

## Common Fire Terms and Concepts

**Anchor Point:** A strategic and safe point, usually a barrier to fire spread, from which to start constructing fire line (or retardant line)

**Active Crown Fire:** A fire in which a solid flame develops in the crowns of trees, but the surface and crown phases advance as a linked unit dependent on each other

**Backfiring:** A tactic associated with indirect attack, intentionally setting fire to fuels inside the control line to slow, knock down, or contain a rapidly spreading fire

**Backing Fire:** Fire spreading, or ignited to spread, into (against) the wind or down slope. A fire spreading on level ground in the absence of wind is a backing fire. That portion of the fire with slower rates of fire spread and lower intensity normally moving into the wind and/or down slope.

**BAER:** Burned Area Emergency Rehabilitation

**Burning Index (BI):** An estimate of the potential difficulty of fire containment as it relates to the flame length at the head of the fire. A relative number related to the contribution that fire behavior makes to the amount or effort needed to contain a fire in a specified fuel type. Doubling the burning index indicates that twice the effort will be required to contain a fire in that fuel type as was previously required, providing all other parameters are held constant.

**Burn Out:** Setting fire inside a control line to consume fuel between the edge of the fire and the control line

**Burn Severity:** A qualitative assessment of the heat pulse directed toward the ground during a fire. Burn severity relates to soil heating, large fuel and duff consumption, consumption of the litter and organic layer beneath trees and isolated shrubs, and mortality of buried plant parts.

**Column Collapse:** These columns collapse once the heat generated at the surface by the fire is no longer sufficient to maintain an updraft. This can potentially happen at any time, and many columns (like showers

and thunderstorms) go through many collapses and regeneration stages in any given day.

**Contained:** The status of a wildfire suppression action signifying that a control line has been completed around the fire, and any associated spot fires, which can reasonably be expected to stop the fire's spread

**Controlled:** The completion of control line around a fire, any spot fires therefrom, and any interior islands to be saved; burned out any unburned area adjacent to the fire side of the control lines; and cooled down all hot spots that are immediate threats to the control line, until the lines can reasonably be expected to hold under the foreseeable conditions.

**Crown Scorch:** Browning of needles or leaves in the crown of a tree or shrub caused by heating to lethal temperature during a fire. Crown scorch may not be apparent for several weeks after the fire.

**Energy Release Component (ERC):** Energy Release Component a term of the NFDRS; index is used by wildland fire specialists and is considered the best indicator of the effects of long-term drying on fire behavior, specifically = computed total heat release per unit area (British thermal units per square foot) within the flaming front at the head of a moving fire.

**Fuel Loading:** The amount of fuel present expressed quantitatively in terms of weight of fuel per unit area.

**Fuel Model:** Simulated fuel complex (or combination of vegetation types) for which all fuel descriptors required for the solution of a mathematical rate of spread model have been specified

**Fuel Moisture Content:** The quantity of moisture in fuel expressed as a percentage of the weight when thoroughly dried at 212 degrees Fahrenheit

**Haines Index:** An atmospheric index used to indicate the potential for wildfire growth by measuring the stability and dryness of the air over a fire

**Initial Attack (IA):** A planned response to a wildfire given the wildfire's potential fire behavior. The

objective of initial attack is to stop the fire and put it out in a manner consistent with firefighter and public safety and values to be protected.

**Incident Action Plan (IAP):** Contains objectives reflecting the overall incident strategy and specific tactical actions and supporting information for the next operational period. When written, the plan may have a number of attachments, including: incident objectives, organization assignment list, division assignment, incident radio communication plan, medical plan, traffic plan, safety plan, and incident map.

**Incident Commander (IC):** The leader of an Incident or Incident Command Team, with the numbers 1 through 5 being the Types; for example, a Type 1 team is a national level team, Type 2 team is a regional team, etc.

**Incident Command System (ICS):** An on-scene structure of management-level positions suitable for managing any incident. "A standardized on-scene emergency management concept specifically designed to allow its users to adopt an integrated organizational structure equal to the complexity and demands of single or multiple incidents, without being hindered by jurisdictional boundaries."

**Incident Management Team (IMT):** The incident commander and appropriate general and command staff personnel assigned to an incident

**Independent Crown Fire:** A fire that advances in the tree crowns alone, not requiring any energy from the surface fire to sustain combustion or movement

**Minimum Impact Suppression Tactics (MIST):**  
Firefighting tactics used in a wilderness area

**National Fire Danger Rating System (NFDRS):** A uniform but multiple index fire danger rating system that focuses on the environmental factors that control the moisture content of fuels

**Passive Crown Fire:** A fire in the crowns of trees in which trees or groups of trees torch, ignited by the passing front of the fire. The torching trees reinforce the spread rate, but these fires are not basically different from surface fires.

**Remote Automated Weather System (RAWS):** A GEOS telemetered weather station that transmits hourly observations 24 times per day

**Relative Humidity (RH):** The ratio of the amount of moisture in the air, to the maximum amount of moisture that air would contain if it were saturated. The ratio of the actual vapor pressure to the saturated vapor pressure.

**Rate of Spread (ROS):** Slow, Moderate, Rapid. Rule of thumb: Slow = Slower than an average person can walk; Moderate = At the same pace as a person can walk; Rapid = Faster than a person can walk; Critical = As fast as a normal person can run.

**Scorch Height:** Average heights of foliage browning or bole blackening caused by a fire

**Spread Component:** Numerically equivalent to the rate of spread of a fire in feet per minute in the given fuel model. Spread component is most affected by fuel moisture and wind speed, and increases greatly on warm, dry, windy days.