency management/response personnel.

Compacts

Formal working agreements among agencies to obtain mutual aid.

Compartmented Tank

An external or internal tank on an airtanker containing several different compartments, each with its own door. The doors may be opened individually, simultaneously or in sequence to affect a desired retardant or water pattern on the ground. Note that once a door opens the entire contents of that compartment are released.

Compensation Unit/Claims Unit

Functional unit within the Finance/Administration Section responsible for financial concerns resulting from property damage, injuries, or fatalities at the incident.

Compensation/Claims Unit Leader (COMP)

The person responsible for the overall management and direction of all administrative matters pertaining to compensation for injury and claims-related activities related to an incident.

Complex

Two or more individual incidents located in the same general area and assigned to a single Incident Commander or to Unified Command.

Compressed Air Foam System (CAFS)

A foam system which combines air under pressure with foam solution to create foam in the hose.

Conduction

Transfer of heat through solid matter.

Conflagration

A popular term for a large, fast- moving wildfire exhibiting many or all of the features associated with extreme fire behaviour.

Consequence

Outcome of an event affecting objectives.

Continuous Crown Fire

A high-intensity crown fire with a crown fraction burned

greater than 90 percent.

Control Line

A comprehensive term for all constructed or natural fire barriers and treated fire perimeter used to control a fire.

Control Time

The periods from initial attack until the fire is considered Under Control.

Convection

Transfer of heat by the movement of masses of hot air; the natural direction is upwards in the absence of any appreciable wind speed and/or slope.

Convection Column

The definable plume of hot gases, smoke, firebrands, and other combustion by-products produced by, and rising above, a fire.

Cooperating Agency

An agency supplying assistance other than direct operational, support functions, or resources, to the incident management effort.

Coordination Centre

A facility that is used for the coordination of agency or jurisdictional resources in support of one or more incidents.

Cost Unit

Functional unit within the Finance/Administration Section responsible for tracking costs, analysing cost data, making cost estimates, and recommending cost-saving measures.

Cost Unit Leader (COST)

The person responsible for collecting all cost data, performing cost-effectiveness analyses, and providing cost estimates and cost-saving recommendations.

Cost-Sharing Agreements

Agreements between agencies or jurisdictions to share designated costs related to incidents. Cost-sharing agreements are normally written but may also be oral between authorized agency or jurisdictional representatives at the incident.

Coupling

A cast or forged metal hose coupling that incorporates a universal coupling system with two external fitting lugs. Types: quick connect, external lug.

Cover Type

The designation of a vegetation complex according to its dominant species, age, and/or form.

Coverage Level

Represents the volume of water or retardant in U.S. gallons over a one hundred square foot area. e.g. Coverage level 4 equals an application rate of 4 U.S. gallons per 100 sq. ft of surface area.

Creeping

A fire spreading slowly over the ground, generally with a low flame.

Crew - Type 1 (CRW1)

The primary response force consisting of 3-20p meeting all the requirements of the Interagency Exchange Standards. Type 1 crews may be configured as Initial Attack (3-5p) or Expanded Attack (17-20p).

Crew - Type 2 (CRW2)

Crews intended for utilization on low to moderate intensity (HFI class 1-3) sustained action operations that meet all the requirements of the Type 2 Interagency Exchange Standards. Type 2 crews may be configured in any range from 4-20p.

Crew - Type 3 (CRW3)

Crews intended for utilization in a mop-up situation to completely extinguish a wildland fire or part of a wildland fire that has been fully contained. Type 3 crews meet all the requirements of the Type 3 Interagency Exchange Standards and may be configured in any range from 4-20p.

Crew Leader - Type 1 (CRL1)

The person who is the primary supervisor in command of usually 2 to 20 Type 1 crew members and responsible for their performance, safety, and welfare while maintaining the span of control.

Crew Leader - Type 2 (CRL2)

A wildfire crew leader is the primary supervisor in command of usually 2-20 Type 2 crew members and responsible for their performance, safety and welfare, while maintaining span of control.

Crew Leader - Type 3 (CRL3)

A wildfire crew leader is the primary supervisor in command of usually 2-20 Type 3 crew members and responsible for their performance, safety and welfare, while maintaining span of control.

Crew Member - Type 1 (CRM1)

A wildfire crew member is used in the control or suppression of a wildfire, and works as a member of a Type 1 wildfire crew

Crew Member - Type 2 (CRM2)

A wildfire crew member is used in the control or suppression of a wildfire, and works as a member of a Type 2 wildfire crew

Crew Member - Type 3 (CRM3)

A wildfire crew member is used in the control or suppression of a wildfire, and works as a member of a Type 3 wildfire crew.

Crossover

The point at which the relative humidity is less than, or equal to, the ambient air temperature. May be used as an indicator of extreme burning conditions.

Crosswind Leg

In airtanker operations, the leg of the circuit over a bombing target that precedes the downwind leg.

Crown Base Height

The height, above ground, where the live crown of coniferous trees begins.

Crown Fire

A fire that advances through the crown fuel layer, usually in conjunction with a surface fire.

Crown Fraction Burned (CFB)

The proportion of tree crowns involved in the fire in a given area. Between 10 and 89 percent is considered an intermittent crown fire, while over 90 percent is a continuous crown fire.

Crown Fuels

The standing and supported forest combustibles not in direct contact with the ground that are generally only consumed in crown fires (e.g. foliage, twigs, branches, cones).

Crown Scorch

Browning of the needles or leaves in the crown of a tree or shrub caused by the heat rising above a surface fire as a result of convection.

Crowning

A fire ascending into the crowns of trees and spreading from crown to crown.

Daily Severity Rating (DSR)

A numerical measure, based on the Fire Weather Index (FWI), specifically designed for averaging over any desired period of time (e.g. week, month, year), at either a single fire weather station or spatially over a number of stations.

Damage Appraisal

A method of determining financial or other losses resulting from a wildfire.

Danger Tree

A tree that is hazardous because of location or lean, physical damage, overhead hazards, deterioration of the limbs, stem or root system, or any combination thereof.

Degree of Curing

The proportion of cured and/or dead plant material in a grassland fuel complex.

Delayed Aerial Ignition Device (DAID)

An incendiary device producing a chemical reaction which, when dropped from a flying aircraft, will ignite after a predetermined elapsed time.

Delegation of Authority

A statement provided to the Incident Commander by the Agency Executive delegating authority and assigning responsibility. The Delegation of Authority can include objectives, priorities, expectations, constraints, and other considerations or guidelines as needed. Many agencies require written Delegation of Authority to be given to Incident Commanders prior to their assuming command on larger incidents.

Demobilization

The orderly, safe, and efficient return of an incident resource to its original location and status.

Demobilization Unit

Functional unit within the Planning Section responsible for assuring orderly, safe, and efficient demobilization of any incident resources to the original location and status.

Demobilization Unit Leader (DMOB)

The person responsible for preparing the Demobilization Plan and schedule, ensuring an orderly, safe, and efficient movement of personnel and equipment from the incident.

Density Altitude

Altitude as determined by pressure altitude and existing air temperature. Density altitude is used as an index to aircraft performance characteristics such as take-off distance and rate of climb.

Department Coordination Centre (DCC)

A coordination centre specific to a single department or agency. The focus of a DCC is on internal department/agency management, coordination of the department/agency's response to an incident, and continuity of the services they provide. DCCs are usually linked to the ECC appropriate to their jurisdiction/entity. In smaller departments a DCC may be physically co-located in or represented by authorized personnel of the department/agency who are working in the local ECC.

Depth of Burn (DOB)

The reduction in forest floor thickness due to consumption by fire. Recommended unit is centimetres (cm).

Deputy

A fully qualified individual who, in the absence of a superior, can be delegated the authority to manage a functional operation or perform a specific task. In some cases, a Deputy can act as relief for a superior, and therefore must be fully qualified in the position. Deputies generally can be assigned to the Incident Commander, General Staff, and Branch Directors.

Detection Aircraft

An aircraft deployed for the express purpose of discovering, locating, and reporting wildfires.

Detection Pattern

A predetermined flight plan for detection aircraft.

Dew Point Depression

The difference in degrees between the air temperature and the dew point. Recommended unit is degrees Celsius.

Dew Point Temperature

The temperature to which air must be cooled to reach saturation at a constant atmospheric pressure. The dew point is always lower than the wet-bulb temperature which in turn is always lower than the dry-bulb temperature. The only exception to this occurs when the air is saturated (i.e. relative humidity is 100 percent), in which case all three are equal. Recommended unit is degrees Celsius.

Difficulty of Control

The amount of effort required to contain and mop up a fire based on its behaviour and persistence as determined by the fire environment.

Direct Attack

The fire is attacked immediately adjacent to the burning fuel; action is taken directly on the active flame front. Burning fuels are separated from unburned fuels.

Director

The ICS title for individuals responsible for the supervision of a Branch.

Discovery

Determination that a fire exists at a specific location; in contrast to action related to detection, reporting of the fire is not required.

Discovery Time

The period from the start of a fire (estimated or known) until the time the fire was discovered.

Dispatch

The ordered movement of a resource or resources to an assigned operational mission or an administrative move from one location to another.

Dispatcher (DISP)

The person responsible for notifying resources to assigned incidents.

Divert

The action of changing assignment from one target or fire to another.

Division

The partition of an incident into geographical areas of operation. Divisions are established when the number of resources exceeds the manageable span of control of the Operations Chief. A division is located within the ICS organization between the Branch and resources in the Operations Section.

Division Supervisor (DIVS)

The person responsible for supervising equipment and personnel assigned to a division. Reports to a Branch Director or Operations Section Chief.

Documentation Unit

Functional unit within the Planning Section responsible for collecting, recording, and safeguarding all documents relevant to the incident.

Documentation Unit Leader (DOCL)

The person responsible for maintaining accurate and complete incident files, providing duplication services to incident personnel, and packing and storing incident files.

Door Interval

The time delay between doors for any drop sequence.

Door Length

The distance actually covered by a single door of the load on the ground.

Double Door

A technique whereby two doors are opened simultaneously from a compartmentalized tank.

Double Door Salvo

A technique whereby two doors are opened simultaneously.

Downwind Leg

The leg of the bombing circuit immediately preceding and perpendicular to the base leg.

Dozer Boss (DOZB)

The person responsible to lead a single bulldozer and attached personnel and is responsible for their safety on wildland and prescribed fire incidents.

Drift

Advice or indication that a wind condition exists of sufficient velocity to significantly affect aerial drop placements and that a correction factor must be allowed for wind drift.

Drift Smoke

Smoke that has drifted from its origin and has lost any column structure.

Drip Torch

A hand-held incendiary device that releases slow-burning flaming fuel at a predetermined rate.

Drop Height

The height of the airtanker at load release, usually given in feet above the tree canopy.

Drop Leg

A part of the airtanker circuit. The approach and departure from the target.

Drop Point

A predefined location where personnel, equipment, and supplies will be delivered, stored, or picked up. Usually sequentially numbered.

Drop Sequence

The order and method in which the doors are opened.

Drop Zone

The area immediately surrounding or adjacent to the airtanker intended target.

Drought

A period of relatively long duration with substantially less than normal precipitation, occurring usually over a wide area.

Drought Code (DC)

A numerical rating of the average moisture content of deep, compact organic layers. This code indicates seasonal drought effects on forest fuels, and the amount of smouldering in deep duff layers and large logs.

Dry Adiabatic Lapse Rate

A meteorological term referring to the rate of decrease of temperature with height of a parcel of dry air ascending in the atmosphere without mixing or heat exchange. A typical value is approximately 1 degree Celsius per 100 metres of altitude. Conversely, dry air descending in the atmosphere warms at the same rate.

Dry Foam

A type of foam with very thin bubble walls and only small amounts of solution between the bubbles. These types of foams have very slow drainage rates.

Dry Lightning Storm

A thunderstorm with negligible precipitation reaching the ground.

Dry-Bulb Temperature

The temperature registered by a dry-bulb thermometer, and identical to the temperature of the air in the normal sense. Recommended unit is degrees Celsius.

Duff

The layer of partially and fully decomposed organic materials lying below the litter and immediately above the mineral soil. It corresponds to the fermentation (F) and humus (H) layers of the forest floor. When moss is present, the top of the duff is just below the green

portion of the moss.

Duff Moisture Code (DMC)

A numerical rating of the average moisture content of loosely compacted organic layers of moderate depth. This code indicates the fuel consumption in moderate duff layers and medium-sized woody material.

Early

In airtanker operations, advice that the drop is to be or was triggered short of a designated point.

Ecosystem Impacts

Disturbance characteristics such as portion of vegetation killed or damaged, effects on soil organisms, and post-fire regeneration patterns.

Eductor

A proportioning device using vacuum created by a liquid moving through a hose line to draw another liquid into the stream.

Effective Wind Speed

The sum of the vectors of the 10-m open wind speed and the slope equivalent wind speed.

Elliptical Fire Growth Model

A model of a free-burning point source fire with an elliptical shape. Assumptions include uniform and constant fuels, homogeneous topography, constant but non-zero wind, and no suppression.

Emergency Coordination Center (ECC)

The physical location at which the coordination of information and resources to support incident management (on-scene operations) activities normally takes place. An ECC may be a temporary facility or may be located in a more central or permanently established facility, perhaps at a higher level of organization within a jurisdiction. ECCs may be organized by major functional disciplines (e.g., fire, law enforcement, and medical services), by jurisdiction or some combination thereof. Sometimes referred to as Emergency Operations Centres (EOC).

Emergency Dump

Release of an aircraft's entire load due to an emergency.

Emergency Fire Fighter (EFF)

Personnel other than regular employees or seasonally employed crews, hired on a casual basis for presuppression and suppression related work activities.

Emergency Management

The management of emergencies concerning all-hazards, including all activities and risk management measures related to prevention and mitigation, preparedness, response and recovery.

Emergency Management Coordinator/Director

The individual within each political subdivision that has coordination responsibility for jurisdictional emergency management.

Emergency Management/Response Personnel

Includes Federal, Provincial, Territorial, and local governments, First Nations, private-sector organizations, critical infrastructure owners and operators, nongovernmental organizations, and all other organizations and individuals who assume an emergency management role. Also known as emergency responders.

Emergency Operations Centre (EOC)

The physical location at which the coordination of information and resources to support incident management (on-scene operations) activities normally takes place. An EOC may be a temporary facility or may be located in a more central or permanently established facility, perhaps at a higher level of organization within a jurisdiction. EOCs may be organized by major functional disciplines (e.g., fire, law enforcement, medical services), by jurisdiction (e.g., federal, provincial, regional, municipal), or by some combination thereof. Sometimes referred to as Emergency Coordination Centre (ECC).

Emergency Operations Plan

The ongoing plan maintained by various jurisdictional levels for responding to a wide variety of potential hazards.

Emergency Public Information

Information that is disseminated primarily in anticipation of an emergency or during an emergency. In addition to providing situational information to the public, it also frequently provides directive actions required to be taken by the general public.

Engine

Specialized truck on which is mounted a water tank, pump, hose and supplementary equipment. It is used to bring a self contained water source to a fire with the capability of pumping water through a hose line directly

from the tank to a fire.

Engine - Type 3

An engine equipped with a 150 gallons per minute pump at 250 psi, capacity over 500 gallons and 500 ft of 1.5 inch hose.

Engine - Type 4

An engine equipped with a 50 gallons per minute pump at 100 psi, capacity over 750 gallons and 300 ft of 1.5 inch hose.

Engine - Type 5

An engine equipped with a 50 gallons per minute pump at 100 psi, capacity 400 to 700 gallons and 300 ft of 1.5 inch hose.

Engine - Type 6

An engine equipped with a 30 gallons per minute pump at 100 psi, capacity 150 to 400 gallons and 300 ft of 1.5 inch hose.

Engine - Type 7

An engine equipped with a 10 gallons per minute pump at 100 psi, capacity 50 to 200 gallons and 200 ft of 1.5 inch hose.

Engine Boss (ENGB)

The person that leads a single fire engine and attached personnel and is responsible for their safety on wildland and prescribed fire incidents.

Engine Operator (ENOP)

The person responsible for the safe and efficient use of a wildland fire engine on an incident.

Entrapment

A situation where personnel are unexpectedly caught in a fire behaviour-related position where planned escape routes or safety zones are absent, inadequate, or compromised. These situations may or may not result in injury.

Equilibrium Moisture Content (EMC)

The moisture content that a fuel element would attain if exposed for an infinite period in an environment of specified constant dry-bulb temperature and relative humidity. When a fuel element has reached its EMC, it neither gains nor loses moisture as long as conditions remain constant.

Equipment Time Recorder (EQTR)

The Equipment Time Recorder is responsible for tracking and posting equipment time on an incident.

Escape Route

A pre-determined route that can be used by anyone in the event that a fire begins an unexpected run that will jeopardize the safety of crews or anyone else on the fire line. The escape route will take everyone to another pre-determined location (safety zone).

Escaped Fire

A wildfire (or prescribed fire that has burned beyond its intended area) that remains not under control following initial attack.

Escaped Fire Analysis

The process of deciding what action to take on an escaped fire. This involves a review and analysis of the threats to public safety, values, resource management objectives, probable fire effects, existing fire load, present and anticipated fire behaviour, availability of fire suppression resources, probability of successful control, and feasible fire suppression methods.

Evacuation

Organized, phased, and supervised withdrawal, dispersal, or removal of civilians from dangerous or potentially dangerous areas, and their reception and care in safe areas.

Excursion

An unplanned but acceptable enlargement of the area intended to be treated with prescribed fire which does not greatly affect any values and involves a minimum of suppression effort.

Expanded Attack

The actions taken on a wildland fire that has exceeded the initial attack.

Expanded Attack Crew

Personnel trained, equipped, and deployed to conduct suppression action to halt the spread or potential spread of a wildland fire that has exceeded the initial attack. Expanded attack reflects the highest and best use of Type 1 firefighters configured as an EA crew.

Expendable Equipment

Items that cannot be reused, refurbished, or recycled.

Exposure

Proportion of amount of a value that interacts with a hazard. Exposure is a function of time and distance based on the physical process being considered (i.e. ember transport versus radiant heating).

Extend

In airtanker operations, either (1) An instruction to aircraft to tag on and continue the line in the required direction; or (2) Instruction to extend a circuit, leg or bomb run beyond a designated point.

Extreme Fire Behaviour

A level of fire behaviour that often precludes any fire suppression action. It usually involves one or more of the following characteristics: high rate of spread and head fire intensity, crowning, prolific spotting, presence of large fire whirls, and a well-established convection column. Fires exhibiting such phenomena often behave in an erratic and dangerous manner.

Facilities Unit

Functional unit within the Support Branch of the Logistics Section that provides fixed facilities for the incident. These facilities may include the Incident Base, feeding areas, sleeping areas, sanitary facilities, etc.

Facilities Unit Leader (FACL)

The person responsible for laying out and operating incident facilities (Base, Camp(s), and ICP) and managing Base and Camp operations. Each Base and Camp may be assigned a manager.

Faller (FALL)

A person who is qualified under workplace regulations to fall non-danger trees on an incident.

False Smoke

Any phenomenon mistaken for smoke.

Field Observer (FOBS)

The person responsible for collecting incident status information from personal observations at the incident and providing this information to the activated function, or other resources.

Final Leg

A low-level route to the target in which the airtanker intends to make the drop. The final leg is the last leg of the bombing circuit, perpendicular to the base leg.

Finance/Administration Section

The Section responsible for all administrative and financial considerations surrounding an incident.

Finance/Administration Section Chief (FSC)

The person responsible for all financial, administrative, and cost analysis aspects of the incident and for supervising members of the Finance/Administration Section.

Fine Fuel Moisture Code (FFMC)

A numerical rating of the moisture content of litter and other cured fine fuels. This code indicates the relative ease of ignition and flammability of fine fuel.

Fine Fuels

Fuels that dry quickly, ignite readily, and are consumed rapidly by fire. Examples include: cured grass, fallen leaves, needles, and small twigs.

Finger

Burned areas projecting from the main body of the fire resulting in an irregular fire perimeter. See Parts of a Fire.

Fire

(1) Simultaneous release of heat, light, and flame, generated by the combustion of flammable material. (2) In a wider sense, any outbreak of fire.

Fire Analysis

Review of fire management actions taken with respect to a specific fire, group of fires, or fire season in order to identify reasons for effective and ineffective actions and to recommend or prescribe ways and means of doing a more efficient job.

Fire Axe

A single bit fire line axe with a wooden or fiberglass handle. The style of the axe head is commonly referred to as the "Dayton" pattern.

Fire Behaviour

The manner in which fuel ignites, flame develops, and fire spreads and exhibits other related phenomena as determined by the interaction of fuels, weather, and topography.

Fire Behaviour Analyst (FBAN)

A specialist position under the planning function of a fire incident management team, responsible for making predictions of probable fire behaviour based on an analysis of the current and forecasted state of the fire environment.

Fire Behaviour Rank

A ranking scale to describe fire behaviour based on a set of visual indicators.

Fire Behaviour Triangle

An instructional aid in which the sides of an equilateral

triangle represent the three interacting components of the fire environment that are responsible for fire behaviour (i.e. fire weather, fuels, and topography).

Fire Benefits

Any effect(s) of fire that are favourable or beneficial in terms of the attainment of forest management and other land use objectives.

Fire Bust

Several forest fires usually ignited by lightning striking simultaneously in the same region.

Fire Cache Manager (FCMG)

The person responsible for the supervision of the supply of fire equipment assembled in planned quantities or at a strategic location.

Fire Cause

Categories based on the cause of wildfires divided into: Natural (Lightning, Natural Other), Human (Forest Industry, Incendiary, Human Other, Other Industry/Government, Railroads, Recreation, Resident), and Undetermined.

Fire Cause - Human - Forest Industry

A wildfire caused by people or machines engaged in any activity associated with forest product production.

Fire Cause - Human - Human Other

A wildfire of known human cause that cannot be properly classified under any of the other standard human classes listed.

Fire Cause - Human - Incendiary

A wildfire wilfully started for the purpose of mischief, grudge, or illegitimate gain.

Fire Cause - Human - Other Industry / Government

A wildfire caused by industrial operations other than forest industry or railroads. Includes municipal, provincial, or federal works projects whether employees, agents, or contractors.

Fire Cause - Human - Railroads

A wildfire caused by any machine, employee, agent, or contractor performing work associated with a railway operation, or a passenger on a train.

Fire Cause - Human - Recreation

A wildfire caused by people or equipment engaged in a recreational activity (e.g. vacationing, fishing, picnicking, non-commercial berry picking, hiking).

Fire Cause - Human - Resident

A wildfire resulting from activity performed by people or machines for the purpose of agriculture, or an accidental fire caused by activity associated with normal living in a forested area.

Fire Cause - Natural - Lightning

A wildfire caused directly or indirectly by lightning.

Fire Cause - Natural - Natural Other

A wildfire of known natural cause other than lightning.

Fire Cause - Undetermined - Undetermined

A wildfire of undetermined cause, including a wildfire that is currently under investigation, as well as one where the investigation has been completed.

Fire Climate

The composite pattern or integration over time of the fire weather elements that affect fire occurrence and fire behaviour in a given area.

Fire Cycle

The number of years required to burn over an area equal to the entire area of interest.

Fire Danger

A general term used to express an assessment of both fixed and variable factors of the fire environment that determine the ease of ignition, rate of spread, difficulty of control, and fire impact.

Fire Danger Class

A segment of a fire danger index scale identified by a descriptive term (e.g. Low, Moderate, High, Extreme), and/or a colour code. The classification system may be based on one or more fire danger indexes (e.g. the Buildup Index is sometimes used in addition to the Fire Weather Index).

Fire Danger Index

A quantitative indicator of one or more facets of fire danger, expressed either in a relative sense or as an absolute measure; often used as a guide in a variety of fire management activities (e.g. to judge day-to-day preparedness and suppression requirements, as a basis for providing information on fire danger to the general public in fire prevention, as an aid to prescribed burning).

Fire Danger Rating

The process of systematically evaluating and integrating the individual and combined factors influencing fire danger represented in the form of fire danger indexes.

Fire Dependent Ecosystems

An ecosystem can be considered fire dependent if periodic fire is essential for maintaining the character, diversity and vigour of the intrinsic plant and animal communities.

Fire Detection

A system for, or the act of, discovering, locating, and reporting wildfires

Fire Ecology

The study of the relationships between fire, the physical environment, and living organisms.

Fire Edge

See fire perimeter.

Fire Effects

Physical, biological and ecological changes to resources and assets caused by fire, whether immediate or long-term. May be detrimental, beneficial, or benign.

Fire Effects Value Appraisal

Determination of the net gains or losses resulting directly or indirectly from forest fires, expressed in monetary or other terms, based on a systematic assessment of fire benefits and impacts.

Fire Environment

The surrounding conditions, influences, and modifying forces of topography, fuel, and fire weather that determine fire behaviour.

Fire Environment Triangle

See fire triangle.

Fire Equipment Cache

A supply of firefighting tools and equipment in planned quantities or standard units at a strategic point for exclusive use in fire suppression.

Fire Frequency

The average number of fires that occur per unit time at a given point.

Fire Front

The strip of primarily flaming combustion along the fire perimeter; a particularly active fire edge. Fine fuels typically produce a narrow fire front, whereas dry, heavy fuels produce a wider zone or band of flames.

Fire Hazard

A general term to describe the potential fire behaviour, without regard to the state of weather-influenced fuel moisture content, and/or resistance to fireguard construction for a given fuel type. This may be expressed in either the absolute (e.g. cured grass is a fire hazard) or comparative (e.g. clear-cut logging slash is a greater fire hazard than a deciduous cover type) sense. Such an assessment is based on physical fuel characteristics (e.g. fuel arrangement, fuel load, condition of herbaceous vegetation, presence of ladder fuels).

Fire History

The study and/or compilation of evidence (e.g. historical documents, fire reports, fire scars, tree growth rings, charcoal deposits) that records the occurrence and effects of past wildfires for an area.

Fire Impacts

The immediately evident effect of fire on the ecosystem in terms of physical, biological and ecological alterations.

Fire Intensity

The amount of heat or energy released per unit length of fire front. Frontal fire intensity is a major determinant of certain fire effets and difficulty of control. Numerically, it is equal to the product of the net heat of combustion, the quantity of fuel consumed in the flaming front, and the linear rate of spread.

Fire Intensity Class

Ranges in Byram's fireline intensity exhibiting similar levels of fire behaviour and implications for fire suppression. In the CFFDRS Fire Behaviour Prediction System, six classes have come to be commonly recognized (i.e., <10, 10-500, 500-2000, 2000-4000, 4000-10,000 and >10,000 kW/m).

Fire Interval

The average number of years between the occurrence of fires at a given point.

Fire Investigator (FINV)

The person responsible for determining the origin, cause and development of a wildland fire.

Fire Load

The number and magnitude (i.e. fire size class and head fire intensity) of all fires requiring suppression action during a given period within a specified area.

Fire Management Decision Support System

A generic term for the various systems used by fire management agencies in Canada that employ computer software designed to facilitate the storage, compilation, analysis and display of fire intelligence data and other related information on the fire environment, fire suppression resources, fire occurrences, values at risk, etc. in support of planning and daily operational decision making with respect to wildfires and prescribed fires.

Fire Management Plan

A statement of policy and prescribed actions with respect to a specific area (may include maps, charts, and statistical data).

Fire Management Planning

The systematic, technological, and administrative management process of determining the organization, facilities, resources, and procedures required to protect people, property, and forest areas from fire and to use fire to accomplish forest management and other land use objectives.

Fire Occurrence

The number of fires started in a given area over a given period of time

Fire Pattern Indicator

A physical object that displays changes (fire effects) from exposure to heat, flame, and combustion by-products that can reveal the direction of fire progression at a precise location with accurate analysis. A fire pattern indicator is a single component of the overall fire pattern.

Fire Perimeter

The entire outer edge boundary of a fire.

Fire Prevention

Activities directed at reducing fire occurrence; includes public education, law enforcement, personal contact, and reduction of fire hazards and risks.

Fire Progression Map

A map maintained to show at given times the location of the fire perimeter and spot fires, deployment of resources, and fire suppression activities (e.g. constructed fireguard).

Fire Rake

A long-handled combination rake and cutting tool, the blade of which is made up of a single row of mowing-machine cutter teeth. Useful for trenching, scraping, and cutting, particularly in leaves, pine needles, and light duff.

Fire Regime

The kind of fire activity or pattern of fires that generally characterize a given area. Some important elements of the characteristic pattern include fire cycle or fire interval, fire season, and the number, type, and intensity of fires.

Fire Report

An official report of a fire, generally including information on cause, location, action taken, damage, and costs from start of the fire until completion of suppression action. The report is usually accompanied by a map of the burn. These reports vary in form and detail from agency to agency.

Fire Response - Full Response (FUL)

A wildfire which requires immediate, aggressive initial attack and/or sustained suppression action until the fire is declared out. See Fire Response type.

Fire Response - Modified Response (MOD)

A wildfire that is managed using a combination of suppression techniques, including direct and indirect attack as well as monitoring to steer, contain or otherwise manage fire activity within a pre-determined perimeter such that costs and/or damage are minimized and/or benefits from the fire are maximized. See Fire Response type.

Fire Response - Monitored Response (MON)

A wildfire that is periodically observed and assessed to determine the response option required to minimize social disruption and/or significant value and resource impacts while achieving beneficial ecological, cultural, economic, or resource management objectives. This fire may be monitored through its entire lifecycle or be recategorized to another response type based on its potential impacts. See Fire Response type.

Fire Response Type

A category indicating the response to the fire, divided into one of three categories including a three letter code: Full response (FUL), Modified Response (MOD), and Monitored Response (MON).

Fire Retardant

A substance that physically or chemically reduces the flammability of fuels. There are two (2) types: short-term retardant and long-term retardant.

Fire Run

A term normally associated with the rapid advance of a wildfire characterized by a marked increase in rate of spread and a corresponding increase in head fire intensity with respect to that seen before and following the event.

Fire Scar

An injury or wound on a tree caused or accentuated by fire.

Fire Scouting

Reconnaissance of a fire and its surroundings by any means to obtain fire intelligence information.

Fire Season

The period(s) of the year during which fires are likely to start, spread, and do damage to values at risk sufficient to warrant organized fire suppression; a period of the year set out and commonly referred to in fire prevention legislation. The fire season is usually further divided on the basis of the seasonal flammability of fuel types (e.g. spring, summer, and fall).

Fire Severity

Characteristic of the fire regime. Fire severity refers to the effects of fire on the quality of the seedbed and on the underground parts of the plants that trigger regeneration after fire. It is related to the depth of burning, fire intensity, residence time, etc.

Fire Shovel

A type of shovel specifically designed for use in constructing a fire line, having a tapered blade with both edges sharpened. Used for scraping, digging, grubbing, throwing and cutting.

Fire Simulator

A training device that imposes simulated fire and smoke and depictions of fire suppression measures on a projected landscape scene to instruct fire management personnel in different fire situations and fire suppression techniques.

Fire Situation Map

A map used by fire management personnel to locate and plot wildfires, whether they are reported, burning, or out.

Fire Size Class

A classification of fire area, independent of fire typing through the Incident Command System. Type A (less than 0.1 ha); Type B (0.11 to 1.0 ha); Type C (1.1 to 10 ha); Type D (10.1 to 100 ha); Type E (100.1 to 1,000 ha); Type F (1,000.1 to 10,000 ha); Type G (10,000.1 to 100,000 ha); Type H (over 100,000 ha).

Fire Storm

A large continuous area of intense burning characterized by violent fire-induced convection resulting in gale-force indraft surface winds near and beyond the fire perimeter, a towering convection column, and the occurrence of large fire whirls.

Fire Suppression

All activities concerned with controlling and extinguishing a fire following its detection.

Fire Triangle

An instructional aid in which the sides of an equilateral triangle represent the three factors necessary for combustion and flame production (i.e. oxygen, heat, and fuel). When any one of these factors is removed, flame production is not possible or ceases.

Fire Types - Type 1

All functions are filled, plus leaders, branches etc. Multi -agency and national resources; Large number of personnel and equipment are assigned to the incident. It is a large, complex incident. See Incident - Type 1.

Fire Types - Type 2

Incident Commander spends all time being a manager; most Command and General staff positions are filled; Large number of resources utilized; incident extends into multiple operational periods; Base Camp(s) established; significant logistical support is required. See Incident - Type 2.

Fire Types - Type 3

Extended initial attack on wildland fires; Incident Commander walks the line between a manager and a "doer"; resources may vary from several single resources to several task forces or strike teams; some Command/General Staff positions (i.e. Division Supervisor, Unit Leader) may be filled; may extend into another operational period (12 hours) and require an IAP. See Incident - Type 3.

Fire Types - Type 4

Initial attack or first response to an incident; Incident Commander is a hands on leader and performs all

functions of Operations, Logistics, Planning, and Finance; few resources are used (several individuals or a single strike team); normally limited to one operational period; does not require a written Incident Action Plan. See Incident - Type 4.

Fire Types - Type 5

A fire undergoing initial attack; short duration, seldom lasting into the next burning period; few resources assigned (generally fewer than 6 people); little complexity. See Incident - Type 5.

Fire Use

See Prescribed Burning.

Fire Weather

Collectively, those weather parameters that influence fire occurrence and subsequent fire behaviour(e.g. dry-bulb temperature, relative humidity, wind speed and direction, precipitation, atmospheric stability, winds aloft).

Fire Weather Forecast

A prediction of the future state of the atmosphere prepared specifically to meet the needs of fire management in fire suppression and prescribed burning operations. Two types of forecasts are most common: The zone or area weather forecast is issued on a regular basis during the fire season for a particular geographical region and/or one or more fire weather stations. These regions are delineated on the basis of fire climate and/or administrative considerations. A spot weather forecast is issued to fit the time, topography, and weather of a specific campaign fire location or prescribed fire site. These forecasts are issued on request and are more detailed, timely, and specific than zone or area weather forecasts.

Fire Weather Index

A numerical rating of fire intensity that combines the Initial Spread Index and Buildup Index. It is suitable as a general index of fire danger throughout the forested areas of Canada.

Fire Whirl

A spinning, moving column of hot air and gases rising up from a fire and carrying aloft smoke, debris, flame and firebrands. These range from less than one metre to several hundred metres in diameter. They may involve the entire fire area or only hot spots within or outside the fire perimeter.

Firebrand

An airborne piece of flaming or smouldering material capable of acting as an ignition source.

Fireguard

A strategically planned barrier, either manually or mechanically constructed, intended to stop or retard the rate of spread of a fire, and from which suppression action is carried out to control a fire. It is the constructed portion of a control line.

Fireline

That portion of the fire upon which resources are deployed and are actively engaged in the incident. In a general sense, the working area around a fire.

Fireline Workwear

Protective workwear such as, but not limited to, coveralls, trousers and shirts, designed to provide a degree of protection against the adverse effects of fire and radiant heat to the firefighter's body during wildland firefighting. Fireline workwear covers the body from the neck to the wrists and ankles and may or may not completely cover the neck. It does not include add-on accessories, such as, but not limited to belts, backpacks and external harnesses.

Firing Boss (FIRB)

The person leading ground and/or aerial ignition operations and coordinates with holding resources on wildland and prescribed fire incidents.

First Nations

A broad term for Canada's first peoples, including status and non-status, but not including Inuit or Métis peoples of Canada.

Fixed-Wing Base Manager (FWBM)

The person responsible for supervision and coordination at a fixed-wing base.

Flame Angle

The angle formed between the flame at the fire front and the ground surface, expressed in degrees.

Flame Depth

The width of the zone within which continuous flaming occurs behind the edge of a fire front.

Flame Height

The average maximum vertical extension of flames at the fire front; occasional flashes that rise above the general level of flames are not considered.

Flame Length

The length of flames measured along their axis at the

fire front; the distance between the flame height tip and the midpoint of the flame depth at the ground surface. Flame length is an approximate indicator of head fire intensity.

Flame Resistance/Flame Resistant

The property of a material whereby flaming combustion is slowed, terminated or prevented. Note: Flame resistance can be an inherent property of the basic fibre material, or can be imparted by a specific treatment or additive.

Flame-Retardant Treatment

The process or treatment whereby flame resistance characteristics are imparted onto a fabric or other component.

Flaming Combustion

The production of flames as part of the combustion process. Luminous oxidation of gases evolved from the rapid decomposition of fuel.

Flaming Front

The area of a moving fire where combustion is primarily flaming. The flaming front normally consists of the fire frontand the flaming zone.

Flammability

The relative ease with which a substance ignites and sustains combustion

Flank Fire

A fire spreading, or set to spread, at roughly right angles to the prevailing wind direction.

Flanks

Those portions of the fire perimeter that are between the head and the back of the fire which are roughly parallel to the main direction of spread. Right and left flanks are distinguished by looking from rear to head. See Parts of a Fire.

Flare-Up

A sudden, localized increase in head fire intensity within or along the fire perimeter requiring a temporary adjustment in suppression action in order to avoid a possible blowup condition. Unlike a blowup, a flare-up is of relatively short duration and does not radically change existing control plans.

Flashover

The rapid combustion and/or explosion of trapped, unburned gases; usually occurs in poorly ventilated areas. The flashover phenomenon is normally associated with structural or urban fires, however, it can occur in forest fires (although rare) when gases are trapped in topographic pockets or accumulate over a broad area when there is a temporary lull in air movement.

Flow Tank

A type of tank using an onboard computer to open and close a set of two doors to restrict the release of the tank contents to achieve a desired coverage level on the ground. The tank usually contains just one compartment. ‘Variable’ refers to the ability of the doors to fluctuate their aperture during the drop to account for varying head pressures in that tank; ‘Constant flow’ refers to that fluctuation producing a consistent coverage level on the ground.

Foam

A product that relies primarily on the water it contains for firefighting. These products contain foaming agents which create air bubbles when aerated, and wetting agents which allow the fluid that drains from the foam bubbles to be easily absorbed by fuel, soil and other materials that it comes in contact with.

Foam - Class A

Foam intended for use on woody fuels. Made from hydrocarbon-based surfactants possessing excellent wetting properties, it is also biodegradable.

Foam - Class B

Foam designed for use on flammable liquid fires.

Foam Blanket

A layer of foam which forms an insulating and reflective barrier from heat and is used for fuel protection and property.

Foam Concentrate

The concentrated foaming agent as received from the manufacturer, containing a surfactant, corrosion inhibitor, and stabilizers.

Foam Generation

The transformation of a foam solution into foam by the addition of air to the solution.

Foam Solution

A homogeneous mixture of water and foam concentrate to which air is added to produce foam. Foam solution has no real bubble structure but some bubble formation may occur due to agitation and impact.

Foliar Moisture Content

The percentage moisture content by weight of live conifer needles of trees at least 1-year old.

Food Unit

Functional unit within the Service Branch of the Logistics Section responsible for providing meals for incident personnel.

Food Unit Leader (FDUL)

The person responsible for determining feeding requirements at all incident facilities and for menu planning, determining cooking facilities required, food preparation, serving, providing potable water, and general maintenance of the food service areas.

Forest Closure

An official order by a designated authority to close a specified forest area. Usually provided for in fire prevention legislation.

Forest Fire

Variously defined for legal purposes. Types of forest fires are ground, surface and crown.

Forest Floor

The organic surface component of the soil supporting forest vegetation; the combined duff (if present) and litter layers.

Forest Protection

That branch of forestry concerned with the prevention and control of damage to forests from fire, insects, disease, and other harmful agents.

Forestry Hose

Conveys water under positive and sometimes negative pressure from the fire pumping unit to the outlet, normally affixed with standardized couplings or connectors. Classified as percolating or non-percolating hose.

Forwarder Unit

(1) A self-contained unit consisting of a water tank, fire pump, and hose specially designed to be carried on a logging forwarder for use in fire suppression. (2)The term usually applies to the special attachments, but it may also refer to the attachments and logging forwarder together.

Free Burning

A general term to describe the condition of a fire, or portion of a fire perimeter, that is unaffected by natural or man-made barriers to fire growth and/or any suppression measures taken.

Free Dropping

Open door work from a helicopter which entails a competent person dropping packaged (securely boxed and bagged) hose outside the helicopter at a hover in a safe manner as to not create any hazard to persons or property below. Packaged fire hose is the only item to be free dropped.

Front

In meteorology, the boundary between two air masses of different density. A cold front represents the leading edge of colder air replacing warmer air; the reverse of this is a warm front.

Fuel

Any organic material that can ignite and burn; it can be divided into three broad levels: ground, surface and aerial.

Fuel Appraisal

The process of first describing the fuel type characteristics and secondly interpreting the fuel description in terms of potential fire behaviour on the basis of past experience, comparative methods, and mathematical models.

Fuel Arrangement

A general term referring to the horizontal and vertical distribution of all combustible materials within a particular fuel type.

Fuel Bulk Density

The dry weight of combustible materials per unit volume. Numerically, it is equal to fuel load divided by the depth of the particular fuel layer (e.g. duff, tree crown foliage). Recommended units are kilograms per cubic metre.

Fuel Complex

The type, quantity, condition, arrangement and continuity of fuel available to burn.

Fuel Description

A description of the fuel properties that are important for assessing potential fire behaviour (e.g. fuel arrangement, fuel load, fuel moisture content).

Fuel Load

The dry weight of combustible materials per unit area. Recommended units are kilograms per square metre (kg/m2) or tonnes per hectare (t/ha). 1.0 kg/m2 is equivalent to 10 t/ha.

Fuel Management

The planned manipulation and/or reduction of living or dead forest fuels for forest management and other land use objectives (e.g. hazard reduction, silvicultural purposes, wildlife habitat improvement) by prescribed fire; mechanical, chemical, or biological means; and/or changing stand structure and species composition.

Fuel Moisture Content

The amount of water present in fuel generally expressed as a percentage of the fuel's dry weight when thoroughly dried at 100 degrees Celsius.

Fuel Treatment

Handling or disposal of forest fuels to reduce the likelihood of fire, potential damage and resistance to control measures by delimbing, chipping, crushing, piling and burning.

Fuel Type

An identifiable association of fuel elements of distinctive species, form, size, arrangement, and continuity that will exhibit characteristic fire behaviour under defined burning conditions.

Fuelbreak

An existing barrier or change in fuel type (to one that is less flammable than that surrounding it), or a wide strip of land on which the native vegetation has been modified or cleared (fireguard), that acts as a buffer to fire spread so that fires burning into them can be more readily controlled. Often selected or constructed to protect a high value area from fire. In the event of fire, may serve as a control line from which to carry out suppressive operations.

Function

Refers to the five major activities in ICS: Command, Operations, Planning, Logistics, and Finance/Administration. The term function is also used when describing the activity involved, e.g., the planning function.

Gap

A weak or missed area in a retardant or suppressant line.

Gated Wye

A three-way hose line accessory permitting two lines of hose to be taken from a single supply line. Valves located in the discharge ports permit control of stream flow or shutting off one or both discharge lines.

General Staff

A group of incident management personnel organized according to function and reporting to the Incident Commander. The General Staff normally consists of the Operations Section Chief, Planning Section Chief, Logistics Section Chief, and Finance/Administration Section Chief. An Intelligence/Investigations Chief may be established, if required, to meet incident management needs.

Geographic Information System Specialist (GISS)

The person responsible for providing timely and accurate spatial information to the Situation Unit Leader about the incident to be used by all facets of the IMT.

Green Up

The appropriate time during the first half of the fire season in which deciduous trees and/or understory vegetation (e.g. grasses, herbs, shrubs) have more or less completed their flushing of new growth. This typically takes place in late spring/early summer.

Ground Effect

Reaction of a helicopter's rotor downwash against the ground surface forming a ground cushion that increases the lifting capability of that parcel of air.

Ground Fire

A fire that burns in the ground fuel layer.

Ground Fuels

All combustible materials below the litter layer of the forest floor that normally supports smouldering or glowing combustion associated with ground fires (e.g. duff, roots, buried punky wood, peat).

Ground Probe

A specialized nozzle used to penetrate deep-seated combustible fuels to extinguish ground fires.

Ground Support Unit

Functional unit within the Support Branch of the Logistics Section responsible for the fuelling, maintaining, and repairing of vehicles, and the transportation of personnel and supplies.

Ground Support Unit Leader (GSUL)

The person responsible for the fuelling, maintaining, and repairing of vehicles, and the transportation of personnel and supplies.

Group

Established to divide the incident management structure into functional areas of operation. Groups are composed of resources assembled to perform a special function not necessarily within a single geographic division. Groups are located between Branches (when activated) and resources in the Operations Section.

Group Supervisor

The individual responsible for supervising equipment and personnel assigned to a group. Reports to a Branch Director or Operations Section Chief.

Gutter Trench

A ditch dug to the mineral soil on a slope below a fire to trap rolling firebrands, such as cones and logs.

Half On Half Off

A drop made parallel to a given reference with half the drop covering the reference and half outside.

Hazard Reduction

Treatment of living or dead forest fuels to diminish the likelihood of a fire starting, and to lessen the potential rate of spread and resistance to control.

Hazard Reduction Burning

The burning of surface fuels, most often grass, in low intensity fires in order to reduce fuel loading and potential fire intensity.

Head

A fire spreading, or set to spread, with the wind (upslope in the absence of wind).

Head End of Drop

The most forward end of the air drop on the ground.

Head Fire

That portion of the fire perimeter having the greatest rate of spread and fire intensity which is generally on the downwind and/or upslope part of the fire.

Head Fire Intensity

The rate of heat energy released at the head of the fire.

Heat of Combustion

The potential heat energy available for release by the combustion process. In frontal fire intensity calculations, the heat of combustion value used is subject to several possible reductions, chiefly because of the presence of moisture in the fuel. A quantity is generally specified for a particular fuel on a per unit weight basis. Recommended unit is kilojoules per kilogram (kJ/kg).

Heat Transfer

The process by which heat is imparted from one body or object to another. In forest fires, heat energy is transmitted from burning to unburned fuels by conduction, convection, and radiation.

Heavy Equipment Branch Director (HEBD)

The person responsible to supervise and manage the overall operations for all heavy equipment on an incident. This person will prioritize the need and allocation of heavy equipment for the incident.

Heavy Equipment Group Supervisor (HEGS)

The person responsible for supervising and directing operations of assigned heavy equipment, including heavy equipment strike teams/task forces or single resources.

Heavy Equipment Operator (HEOP)

The person responsible for the safe and efficient operation of a single piece of heavy equipment on an incident.

Heavy Fuels

Large diameter woody or deep organic materials that are difficult to ignite and burn more slowly than fine or medium fuels.

Heavy Helicopter

15-plus passenger, seats up to 25,000 lbs. external load (e.g. Bell 214, Sikorsky 61 and 64, Vertol 107 and 234, Kamov 32). See Helicopter Classification.

Held Line

A control line that still contains the fire when it is declared Under Control.

Helibase

The main location for parking, fuelling, maintenance, and loading of helicopters operating in support of an incident. It is usually located at or near the incident base.

Helibase Manager (HEBM)

The person responsible for controlling helicopter take-offs and landings at a helibase, managing helibase assigned helicopters, supplies, fire retardant mixing and loading.

Helibucket

A specially designed rigid or collapsible container slung by a helicopter and used for picking up and dropping suppressants or retardants on a fire. Size of the bucket load is compatible with the size of the helicopter.

Helicopter Classification

Helicopters are divided into four categories: Light: 1 to 4 passenger seats, up to approximately 1,500 lbs. external load (e.g. Robinson R22, Bell 47 and 206B, Hiller 12E/T, Hughes 500, etc.).Intermediate: 5 to 8 seats, up to approximately 2,500 lbs. external load. (e.g. Bell 206L, AS350, Bell 407, Bell 222, etc.). Medium: 9 to 14 seats, up to approximately 6,000 lbs. external load. (e.g. Sikorsky S55T and 58T, Bell 204, 205, 212, K-Max, etc.).Heavy: 15-plus passenger seats up to 25,000 lbs. external load (e.g. Bell 214, Sikorsky 61 and 64, Vertol 107 and 234, Kamov 32).

Helicopter Coordinator (HLCO)

The person responsible for coordinating tactical or logistical helicopter mission(s) at an incident.

Helicopter engineer (HENG)

The person responsible for the maintenance of a helicopter.

Helicopter Sounding

Determination of the vertical temperature profile based on observations of a helicopter's free-air thermometer and corresponding altimeter readings.

Helipad

The prepared surface or structure at a heliport where a helicopter actually lands.

Heliport

A permanent landing area for helicopters, where fuel, service, and supply are generally available.

Helispot

Any designated location where a helicopter can safely take off and land. Some helispots may be used for loading of supplies, equipment, or personnel.

Helispot Manager (HESM)

The person responsible for managing all resources assigned to a helispot.

Helitack

Initial attack on wildfires involving the use of helicopters and trained crews, deployed as a complete unit.

Helitack Crew

An initial attack crew specially trained in the tactical and logistical use of helicopters for fire suppression.

Helitank

A specially designed tank fitted to a helicopter and used for transporting and dropping suppressants or retardants.

Helitanker

A helicopter equipped with a helitank or a bucket.

Helitorch

A specialized aerial drip torch, primarily using a gelled fuel, slung and activated from a helicopter.

Helitorch Mixmaster (HTMM)

The person responsible to supervise mixing/filling operations and manages time frames to maintain availability of helitorch fuel.

Hold

In airtanker operations, either (1) An instruction to an aircraft not to drop and to await further instruction; or (2) An instruction to an aircraft not to enter a specific area or to remain in a specific area.

Holdover Fire

A fire that remains dormant and undetected for a considerable amount of time after it starts (particularly lightning-caused fires).

Hook, Cargo

Hook attached to the helicopter to allow carrying of external loads. It is designed to include both electrical and mechanical release functions.

Hose Clamp

A crimping device for stopping the flow of water in a hose.

Hose Coupling Wrench

A specialized tool for tightening or loosening external-lug threaded hose couplings and accessory connections.

Hose Friction Loss

Reduction in efficiency of a fire hose (the amount of water pressure lost) due to the resistance between the inside wall of the hose and the water flowing through the hose. The factors affecting friction loss are the velocity of the water through the hose, the roughness of the inner lining of the hose, and the diameter of the hose.

Hose lay

The arrangement of connected lengths of fire hose and accessories on the ground beginning at the first pumping unit and ending at the point(s) of water delivery.

Hot Spot

(1) A particularly active part of a fire; (2) A small area of smouldering or glowing combustion, which may be exhibiting smoke, located on or within the fire perimeter; a term commonly used during the mop-up stage of a fire; (3) A satellite detection of an area of active flaming combustion.

Hot Spotting

A method to check the spread and intensity of a fire at those points that exhibit the most rapid spread or that otherwise pose some special threat to the control of the situation. This is in contrast to systematically working all parts of the fire at the same time, or progressively, in a step-by-step manner.

Hover Exit

The loading and unloading of personnel and equipment from a helicopter that is under power, where the pilot must manipulate the flight controls to maintain a stable altitude. This could be free of, or in partial contact with, a grounded surface. A helicopter in full skid contact with an unstable surface that requires the pilot to make flight control adjustments is also considered to be in a hover.

Ignition

The beginning of flame production or smouldering combustion; the starting of a fire.

Ignition Specialist (IGSP)

The person responsible for directing and supervising all aspects of an ignition team in the performance of tactical ignition operational assignments on wildfires and prescribed burns.

Ignition Temperature

The minimum temperature at which ignition can take place and sustained combustion can occur.

Impact

Change in a given value. Impact is a function of vulnerability, intensity, and exposure.

Incident

An occurrence or event, natural or manmade, that requires a response to protect life or property. Incidents can, for example, include major disasters, emergencies, terrorist attacks, terrorist threats, civil unrest, wildland and urban fires, floods, hazardous materials spills, nuclear accidents, aircraft accidents, earthquakes, hurricanes, tornadoes, tropical storms, tsunamis, war-related disasters, public health and medical emergencies, and other occurrences requiring an emergency response.

Incident - Type 1

Most complex type of incident to safely and effectively manage and operate; all Command and General Staff and required support positions are activated. The incident complexity analysis, agency administrative briefings, and agency delegation of authority must be completed and monitored and updated as required. Multiple agencies will be involved and there may be a declaration of emergency by the appropriate authority. A written IAP is required for each operational period.

Incident - Type 2

Incident will extend into multiple operational periods; this type of incident may exceed the capabilities of local fire management resources. Most or all Command and General staff positions are filled. The Agency Administrator or official is responsible for the incident complexity analysis, agency administrative briefings, and agency delegation of authority; multiple agencies may be involved. A written IAP is required for each operational period.

Incident - Type 3

The incident normally extends into multiple operational periods; the appropriate ICS positions should be added to match the complexity of the incident; some of the Command/General Staff positions (Division Supervisor, Unit Leader) may be filled; a written IAP may be required for each operational period.

Incident - Type 4

Limited to one operational period in the out of control stage; Incident Commander is activated and other operational positions activated as required; No written Incident Action Plan is required, but an operational briefing will be completed for all incoming resources.

Incident - Type 5

An incident of little complexity and normally under control or out within the first operational period. Incident Commander is the only position activated; a verbal Incident Action Plan is required, no written IAP is needed.

Incident Action Plan (IAP)

An oral or written plan containing general objectives

reflecting the overall strategy for managing an incident. It may include the identification of operational resources and assignments. It may also include attachments that provide direction and important information for management of the incident during one or more operational periods.

Incident Base

The location at which primary Logistics functions for an incident are coordinated and administered. There is only one Base per incident. (Incident name or other designator will be added to the term Base.) The Incident Command Post may be co-located with the Incident Base.

Incident Command

Responsible for overall management of the incident and consists of the Incident Commander, either single or unified command, and any assigned supporting staff.

Incident Command Post (ICP)

The field location at which the primary tactical-level on-scene incident command functions are performed. The ICP may be co-located with the Incident Base or other incident facilities.

Incident Command System (ICS)

A standardized on-scene emergency management system specifically designed to provide for the adoption of an integrated organizational structure that reflects the complexity and demands of single or multiple incidents, without being hindered by jurisdictional boundaries. ICS is the combination of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure, designed to aid in the management of resources during incidents. It is used for all kinds of emergencies and is applicable to small as well as large and complex incidents. ICS is used by various jurisdictions and functional agencies, both public and private, to organize field-level incident management operations.

Incident Commander (IC)

The individual responsible for all incident activities, including the development of strategies and tactics and the ordering and release of resources. The IC has overall authority and responsibility for conducting incident operations and is responsible for the management of all incident operations at the incident site.

Incident Communications

Incident Command manages communications at an incident, using a common Communications Plan and an incident-based Communications Center established solely for use by the command, tactical, and support resources assigned to the incident. All entities involved in managing the incident will utilize common terminology, for communications.

Incident Communications Centre (ICC)

The location of the Communications Unit and the Message Centre.

Incident Information

Information specific to the incident, usually provided by the Information Officer, that consists of an assemblage of non-sensitive incident-related intelligence products mixed with incident specific information provided for consumption by response personnel and the general public.

Incident Management

The broad spectrum of activities and organizations providing effective and efficient operations, coordination, and support applied at all levels of government, utilizing both governmental and non-governmental resources to plan for, respond to, and recover from an incident, regardless of cause, size, or complexity. (Gestion d'intervention)

Incident Management Team (IMT)

The Incident Commander and the appropriate Command and General Staff personnel assigned to an incident.

Incident Meteorologist (IMET)

The person responsible for on-site meteorological support to an incident.

Incident Objectives

Statements of guidance and direction needed to select the appropriate strategies, and the tactical direction of resources. Incident objectives are based on realistic expectations of what can be accomplished when all allocated resources have been effectively deployed. Incident objectives must be achievable and measurable, yet flexible enough to allow for strategic and tactical alternatives.

Incident Support Organization

Includes any off-incident support provided to an incident. Examples would be Agency Dispatch Centres, Airports, Mobilization Centres, etc.

Incident Types

Incidents are categorized by five types based on

complexity. Type 5 incidents are the least complex and Type 1 the most complex.

Indigenous

The preferred term in Canada to include First Nations, Inuit, and Metis.

Indirect Attack

A method of attack whereby the control line is strategically located away from the fire's edge to take advantage of favourable terrain and natural fuel breaks in advance of the fire perimeter. The forest fuel between the control line and the fire is usually burned out or backfired.

Information Officer (IOF)

A member of the Command Staff responsible for interfacing with internal clients, the public and media, and/or with other agencies with incident related information requirements.

Infrared Interpreter (IRIN)

The person directing infrared mapping operations when assigned.

Infrared Operator (IROP)

The person responsible for infrared scanning and mapping operations when assigned.

Infrared Scanner

An optical-electronic system for identifying thermal infrared radiation in the flaming, smouldering, or glowing combustion phases. The system may be operated from an aircraft, or hand-held on the ground.

Inherently Flame-Resistant

As applied to textiles, having flame resistance that derives from an essential characteristic of the polymer or other material from which the fibre is made.

Initial Actions

The actions taken by those responders first to arrive at an incident site.

Initial Attack

The actions taken to halt the spread or potential spread of a wildland fire by the first firefighting forces to arrive at the fire.

Initial Attack Base

Any place where initial attack capability has been positioned in readiness for probable fire action. Resources must have air and/or ground transport capability on site.

Initial Attack Crew (IAC)

Personnel trained, equipped, and deployed to conduct suppression action to halt the spread or potential spread of a wildland fire within the first full burning period. Initial attack reflects the highest and best use of Type 1 firefighters configured as an IA crew.

Initial Attack Resources

Fire fighting resources funded and organized specifically for the prime objective of implementing initial attack on wildfires.

Initial Response

Resources initially committed to an incident.

Initial Spread Index (ISI)

A numerical rating related to the expected rate of fire spread. It combines the effects of wind and Fine Fuel Moisture Code on the rate of spread but excludes the influence of variable quantities of fuel.

Inspection Run

A pass over the target by the birddog aircraft or the airtanker to assess the bomb run, target area, and exit from the target.

Intelligence Officer

The Intelligence Officer is responsible for managing internal information, intelligence and operational security requirements supporting incident management activities. These may include information security and operational security activities, as well as the complex task of ensuring that sensitive information of all types (e.g., classified information, law enforcement sensitive information, proprietary information or export-controlled information) is handled in a way that not only safeguards the information, but also ensures that it gets to those who need access to it to perform their missions effectively and safe.

Intelligence/Investigations

Different from operational and situational intelligence gathered and reported by the Planning Section. Intelligence/Investigations gathered within the Intelligence/ Investigations function is information that either leads to the detection, prevention, apprehension, and prosecution of criminal activities (or the individual (s) involved) including terrorist incidents or information that leads to determination of the cause of a given incident (regardless of the source) such as public health events or fires with unknown origins.

Intensity

In the context of risk, a measure of the magnitude of a fire, such as head fire intensity, smoke density, or rate of spread. A contextual term dependent upon the values being impacted.

Intermediate Helicopter

5 to 8 seats, up to approximately 2,500 lbs. external load. (e.g. Bell 206L, AS350, Bell 407, Bell 222, etc.).

Intermittent Crown Fire

A moderate to high-intensity crown fire with crown fraction burned greater than 10 percent and less than 90 percent.

Intermittent Smoke

Smoke that becomes visible occasionally.

International Liaison Officer (INLO)

A representative of the Sending Participants based at the Receiving Participants' Coordinating Authority or a Receiving Participant's Fire Centre who has been delegated authority to make decisions on matters affecting all the Sending Participants' resources in the Receiving Participants' country. The INLO reports directly to the Sending Participants' Coordinating Authority.

Intervalometer

An electronic device mounted in an aircraft which actuates the compartment doors(s) singly, or multiple doors simultaneously or in sequence, to produce the desired coverage level and line length.

Inversion

The atmospheric condition in which the temperature within a vertical layer of air increases with altitude, resulting in a very stable atmosphere until the inversion lifts or breaks. This is contrary to the usual situation in which temperature decreases with height. Temperature inversions at the earth's surface are a common occurrence in the early morning hours during the fire season and dampen fire behaviour.

Island

An area(s) of unburned fuels located within the fire perimeter.

Isobar

A line of equal or constant atmospheric pressure displayed on a synoptic chart.

Isochrone

Lines on a map showing fire progression at a constant time; the forecasted or mapped location of the fire front over time.

Jettison

To release the load at a predetermined location to meet the landing weight for the airtanker, not used for emergency situations.

Jettison Area

A designated zone where an airtanker can jettison a load or portion of a load before landing.

Joint Information Centre (JIC)

A facility established to coordinate all incident-related public information activities. It is the central point of contact for all news media. Public information officials from all participating agencies should co-locate at the JIC.

Joint Information System

Integrates incident information and public affairs into a cohesive organization designed to provide consistent, coordinated, timely information during crisis or incident operations. The mission of the Joint Information System is to provide a structure and system for developing and delivering coordinated interagency messages; developing, recommending and executing public information plans and strategies on behalf of the Incident Commander; advising the Incident Commander concerning public affairs issues that could affect a response effort; and controlling rumors and inaccurate information that could undermine public confidence in the emergency response effort.

Jump Fire

A fire started outside the edge of the main fire perimeter from a fire, or burning by sparks or firebrands carried by wind, drafts, fire vortices or gravity.

Jurisdiction

A range or sphere of authority. Public agencies have jurisdiction at an incident related to their legal responsibilities and authority. Jurisdictional authority at an incident can be political, geographical, or functional.

Jurisdictional Agency

The agency having jurisdiction and responsibility for a specific geographical area, or a mandated function.

Kind of Resource

An Incident Command System resource classification that refers to similar resources. All fire engines for example are grouped as the same "Kind" of resource,

their capability however is defined by “Type”.

LACES

A safety system used by wildland firefighters to protect themselves from entrapment in free-burning wildfires and other fireline hazards. Stands for Lookouts, Anchor points, Communications, Escape routes, and Safety zones.

Ladder Fuels

Fuels that provide vertical continuity between the surface fuels and crown fuels in a forest stand, thus contributing to the ease of torching and crowning (e.g. tall shrubs, small-sized trees, bark flakes, tree lichens).

Land-Based Airtanker

A fixed-wing aircraft that operates from and must return to a designated airtanker base from which they are loaded with fire retardant or suppressant.

Landscape Fire Management

Landscape fire management is the integration and implementation of fire management at multiple scales including the individual homeowner scale, the community scale (wildland-urban interface), and the landscape beyond the interface scale. Landscape fire management assists fire managers and communities in finding cost-effective approaches to preventing unwanted fires, as well as maintaining desirable fire regimes. When fires do occur, landscape fire management provides the framework for: (1) evaluating whether the effects will be detrimental or benign; (2) weighing relative benefits and risks of different scenarios; and (3) responding appropriately based on the objectives.

Lanyard

A length of rope or cable used to attach a cargo net or sling to a helicopter cargo hook.

Lap On

An instruction to drop, overlapping the previous drop to the left or right; unless directed otherwise coverage will be a 1/3 overlap.

Late

In airtanker operations, advice that the drop is to be or was triggered beyond a designated point.

Lead In

A technique whereby the airtanker follows directly behind the birddog to the target.

Leader

The ICS title for an individual responsible for a Task Force, Strike Team, or Functional Unit.

Legitimate Smoke

Smoke from any authorized use of fire or other permissible sources, such as permitted debris burning or industrial operations.

Length To Breadth Ratio

For a simple elliptical (oval) shaped fire, the ratio of the fire's spread distance in the same direction as the wind (length) to the flanking spread distance (breadth).

Level of Protection

The amount of effort that a fire management organization is willing to expend to respond to forest fires based on the organization's land and resource management objectives.

Liaison Officer (LOFR)

A member of the Command Staff responsible for coordinating with representatives from cooperating and assisting agencies.

Life-Safety

Refers to the joint consideration of both the life and physical well being of individuals.

Light Helicopter

1 to 4 passenger seats, up to approximately 1,500 lbs. external load (e.g. Robinson R22, Bell 47 and 206B, Hiller 12E/T, Hughes 500, etc.). See Helicopter Classification.

Lightning Locator System

A network of sensors to detect the location and polarity of cloud-to-ground lightning flashes in real-time.

Likelihood

Probability of an event occurring.

Line Astern

Directing two or more airtankers (land-based or skimmer) to drop on a given target while occupying the same circuit altitude simultaneously. The second and each subsequent airtanker follows the line of flight flown by the lead aircraft.

Line Locator

A person who selects and marks the location of a control line.

Line Scout (LSCT)

The person responsible to determine the location of a fire line.

Litres per Hour Concept

The litres per hour concept employs number of tankers and turnaround times to gauge efficiency of water application and the proper amount of tankers being utilized for the desired effect. Identifies the point at which adding tankers to a circuit may not apply more water to the fire.

Litter

The uppermost part of the forest floor consisting of freshly cast or slightly decomposed organic materials (i.e. the L layer).

Load

In airtanker operations, the term used describing the drop.

Load Master (LOAD)

The person responsible for the safe loading and unloading of personnel and or cargo from aircraft.

Load Sheet

A document provided to the Pilot-In-Command prior to flight which lists all cargo, quantities and weights, this includes a passenger manifest with names, list of equipment and supplies and identifies all dangerous goods on board by their common name, proper Shipping name, UN number, class, quantity and weight as not to exceed aircraft payload.

Load Width

Width actually covered by a given drop on the ground.

Loaded Patrol

An aerial patrol where the aircraft is carrying an initial attack crew or fire retardants on board while conducting aerial detection flights.

Loading Pad

A reinforced pad at a retardant base on which the aircraft park when being loaded with retardant.

Loading Ramp

Ramp used for boarding and disembarking equipment on board aircraft.

Logistics

Providing resources and other services to support incident management.

Logistics Section

The Section responsible for providing facilities, services, and material support for the Incident.

Logistics Section Chief (LSC)

This individual responsible for supervising the Logistics Section. Reports to the Incident Commander and is a member of the General Staff. This position may have one or more deputies assigned.

Lone Wolf

Refers to an airtanker conducting drops not under the immediate supervision of a birddog.

Long

In airtanker operations, an assessment that the drop landed beyond a designated point.

Long Term Fire Analyst

The LTAN is responsible for collecting weather data, developing strategic and tactical fire behavior information, predicting fire growth, and interpreting fire characteristics for use by incident overhead. An LTAN may provide leadership for other assigned LTANs.

Long-Term Retardant

Long-term retardants contain retardant salts, typically agricultural fertilizers, that alter the way the fire burns, decreases the fire intensity, and slows the advance of the fire, even after the water they originally contained has evaporated.

Longline

A cable, 50-ft. in length or greater, that may be equipped with an electrical cable to activate the hook (s).

Lookout

A competent and trusted person located in an advantageous position who has the responsibility of watching for changes in fire behaviour that risk entrapment and relaying them to their supervisor. See LACES.

Lost Line

Any part of a control line that fails to stop the spread of a fire.

Low Expansion Foam

Foam having an expansion between 1:1 and 20:1.

Low-Level Jet Wind

A particular type of wind aloft condition, evident in the vertical wind profile, in which there is a zone of increasing wind speed near the earth's surface, and a zone of decreasing velocity above a point of maximum wind speed.

Management by Objectives

A management approach that involves a five-step process for achieving the incident goal. The Management by Objectives approach includes the following: establishing overarching incident objectives; developing strategies based on overarching incident objectives; developing and issuing assignments, plans, procedures, and protocols; establishing specific, measurable tactics or tasks for various incident-management functional activities and directing efforts to attain them, in support of defined strategies; and documenting results to measure performance and facilitate corrective action.

Manager

Individual(s) within the Incident Command System organizational unit that are assigned specific managerial responsibilities (e.g. Staging Area Manager or Camp Manager).

Marker Load

In airtanker operations, a drop strategically placed as a reference point used for subsequent drops.

Masticated Fuels

A mechanical process by which trees and shrubs are chipped to create irregularly shaped fuel particles that effectively relocates vertical ladder fuels onto the surface.

Max

In airtanker operations, the maximum flow rate available from a constant variable flow tank. A specified portion of the load when requested at "max" produces a "salvo" type drop.

Medical Unit

Functional unit within the Service Branch of the Logistics Section responsible for the development of the Medical Emergency Plan, and for providing emergency medical treatment to incident personnel.

Medical Unit Leader (MEDL)

The person responsible for developing the Medical Plan, obtaining medical aid and transportation for injured or ill incident personnel, and preparing reports and records.

Medium Expansion Foam

Foam having an expansion between 21:1 and 200:1.

Medium Fuels

Fuels too large to be ignited until after the leading edge of the fire front passes, but small enough to be completely consumed.

Medium Helicopter

9 to 14 passenger seats, up to approximately 6,000 lbs. external load. (e.g. Sikorsky S55T and 58T, Bell 204, 205, 212, K-Max, etc.). See Helicopter Classification.

Message Centre

The Message Centre is part of the Incident Communications Centre and is collocated or placed adjacent to it. It receives records and routes information about resources reporting to the incident, resource status, and administrative and tactical traffic.

Mineral Soil

That portion of the soil stratum immediately below the litter and duff. Mineral soil contains very little combustible material except on highly productive sites where an upper soil horizon may be enriched with organic matter.

Minisonde Observation

A method of constructing a vertical temperature profile determined by air temperature data being continuously telemetered to a portable receiver unit at the earth's surface from a transmitting sensor package that is carried aloft by a free-lift balloon.

Mitigation

The actions taken to reduce the impact of disasters in order to protect lives, property, the environment, and to reduce economic disruption.

Mix Ratio

The ratio of foam or retardant concentrate to water. Foam is expressed as a percentage. Retardant is expressed as a ratio.

Mixing Height

A term commonly used in air pollution meteorology to determine the maximum height above the earth's surface to which relatively vigorous mixing due to convection takes place. Above this layer, a stable atmosphere exists which acts to suppress vertical mixing. The mixing height is dependent on the vertical temperature profile. Recommended unit is metres (m).

Mixmaster (MXMS)

The person in charge of retardant mixing operations, with responsibility for the quantity and quality of retardant, and for the loading of the aircraft in land-based airtanker operations. Also known as Loader or Loader Person.

Mobilization

The process and procedures used by all organizations-Federal, Provincial/Territorial, regional, and local-for activating, assembling, and transporting all resources that have been requested to respond to or support an incident.

Modern Treaty

Comprehensive land claims in areas where Aboriginal land rights have not been dealt with by treaty or through other means. In these areas, forward-looking agreements are negotiated between the Aboriginal group, Canada, and the province or territory. The treaties include certainty about ownership, use and management of land and resources, and may include provisions relating to Aboriginal self-government.

Mop-Up

The actions taken to extinguish a wildland fire or part of a wildland fire that has been fully contained.

Mop-Up Crew

Personnel trained, equipped, and deployed to conduct suppression action to extinguish a wildland fire or part of a wildland fire that has been fully contained. Mop-Up reflects the highest and best use of Type 3 crews when exchanged between CIFFC member agencies.

Mop-Up Time

The period from the achievement of control until enough work has been done to ensure that the fire can not rekindle.

Mulch

Masticated woody tree material, primarily stem wood, with additional bark, branch, and foliage content.

Multi-Hook

A system of multiple hooks allowing the transport of separate loads.

Multi-Jurisdiction Incident

An incident requiring action from multiple agencies that each have jurisdiction to manage certain aspects of an incident. In ICS, these incidents shall be managed under Unified Command.

Multiagency Coordination (MAC)

Typically, administrators/executives, or their appointed representatives, who are authorized to commit agency resources and funds, are brought together and form MAC Groups. MAC Groups may also be known as multiagency committees, emergency management committees, or as otherwise defined by the system. It can provide coordinated decision making and resource allocation among cooperating agencies, and may establish the priorities among incidents, harmonize agency policies, and provide strategic guidance and direction to support incident management activities.

Multiagency Coordination System(s)

Multiagency coordination systems provide the architecture to support coordination for incident prioritization, critical resource allocation, communications systems integration, and information coordination. The elements of multiagency coordination systems include facilities, equipment, personnel, procedures, and communications. Two of the most commonly used elements are emergency coordination centres (ECC) and MAC groups. These systems assist agencies and organizations responding to an incident.

Multiple Fire Situation

A circumstance of high fire incidence over short periods of time in any administrative unit, usually overtaxing the normal initial attack capability of the unit.

Mutual Aid Agreement

Written or oral agreement between and among jurisdictions that provides a mechanism to quickly obtain assistance in the form of personnel, equipment, materials, and other services. The primary objective is to facilitate rapid, short-term deployment of support prior to, during, and/or after an incident.

National Preparedness Level (NPL)

The National Preparedness Levels range from the lowest (1) to the highest (5) and are a general indicator of wildland fire activity as well as resource demand and availability. As preparedness levels rise, so does demand for the mobilization of suppression resources between agencies. National Preparedness Levels are driven by fuel and weather conditions, current and potential fire activity, and fire suppression resource availability throughout the country.

Neutral Atmosphere

A condition of the atmosphere in which the temperature decrease with altitude equals to the Dry Adiabatic Lapse Rate.

New Target

Indication that a new target and/or bomb run has been selected and that the target description will follow.

Non-Combustible Zone

The structure and the area 1.5 meters from the ground-level exterior footprint of the structure including any attachments.

Non-Percolating Forestry Hose

Forestry fire hose without wetting or soaking characteristics.

Notice To Airmen (NOTAM)

Temporary airspace restrictions for non-incident aircraft in the incident area. NOTAM's are established by Transport Canada to ensure aircraft safety.

Officer

The ICS title for the personnel responsible for the Command Staff positions of Safety, Liaison, or Information.

One Strike Concept

An aerial operation involving rapid initial action and the delivery of enough resources to achieve the initial attack objective in one trip.

Operational Period

The time scheduled for executing a given set of operation actions, as specified in the Incident Action Plan. Operational periods can be of various lengths, although usually they last 12 to 24 hours.

Operations Branch Director (OPBD)

The person responsible for implementing the portion of the IAP applicable to the assigned Branch.

Operations Section

The Section responsible for all tactical operations at the incident and implementation of the Incident Action Plan. This section can include Branches, Divisions and/or Groups.

Operations Section Chief (OSC)

The individual responsible for supervising the Operations Section, who reports to the Incident Commander and is a member of the General Staff. This position may have one or more deputies assigned.

Orbit and Direct

A technique whereby the birddog orbits the fire and verbally identifies targets or references to the airtankers.

Organic Layer

The accumulated, partially to fully decomposed, organic matter at the soil surface. It corresponds to the fermentation (F) and humus (H) layers in forests and/or the peat (O) layer in wetlands.

Out of Service Resources

Resources assigned to an incident but unable to respond for mechanical, rest, or personnel reasons.

Overhead

A collective term for all positions not including crews. Overhead includes supervisory positions as well as single resources.

Overlap

In airtanker operations, an instruction to cover or partially cover a previous drop or reference point.

Overwintering Fire

A fire that persists throughout the winter months to the opening of a fire season.

Paracargo

That portion of air cargo to be delivered by paradrop.

Paradrop

Cargo, attached to a parachute, dropped from an aircraft in flight.

Parallel Attack

A method whereby a fireguard is constructed as close to the fire as heat and flame permit, and burning out the fuel between the fire and the fireguard.

Parallel Drop

Same bearing but the aircraft position is a specified distance to the right or left of the previous drop.

Parallel Pumping

A procedure whereby the flow from two fire pumps is combined into one hose line.

Parts of a Fire

Descriptors of specific areas of a fire that are named relative to the direction of fire spread, including Fire Perimeter, Fire Edge, Head, Rear (back), Flank(s), Fingers, Bays, Islands, Point of Origin and Spot (jump) fire.

Patrol

(1) To inspect a section of a control line or portion of the fire perimeter to prevent escape of the fire; (2) To travel a given route to inspect, prevent, detect, and suppress fires.

Patrol Time

The period from completion of mop-up until the fire is declared out.

Percent Contained

The percentage of a fire that has been contained with the use of mechanical, hose line, or natural barriers with possible values between 0 and 100.

Percolating Forestry Hose

A self-protecting forestry fire hose with wetting or soaking characteristics which allow the hose material to become saturated with the water when conveying water to help prevent it from burning.

Personal Protective Equipment (PPE)

Any piece of equipment or clothing designed to be used to protect the health and safety of an individual.

Personal Responsibility

All responders are expected to use good judgment and be accountable for their actions.

Personnel Accountability

The ability to account for the location and welfare of incident personnel. It is accomplished when supervisors ensure that Incident Command System principles and processes are functional and that personnel are working within established incident management guidelines.

Personnel Accountability Reports (PAR)

Periodic reports verifying the status of responders assigned to an incident. A PAR is an accountability tool, typically requested by command and performed at the Division/Group level and below, to confirm that all personnel assigned to an emergency incident are physically accounted for during/after emergencies, evacuations, or at periodic benchmarks.

Personnel Time Recorder (PTRC)

The person responsible for overseeing the recording of time for all personnel assigned to an incident.

Plain Language

Communication that can be understood by the intended audience and meets the purpose of the communicator. Plain language is designed to eliminate or limit the use of codes and acronyms, as appropriate, during incident response involving more than a single agency.

Planned Event

A planned non-emergency activity (e.g. sporting event, concert, parade, etc.).

Planning Meeting

A meeting held as needed before and throughout the duration of an incident to select specific strategies and tactics for incident control operations and for service and support planning. For larger incidents, the Planning Meeting is a major element in the development of the Incident Action Plan.

Planning Section

The Section responsible for the collection, evaluation, and dissemination of information related to the incident, and for the preparation and documentation of Incident Action Plan. This Section also maintains information on the current and forecasted situation, and on the status of resources assigned to the incident.

Planning Section Chief (PSC)

The person responsible for supervising the Planning Section. Reports to the Incident Commander and is a member of the General Staff. This position may have one or more deputies assigned.

Plastic Sphere Dispensor Operator (PLDO)

The person responsible to utilize the Plastic Sphere Dispenser for aerial ignition operations.

Point of Origin

The location(s) within the fire perimeter where ignition first occurred.

Portable Tank

A portable, collapsible, open-top tank used as a reservoir to store water. Many tanks are self supporting, they include a foam-type collar which raises the walls as it is being filled to contain the contents. Framed tanks have a foldable solid structure supporting the liner, which is attached internally

Power Pump Categories

Power pumps are divided into 4 categories: Light - less than 11.34 kg (25 lbs.), Intermediate - 11.34kg - 22.68 kg (25-50 lbs.), Medium - 22.69kg - 34.93 kg (50.01-77 lbs.), Heavy - greater than 34.94 kg (77.01 lbs.)

Power Pump Kit

A kit containing a medium power pump, pump tool box, intake hose with foot valve, and a 22.8 litre (5 imp. gal) or approximate fuel container with fuel line.

Pre-Attack Plan

A plan detailing predetermined fire suppression strategy and tactics to be deployed following fire occurrence in a given land management unit. A pre-attack plan contains data on fuel types and topographic conditions including fuel breaks, access routes and travel times, water supply sources, lakes suitable for skimmer aircraft, and existing heliports. It also includes information on existing and/or proposed locations for control lines (including the types and number of fire suppression resources that may be required, probable rates of fire guard construction, and possible constraints), base and line camps, helispots, and the priorities for construction and/or improvement of presuppression facilities.

Pre-Positioned Resources

Resources moved to an area near the expected incident site in response to anticipated resource needs.

Precipitation

Any or all of the forms of water, whether liquid (i.e. rain or drizzle) or solid (e.g. snow or hail), that fall from the atmosphere and reach the ground. The more common term rainfall also is used in this total sense to include not only the amount of rain, but also the water equivalent of frozen precipitation. Precipitation is the preferred general term.

Preheating Phase

Unburned fuel is raised to its ignition temperature and gaseous vapours begin to evolve.

Preparedness

Actions that involve a combination of planning, resources, training, exercising, and organizing to build, sustain, and improve operational capabilities. Preparedness is the process of identifying the personnel, training, and equipment needed for a wide range of potential incidents, and developing jurisdiction -specific plans for delivering capabilities when needed for an incident.

Preparedness Organizations

The groups that provide interagency coordination for domestic incident management activities in a nonemergency context. Preparedness organizations can include all agencies with a role in incident management for prevention, preparedness, response or recovery activities. They represent a wide variety of committees, planning groups and other organizations that meet and coordinate to ensure the proper level of planning, training, equipping and other preparedness requirements within a jurisdiction or area.

Prescribed Burning

The deliberate, planned and knowledgeable application of fire by authorized personnel and in accordance with policy and guidelines to a specific land area to accomplish pre-determined forest management or other land use objectives. See Fire Use.

Prescribed Fire

Fire deliberately utilized in a predetermined area in accordance with a specified and approved burning prescription to achieve set objectives.

Prescribed Fire Specialist (PBSP)

The person responsible for creating burn plans for prescribed fire, to ensure the best ecological results in the safest procedure.

Presuppression

Those fire management activities in advance of fire occurrence concerned with the organization, training, and management of a fire fighting force and the procurement, maintenance, and inspection of improvements, equipment, and supplies to ensure effective fire suppression.

Prevention

Actions taken to avoid the occurrence of negative consequences associated with a given threat; prevention activities may be included as a part of mitigation.

Procurement Unit

Functional unit within the Finance/Administration Section responsible for financial matters involving vendor contracts.

Procurement Unit Leader (PROC)

The person responsible for administering all financial matters pertaining to vendor contracts, leases, and fiscal agreements.

Professional Passenger

A person who takes an active role in ensuring that a flight is conducted as safely as possible.

Project Fire

Large area forest fire with high resistance to suppression, requiring an elaborate strategy and large

numbers of personnel.

Proportioner

A device that adds a predetermined amount of liquid foam or retardant concentrate to water to form a solution.

Public Information

Processes, procedures, and systems for communicating timely, accurate, and accessible information on an incidents cause, size, and current situation; resources committed; and other matters of general interest to the public, responders, and additional stakeholders (both directly affected and indirectly affected).

Pulaski

A combination chopping and trenching tool, which combines a single-bitted axe blade with a narrow adze-like trenching blade fitted to a straight handle. Useful for grubbing or trenching in duff and matted roots.

Qualification

A specified pre-arranged series of requirements (knowledge, abilities, skills, and experience) that shall be acquired to be eligible to perform a specific position or role.

Quick Strike

The immediate dispatch of a sending agency's resource (e.g., airtanker, engine, crew, single resource) directly to a receiving agency incident to conduct a single mission or operational period's work. The sending agency's resources return to their home jurisdiction upon completion of the mission/actions, without overnighting in the receiving agency.

Radiation

Transmission of heat in the form of radiant energy, i.e. radially, in a straight line and in all directions.

Radio Cache

A supply of radios stored in a pre-determined location for assignment to incidents.

Radio Operator (RADO)

The person responsible for passing accurate and timely information via incident radio communications. May also be required to document all communications and ensure regular check-ins by resources are completed.

Rain

Precipitation in the form of liquid water drops. Recommended unit for measurement is millimetres (mm).

Rain Gauge

The general name for instruments designed to measure the amount of rain that has fallen. Both recording and non-recording types are commonly used at fire weather stations.

Rappel Crew

An initial attack crew trained to descend from a specially equipped, hovering helicopter on a rope fitted with a mechanical device to control the rate of descent.

Rate of Area Growth

The speed at which a fire increases its size, expressed in terms of area per unit of time. Recommended unit is hectares per hour (ha/h).

Rate of Perimeter Growth

The speed at which a fire increases its perimeter, expressed in terms of distance per unit of time. Recommended units are metres per minute (m/min) and kilometres per hour (km/h).

Rate of Spread (ROS)

The speed at which a fire extends its horizontal dimensions, expressed in terms of distance per unit of time. Generally thought of in terms of a fire's forward movement or head fire rate of spread, but also applicable to back fire and flank fire rates of spread.

Rawinsonde Observation

A method of determining wind speed and direction, air temperature, relative humidity, and atmospheric pressure at various levels in the atmosphere in the vicinity of an observation station by tracking a transmitting, balloon-borne sensor package with a radio direction- finder or by radar. A rawinsonde observation is commonly used in determining atmospheric stability and for constructing vertical temperature and wind profiles.

Rear

The portion of the fire perimeter that is opposite to the head. The rear is usually the slowest spreading part of the fire. See Parts of a Fire.

Reburn

Subsequent burning of an area previously burned.

Receiving/Distribution Manager (RCDM)

The person responsible for receiving and distributing all supplies and equipment (other than primary resources), and the service and repair of tools and

equipment.

Recertification

An ongoing or periodic assessment of an individual's ability to demonstrate competency and remain current in a specific position or role.

Recorders

Individuals within ICS organizational units who are responsible for recording information. Recorders may be found in Planning, Logistics, or Finance/Administration Units.

Relative Humidity (RH)

The ratio, expressed as a percentage, of the amount of water vapour or moisture in the air to the maximum amount of moisture that the air would hold at the same dry-bulb temperature and atmospheric pressure. RH can vary from 0 to 100 percent.

Relative Humidity Recovery

The increase in relative humidity during the overnight period to near-saturation (100 percent) levels. The recovery of relative humidity indicates an increase in fine fuel moisture content and decreased fire intensity.

Relay Tank

A tank, usually collapsible, used as a reservoir in the relay of water from one fire pump to another.

Reload

An instruction to the airtanker to proceed to a designated airtanker base for more retardant and return to the same incident for another drop. The term when given to a skimmer airtanker refers to refilling with more water at the predetermined water source.

Remote Automatic Weather Station (RAWS)

A weather station at which the services of an observer are not required. A RAWS unit measures selected weather elements automatically and is equipped with telemetry apparatus for transmitting the electronically recorded data via radio, satellite, or by a land-line communication system at predetermined times or on a user request basis.

Remote or Extended Hook

Designed to attach to the end of a line which can be remotely operated by the helicopter pilot.

Report Time

The period from discovery of a fire until the first person charged with initiating suppression action is notified of its existence and location.

Reporting Locations

One of the six recognized ICS facilities/locations where incoming incident assigned resources can check-in to the incident. 1) The Incident Command Post (check-in with the Resources Unit), 2) Base, 3) Camp, 4) Staging Area, 5) Helibase, or 6) if instructed to report to a Division or Group, with the appropriate Division or Group Supervisor.

Reserve

A tract of land, the legal title to which is held by the Crown, set apart for the use and benefit of a First Nations band.

Residence Time

The length of time required for the flaming zone or fire front of a spreading forest fire to pass a given point, most commonly expressed in minutes (min) and/or seconds (s). Numerically, it is equal to the flame depth divided by the rate of spread.

Resistance to Control

The relative ease of establishing and holding a fireguard and/or securing a control line as determined by the difficulty of control and resistance to fireguard construction.

Resistance to Fireguard Construction

The relative difficulty of constructing fireguards as determined by fuel type characteristics (e.g. forest floor depth), effects of topography on access (e.g. slope steepness), and mineral soil type.

Resource Actioning

The daily or short-term adjustments in the strength and positioning of fire suppression resources required for the initial attack to meet a predetermined level of preparedness based on the likelihood of fire occurrence and probable fire behaviour as determined by the forecasted fire danger. This may involve increasing or decreasing the number and types of suppression crews and equipment.

Resource Clerk (RESC)

The person responsible for support to the Resource Unit.

Resource Identification and Ordering

Standardized processes and methodologies to order, identify, mobilize, dispatch, and track the resources required to support incident management activities.

Resource Tracking

A standardized, integrated process conducted prior to, during, and after an incident by all emergency management/response personnel and their associated organizations.

Resources

Personnel and major items of equipment, supplies, and facilities available or potentially available for assignment to incident operations and for which status is maintained. Resources are described by Kind and Type and may be used in operational support or supervisory capacities at an incident or at an emergency operations center.

Resources - Available

The number of exchangeable resources currently available. This is expected to change throughout the season due to internal resource demand.

Resources - Exportable

The number of resources the agency controls that meet all the Interagency Exchange Standards for the resource Kind and Type.

Resources - Seasonal

The base level, or seasonal complement level for each specified resource Kind and Type. The numbers reported reflect the planned inventory levels.

Resources Unit

Functional unit within the Planning Section responsible for recording the status of resources committed to the incident. This Unit also evaluates resources currently committed to the incident, the impact that additional responding resources will have on the incident, and anticipated resource needs.

Resources Unit Leader (RESL)

The person responsible for establishing all incident check-in activities; preparing and processing resource status information; preparing and maintaining displays, charts, and lists that reflect the current status and location of suppression resources, transportation, and support vehicles; and maintaining a master check-in list of resources assigned to the incident.

Response and Planning Guide

A durable pocket guide published by ICS Canada that contains essential Incident Command System and All-Hazards Incident Management Team deployment information.

Restricted Fire Zone

A specific area where outdoor fires are not permitted.

Retardant Base

The ground facilities for mixing, storing, and loading fire retardant into aircraft.

Rising Ground

In airtanker operations, indicates that the ground ahead or beside the target is higher than the target elevation itself.

Risk

Broadly, the effect of uncertainty on objectives. Risk is often expressed in terms of a combination of the consequences of an event and the associated likelihood of occurrence.

Risk Management Framework

Set of components that provide the foundations and organizational arrangements for designing, implementing, monitoring, reviewing and continually improving risk management throughout the organization.

Roll Up

In airtanker operations, a load placed in front of a visible reference point, such as another retardant load, a structure, a water body, etc. The intent is to have the load end as it reaches the given reference point

Rotor Downwash

The air turbulence occurring under and around the main rotor system(s) of an operating rotary-wing aircraft.

Run

In airtanker operations, the flight path of the airtanker to the target.

Running

A fire rapidly spreading and with a well-defined head.

Safety Attitude

A person's tendency to respond positively toward a safety goal, idea, plan, procedure, prevention, or situation.

Safety Margin

The cushion of time in excess of the time needed by firefighters to get to a safety zone before the fire gets to them.

Safety Officer (SOF)

A member of the command staff who is responsible for

monitoring response operations and advising the Incident Commander on all matters related to the safety of operations, including the health and safety of personnel.

Safety Zone

A location clear of fuels and of sufficient size to allow for safe shelter during the passage of the fire front.

Salvo

In airtanker operations, a technique whereby a specified number of doors in a compartmented tank are opened simultaneously.

Section

The organizational level having responsibility for a major functional area of incident management (e.g. Operations, Planning, Logistics, Finance/Administration, and Intelligence/Investigations (if established). The Section is organizationally situated between the Branch and the Incident Command.

Sector

On large incidents, a division can be further geographically subdivided into sectors. Sectors can be managed by a Task Force Leader or Strike Team Leader depending on the resources assigned.

Sector Leader (SCLD)

The person responsible for directing a combination of personnel, crews, or other types of equipment in performing tactical missions on a sector (specific piece of fire line).

Senior Agency Representative (SREP)

A representative of the Sending Participant based at a Receiving Participant's Fire Centre, who has been delegated authority to make decisions on matters affecting the Sending Participant's resources at an incident or within that jurisdiction. The SREP reports to the International Liaison Officer (INLO) or the Sending Participants' Coordinating Authority and is the link between the field AREPS and the INLO.

Service Branch

A Branch within the Logistics Section responsible for service activities at the incident. Includes the Communications, Medical, and Food Units.

Service Branch Director (SVBD)

The person responsible for managing all service activities at the incident. The Service Branch Director supervises the operations of the Communications, Medical, and Food Unit Leaders.

Short

In airtanker operations, an assessment that the drop landed before a designated point.

Show Me Run

A simulated bombing run made on a target by the birddog to indicate target and run to the airtanker.

Side Stepping

When bomb runs cannot be made by running down a slope, using short drops dropped at 90 degrees to the slope can build a line.

Single Door

In airtanker operations, a technique in which only one door in a compartmented tank is opened.

Single Resource

An individual, a piece of equipment and its personnel complement, or a crew/team of individuals with an identified work supervisor that can be used on an incident.

Single Resource Boss

An individual subordinate to a Leader, in charge of a group of people and/or a single piece of equipment

Single-Layer Garment

Protective garment constructed from a single fabric (not including facing or interfacing). A single-layer garment is one that cannot be easily separated into its major constituent components. Note: Fabric material for a single-layer garment is received in a finished state from the fabric supplier or finisher. Garments made from bonded fabrics, laminated fabrics, coated fabrics, double cloth, and quilted fabrics, for example, are considered single-layer garments.

Siren Wail

Siren from the Birddog aircraft signalling to the ground personnel that airtanker operations in the area have been completed.

Siren Yelp

Siren from the Birddog aircraft signalling to the ground personnel of an intended and/or imminent drop from an airtanker.

Situation Report (SITREP)

Document that often contains confirmed or verified information regarding the specific details relating to an incident.

Situation Unit

Functional unit within the Planning Section responsible for the collection, organization, and analysis of incident status information, and for analysis of the situation as it progresses.

Situation Unit Leader (SITL)

The person responsible for collecting and organizing incident status and information and evaluating, analyzing, and displaying that information.

Situational Awareness

The perception of environmental conditions with respect to time or space, the comprehension of their meaning, and the projection of changing conditions over time or space. Situational awareness comprises the first two phases of the observe-orient-decide-act cycle.

Skidder Unit

(1) A self-contained unit consisting of water tank, fire pump, and hose, specially designed to be carried on a logging skidder for use in fire suppression. (2) A basket to hold fire fighting tools and equipment specially designed to be carried on a logging skidder. (3) The term usually applies to the special attachments, but it may also refer to the attachments and logging skidder together.

Skimmer Airtanker

A fixed-wing aircraft which is capable of self-loading by skimming across the surface of a water body.

Slash

Debris left as a result of forest and other vegetation being altered by forestry practices and other land use activities (e.g. timber harvesting, thinning and pruning, road construction, seismic line clearing). Slash includes material such as logs, splinters or chips, tree branches and tops, uprooted stumps, and broken or uprooted trees and shrubs.

Slash Burning

The broadcast burning of slash resulting specifically from timber harvesting operations

Slash Disposal

The treatment of slash for hazard reduction, silvicultural, or other purposes

Sling

A looped line of strap or rope attachable to a lanyard to lift, lower, or carry cargo beneath a helicopter

Slip-on Tank

A self-contained unit consisting of a water tank, fire pump, and hose, designed for quick loading on conventional trucks

Slope

The upward or downward inclination of the earth's surface (i.e. the deviation in terrain from level or flat ground). Most commonly expressed as a percentage. Numerically, it is equal to the vertical rise or fall in elevation divided by the horizontal distance and then multiplied by 100.

Slope Azimuth

The uphill slope direction, 180 degrees opposite the slope aspect.

Slope Equivalent Wind Speed

An approach used in the FBP System whereby the effect of slope on fire spread with zero wind is given a value in units of wind speed.

Small Engine Mechanic (SMEC)

The person responsible for the repair and maintenance of small engines powering fire fighting equipment, such as portable pumps, chainsaws etc.

Smoke

The visible products of combustion rising above a fire.

Smoke Column

Smoke and other gases that form a column -shaped mass above a fire, characterized by sharply defined, billowed edges.

Smoke Haze

Haze caused by smoke.

Smoke Management

Scheduling and conducting a prescribed burning program under predetermined burning prescriptions and firing techniques that will minimize the adverse impacts of the resulting smoke production in smoke sensitive areas.

Smoke Sensitive Area

An area in which smoke from outside sources is intolerable, owing to heavy population, transportation services, existing air pollution, and/or intensive recreation/tourist use.

Smokejumper (SMKJ)

A firefighter who travels to wildland fires by fixed-wing aircraft and parachute.

Smouldering

A fire burning without flame with low rates of spread.

Snag

A tree that is hung up on another tree or object.

Span

Refers to a distance equal to the wingspan of the airtanker being used.

Span of Control

The number of resources for which a supervisor is responsible, usually expressed as the ratio of supervisors to individuals. An appropriate span of control is between 1:3 and 1:7, with optimal being 1:5.

Spatial Fire Management System

Software that produces daily to hourly maps of fire weather and potential fire behaviour based on the interpolation of weather observations and fuels maps.

Spot Fire

A fire ignited by firebrands that are carried outside the main fire perimeter by air currents, gravity, and/or fire whirls. See Parts of a fire. Synonym Jump Fire

Spot Weather Forecast

A special forecast issued to fit the time, topography, and weather of a specific incident. These forecasts are issued upon request of the user agency and are more detailed, timely, and specific than zone forecasts. Usually, on-site weather observations or a close, representative observation is required for a forecast to be issued.

Spotter

In rappelling and smoke jumping operations, the individual responsible for selecting drop target and supervising all aspects of dropping smoke jumpers or rappel crews.

Spotting

A fire producing firebrands carried by the surface wind, a fire whirl, and/or convection column that fall beyond the main fire perimeter and result in spot fires.

Spread Azimuth

The direction in which the fire is spreading, determined by combining the wind and slope azimuths.

Spring Pole

A tree or tree limb bent over and held under tension. When the tension is released, the tree or limb can snap back (spring) uncontrollably.

Sprinkler Kit

A collection of water thieves, supply hose, and water sprinkler heads used to wet the fuels along the fire perimeter or along a fireguard or in value protection. Quantified by the number of sprinkler heads per kit.

Squad Boss (SQDB)

A Squad Boss provides supervision to 3-7 firefighters and is responsible for their safety and performance during wildland fire incidents. The Squad Boss reports directly to an Expanded Attack Crew Leader or Sustained Action Crew Leader.

Squall Line

A narrow, organized band of active thunderstorms, often preceding a cold front.

Stable Atmosphere

Condition of the atmosphere in which the temperature decrease with increasing altitude is less than the dry adiabatic lapse rate. In this condition, the atmosphere tends to suppress large-scale vertical motion. Also known as stable air.

Stack

Vertically established holding pattern over a fire for aircraft. Spacing will be at 500 ft intervals.

Stage of Control

This catagory indicates the current stage of control of the fire, each with a two letter code. Out of Control (OC), Being Held (BH), Under Control (UC) and Out (EX).

Stage of Control - Being Held (BH)

Describes a wildfire that with currently committed resources, sufficient suppression action has been taken that the fire is not likely to spread beyond existent or predetermined boundaries under prevailing and forecasted conditions; with the two letter code (BH).

Stage of Control - Out (EX)

Describes a fire having been extinguished; with the two letter code (EX).

Stage of Control - Out of control (OC)

Describes a wildfire not responding, or only responding on a limited basis, to suppression action such that

perimeter spread is not being contained: with the two letter code (OC).

Stage of Control - Under Control (UC)

Describes a wildfire having received sufficient suppression action to ensure no further spread of the fire: with the two letter code (UC).

Staging Area

Established for the temporary location of available resources. A Staging Area can be any location in which personnel, supplies, and equipment can be temporarily housed or parked while awaiting operational assignment.

Staging Area Manager (STAM)

The person responsible for managing all activities within a Staging Area.

Stakeholder

A person, group, organization, or government with an interest or concern in a particular measure, proposal, or event.

Stand Composition

The proportion of each tree species in a stand expressed as a percentage of the total; in the fire management sense, as a percentage of the crown biomass.

Stand Conversion

The process of actively removing conifer trees in a mixed wood stand to simultaneously reduce the total stem density and proportion of conifer trees relative to deciduous trees.

Stand Structure

The horizontal and vertical distribution of components of a forest stand including the crown layers and stems of trees, shrubs, herbaceous understory, snags, and downed woody debris.

Standby

A state of readiness to take immediate action upon detection of a fire.

Start Stop

In airtanker operations, a drop technique for constant flow tanks where a required start point and stop point are indicated.

Static Suction Lift

In hydraulics, the term used for the vertical distance between the surface of the water supply and the suction inlet of a fire pump; may be positive or negative. Positive suction lift occurs when the water supply level is higher than that of the suction inlet (the water is aiding the pump). If the fire pump is above the water supply it must lift the water, creating a negative suction lift (the most common situation).

Status/Check-In Recorder (SCKN)

The person responsible, at each check-in location, to ensure that all resources assigned to an incident are accounted for.

Stay

An instruction to the airtanker to proceed to a designated location and wait for a new dispatch.

Step

1) An instruction to drop parallel to a previous drop with a specified start point and lateral adjustment (e.g.: "Step 1 load width left and tag on extend."). 2) An instruction to correct the final line to the left or the right and maintain the same heading. Amount to step right or left is usually referenced to load width(s).

Strategy

The general plan or direction selected to accomplish incident objectives.

Strike Team

A set number of resources of the same kind and type that have an established minimum number of personnel, common communications, and a leader.

Strike Team Leader (STLD)

The individual responsible for supervising a strike team. Reports to a Division/Group Supervisor or Operations Section Chief.

String Drop

A technique whereby a specified number of doors in a compartmented tank are opened in succession at defined intervals to give an extended pattern on the ground.

Structure Protection Unit

See Values Protection Unit.

Subsidence

A meteorological term referring to the descending motion of air in the atmosphere, usually extending over a rather broad area, accompanied by warming and drying.

Supervisor

The person responsible for a Division or Group.

Supply Unit

Functional unit within the Support Branch of the Logistics Section responsible for ordering equipment and supplies required for incident operations.

Supply Unit Clerk (SPUC)

The person responsible for support to the Supply Unit.

Supply Unit Leader (SPUL)

The person responsible for ordering personnel, equipment, and supplies; receiving and storing all supplies for the incident; maintaining an inventory of supplies; and servicing nonexpendable supplies and equipment.

Support Branch

A Branch within the Logistics Section responsible for providing personnel, equipment, and supplies to support incident operations. Includes the Supply, Facilities, and Ground Support Units.

Support Branch Director (SUBD)

The person responsible for developing and implementing logistics plans in support of the IAP. The Support Branch Director supervises the operations of the Supply, Facilities, and Ground Support Units.

Support Resources

Nontactical resources under the supervision of the Logistics, Planning or Finance/Administration Sections, or the Command Staff.

Suppressant

A liquid wherein water is the fire suppressing agent, used to extinguish the combustion by direct application to burning fuels. See Long-term retardant.

Suppression Crew

A unit of fire fighters assembled and organized for conducting fire suppression, either for initial attack and/or continuing work on fires. Crew size, specialization, and configuration are determined by agency procedure.

Surface Fire

A fire that burns in the surface fuel layer, excluding the crowns of the trees, as either a head fire, flank fire, or back fire.

Surface Fuels

All combustible materials lying above the duff layer between the ground and ladder fuels that are responsible for propagating surface fires (e.g. litter, herbaceous vegetation, low and medium shrubs, tree seedlings, stumps, downed/dead roundwood)

Surfactant

A surface active agent or wetting agent. A formulation which, when added to water in proper amounts, will materially reduce the surface tension of the water and increase penetration and spreading abilities of the water.

Sustained Action

The actions taken after the Initial and or Expanded Attack to either contain or completely extinguish a wildland fire or part of a wildland fire.

Sustained Action Crew

Personnel trained, equipped, and deployed to conduct suppression action to either contain or extinguish a wildland fire or part of a wildland fire after the Initial and/or Expanded Attack. Sustained Action reflects the highest and best use of Type 2 Crews when exchanged between CIFFC member agencies.

Synoptic Chart

Any map on which weather data and analyses are presented depicting the state of meteorological conditions over a large area at the earth's surface and at various levels in the upper atmosphere, at a particular time.

Tactical Direction

Direction given by the Operations Section Chief that includes the tactics appropriate for the selected strategy, the selection and assignment of resources, tactics implementation, and performance monitoring for each operational period.

Tactical Withdrawal

A planned departure from the fireline using pre-established escape routes and safety zones. Departure is based on pre-established trigger points (e.g., time of day, observed weather or fire behaviour); or observations made on the fireline leading to a well-communicated, orderly departure.

Tactics

The set of specific, measurable actions or tasks for various incident management functional activities that support the defined strategies.

Tag On

Connecting the tail end of a drop to a given point.

Tag On And Extend

To drop retardant in such a way that the load slightly overlaps and then lengthens a previous drop. A 25 percent overlap for conventional drops or 30 to 40 feet (for constant flow tanks) is desired.

Tail End

In airtanker operations, the aft end of a drop on the ground.

Tanker

Used as a short form for airtanker.

Target Altitude

The desired and safe altitude (determined during the inspection run) that the airtanker is expected to fly over the target.

Target Elevation

The desired and safe elevation (determined during the inspection run) that the airtanker is expected to fly over the target.

Target Now

A voice signal from the birddog on a lead-in or show me to indicate the target location.

Task Force

Any combination of resources assembled for a particular tactical need, with common communications and a Leader.

Task Force Leader (TFLD)

The individual responsible for supervising a task force. Reports to a Division/Group Supervisor or Operations Section Chief.

Technical Specialist (THSP)

Personnel with special skills that can be used anywhere within the Incident Command System organization.

Thermal Imagery

Visual presentation or printed document from an infrared detector.

Thunderhead

A popular term for a cumulonimbus cloud formation associated with a thunderstorm. It is characterized by a large vertical column topped by a mushroom or anvil-shaped head.

Thunderstorm

A localized storm producing lightning and thunder.

Tie-In

In airtanker operations, the instruction to connect a drop or portion of a drop to a specific reference point.

Time Unit

Functional unit within the Finance/Administration Section responsible for recording time for incident personnel and hired equipment.

Time Unit Leader (TIME)

The person responsible for recording personnel time and managing the commissary operation.

Timelag

The drying time required for dead fuels to lose two-thirds of the difference between their initial moisture content and their equilibrium moisture content. The fuels represented by the Fine Fuel Moisture Code, Duff Moisture Code, and Drought Code in the Canadian Forest Fire Weather Index System have timelag values of 2/3 (or 16 hours), 15, and 53 days in average weather, respectively.

Torching

The ignition of a single tree or small group of trees from the bottom up.

Traditional Knowledge

The knowledge, innovations, and practices of Indigenous and local communities. Developed from experience gained over the centuries and adapted to the local culture and environment, traditional knowledge is transmitted orally from generation to generation.

Traditional Lands

As land ownership systems evolved over time and with the introduction of protected area policies and large infrastructure development, Indigenous peoples have found themselves increasingly marginalized, exploited, and displaced from traditional land and sources of food.

Trainee

An individual who has acquired a pre-arranged series of competencies (knowledge, abilities, and skills) but requires additional experience in a specific role. The Trainee requires direct supervision by a person who is certified in the role or position and meets the Interagency Exchange Standard for that role or position, to which the Trainee is assigned to for the duration of the assignment.

Training

The learning process involving the acquisition of knowledge, skills and competencies.

Travel Time

The period between departure of the initial attack force for a fire and its arrival at the fire.

Tree Crown Streets

Complex patterns of alternating strips of forest with high and low crown fuel consumption, or no fuel consumption, that are indicative of variation in windspeed or direction during a crown fire run.

Turnaround Time

Time used by an air tanker or helitanker to reload and return to the fire.

Type of Resource

A classification of resources that refers to capability. Type 1 is more capable than Types 2, 3, or 4 respectively, because of size, power, capacity, or in the case of Incident Management Teams experience and qualifications.

Typing Resources

Resources are organized by kind, and type, including size,capacity, capability, skill, and other characteristics. This makes the resource ordering and dispatch process within and across organizations and agencies, and between governmental and non-governmental entities, more efficient, and ensures that the resources received are appropriate to their needs.

UHF frequency

The Ultra High Frequency radio frequency range, between 300 and 3000 MHz.

Underburning

Prescribed burning under a forest canopy without the involvement of canopy fuels.

Unified Area Command (UAC)

Command established when incidents under an Area Command are multi-jurisdictional.

Unified Command (UC)

An application used when more than one agency has incident jurisdiction or when incidents cross political jurisdictions. Agencies work together through the designated members of the Unified Command (UC), often the senior persons from the agencies and/or disciplines participating in the UC, to establish a common set of objectives and strategies and a single Incident Action Plan.

Unit

The organizational element with functional responsibility for a specific incident Planning, Logistics, or Finance/Administration activity.

Unit Leader

The individual in charge of managing Units within an Incident Command System functional section. The Unit can be staffed by a number of support personnel providing a wide range of services.

Unity of Command

Principle of management stating that each individual involved in incident operations will be assigned to only one supervisor.

Unstable Atmosphere

The temperature decrease with altitude is greater than the dry adiabatic lapse rate.

Uphill Run

A bomb run that requires the airtanker to continue or initiate a climb in order to clear terrain following the drop.

Upper Ridge

A meteorological term referring to an elongated area of relatively high atmospheric pressure in the upper atmosphere; usually associated with warm and dry weather conditions at the earth's surface. The opposite of an upper ridge is an upper trough.

Upper Ridge Breakdown

A weakening or collapse of an upper ridge; generally associated with an increase in fire weather severity at the earth's surface.

Upper Trough

A meteorological term referring to an elongated area of relatively low atmospheric pressure in the upper atmosphere; often associated with cool and showery weather conditions at the earth's surface. The opposite of an upper trough is an upper ridge.

Values at Risk

The specific or collective set of natural resources and man-made improvements/ developments that have measurable or intrinsic worth and that could of may be destroyed or otherwise altered by fire in any given area.

Values Protection Unit

Combination of power pumps, hose, sprinkler heads and other accessories deployed together in value protection. May include personnel required to maintain the unit.

Ventilation Index

The ventilation index is a numerical value relating to the potential of the atmosphere to disperse airborne pollutants from a stationary source (e.g. smoke from a prescribed fire). Five ventilation classes, from poor to excellent dispersion, are defined for use in operational forecasting.

Verbal Description

In airtanker operations, a technique whereby the birddog identifies targets by verbally describing the bomb run and target position.

Vertical Temperature Profile

A plot of actual air temperature against height above the earth's surface; most commonly determined by a rawinsonde observation.

Vertical Wind Profile

A plot of winds aloft against height above the earth's surface; most commonly determined by a rawinsonde observation.

VHF

Very High Frequency radio. The standard aircraft radio that all civil aircraft use to communicate with ground radio stations and other aircraft.

VHF-AM

Very High Frequency Amplitude Modulation. Aircraft radio operates in the 118 MHz to 130 MHz range.

VHF-FM

Very High Frequency Frequency Modulation radio. Commonly used for dispatch, land-based mobile, and airborne communications. Generally 46 to 175 Mhz.

Virga

Wisps or streaks of water or ice particles falling out of a cloud but evaporating before reaching the earth's surface as precipitation.

Viscosity

The relative ability of a fluid to resist flow.

Visibility Trim

Retroreflective, fluorescent, or combination retroreflective and fluorescent material attached permanently to the outer material for visibility enhancement. Note: Retroreflective materials enhance night time visibility, and fluorescent materials improve day time visibility.

Vortex Turbulence

Horizontal whirlwind(s) created in the wake of fixed-wing and rotary-wing aircraft that are in flight. Under certain atmospheric conditions, this turbulent air can be projected to the ground and in turn adversely affect fire behaviour. A small fire or segment of a fire perimeter can unexpectedly flare up, particularly if the wind speed is light and an unstable atmosphere exists.

Vulnerability

How easily damaged a particular value is in a fire of a given intensity.

Water Bladder

Closed water bladder designed to be slung by helicopter to provide a water source to a remote location.

Water Bombing

The act of dropping suppressants, (water, foam, or enhanced water solutions) onto a fire from an aircraft in flight.

Water Enhancer

A product that relies primarily on the water it contains for firefighting. These products contain polymers or other thickeners to improve performance by: a) aiding in adherence to fuels, b) allowing build-up of a thick, protective wet layer, and c) minimizing drift during aerial application.

Water Tender

A vehicle used to transport water for a fireline to fill portable relay tanks and thereby provide a continual supply of water.

Water Thief

A type of bleeder valve designed for installation at convenient points in hose lines to permit drawing off water for filling back-pack pumps or other use without interfering with pump or nozzle operation.

Weather Map

A map or chart depicting the meteorological conditions over a specific geographic area at a specific time.

Wet Foam

The bubbles of wet foams are spherical masses of air which are enclosed in solution. The bubble walls are

separated by a large amount of solution, relative to other types of foams. Wet foams have very fast drainage rates.

Wet Water

Water with added chemicals, called wetting agents, that increase spreading and penetrating properties of water by reducing its surface tension.

Wet-Bulb Temperature

The lowest temperature to which the air can be cooled by evaporating water into it at a constant atmospheric pressure. Recommended unit is degrees Celsius.

Wetting Agent

A chemical that reduces the surface tension of water causing it to spread and penetrate more effectively.

WFX-FIT

An unbiased, valid, job-related physical performance standard used to determine whether an individual possesses the physical capabilities necessary to meet the rigorous demands encountered while fighting wildland fires.

Wildfire

Any natural-caused or unplanned human-caused fires that is burning in and consumes natural fuels : forest, brush, tundra, grass, etc. Also include escaped prescribed fires.

Wildfire Risk

The combination of the likelihood of a wildfire occurring combined with the potential impacts of that fire.

Wildland

An area in which development is essentially non-existent, except for roads, railroads, powerlines, and similar transportation facilities, and where structures, if any, are widely scattered.

Wildland Fire

Any fire that is burning in and consume natural fuels : forest, brush, tundra, grass, etc. Includes wildfires and prescribed fires.

Wildland Fire Management

The activities concerned with the protection of people, property, and forest areas from wildfire, and the use of prescribed burning, for the attainment of forest management and other land use objectives, all conducted in a manner that considers environmental, social, and economic criteria.

Wildland-Urban Interface (WUI)

The area where homes and other human developments meet or are intermixed with wildland fire fuels.

Wildland-Urban Interface Fire

A wildfire that has spread into the wildland urban interface that may involve the ignition and burning of structures.

Wind Azimuth

The direction the wind is blowing, that is 180 degrees opposite the wind direction.

Wind Direction

The direction from which the wind is blowing. Wind direction is most commonly referred to by cardinal direction (e.g. North, East, South, West) but may also be expressed in degrees (i.e. 1D to 360D).