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CURRENT STATISTICS

Fires to-date: 40

Hectares burned: 237

Human-caused: 40

Lightning-caused: 0

BANS AND PROHIBITIONS

Campfire: No Ban

Category 2: No Ban

Category 3: No Ban

Forest Use Restrictions: No Ban

[Prohibitions section of bcwildfire.ca for full details.](#)

Coastal Unit Crews

Unit Crews specialize in larger fires and are used when fires grow beyond Initial Attack resources. Provincially, there are 30 Unit Crews positioned throughout six Fire Centres.

Within the Coastal Fire Centre there are five Unit Crews. Two Unit Crews are based in Pemberton, one near Hope (at the Haig Base), one at Cultus Lake and one on Vancouver Island near Port Alberni.

Location	Name of Crew	Established	Fireline Experience
Pemberton	D'Arcy Heatseekers	1990	87 years
Pemberton	Mt Currie Salish	1990	303 years
Haig	Trailblazers	1992	93 years
Cultus Lake	Fraser	1990	78 years
Port Alberni	Thunderbirds	1992	89 years

Thunderbird Unit Crew

The Thunderbird Unit Crew acknowledges that we operate on the traditional unceded territory of the Nuu-Chah-Nulth, the traditional territory of the Tseshaht and Hupacasath First Nations. The Thunderbird Unit Crew was founded in 1992 as an all First Nations Crew. Throughout its history, and still to this day, the Unit Crew honours its legacy by carrying with it the values of community, service, and ownership established by our predecessors. This manifests itself in the Crew's dedication to serve its many communities through stakeholder engagement in project work and education. The Crew engages with BC Parks, Rec Sites and Trails, local forestry operators, and municipalities when not on fires to engage in training, harvesting support, fire smarting, fuels management, and danger tree and windthrow removal. By focusing on developing the relationships in our communities the Unit Crew is regularly engaged in meaningful training and project work.

The Unit Crew is fortunate that it gets to train in the technical terrain and forests of Vancouver Island. Although we respond regularly to incidents in our home center, it is also very common for the Crew to be deployed off Island and around the Province. As such we get to travel often and have experience fire in all the

Coastal Unit Crews cont'd

terrain and fuel types that make up British Columbia.

Life on a 20-person Unit Crew can be challenging, but there is no other feeling like the sense of teamwork and accomplishment you receive at the end of the workday. When all 20 individuals pull together in the same direction the crew can face challenges together and support each other in overcoming them. At the end of the day, when we jump back in our trucks dirty and sore, there is no other experience that matches knowing you and your crewmate beside you put it all out on the line for each other.

Heatseekers Unit Crew

The Heatseekers are distinct from other Unit Crews because of their proclivity for steep terrain. Mountains in the Pemberton Fire Zone can mark up to two kilometres of vertical relief, often over sustained sections of slope up to 40 degrees. When fires in the zone surpass the capacity of Initial Attack crews, the Heatseekers are deployed to install hose lays, helipads, and fuel frees to support firefighting operations in this difficult ground. This often includes carrying equipment like pumps, chainsaws, and portable water tanks up and down mountainsides, strenuous work that requires exceptional physical fitness.

In addition to the work they do in zone, the Heatseekers are often deployed throughout BC to assist with wildfire and flood operations. These deployments typically last 14 days, and see the crew basing out of fire camps set up in remote wilderness areas throughout the province. The Heatseekers have also been deployed to Alberta, Ontario, Quebec, the Yukon Territories, the USA, and, most recently, Australia, where a contingent from the crew assisted with the disastrous wildfires that devastated the country in 2019 and 2020.

Heatseekers crew members include people who grew up in the Pemberton Zone, people who have relocated to the area permanently, and transient workers who spend their off seasons studying, travelling, or working in other industries. This makes for a diverse crew, which includes First Nations, female, and international membership, including women and First Nations in leadership positions. Veterans of over a decade forming the crew's senior staff, and the Heatseekers boast 87 years of cumulative experience. This makes them exceptionally well suited for specialized tasks such as danger tree falling and burn-off operations.

Salish Unit Crew

Formed in 1990, The Salish Unit Crew is the last remaining all First Nations crew in the BC Wildfire Service. The crew is based in Mount Currie, and represents an unparalleled wealth of firefighting knowledge. Between its 20 members the crew has a combined 303 years of experience, and retains 5 founding members including Crew Supervisor Ryan Pascal.

Nobody moves in Coastal forests like the Salish, or understands the Pemberton Zone's fuels types quite as well. Their understanding of the subtle differences between tree species lets them quickly assess developing fire situations, and keeps them safe during direct attack operations. For example, if the crew is working in a stand of cedar, they expect tall trees to fall as they burn through from the inside out. They know the distinctive sounds of the trees cracking as they lose structural integrity, and watch from safe distances as they fall. From there, they move in with hoses to extinguish the flames.

On the Salish Unit Crew's significance to the Lil'wat Nation, Crew Supervisor Ryan Pascal says: "From day one we've seen what it means to the community, not just the crew members and their families but everybody. Every time we go to a fire, we're

Coastal Unit Crews cont'd

representing ourselves and our people, as well as the BC Wildfire Service. We carry that with us, and it helps us keep a high standard of excellence everywhere we go.”

Fraser Unit Crew

This year marks the 30th anniversary of the Fraser Unit Crew serving the public of British Columbia. Starting in 1990, the crew was originally named the Coastal Unit Crew and was a part of FORED. In 2008 the unit crew was officially brought in under the Ministry of Forests and became the Fraser Unit Crew.

Located next to Cultus Lake in the Chilliwack area the principle geography the crew serves lies in the Fraser Valley including Greater Vancouver and continues to Manning park.

Throughout its history, the crew has cultivated a culture around the tenets of service, teamwork and personal achievement. As our profession continues to evolve into an all hazards emergency service encasing floods, fires and other natural disasters, we understand that we must evolve with it. Each and every season our team endeavors to build on past lessons and innovate new ways to better ourselves. The idea of “Better People = Better Firefighters” is one that is commonly heard around the base.

The highly tangible nature of the work we do provides us with a deep sense of pride, and wherever we go throughout our province, our country or to help other Nations in need we work to recreate that feeling. Being of service to others and doing so not only from a professional standpoint but with intrinsic motivation is a major driver for this crew.

The Unit Crews of B.C. each have patches that identify themselves and allow for a sense of team to flourish. The Fraser Unit crew is no different. Our patch also lives on our mission statement that hangs above our locker room entrance. Underneath it, the words “Leave the Patch in a Better Place” are written, and in the end, that is what we try to do everyday.

Trailblazers Unit Crew

The Trailblazers Unit Crew (UC) base sits on the edge of Hope, at the foot of Dog Mountain and alongside the Fraser River, with log -buildings encircled by centuries-old trees. This landscape makes the members of the Trailblazers UC uniquely equipped for Coastal challenges, such as over-sized tree falling and extreme slope trekking. Additionally, the base is shared alongside an Initial Attack program, giving the Trailblazers a diverse perspective on wildfire suppression tactics and training. In addition to standard Unit Crew response operations like long-distance hose lays, fuel frees, and steep terrain gear hauls; the Trailblazers are also well versed in Heli-pad building, Hover Exit/Entry maneuvers, and fire suppression equipment typically reserved for 3-person I.A. crews. The Trailblazers understand that the ability to efficiently work the challenges of the land, while also meeting the criteria for tasks like Hover Exit/Entry, means physical and mental fitness is instrumental to success; which is why they take time every day for physical and mental exercises to ensure crew fitness, in all its forms.

Since the Fraser Zone has the largest population of any zone in BC, the Trailblazers often work side by side with local resources to maintain the intricate and extensive web of trails throughout the Provincial Parks that border it. While the high-population of the Fraser Zone demands immediate and short response times, the skills acquired throughout the summer are not reserved strictly for in-house incidents, as the Trailblazers are considered both a provincial and a national resource. With 93 years of cumulative experience, the Trailblazers are better prepared than most to take on the trials that any wildfire season can bring.

Unit Crews

They're There for the Long Term

Sometimes during hot, dry and windy weather conditions, fires can grow larger than what an initial attack team can address. Once a fire is beyond initial attack resources, unit crews come to take over the fire. A unit crew is a 20-person crew, consisting of 4 squads that each have their own crew leader. Unit crews are sent out to a fire when the fire requires large amounts of fireline construction, complicated water delivery is required, the type of work requires technical expertise and experience in building a handguard or fuel free. A fuel free creates a break of vegetation in order to slow the spread of the fire and can be done by hand, with tools, or with heavy equipment such as bulldozers and excavators. Once on site, the 20-person crew works together to achieve the containment that is needed. Unit crews work in difficult terrain with hot, dusty and smoky conditions, for up to 14 consecutive days. They are self-sufficient for 72 hours and can live in remote, temporary fire camps if needed. A unit crew may be broken into smaller groups or squads depending on the nature of fire activity. When unit crews aren't working on the fireline, they are completing projects, such as prescribed burns and other work within their zone. There are 30 unit crews in British Columbia located within the six different fire centres. Like their initial attack counterparts, unit crews are highly mobile and can be called away from their base to work on fires anywhere in British Columbia or North America.



UNIT CREW LOCATIONS

CARIBOO FIRE CENTRE - 4 CREWS

Vesta (Williams Lake)	Stormriders (100 Mile House)
Blackwater (Quesnel)	Ravens (Alexis Creek)

COASTAL FIRE CENTRE - 5 CREWS

Trail Blazers (Haig)	Thunderbirds (Port Alberni)
Heatseekers (D'Arcy)	Fraser (Cultus Lake)
Salish (Mount Currie)	

KAMLOOPS FIRE CENTRE - 7 CREWS

Bighorns (Kamloops)	Thunderstrike (Seton Lake)
Fire Devils (Merritt)	Fire Stalkers (Vernon)
Sierras (Princeton)	Nicola Knights (Merritt)
Rattlers (Lytton)	

NORTHWEST FIRE CENTRE - 4 CREWS

Firebirds (Terrace)	Rangers (Telkwa)
Rainmakers (Hazelton)	Burns Lake

PRINCE GEORGE FIRE CENTRE - 4 CREWS

Rhinos (Fort St. John)	Firehawks (Prince George)
Titans (Vanderhoof)	Mack (Mackenzie)

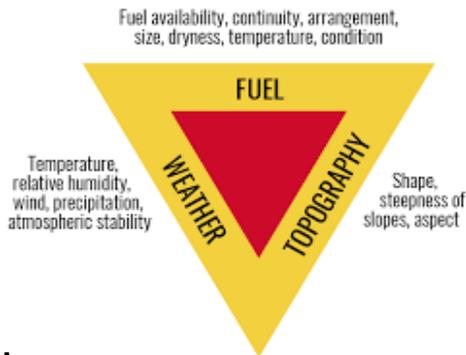
SOUTHEAST FIRE CENTRE - 6 CREWS

Sentinel (Shoreacres)	Valhalla (Shoreacres)
Rocky Mountain (Cranbrook)	Flathead (Cranbrook)
Columbia (Revelstoke)	Monashee (Revelstoke)

OPS: Fire Behaviour

Influences on the Intensity of the Fire

There are three primary factors that influence wildfire behaviour: fuel, weather and topography.



Fuel

Basically, fuel is anything that can burn. In the context of wildfires, it refers to all plant material in a forest or on grassland, both above and below ground. This includes trees, grass, dead leaves, tree needles, brush, logs, stumps and deep duff. Deep duff is the stuff you walk on such as roots, buried branches and humus (nutrient-rich, decomposed plant material that helps plants grow).

About the only things in a forest that aren't considered fuel, is the sand, clay and gravel portions of the soil. For this reason, fire fighters will create a 'fire guard' by removing fuels using hand tools (shovel or Pulaski) or heavy equipment, ensuring that only mineral soil is left around the perimeter of the fire.

Flames occur when gases are released by heated plant material. At temperatures between 200 C and 600 C, the material smoulders but does not produce any visible flames, releasing only carbon dioxide and water vapour. Above 600 C, however, gases are released through a thermal reaction (pyrolysis) and the material ignites, producing flames.

By this same process, if a fire is cooled down enough, the thermal reaction ends, and the material returns to a smouldering state. However, this does not mean that the fire is completely extinguished.

Smouldering debris can burst into flame again if the supply of oxygen increases (higher winds, for example) and there is more heat present. These conditions intensify the smouldering action and produce more gases, which then ignite. This explains why a fire that is only smouldering in the morning can burst into flame during the heat of the day and when breezes move through the area.

When firefighters are in the mop up stage of a fire, they will patrol the extinguished fire, looking for wisps of tiny smoke, feeling the ground for hotspots, and even using their noses to smell for fire. These are indications that smouldering material is still present and must be fully extinguished before the fire can be called out.

Different types of fuels have different burning characteristics, depending on their **size**, **spacing** and **type**.

Fuel size is generally broken down into light and heavy. Light fuels tend to be fast-burning, due to their size. They include grass, dead leaves, brush and small trees. Heavy fuels are larger and include logs, stumps, large branches and standing trees. These fuels take longer to ignite, and the fire will spread slowly and burn longer.

Spacing refers to how the fuels are distributed across the landscape. The closer the fuels are to the heat source, the more likely they are to burn. Vertical spacing refers to the distance between ground fuels and the forest canopy. The fire is more likely to climb into the forest canopy if there isn't much space between the fuels. Horizontal spacing refers to amount of space between two fuel sources (e.g. distance between trees).

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OPS: FIRE BEHAVIOUR CONTINUED...

Fuel type varies widely throughout British Columbia. To gain a better understanding of how different fuels would burn in different locations, broad groupings of fuels were identified and mapped across the province. On the West Coast, for instance, you may see areas that include cedar, hemlock, Douglas fir and “slash” material. This configuration is a defined fuel type and fire crews have been trained to recognize it, know what fire behaviour to expect and decide what suppression methods would be most effective.

Weather

Four different components of weather impact wildfires: **wind, precipitation, temperature and humidity.**

Wind has a tremendous effect on fire control, direction and growth, since it fans or feeds oxygen to the fire. It also flattens or “bends” the flames ahead of the fire and closer to the fuels, resulting in drying and igniting new fuel sources. Wind is the primary cause of spot fires as it blows embers well ahead of the main fire. As wind speed increases, fire intensity and rate of spread can also increase dramatically.

Precipitation is the most beneficial weather factor for fire suppression, since it reduces heat at the site of a wildfire. Even a light drizzle will deliver more water on a fire than crews can do with pumps and hoses. A rain shower may be enough to soak smaller fuels, but it will have little effect on large logs, heavy timber and deep duff. Rain can only be relied on to slow down a fire, not put it out.

Temperature also affects fire behaviour. Fuels that have been heated by the sun will ignite and burn faster than cooler fuels. Hot weather is the greatest contributing factor to drying out fuels and making a forest or grassland more susceptible to wildfire.

Humidity is the level of moisture in the air and affects the moisture content of fuel. As humidity levels rise, fuels absorb moisture which reduces the possibility of quick combustion. High humidity results in lower fire intensity. Humidity levels generally rise in the evening resulting in lower fire intensity. This helps to explain how a fire that is out of control in the afternoon might be successfully suppressed that evening or the following morning.

Topography

Topography (i.e. the physical composition of a landscape, particularly its surface features) affects all sides of the fire

triangle. The ‘lay of the land’ is divided into three categories: **slope, aspect and terrain.**

Slope refers to the steepness of the land. It influences the direction that a wildfire will move and how fast it spreads. In general, a fire moves faster uphill than downhill. The steeper the slope, the faster the fire tends to move, due to the following factors.

- On the uphill side of a fire, the flames are physically closer to the fuels which will help “preheat” them, and drier fuels make a wildfire more volatile.
- Wind currents during the day tend to blow uphill, pushing flames and heat into new fuel sources (the opposite occurs overnight).
- Convective heat rises upwards, creating drafts that cause the fire to spread more quickly
- Embers or burning pieces of fuel may roll downhill to unburned fuels, starting new fires or accelerating the fire’s spread. This is called “backing down” a hill.
- Sloped terrain can also hinder crew access to the wildfire site and make it more difficult for firefighters to move and work as they never want to access a fire from above in order to avoid entrapment.

Aspect is the direction that the slope faces. Southern slopes receive direct heat from the sun, which dries out soil, vegetation and fine fuels. Convective heat results in increased winds, lower humidity and lower moisture content in fuels.

Terrain is the variation in landscape features that can affect wind direction and speed. Wind, like water, follows the path of least resistance. Ridges, trees and large rocks may cause wind turbulence and eddies. The speed of the wind can increase when it travels through narrow canyons, and steep “V drainages” can create a chimney effect. Fires that occur in these chutes can burn intensely and spread rapidly. Elevation can also affect air temperature. In general, the higher the elevation, the cooler the air. Fuel types can change at higher elevations and become sparse.

Control Lines

How to Turn a Rank 5 Into a Rank 2

When fighting fire, the first order of business is to slow the spread and ferocity of the fire by reducing the amount of fuel available to be burned. Firefighters use a variety of methods to remove or cool the fire so that fires can be controlled.

The most efficient way to remove fuels from the head of a fire is to construct control lines. Control lines should not be confused with fuel free lines which may be constructed adjacent to a control line. A fuel reduced, or fuel free line, is an area burnt or back burnt to stop the forward spread of a fire. Fuel free lines are used to strengthen control lines.

Control line strategy considers terrain and other environmental influences on fire behaviour and uses them to the best advantage. For example, using rivers or roads for fixed control lines and building temporary control lines when, and as, needed.

When building temporary control lines, several factors are considered:

1. Expected fire behaviour and weather - firefighters must account for possible changes in wind direction in relation to the fuel types present.
2. Advantageous position – such as near cleared land.
3. Constructed in ways and areas to minimise impacts on environmental and cultural values.
4. Constructed to ensure the safety of firefighters. Firefighters need safe egress and safe zones available in case they must retreat from a fireline.
5. Trees – while it is often necessary to remove trees to build a control line, removing too many may introduce too much wind into the fire edge and cause fire behaviour to increase.



When determining the width to build a control line crews need to consider Fire Danger, flame height, the forest fuels tendency to spot and the moisture of the fuels. For example, very wide control lines will not halt the spread of a rapidly moving fire if spot fires are igniting well ahead of the main fire. Appropriately placed and adequately prepared control lines are more effective.

The reason that a fuel free area is built is to change the behaviour of the fire. This can be done by burning, slashing, or mulching an area. This area can range from a few metres to several kilometres wide.

While fire crews are getting into position, or when fire behaviour is too extreme to build a control line or fuel free area, or if fire behaviour increases and is endangering crews, fires can be slowed by water or retardant drops. It is often assumed that water and retardant drops extinguish fires but this not the case. Water and retardant provide a respite, but it is only crews on the ground, or extended periods of wet and/or cold weather that extinguish wildfires.

If it is safe to do so Unit Crews clear fuels from the area, working systematically between the control line and the fire, starting at the control line 25 feet, 50 feet and then 100 feet towards the fire. The goal is to burn as much fuel as possible before the head of the fire reaches the area. This creates a burned area, or blackline, with nothing left for the fire to burn. Crews will then patrol along the control line suppressing any embers, or fire, that moves beyond the control line.

One of the FireSmart principles is to remove fuels so that if fire is in the vicinity it has nothing to feed on. Clearing your property of any fine fuels, shrubs and flammable objects will help protect your home from being impacted by fire. While fire crews race to remove fuels ahead of a fire, you can prepare your property over time. For more information about safeguarding your home download the manual *FireSmart Begins at Home* at: [BCWS Homeowner FireSmart Manual](#)

For more information about Fire Behaviour: <https://www2.gov.bc.ca/gov/content/safety/wildfire-status/about-bcws/wildfire-response/fire-characteristics/behaviour?keyword=fire&keyword=behaviour>

Fire Rank Information: <https://www2.gov.bc.ca/gov/content/safety/wildfire-status/about-bcws/wildfire-response/fire-characteristics/rank>



Fire Weather Forecast

Issued: 1045 PDT Friday 17 July 2020.

SYNOPSIS: (Today-tomorrow) The remnant clouds of the Thursday trough are still overhead the south coast and a few light showers are reported. But the trough is drifting east and skies are already clearing over central Vancouver Island and parts of the mainland coast as the next ridge starts to build. Most areas will be sunny this afternoon and highs will climb past yesterday's values. Clear skies tonight allow air temperature to fall to the 12 to 14 mark with near full recovery. Winds remain mostly light today and tonight but as a new surface ridge builds tomorrow all zones will see increasing westerly winds probably reaching 20 to 25 kph in the late afternoon. Although clear sunny and warm over all southern sections the next weather system approaches Haida Gwaii and the Mid-coast Saturday afternoon.

OUTLOOK: (Sunday-Tuesday) The upper ridge continues to strengthen Sunday and this brings a weak morning outflow breeze leading to lower afternoon humidity. As well, the afternoon high temperatures move up to the high 20s or even a few low 30s on Sunday. By very early Monday the ridge peaks and so do the afternoon temperatures with inland extremes reaching the low to mid 30s. Minimum relative humidity readings likely drop into the high teens. Fortunately the winds look to be quite light but even so there will still be reports of FFMCs over 95 and ISIs over 12. Tuesday, the ridge starts flattening allowing a few cloudy periods to move in with cooler temperatures and higher humidity. However, there will likely be stronger winds and this could lead to continued increasing fire danger.

CONFIDENCE/DISCUSSION: Confidence in the general shape of the forecast is good but details of temperature and humidity and rainfall fluctuations are poor.

6 TO 10 DAY: (next week) The charts show either a weak upper trough or even a closed upper low over the west coast by late Wednesday or Thursday. Showers are likely by the end of the week.

Coastal News

Fire activity continues to be low throughout the Coastal Fire Centre. There has been one new fire since July 7, 2020.

Crews have completed their FIT testing. To see what the test entails go to: <https://www.ciffc.ca/standards/wfx-fit>.

A great FireSmart reminder resulting from the Magee Road Fire near Squamish: <https://www.facebook.com/firesmartbc/videos/578763826344073/UzpfSTE0MjE4ODAxMDY3MjoxMDE1ODI5NT-cyNzcwMDY3Mw/>

For information from Predictive Services you can go to: <https://www2.gov.bc.ca/gov/content/safety/wildfire-status/wildfire-situation/fire-weather#seasonal-outlook>

The BC National Forest Week Coalition has produced seven posters of the primary conifer trees in BC. These free posters can be downloaded from the BCNFW Coalition's tree poster webpage. The intent is to provide access to this material for printing and sharing by teachers and local event organizers. Go to: <https://www.bcnfw.ca/teaching-forestry-resources/bc-tree-posters/>

Contact Information

Report a Wildfire: *5555 on a cell or 1 800 663-5555

Wildfire Information Line: 1 888 3FOREST

Burn Registration Number: 1 888 797-1717

Information Officer Phone Number: 250-951-4209

Information Officer Email:

BCWS.COFCInformationOfficer@gov.bc.ca