

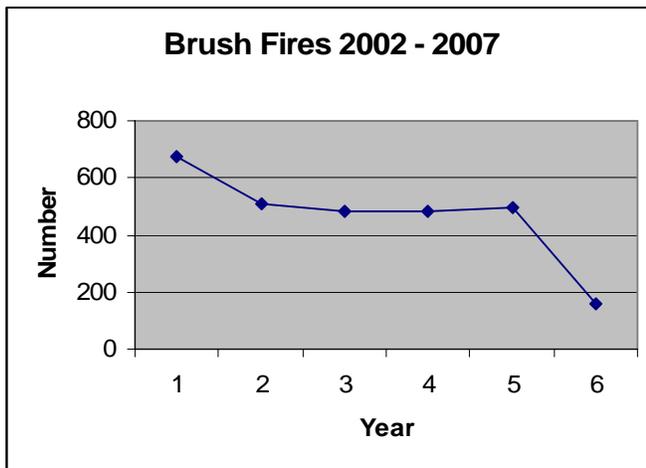
Wildfire Suppression

Brush Fires in Anchorage
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Brush Fires in Anchorage

Tracking Brush Fire Incidents

The following table shows the annual brush fire calls logged at the Anchorage Fire Department and reported to FireRMS for recent years. AFD has noted a significant decrease in the volume of brush fires since the onset of the Anchorage Wildfire Program, which formally started in 2001. The department attributes this correlation to the public awareness campaign supported by AFD and its partners in promoting Firewise and safe burning practices. Through this awareness, residents became more careful in their residential use of fire and subsequently, fewer fires grew out of control.



Year	Number
2002	673
2003	507
2004	483
2005	484
2006	495
2007	158
Total	2800

Brush Fire Response

Within the Municipality of Anchorage, three local firefighting agencies have primary response for fire suppression: Anchorage Fire Department, Girdwood Volunteer Fire Department and the Chugiak Volunteer Fire Department. In



the case of wildland fires, the State of Alaska Division of Forestry is the primary mutual aid responder along with other state, federal and military partners. This means that the local department will respond first and then request mutual aid resources as needed.

The Anchorage Fire Department maintains equipment and apparatus designed for wildland fire suppression along with regular training for firefighters and company officers. Ground based operations include progressive hose lay systems, water tenders, and portable tanks and water pumps to augment the water supply. A contract helicopter is added to AFDs fleet during the

wildland fire season. It is outfitted with a bucket for water drops and a flight crew to conduct fire size up and reconnaissance from this aerial platform. This expedient response is oftentimes an invaluable resource for firefighters on the ground: providing water and an “eye in the sky.”



In addition to maintaining top of the line response apparatus and well-trained firefighters, AFD reviews and updates the water resources catalogue annually. This list of drafting sites helps both rolling apparatus and the helicopter locate water during a wildland fire event.

Brush fires in the wildland-urban interface of the Municipality are the result of several very different ignition sources. They are often intentionally lit, but dry grass and other fuels cause fires to spread out of control of the user. In 2008, AFD has successfully suppressed

several significant brush fires that had the potential to spread to nearby homes. Some brush fires are likely caused by children playing with fire, as was evidenced in the Southport fire shown here. Unreported fire activity has also been noted around schools in the MOA.

As shown to the right, this unattended burn barrel on Upper Huffman caused a brush fire in May 2008. While burn barrels are inherently safer than open fires for residential burning of brush because they contain the flames, AFD continues to discourage their use because they are often the source of brush fires in the MOA and in the Matanuska - Susitna Valley. The user assumes a false sense of safety because the fire is contained within the barrel and often leaves the site unattended. Ventilation holes in the bottom of the barrel serve as escape ports for burning embers, lighting the adjacent grass or brush on fire. Additionally, not all burn barrels are fitted with a screen over the top opening. Radiant heat ignitions may also occur near burn barrels.



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Burn barrel use could be substantiated if all users complied with the safe burning guidelines, provided adequate clearance around the site, attended their fire for the duration of the burn period, and installed screens over the ventilation holes around the bottom and across the top of the barrel. Metal screening with ¼ inch or smaller grids should be used in this application.

Homeless and vagrant people cause many brush fires in the Municipality of Anchorage. These people often take refuge in black spruce stands that provide visual cover and protection from the weather.

Unfortunately, the black spruce foliage is highly combustible and ignites easily in dry conditions. The moss and Labrador tea common to this forest type supports fire due to its chemical composition and structure. The July 2, 2008 Piper Fire was ignited by a homeless person and burned 10 acres adjacent to subdivisions near Tudor Road and Lake Otis Parkway.



The Piper Fire was ignited by a homeless person camp near the yellow circle. The Division of Forestry's air tanker dropped retardant to keep the fire from spreading further west toward more homes, as shown in the orange oval. This image shows the burned area looking north to the homes on Grumman and Piper Streets.

AFD responded to the fire with engines and firefighters, setting up the Incident Command Post (ICP) at the south end of Piper Street. Due to the complexity of the fire with regard to size, potential for growth, and proximity to homes, a unified command structure was implemented with AFD and Division of Forestry under Incident Commanders John Adamson and Phil Blydenberg, serving for their respective agencies. On the fire line, AFD implemented full use of progressive hose lays from portable water tanks in addition to using float-a-pumps in Campbell Creek to provide water to the further reaches of the fire. Operations Chief John Huxley directed

the suppression efforts through field coordination with AFD, Division of Forestry and Alaska Fire Service personnel.

Wildfire Mitigation Office staff supported the fire suppression efforts in operations, plans and information. Jason Kohler supported Rotor 1 operations as the aviation manager at ICP. Forester Sue Rodman and Battalion Chief Tom Kempton provided field escorts for the media onto the fire line. Rodman and Kohler also provided fuels and weather observations to the media and the unified Incident Command. Fire Education Specialist Jennifer Klugh remained at ICP to support the command staff and provide media interviews. Klugh returned to the scene the following day to provide tours of the burn area and facilitate timely postings of the fire incident for print, television and radio news.



AFD Forester Sue Rodman approaches Incident Command at the Piper Fire to support media on the fire line.

Firefighter Landon Forth works the line during the Piper Incident. Along with other AFD firefighters, he helped flank the fire with water and tools. This is the hard work of beating out fire in the mossy understory and roots of the black spruce forest.



Infrastructure Improvements

Through the wildfire program, the Municipality and the Anchorage Fire Department have supported two projects to improve infrastructure for fire suppression response. Where Romania Drive crosses Potter Creek, the road surface was smoothed and the culvert was re-aligned to improved drainage. This project supports emergency ingress and residential evacuation egress for the Potter Heights area. Secondly, several water resources were improved to support the refilling of AFD water tenders during fire suppression operations on the South Anchorage Hillside, along Eagle River Road and in Indian & Bird. Water resource guide books are distributed to all AFD and State Forestry engines. This resource list is critical for areas without hydrant coverage.



Wildfire Training & Response

National Interagency Incident Management System

Incident management in the US is guided by the National Interagency Incident Management System (NIIMS). This system establishes minimum interagency training and qualification standards for the mobilization of resources to wildland fire assignments. All local, state and federal agencies in addition to private contractors must use this system to train their personnel for availability to incidents. For local response, it provides a solid framework for operational standards in wildland fire fighting with respect to effective suppression and safety for firefighters and the public.

AFD and other Municipal departments use this system to train personnel for wildland fire and other types of emergencies. While this function has been financially assumed by each department for its respective staff, the wildfire program supported the initial training of key staff to attain a base level of proficiency within NIIMS.

AFD has partnered with state and federal agencies to sponsor incident management classes locally to keep down costs and increase local agency attendance. Where local training was not feasible, staff traveled to classes in the State or Outside. This training applies to all levels of management including suppression on the fire line, crew management, planning, logistics, financial tracking and information. Specific training is identified and tracked for AFD staff that assumes wildland fire duties and specific positions.



- AFD Brush Rig staff: crew boss, engine boss and incident commander types 4 & 5
- AFD Flight Crew: helicopter crew member and manager
- AFD Firefighters: basic wildland fire fighting and fire behavior
- AFD administrative staff: incident management, information, interagency incident business management

Wildland Fire Simulation Drills

Municipal departments have coordinated simulation drills to exercise our mutual response to wildland fires in several communities. Actual simulations have taken place in Bear Valley, Stuckagain Heights, and Eagle River. During these events, AFD and the Anchorage Police Department place their staff and resources within the scene to manage the simulated fire in addition to the residents and traffic near the drill. Tabletop simulations at the Municipal Emergency Operations Center test the connectivity between field operations and management of logistics by city and state leaders. State and federal agencies always participate to the greatest extent during these drills so that we can explore our mutual aid response communication and procedures.



In support of simulation exercises and actual events, the wildfire program sponsored the acquisition of WebEOC, a software system installed on all of the computers at the Emergency Operations Center that assists with the management of resources and information during an emergency. Staff from each department was then assigned to a team and trained on the utility and function of the program. Regular practice sessions are held to maintain the emergency responders' proficiency with the system.

AFD Wildland Patrol and Response

AFD designated Station 14, at the corner of Tudor Road and Campbell Airstrip Road, the wildland station. It houses the brush rigs, a tender, and staff that supports wildland operations through training and in-station drills. Additionally, Battalion 3 resides at Station 14. These three Battalion Chiefs support wildland operations, training and coordination in their suite of responsibilities.

During the spring and summer months, Battalion 3 adds staffing for the brush rigs on high fire danger days. This increases the rolling apparatus working as fire patrol and an added suppression resource when weather conditions and fuel are conducive for burning. Brush rig staff maintains their incident management qualifications for Engine Boss and Crew Boss to serve as initial attack to brush fires.



Pre-positioned Helicopter

2008 Contract

On a seasonal basis, AFD contracts a helicopter to serve as initial attack on wildland fires in the Municipality of Anchorage. The helicopter and its staff, AFD Flight Crew, have supported numerous other missions for fire and rescue with mutual aid response agencies over the past several years. In 2008, Rotor 1 provided initial attack for the Municipality of Anchorage and continued to develop interagency partnerships at the local, state and federal levels. The 2008 wildfire season was relatively slow throughout Alaska which provided an opportunity to focus on flight crew training. This training allowed the Aviation Section to perform additional training and multi-company drills. This further developed aviation qualifications and aviation exposure to AFD firefighters working near Rotor 1 and calling in water bucket drops from the ground.

This 45-day, single year contract for \$250,000 was provided by ERA Helicopters LLC. ERA provided a new aerial platform called an A-119 Koala made by AgustaWestland. This helicopter ended up being the first in the United States to function on a wildfire contract and has gained national attention by federal wildfire agencies. The final billing for 2008 is expected to be \$240,402.



2008 Rotor 1 Missions

Wildland Fires

- All four wildland fires were within the Municipality of Anchorage
 - May 20 – Briggs Bridge, Eagle River. 1+ acre
 - May 21 – Upper Huffman, Anchorage. ¼ acre
 - June 1 – Goldenvue Drive, Anchorage. Illegal brush fire, residential.
 - July 2 – Piper Fire, Anchorage. 10+ acres

Search & Rescue (SAR)

- All three SARs were within the Municipality of Anchorage
 - June 9 – Assisted Engine 15 with concerns regarding four individual out on the mud flat in the Turnagain Arm
 - July 6 – Assisted AFD ground personnel in locating a injured biker on the Coastal Trail

In 2008, Rotor 1 flew 22.6 flight hours:

- 6.1 hours on emergency response missions
- 16.5 hours on emergency training and reconnaissance missions

The Aviation Section transported 81 water bucket drops totaling 15,830 gallons. Rotor 1 dropped 43 of those buckets on the Piper Fire delivering 8,256 gallons of water. Additionally, 47 city and state officials were transported for reconnaissance flights.

2007 Rotor 1 Missions

Wildland Fires

- 6 initial attack fire suppression missions within the Municipality of Anchorage
- 6 initial attack fire suppression missions supported Alaska Division of Forestry

Search & Rescue (SAR)

- 1 aerial assistance mission to Chugiak Volunteer Fire Department to locate a reported downed aircraft.
- 2 backcountry rescue missions in Chugach State when Alaska State Troopers were unavailable.

Rotor 1 supported law enforcement operations during the 59th Annual Meeting of the International Whaling Commission in Anchorage.

In 2007, Rotor 1 flew 47.1 flight hours:

- 32.6 hours on emergency response missions
- 14.5 hours on emergency training and reconnaissance missions

The 2007 contract cost was \$238,008. AFD received reimbursements from the Division of Forestry for fire response at \$38,769 for Rotor 1 and \$10,395 for personnel. The Aviation Section transported 351 emergency response personnel, 25,705 pounds of cargo, and delivered 92 bucket drops.



Aviation Unit Manager Jason Kohler explains the Rotor 1 mission profile to Governor Sarah Palin while being escorted by Division Chief Bridget Bushue at the AFD Open House on May 31, 2008.



The US Forest Service requested AFD bucket assistance on the Hope Fire in July 2005. This response opportunity provided much needed training to AFD helicopter crew members.

Flights were also used for aerial reconnaissance to view fuel types, changes in forest stand structure, planning for evacuation & mitigation projects, and assessing fire response strategies.

Apparatus & Equipment

KME Mini Pumper

The KME Mini Pumper (Brush 10) is a Type III wildland engine that is more maneuverable than AFDs structural engines. It carries 300 gallons of water and includes a condensed air foam system (CAFS) that applies foam to structures to protect them from an approaching wildfire. It is housed at Station 10, directly adjacent to Bear Valley and also services Rabbit Creek.



Type VI Wildland Engines



Three Type VI wildland engines with 250 gallons each are staffed on high fire danger days by AFD Firefighters. These engines are housed at Station 14, AFDs designated wildland station. These engines service the Anchorage and Eagle River areas.

Girdwood & Chugiak Volunteer Fire Departments

Apparatus upgrades and wildland equipment have also been supplied to the volunteer fire department of Chugiak and Girdwood. Additionally, these departments secure other apparatus and equipment, in addition to training, to augment their wildland fire fighting capability.

Tender 14

Tender 14, with a 2,500 gallon capacity, is housed at Station 14, located at the base of the Campbell Airstrip Road accessing Stuckagain Heights. This neighborhood is home to over 150 families at the end of a four-mile road with no secondary egress route. Alternate routes are limited by the Campbell Creek canyon and Ft. Richardson Army Base. Several similar limited-access neighborhoods in high fire hazard areas do not have a Municipal water supply: Glen Alps, Bear Valley, Eagle River Valley and South Fork).

Auxiliary Type VII Wildland Engines

Two auxiliary Type VII wildland engines with 250 gallons each, also supporting wildfire mitigation projects, are housed at Station 7-1 in Sand Lake. These engines are available to AFD Firefighters in a wildland fire event. They may also serve as command vehicles in that situation.



Equipment

Forestry hose, nozzles and portable water pumps are positioned on the apparatus



servicing the wildland urban interface. This equipment allows firefighters to fight fire off of the road system and attain water where streams provide the only water source. Municipal and State parks range in size from 5 to 500,000 acres making this type of equipment critical to wildland fire suppression efforts.
