

Fire #164 Broken Snowshoe courtesy of SWS

# ALASKA FIRE SEASON 2009

Wildland Fire Summary and Statistics Annual Report - AICC













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## 2009 Alaska Fire Season Summary

The National Seasonal Assessment workshop was held in mid April for Alaska. The initial fire potential predictions made for the 2009 Alaska season all indicated a lower than average number of acres would be burned. The AICC Predictive Services group, the Alaska Center for Climate Assessment and Policy, and a private Meteorologist all predicted a slow Alaskan fire season. Each of these forecasts used different techniques, but all were based on climate indices. Though there have been great improvements in long term forecasting over the past 10 years, the extremely dry July in the Interior and Southeast Alaska was not forecast, and this dry weather was the major factor in a busy 2009 fire season. In April, the climate indices showed a La Nina pattern, which means cooler than normal sea surface temperatures in the Eastern Pacific along the equator. This has most frequently been associated with slower than normal fire seasons in Alaska. Early spring forecasts showed the weak La Nina pattern persisting through the summer. In fact, the La Nina pattern transitioned rapidly in early summer to an El Nino, with warmer sea temperatures. It is likely that the feedback from these changes led to the difference in Alaska's fire weather.

The first fire number of the season was issued for a CGF downed powerline fire on 1/21/09. The second was issued to SWS on 3/18/09 for a fire estimated at 25` x 75-100` smoldering in a large rock slide debris field, located adjacent to the Iditarod trail. This fire continued to burn all summer and grew to 1,000 acres. There were no more fire numbers issued until April, which proved to be the beginning of the 2009 fire season with a total of 34 fires.

Fires on the Kenai Peninsula in the old bug-killed spruce continued to be a problem. This fuel complex has a matted grass understory with dead and down spruce. A brief period of drying is all that is needed for the fine fuels to be available to burn, and when combined with winds can lead to rapid fire spread. Warm and dry weather at the start of May brought Duff Moisture Codes (DMCs) to above normal to record dry levels on the Kenai Peninsula.

Fuels were extremely dry across much of eastern Alaska through August. Canadian Fine Fuel Moisture Code values reached very high to extreme values in early June with Buildup Index (BUI) values reaching critical levels by June 10 across most of eastern Alaska. It wasn't until the first week of August that rainfall and cooler weather finally drove BUI indices down below critical levels and kept them there through the end of the month. By the end of July, Alaska had 468 fires (115% of normal) that burned 2,081,295 acres, which is 186% of normal. By the end of August, 511 fires had burned 2,934,455 acres which is 171% of normal.

In November, a 5 acre fire was discovered in the Galena Area. In December, a brush fire on Military land was the last fire of the season.

The final acreage for the year was 2,951,592.9 acres with 527 fires.

## Records

Fairbanks had the driest May in 80+ years In South Central June recorded ½ the normal precipitation Highest July averas a better inperature in Fairbanks ever records a Fairbank driest summer monthe ended McGrath broke 4 daily high temperature records in July The first half of September was the warmest on record at Fairbanks International Airport.

### Weather Summary 2009

The weather in Alaska for the summer of 2009 started off highly variable and not supportive of much extensive fire activity, but culminated with one long period of hot, dry July weather that was extremely conducive to widespread fires.

May started off the season with unseasonably warm Interior temperatures at the beginning and end of the month, sandwiching a much cooler stretch through the middle. Temperatures reached 8o F in Fairbanks, and precipitation was only 0.06 inches, making it the driest May in over 8o years. The western Interior showed similar trends, with McGrath reporting high temperatures of 78f, and only half the normal 1 inch of rain. The first thunderstorms of the season also began around the western Interior on May 23<sup>rd</sup>, sparking a series of fires in the McGrath area and southern Tanana Zone, many of which persisted for much of the summer. Though South Central did not have large temperature swings and received near average rainfall for the month, it was also generally on the warm side and quite dry until the last few days of May. This trend was present from the Matsu Valley to the Copper River Basin and on the Kenai Peninsula, where dry conditions led to the first large fire of the season; rain at the end of the month quieted this fire.

As June began, Interior conditions cooled and what looked like a potentially busy season settled down. The average temperature in Fairbanks was right around 60 F for the month, which was normal. Precipitation there was 0.15 inches above the normal 1.40 inches. McGrath showed similar conditions.

In typical fashion, late June lightning activity started a series of fires in the Upper Yukon and Tanana Zones, most of which burned slowly at first.

Meanwhile, in the Anchorage area, though temperatures were near normal for June, the precipitation for the month was about half, with only 0.57 of the usual 1.06 inches of rain. This dry trend reached to the Copper River area, where little rain fell in the low, flat lands of the Basin, and the Kenai Peninsula, where except for some showers along the Kenai Mountains, little precipitation fell prior to June 20<sup>th</sup>. Though possible increased fire activity was anticipated on the Kenai Peninsula, activity remained minimal until the rain reappeared at the end of June. Copper River Basin did have several fire starts, one of which became a significant large fire.

High pressure set up over eastern Alaska at the beginning of July and kept its grip on much of the state through the first week of August. It is during that 5-week period that about 2.5 million acres burned. The July average high temperature in Fairbanks was the highest ever recorded at 78.6 F (normal average high is 73.0 F). Total rainfall of 0.06 inches made July 2009 the driest *summer* month ever measured in Fairbanks in 105 years of observations. McGrath, in the western interior, followed a similar trend, setting a new high temperature record of 89 degrees on July 7<sup>th</sup> and receiving only half of their average 2.32 inches of July precipitation. (McGrath actually broke four daily high temperature records during July; Fairbanks broke two). Hot temperatures and parched fuels were also found towards the ALCAN border and south into the Copper River Basin. South Central experienced similar fuel conditions as it was also warm and dry for the first 2/3 of the month. Some new fires started, but the majority of activity was on fires that had begun in June, and became increasingly active as fuels dried out. With the exception of Copper River Basin, South Central saw a reprieve as low pressure began dominating the Gulf of Alaska in the last 1/3 of July, bringing periodic clouds and rains which started to dampen fuels, decreasing fire concern in that part of the state.

August dawned still hot and dry in the Interior, with a huge ridge based along the west coast of the Lower 48 holding over the eastern part of Alaska for the first eight days. Gradually, it released its grip on the weather, and the rains came. August 6<sup>th</sup> saw some rain in Copper River Basin; by August 9<sup>th</sup> it had worked its way north into the Upper Yukon zone. Light and steady at first, the precipitation soon turned into deluge events over portions of the Eastern and Central Interior. Fairbanks exceeded the average August rainfall of 1.74" by nearly one full inch, and had an average temperature of 54.5 F 1.7 degrees colder than normal. Anchorage had almost exactly its average of 2.9 inches, while McGrath remained the dry spot with nearly a 2 inch deficit against its normal August precipitation of 2.75 inches.

Southeast Alaska had one of the driest and warmest summers on record. High pressure ridging dominated for much of the season. Temperatures into the 70s and 80s prevailed, with near record-high temperatures occurring from Annette to Yakutat. Of specific note was the far northern portion of the Panhandle, including Haines and Skagway. Over the course of a typical May, June, and July, average precipitation is 4.27 inches at Haines and 3.80 inches at Skagway. This summer, between May 1<sup>st</sup> and August 15<sup>th</sup>, just 0.9 inches fell at each of these locations. FFMCs in these two locations moved into the extreme fire behavior category in May, well ahead of most other stations.

During the height of fire activity at the end of July and beginning of August, smoke blanketed the northern half of the state up to more than 10,000 feet; as far north as Deadhorse and Barrow, west to Kotzebue and Nome, South to the Alaska Range, and east into Canada. Southern portions of the state also experienced smoke, but it was generally for shorter periods of time and to a much smaller extent.

The first half of September was the warmest on record at Fairbanks International Airport with an average high temperature of 68.9, 10.2 degrees above average. The exceptionally dry weather continued thru December.



#o88 Mile 17 East End Road

A KKS engine was dispatched on 5/12/09 to a reported fire approximately 17 miles East of Homer. While still a few miles out from the fire the engine crew reported a 700 foot smoke column was visible. Initial size up was approximately 2 acres burning in grass and dead and downed spruce with some single tree torching. Additional resources were ordered including a load of smokejumpers, 2 crews, helitack, ad air attack. By the end of the day the fire was uncontained, uncontrolled and estimated at 65 acres. Four loads of retardant had been dropped.

The following day the fire was exhibiting extreme fire behavior which caused a break in the containment, and residences were threatened. Two air tankers, air attack, a lead plane and 5 helicopters worked the fire. Additional crews were ordered. Fourteen loads of retardant were dropped, but the fire had grown to 700 acres. A mandatory evacuation order was put in effect for the area, and East End Road was closed to all east bound traffic. An Incident Management Team was ordered and assumed command the next day at 2100. The fire had grown to 1,074 acres and was 25% contained.

By 5/16/09 the weather had changed, the evacuation order had been lifted, and fire behavior had modified. On 5/20/09 the fire transitioned to a Type 3 organization, and four days later the fire was demobed and placed in monitor status. The final count of structures lost (out of approximately 150 residences and 150 outbuildings threatened) was 2 residences and 8 out buildings. Final acreage 1,074



Mile 17 East End Road



#152 Tonclonukna Creek

A private aircraft reported a 50 acre fire, burning in a Limited protection area, to SWS dispatch on 5/23/09. The fire was placed in monitor status. Over a week later, personnel on a surveillance flight found the fire had moved in to a Full protection area and was approximately 9,327 acres.

By 6/9/09 a Type 3 Team was in place at Telida, AK, and 2 crews were assigned to the fire to begin defensible space work and structure protection. The fire was burning towards the village of Telida, was 5 miles from the airport, and 27,624 acres in size.

Burnout operations began late on 6/10/09 and continued 6/11/09 with hand and aerial firing. The following day a reconnaissance flight confirmed the main perimeter was secure on the North flank of fire. The fire was completely demobed on 6/16/09, and was placed in monitor status.

On 7/11/09 the fire was found to be re-burning on the west end of the Telida airstrip. 2 smokejumpers were deployed to contain the reburn and monitor fire behavior in and around Telida. There were 2 allotments less than 2 miles from the fire to the west that were evaluated for possible action, and 3 to the north less than 1 mile from the fire. The smokejumpers were demobed two days later and the fire had grown to 75,574 acres.

Helitack returned to the fire periodically to complete burnout operations for allotment protection, and the fire continued to grow and be monitored. On 8/11/09 Helitack was deployed to contain a spot fire on an allotment on the northwest side of the North Fork of the Kuskokwim River. An updated perimeter map from Firehawk mission revealed 164,318 acres had been burned.



Tonclonukna Creek

#### #155 Kantishna River

On 5/23/09 TAD Zone surveillance reported a two acre fire on the east side of the Kantishna River with one structure to the north of the fire. The fire plotted in a Limited protection area and was placed in monitor status.

The fire continued to burn on the east side of the river and by July it had reached 5,471.3 acres. Monitoring continued and on 8/14/09 a digitized perimeter map showed 31,338.4 acres had burned.



Kantishna River

Lightning Fires in the southern Interior 5/23-5/30

Thirty six lightning fires were reported the last week of May in the first widespread lightning "bust" of the season. Several of these fires required action due to proximity to villages, allotments, and resources. The rainfall with these thunderstorms was spotty, and because of dry and warm weather the week before, the fuels were dry, burned readily, and allowed the fires to spread rapidly. Rainfall at the beginning and end of June slowed or halted these fires. Warm and dry weather through July allowed some of these fires to become active again and spread significantly, with many requiring additional action or site protection.



#164 Broken Snowshoe

Personnel on a detection flight on 5/24/09 reported a lightning fire located 15 miles north of McGrath that was 100% active, burning in black spruce. Air attack, retardant, and smokejumpers were requested. 45,000 gallons of retardant and 14 smokejumpers were dropped on the 500 acre fire that first day, and orders were placed for crews.

The following day 4 crews arrived, 20 additional loads of retardant were dropped and a medium helicopter did bucket work. The fire was running and spotting in black spruce, and structure protection was put in place along the Kuskokwim River. The fire grew to 5,000 acres and a T3 organization was established. Extremely dry fuels and lack of precipitation created a high resistance to control. The fire was threatening primary residences, cultural resources and private property.

The fire more than doubled in size the following day and was approximately 11,997 acres by the end of shift. On 5/27/09 a T2 Incident Management Team (Doty) assumed command. Structure and cabin triage was pursued on all flanks and crews worked on line construction in several locations on Western and Eastern flanks, yet the fire grew over 10,000 acres. Direct attack on the Northern perimeter proved ineffective.

The last two days of the month brought mitigating weather helping the fire fighting efforts. On 5/31/09 13 crews, 5 helicopters and 82 overhead personnel were assigned to the fire and it was 9% contained.

Five days later the fire was turned over to a T3 organization at 25,345 acres and it was 50% contained.

The fire was demobed and placed in monitor status on 6/10/09 with a final acreage of 25,339.6.



Broken Snowshoe

#### #175 Old Man Fire

A smoke from a lightning strike was reported to TAS by a lodge owner in Chicken on 5/25/09. The fire, burning in spruce within an old 2004 burned area, quickly grew to 700 acres and was threatening the community of Chicken and adjacent mining operations. A Bird Dog with 2 Fire Cats made numerous retardant drops. A medium helicopter, 3 Engines and 2 dozers also responded.

The following day the fire was 60% active on the South perimeter and East flank and Ingle creek. An air tanker, Canadian bird dogs, fire cats, and 2 medium helicopters continued working fire. Four Type 2 crews and one Type 1 crew arrived to assist. The day after, a Type 3 organization was put in place and operational control of the fire was transferred to Alaska Fire Service Upper Yukon Zone.

On 5/28/09, at 777.8 acres, the fire received significant rain, and three days later it was 100% contained. On 6/03/09 the fire was completely demobed and placed in monitor status.



Old Man Fire

#### #182 Dillinger

A USFWS aircraft reported a 20 acre fire, burning in a Limited protection area located between the Dillinger and Tonzona Rivers, to SWS dispatch on 5/26/09. The fire was placed in monitor status.

Ten days later smokejumpers were deployed to protect 8 cabins along the South Fork of the Kuskokwim River and 2 cabins at the confluence of the Dillinger and South Fork Kuskokwim rivers. A staging area was established at the Farewell airstrip, a helicopter was assigned, and a T3 Team was in place by 6/8/09.

The fire had grown to 18,863 acres by that time, and personnel continued to prepare cabins for structure protection along the South Fork of the Kuskokwim and Dillinger Rivers. With contingency lines adjacent to the fire completed, structure protection in place, and light precipitation, demobilization occurred on 6/13/09.

The fire was monitored, and on 7/29/09, and 8/12/09 personnel were sent to begin retrieving the equipment left during the structure protection. The last report of smoke on the fire was on 8/20/09 with the fire size being 23,912 acres.



Dillinger

Interior portions of Southwest Alaska remained dry through June with occasional lightning episodes sparking fires that, depending on location, required action until weather changes allowed more direct action and containment.

#### #282 Winter Trail

The fire was reported to SWS on 6/17/09 as being 10 miles West of Aniak in a Full protection area. It was on the north side of the Kuskokwim River, moving in a NW direction away from the river, fueled by high SE winds gusting to 24mph. The fire was running, with group torching, and short range spotting. Three air tankers, 3 medium helicopters and 2 loads of smokejumpers responded. Two T1 crews were moved to the fire to secure an anchor point and to assess property and values in the area. Numerous Native allotments were at risk. The following day, the morning cloud cover burned off by mid afternoon and fire behavior progressed from creeping and isolated single tree torching to group torching, running, with short range spotting in the afternoon. The head of the fire was worked throughout the day by aircraft, which was ultimately unsuccessful. The fire burned through a wet area with a creek, and increased in intensity when it progressed back into an area of heavy spruce component. The fire was estimated to be 1,500 acres at that point.

On 6/19/09 all line resources were pulled off the fire and assembled at Aniak staging. A fixed wing aircraft and helicopters surveyed the river corridor concentrating their efforts west of the fire, where the greatest potential threat remained. Allotments and structures were inventoried in preparation for a point protection strategy. A Type 3 management organization was in place by 6/20/09 and due to cooler and wetter weather (and subsequent reduction in fire behavior) fire managers chose to attack the fire directly. Two days later the fire was 80% contained at 2,310 acres.

The fire and staging area were completely demobed by 6/27-09. The fire was thought to be started by an abandoned cooking fire.



Winter Trail

During the last two weeks of June, TAD had several large fires being managed for resource benefit, or with point/zone protection and limited perimeter control.



#### #284 Zitziana

Zone surveillance discovered this fire while flying detection on 6/17/09. It was estimated to be 140 acres,100 percent active, running with group torching, continuous crowning, and spotting 30 to 40 feet ahead of the fire. It was burning in black spruce and grass. The fire plotted in a Limited protection area and it was placed in monitor status.

On 7/4/09 the fire was flown by zone surveillance and reported to have increased in size to 4500 acres. Later in the day the fire had approximately doubled in size from the last report. It was burning at a rate of 20 chains per hour with 30 to 50 foot flame lengths. Smokejumpers and a Type 3 helicopter were mobilized to the fire to assess structures and begin cabin protection.

Four days later the fire was 30,335 acres, and still 80% active with crowning, torching and spotting up to 1/4 mile ahead of the fire. Personnel worked on structure protection and burn out around cabins as needed. The fire made a major run to the east as a cold front moved overhead.

The fire received rain several times during following week, and on 7/15/09 all personnel were demobed and the fire was placed in monitor status at 71,765.1 acres.

The fire continued to grow, and on 7/21/09 increased fire behavior, due to dry and windy conditions, caused the fire to begin moving through an old burn. Retardant was requested and two loads of smokejumpers were deployed at West Twin Lake and Wilderness Lake to implement structure protection and burn out operations. The following day the fire received additional smokejumpers in order to prepare structures for protection around Wien Lakes due to fire progression attributed to continued extreme dry and windy conditions.

A few days later, fire behavior was still extreme with backing, running, torching, with continuous crown fire with 50 to 100 foot flame lengths. A staging area was established at Clear, and smokejumpers were moved to Blind Luck Lake. Personnel continued to construct indirect line around structures and conduct burnout operations. Several crews were utilized to assist. Heavy smoke often hampered air operations and mapping.

The fire received moderate precipitation, and all resources were demobed on 8/7/09 when the fire again was placed in monitor status. The final acreage was 141,125.7



Zitziana

#### #285 Bear Creek

This 30 acre lightning fire was discovered during a TAD surveillance flight on 6/17/09. It was determined the fire would be managed for resource benefit, and was placed in monitor status.

Two days later smokejumpers were deployed for cabin protection. CL-215s and an air tanker were requested for support. On 6/24/09, with cabin protection in place, personnel were demobilized and the fire was placed in monitor status at 3,850 acres.

In little over a weeks time the fire had increased to 15,846.7 acres and a Type 1 Crew, more smokejumpers, and fire specialists were mobilized to perform structure protection and prepare for burnout operations along the Kantishna River and a NPS cabin. Hot dry conditions prevailed.

Burnout and mop up operations continued until the objectives were met for the structure protection plan on 7/19/09, at which time all personnel were demobilized and the fire was placed in monitor status at 39,713 acres.

A few days later, Zone surveillance flew the fire and found it had spotted across the Bearpaw River. Due to the proximity of the spot fires to structures, smokejumpers were inserted to initiate structure protection and patrol the rivers once again.

On 8/7/09 an aerial recon found isolated smokes with occasional torching, with no values at immediate risk, so demobilization began. On 8/9/09 the fire returned to monitor status, and the acreage had grown to 50,897.



Bear Creek



#293 Stevens Creek #1

On 6/18/09 a commercial aircraft reported a 2 acre fire burning in black spruce in a Limited protection area. The fire was monitored and showed minimal activity until 7/16/09. At that time fire activity had picked up significantly and the fire was 90% active at 1,500 acres exhibiting running and crowning, with spotting up to <sup>1</sup>/<sub>4</sub> mile.

Nine days later smokejumpers were deployed on the fire for structure protection. With the structure protection in place, personnel were demobilized and the fire was again placed in monitor status.

More structures were discovered during a surveillance flight and GAD Helitack was sent to continue structure protection efforts. They returned to Galena on 8/3/09.

Limited visibility due to smoke hampered aerial recon until 8/5/09 when infra-red imagery revealed the fire size as 85908.9 acres. A T<sub>2</sub> crew was delivered to the fire to continue structure protection efforts. The fire was completely demobed on 8/12/09.



Stevens Creek



#347 Rock Slough

On 6/30/09 Zone detection discovered a 1 acre fire smoldering in black spruce and tundra in a Limited protection area. The fire was placed in monitor status.

The following day the fire was 100 acres in size, 95% active, with group torching and spotting to 100 feet. Due to the proximity of allotments and cabins to the south of the fire along Rock Slough, it was determined that fire personnel would be mobilized to the area and begin allotment protection operations.

On 7/3/09 a smokejumper para-cargo aircraft delivered a zodiac boat package to the fire to facilitate the positioning of fire personnel, equipment and supplies to key positions along Rock Slough to aid in allotment protection. Zone surveillance flew the fire in the evening and reported a significant increase in fire size and activity.

Two days later the fire transitioned to a Type 3 Incident. Additional crews arrived to assist with site protection efforts. The fire acreage had increased to 5,017.9.

The following day burnout operations were completed around one allotment and preparations continued around remaining threatened allotments. The fire was observed to be crowning, torching, and running. Gusty and erratic winds caused extreme fire behavior. Two additional crews were assigned to the incident and fire personnel estimated an acreage increase of 5,000 acres, bringing the total acres burned to approximately 10,018.

By 7/11/09 the fire had received some precipitation and fire behavior had moderated, but bears in the area of firefighters became a concern.

Within a few days, a Red Flag Warning was issued for the fire vicinity from 1800 until midnight. Due to the heightened winds, air attack was ordered over the fire in the afternoon to monitor fire behavior.

On 7/17/09 a new ICT3 assumed command. An updated acreage was computed, 18,793.4, by digitizing the perimeter. A few days later, during the afternoon and evening, fire behavior became extreme with a large column developing. Later in the evening the fire received a significant amount of rain.

Within ten days the fire was extremely active again and spread with sustained crown fire runs that included 100 foot flame lengths. By the end of the month it had grown to 37,139 acres.

Burnout operations and mop around protected sites continued through the week. Crews were given days off, personnel transitioned and the fire remained relatively active with an accumulated acreage of 61467 acres. Rains began on 8/9/09 and continued until demobilization of crews started on 8/11/09. The following day all remaining personnel were demobilized from the fire which had reached 62,313.4 acres



Rock Slough

#### #348 Shanta Creek

This lightning caused fire was reported on 6/30/09 to the KKS Duty Officer by AICC, relayed from Anchorage FAA Center. It was described as unknown in size, burning north of Tustumena Lake. Air attack from Palmer flew the fire and described it as 1/2 acre in size, located on FWS/KNR land. The fire was placed in monitor status.

On 7/5/09 the Refuge had the fire flown and reported increased activity, approximately 120 acres in size, moving east into the wilderness and putting up a significant column. Over the next two days, the fire grew to 2,249 acres. There was a concern for the communities to the North and West of the fire and a T<sub>3</sub> Organization was put in place.

The following day the fire had more than doubled in size, 5,000 acres, and a NIMO Team had been ordered. When the NIMO Team assumed command on the morning of 7/10/09, the fire was at 11,945 acres, and indirect line along the northwestern boundary of the Refuge was being put in. Within a few days, there were 5 T1 crews, 11 T2 crews, 10 helicopters, 10 engines, 4 dozers and 145 overhead for a total of 496 personnel on the fire.



The fire was completely demobed on 7/27/09, 80% contained, and placed in monitor status at 13,221 acres.

Shanta Creek

# #898 Railbelt Complex



Minto Flats South June Creek Lunch Lake Rex Creek 517,078 acres 164 acres 12,802 acres 101,150 acres



Railbelt Complex

#### #898 Railbelt Complex

The complex was established on 07/12/09 and initially included fire #320 Minto Flats South, fire #423 June Creek, and fire #312 Lunch Lake. Fire #527 Rex Creek was added to the complex on 8/03/09.

Continuous high temperatures and low humidity with extremely dry fuels were hampering fire fighting efforts, and placing a drain on resources. To alleviate competition for resources the T<sub>2</sub> Incident Management Team already assigned to the Minto Flats South fire assumed operational control of the other FAS fires and combined assigned resources for more efficient utilization.

The complex management transitioned from a Type 2 to Type 3 Team on 07/23/09. Continued windy and dry weather along with the lack of precipitation contributed to active fire behavior and hampered fire suppression efforts. In addition, the weather forecast called for higher temperatures (in the 90's) and no predicted precipitation.

On 07/29/09 the fire management transitioned back to a Type 2 organization.

Smoke inversion hampered air operations and crew support. At times crew transport was limited to boat operations. Smoke and fire in proximity to the Parks Highway continued to threaten public health and safety, and compromise local tourism and commerce. The combined smoke from the fires also affected commercial air operations into Fairbanks International Airport.



On 7/31/09 the first 747 supertanker ever used in Alaska performed a retardant drop on the Minto Flats South fire as part of a demonstration by the company.

On o8/o3/o9 the Railbelt Complex received delegation to include the Rex Creek fire.

The Kantishna River fire (AFS #155) crossed the east side of the Toklat River and that portion of the fire then fell within the Railbelt Complex operational management as well.

A Type 3 organization assumed command on o8/17/09, and on o8/23/09 a Type IV organization took over management of the fire. The complex utilized 40 crews during the month of July and the early part of August. 643 personnel were assigned in early August.



#320 Minto Flats South

Personnel on a helicopter shuttle mission reported a 1 acre smoldering fire to UYT dispatch on 6/21/09. The information was relayed to FAS where the fire was plotted in a Limited protection area and placed in monitor status. By the following afternoon the fire had grown to 647 acres.

When the fire was mapped two weeks later, the acreage had increased to 7,362 acres, and showed to be 90% active burning toward the Bear Lake Fire. By the time the fires burned together their combined acreage was 79,200 acres.

A Type 2 Team began mobilizing on 7/6/09. Multiple cabin and allotment assessments along the river corridors were completed. There were 49 residences, 20 outbuildings, 1 commercial enterprise and numerous Native allotments threatened along the Tanana, Kantishna, Nenana and Teklanika Rivers. T1 crews were ordered and site and structure protection began.

The Minto South fire was absorbed into the Railbelt Complex (#898) on 07/13/09. Later that week explosive fire growth, due to continued warmer and drier weather, was observed. On 07/24/09, the fire had reached a trigger point and resources worked on structure protection around Dune Lake.

Three days later, Lunch Lake (12,802 acres) burned into the Minto Flats South (277,934 acres). By the end of the month the Minto Flats South acreage had climbed to 442,447 acres. Smoke hampered air operations and crew support. Boats were utilized for patrol and for crew support. Due to continual smoke inversion, aerial resources were restricted. Jack straw trees and blow downs due to wind hampered mop up operations.

Fire behavior had quieted by mid August with only afternoons showing increased activity. On 8/23/09 the fire transitioned back to FAS control and a T4 organization with 517,078 acres burned.



Minto Flats South



#312 Lunch Lake

Personnel on an UYT detection flight on June 20<sup>th</sup> reported a 2 acre lightning fire to FAS. It plotted in a Limited protection area, and personnel on a later reconnaissance flight relayed the fire was receiving light precipitation.

On 7/03/09, surveillance reports indicated the fire was 30% active and helitack responded to the fire for allotment protection. The following day, additional personnel were shuttled to the fire.

On 7/8/09 The T<sub>2</sub> Incident Management Team assigned to Minto Flats South assumed operational control of the fire, and on 7/12/09 it became part of the Railbelt Complex at 4,515 acres.

Later in the week unstable atmospheric conditions combined with high temperatures and low RH's led to increased activity. On 7/24/09 the fire reached 12,802 acres as crews continued work to protect allotments to the north and east of the fire and scouted indirect line to prevent further spread eastward into timber values.

On 7/27/09 Lunch Lake and Minto Flats South fires burned together for a combined acreage of 337,720 acres.



Lunch Lake

#### #423 June Creek

The June Creek fire was reported late on 7/11/09. A helicopter was dispatched from the Minto Flats South fire to get a size up. When the fire was found it was estimated at 300 acres in size and smokejumpers, helicopters, and air tankers responded. Helicopters had to leave the fire due to smoke inversion, but not before a helispot had been cut for future aerial support. The fire was reported to be 35% active at 0200 in the morning, and smokejumpers secured the edge and installed pump and hose lays.

The next day, the June Creek fire became part of the Railbelt Complex and was under the operational control of a Type 2 Incident Management Team. There were approximately 50 structures with limited or difficult access, located within 5 miles to the North and East of the fire. Extreme fire behavior and growth were expected due to forecasted local winds.

On 7/15/09 personnel were able to get an accurate map of the fire and found it to be 164 acres. Thirteen days later the fire was 100% contained, and it was monitored until declared out on 8/20/09.



June Creek



#### #527 Rex Creek

Rex Creek was the last fire to be absorbed into the Railbelt complex. It was reported on o8/o2/o9 as 25 acres, 100% active, burning in a Limited protection area. The fire was an escaped coal seam fire burning close to mining camps. The fire was mapped, resources at risk were evaluated, and on 8/o3/o9 the Rex Creek fire became part of the Railbelt complex.

Difficulty of terrain and steep slopes did not allow direct attack, and running, crowning and spotting black spruce was observed. The fire made a 7.5 mile run in 1 hour, and an evacuation was requested in the Windy Creek subdivision the following day. There was a Red Flag Warning for low humidity and moderate to strong winds throughout the day, and extreme, erratic fire behavior in open tundra and brush along the mountains was observed. A dozer line was constructed from Clear Sky Lodge east toward Windy Creek along the Rex Trail. Smokejumpers deployed structure protection equipment around Kabina Lake.

On o8/o6/o9 a smoke advisory for the Parks Highway was issued, and engines and crews provided support for possible structure protection along the Parks Highway. The following day, the fire still had the potential to progress to the north and west towards the Rochester Lodge and Windy Creek subdivision. Three divisions were shuttled to begin direct dozer attack. Steep terrain and large tussocks slowed progress.

On o8/13/09 fire behavior was reported as minimal due to precipitation. Rehab and mop up activities began and by o8/20/09 all personnel had been demobed from the fire. Fire out at 101,150 acres.



Rex Creek

# #897 Crazy Mountain Complex



Little Black 1 Puzzle Gulch Bluff Creek Jagged Ridge

349,450 acres 2,055 acres 41,756 acres 53.890 acres



Crazy Mountain Complex

#### #897 Crazy Mountain Complex

The complex was established on 8/1/09 and included fires #314 Little Black 1, #496 Bluff Creek, #497 Jagged Ridge and #489 Puzzle Gulch. A Type 2 Team was assigned to manage the ongoing fires.

Widespread dense smoke conditions prevented aerial support and limited helicopter capabilities, and competition between priority incidents kept resources in high demand and in short supply. Extreme drought codes and prolonged temperatures above seasonal norms continued to be a problem. Smoke also hampered forward scouting, the ability to track perimeter growth, and contributed to public health concerns. The access to the town of Circle via the Steese Highway had fire on both sides of the road, and there were temporary travel restriction between mile 147 and 161.

The 14 Mile Fire (#429) was discovered approximately 10 miles south of Circle City on 8/2/09 by personnel assigned to the complex, and temporarily diverted resources until smokejumpers arrived.

A week later, a cold front moved through the complex area with winds 10 to 15 miles per hour with gusts to 25 mph. Crews were pulled off the line due to the possible of hazard trees weakened by fire falling.

By o8/10/09 the weather had moderated. New snow was reported above 3,000 feet and an unmanned aerial system (U.A.S.) flew the fires.

On 8/14/09 the complex transitioned to a Type 3 Incident Management Team.

On o8/20/09 all personnel were demobed off the complex and the fires were placed in monitor status.

Approximately 375 personnel were assigned to the Complex in the first week of August.



#### #314 Little Black One

On 6/20/09 zone detection discovered a fire approximately 20 acres in size, 50% active, backing in tundra and torching in black spruce. The fire plotted in a Limited protection area and was placed in monitor status.

Less than 2 weeks later, on 7/1/09, the fire was flown by zone surveillance and found to be 18,993.8 acres, most active along the eastern perimeter where there was a 30-40 acre area putting off a 15,000 foot column of smoke. Fire behavior in this area included group torching and spotting up to 300 feet ahead of the fire. The fire was spreading in the direction of an old burn and was not a threat to any values at risk at that time.

Two days later the fire was still 75% active with a 1/3 mile of continuous crown fire with 50-70 foot flame lengths in black spruce on the southwest flank. The digitized fire perimeter was updated revealing 33,256 acres had been burned.

Four days later, the fire was reported as 80,000 acres and 100% active. In spite of some cloud cover, the most active flanks of the fire exhibited extreme fire behavior with 150`-300` flame lengths.

The fire received significant precipitation and Zone personnel were assigned to the fire for site assessment and implementation of structure protection on remote sites. A Type 2 crew was hired to assist, and on 7/14/09 the crew began structure protection operations on the allotment structures, residences, and outbuildings. Predicted red flag conditions had potential to drive the fire closer to critical protection areas. A digitized perimeter map showed acreage of 132,602.3.



The following day a second Type 2 crew was mobilized to the fire. Personnel prepared a permitted cabin for burnout operations and continued building saw line around the 12 Mile Bluff allotments. Over the next few days, smokejumpers were dropped upstream of the 12-mile bluff for structure protection, and a Type 1 IHC was mobilized as well.

On 7/24/09 severe, wind-driven fire runs with two mile-long fingers were observed on the southeastern perimeter. The southwest portion of the fire was backing into the wind. The Type 1 crew relocated to the northern allotment area to establish saw line and sprinkler systems. Rappellers were deployed to cut additional helispots.

A digitized fire perimeter was updated later in the week showing a total acreage of 232,589.9.

Over the next few days personnel were unable to map or observe fire behavior due to heavy smoke. Bears became a concern in the area, and the distance between threatened values had presented a challenge. On 8/1/09, at 292,907 acres the fire was incorporated into the Crazy Mountain Complex with several other fires in the area, and assigned to a Type 2 Incident Management Team.

On o8/2/09 the crews made good progress mopping up and securing the line in the 12 Mile Bluff area. Smokey conditions continued through the week and hampered the use of aerial resources.

The fire began receiving precipitation on 8/9/09, and within 10 days it had received over 1". Crews were demobilized and structure protection systems were left in place.

On o8/23/09 the fire was flown by zone surveillance. The fire perimeter was 0.5% active with a total acreage of 349,530.



Little Black One



#### #496 Bluff Creek

On 07/26/09 the fire was discovered by helicopter personnel who were working an adjacent fire in the vicinity. The fire was 25 acres and 90% active burning in black spruce, white spruce and tussock tundra. It plotted in a modified protection area and was placed in monitor status.

Four days later, Modis imagery revealed significant advance of the fire toward the north and east. Air Attack and 3 CL-215s were ordered, but due to poor visibility over the fire the CL-215s were not able to launch. A T1 crew was assigned, and transported via river boat to the Circle City staging area. The fire was estimated at 18,000 acres.

The following day the Bluff Creek Fire was incorporated in to the Crazy Mountain Complex. Extreme fire behavior, erratic winds and heavy fuels limited firefighting efforts. The fire made significant runs and crossed the Steese Highway encroaching upon the town of Circle City. Resources constructed fire breaks around Circle City. Poor visibility from smoke prohibited aerial support.

Crews burned out along the Steese Highway to secure sections of the fire line between Mileposts 150 to 157, and on 8/4/09 and the burnout near the Birch Creek Bridge, MP 147 Steese Highway, was completed to secure line along the road corridor. Throughout the week poor visibility hampered aerial support and was affecting logistical operations as well.

On 8/09/09 the fire was aerially mapped for the first time in six days. A cold front moved through the area, and crews were pulled off the line due to the threat of hazard trees falling. After receiving rain showers, crews continued work along the highway and began backhauling equipment and supplies. All personnel were demobilized and the fire was placed in monitor status at 41,756.8 acres.



Bluff Creek

#### #497 Jagged Ridge

On 7/26/09 the .5 acre fire was discovered by zone surveillance. It was smoldering and creeping in mixed spruce and hardwoods along the upper 1/3 of a north facing slope in a Limited protection area, and was placed in monitor status.

The following day the fire was 100% active and had grown to 50 acres. A day later it was still 100% active, and had increased to 2,400 acres.

On o8/1/09 the fire became part of the Crazy Mountain Complex. On The following day personnel were flown out to update the fire perimeter and the acreage was computed to be 27816 acres.

The fire demonstrated significant movement toward Birch Creek on 8/3/09.

A week later, due to cooler wetter conditions, the fire activity had moderated and the fire remained east of the Birch Creek. There were numerous spots and jack potted timber located near the perimeter and the fire exhibited high resistance to control.

On o8/13/09, the fire received rain throughout the day.

The fire continued to creep and smolder in mixed hardwoods, and on 8/15/09 firefighters began to backhaul equipment and supplies.

Zone surveillance observed one perimeter smoke on the north side of the fire, and a few interior smokes with a total of 53,889.4 acres burned on 8/21/09.



Jagged Ridge

#### #489 Puzzle Gulch

On 07/25/09 a 4-5 acre fire was discovered by a National Park Service aircraft. The fire was flown by zone surveillance and found to be 40 percent active, backing in a spruce hardwood mix. The fire plotted in a Limited protection area and was placed in monitor status.

On o8/01/09 the fire became part of the Crazy Mountain Complex but was not flown due to limited visibility caused by smoke.

Over the next 10 days, the fire had limited spread due to recent cool and wet conditions, and snow was observed falling above 3,000 feet. The fire was not aerially mapped due to a low ceiling. Fire behavior included widespread smoldering with isolated flare-ups as jackpots and tree teepees continued to burn out.

About a week later the fire was flown by zone surveillance personnel, and it was 1% active and smoldering in 2 areas at 2,054.6 acres. The area was receiving a light rain.



Puzzle Gulch

#### #359 Sheenjek

A 3 acre fire was discovered on 7/2/09 by Zone detection. It was 100% active and burning in black spruce with group torching, continuous crowning and spotting up to 100 feet. The fire plotted in a Limited protection area and was placed in monitor status. The following day there were 30 foot flame lengths observed on the 2,200 acre fire and an 8,000 foot column. By 7/7/09 it had reached 10,000 acres.

The fire received rain but continued to grow. On 7/17/09 the fire made a 2 mile run to the north, and was 2 miles away from a permitted cabin on the Sheenjek River. Four days later the fire made significant runs with extreme fire behavior early in the day. The structure on the north end of the fire became threatened and helitack personnel were mobilized to the site. The following day, a Type 2 crew was reassigned from another fire to assist with structure protection. Tree snags and bears in the area posed concern to fire personnel.

On 7/24/09 the fire made a significant run towards the Sheenjek River and it appeared to likely cross over at some point. The fire had grown to 45,930 acres.

By 7/29/09 all personnel were demobed from the fire, having finished site protection and burnouts. Smoke and visibility continued to be a problem for aerial resources trying to map the fire over the next few weeks, and several trips were make to backhaul equipment.

A digitized perimeter analysis on 8/14/09 revealed 62,658.1 acres had burned.



Sheenjek



#361 Big River

On 7/2/09 a 35 acre, 100 percent active fire was reported by to SWS dispatch. The smoke column was estimated to be 15,000`-20,000'. Because the fire plotted in a Limited protection area, and no structures or critical resources were threatened, the fire was placed in monitor status.

The following day the fire remained 100% active, with running crown fire. The column was pushing up to 10,000ft. The fire had grown to 3,500 acres.

On 7/5/09 smokejumpers were deployed for one day to establish saw line around an allotment down stream from the fire on the Big River. Three days later Helitack was deployed for the day to prepare for burnout operations at the allotment.

By the evening of 7/12/09 the fire was less than ½ mile from the allotment. Smokejumpers were deployed for firing operations. Plans were to fire and hold through the following day in anticipation of predicted 8-14 mph south winds. The smokejumpers were demobed on 7/13/09 and replaced by an IC and a Type 2 crew to finish securing the line. The crew was demobed after 4 days and the fire returned to monitor status. No growth was reported the following month and the fire remained at 33,262 acres.



**Big River** 



#### #362 Chakina

A local Air Service reported a lightning fire south of the Chitina River, up the Chakina River with a column visible from McCarthy. The 150 acre limited fire plotted within the Wrangell St. Elias National Park. The fire was placed in monitor status and assessed for site protection.

By 07/05/09 the fire was 3,600 acres, 100% active, with running, torching and spotting. The observed smoke column was estimated to be 8,000 feet. On 07/07/09 trigger points were established and tied to geographical areas for the purpose of implementing contingency plans to meet the criteria established by the FWDSS.

Three days later, the smoky conditions and poor visibility hampered aerial operations and the deployment of personnel to Louise Lake for structure protection. Through the next few days, structure preparation and protection was completed for Louise Lake and Jakes Bar. Cabin protection was also completed at Camel Lake and Peace cabin.

On 7/12/09 moderate fire behavior in the morning changed with winds clearing smoke and bringing a significant increase in fire activity. This activity in the evening brought the perimeter to trigger points for the implementation of the planned firing operation.

Cultural heritage site protection was initiated south of Sunshine Lake with helicopter rappellers. Firing operations around the site at Louise Lake were unsuccessful. Late afternoon column development and convection was associated with the intense fire behavior and growth. The southerly winds pushed the fire toward the Chitina River.

Zones were identified where tanker drops would be effective in slowing the fire's growth and minimizing spotting potential. On 07/16/09 CL215s and a medium helicopter dropped water on the northern perimeter as the fire approached the Chitina River.

The next day a Type 1 crew was prepositioned at Jake's Bar. Again, the Type 2 helicopter was used to cool the fire's northern perimeter. Extreme fire behavior was observed on 07/19/09. Helicopters continued bucket operations along the northern and northwestern perimeters to help slow the fire spread. Type 1 crews were shuttle by boat to the confluence of the Chitina River and the Nizina River.

On 07/21/09 a strike team of engines along with local VFD's began detailed structure assessments of the developed areas. Ninety one assessments were completed within a week. A public preparedness plan was completed, and a well attended public meeting was held at the ICP the following day.

On 07/25/09 aerial firing plans were implemented and by 07/31/09 the fire transitioned from Type 3 to Type 4 organization.

NPS staff established research plots and completed data collection. Two additional FEMO plots were established on the east side of the fire.

On o8/o5 it was confirmed that one structure had been lost.

The fire received precipitation the following day and fire activity moderated. A Fire Use Module arrived on o8/07/09 and five days later they boated to the Pease site for fuels reduction and site protection. Minimal fire behavior was observed on o8/16/09 due to precipitation. On o8/22/09 an archeologist was flown to Lake Louise and Sunshine Lake to access the cabin sites and fire effect plotting by researchers continued.

On o8/23/09 the fire transition back to the local area and all personnel were demobed by o8/24/09 with 56,413 acres having been burned.



Chakina

#### #425 Wood River 1

On 7/12/09 detection personnel reported a 40 to 50 acre fire that was torching, crowning and running in a Limited protection area. Helitack responded to the fire to assess resources at risk and found the fire had grown to 75-100 acres, and although there were several cabins in the vicinity, they were not immediately threatened.

The following day, operational control of the fire was assumed by Alaska Fire Service Military Zone which had suppression responsibility. Fire personnel completed sprinkler set up at two cabins while the fire increased to 600 acres. Smokejumpers completed structure protection for two additional cabins on 7/14/09. By 7/15/09 the fire had received significant rain and the fire acreage was 2,195 acres.

For the next several days, resources continued to set up sprinkler systems and enhance defensibility of the cabin sites. Fire behavior was observed to be running and torching with periods of full crown runs. The acreage increased to 3,600 acres. The following day the fire again made major runs to the north and northeast. Crowning, group torching, and spotting a quarter of mile from the fire were observed. Burnout operations were conducted along the Wood River due to predicted warmer and drier weather. Three CL-215 aircraft made water drops to help secure the line. The fire was mapped at 16,000 acres.

A Red Flag Warning was issued on 7/22/09. Strong southeast winds pushed the fire into a restricted military area. Additional resources were not deployed due to the potential risk of unexploded ordinance. Fire acreage was mapped at 29,039.8 acres. The next day during aerial surveillance the fire was mapped at 38000 acres and the fire received light precipitation. By 7/24/09 the fire was reported to be 50% active at 45,000 acres. Smokejumpers were used to mop up around structures located to the west and south of the fire along the Wood River.

Two days later the fire received light rain again, and the burnout operations planned for around the structures was suspended, but burnout operations adjacent to the Blair Lakes Facilities were initiated. The next day, personnel were demobed from the structure sites due to the unfavorable conditions, and the burnout operations near Blair Lake continued. Less than a week later the acreage was 107,634.

On o8/o2/o9 the fire was 35% active and helicopters did bucket work throughout the day to keep the fire from crossing the Wood River. On o8/o4/o9 the fire was reported 80% active again with small runs of crowning and backing. On o8/o9/o9 the fire received precipitation and almost a week later reconnaissance personnel reported that the fire was smoldering at 125,381.6 acres.



Wood River 1

#### #458 Big Creek

A 25 acre lightning fire in Limited protection was reported to UYD by a civilian aircraft on 7/18/09. The fire was receiving light precipitation and was placed in monitor status. Within a week fire activity increased, distinct columns and extreme fire behavior were observed, and 5,550 acres had burned.

On 7/22/09 smokejumpers were deployed at two cabin sites along the Jefferson Creek drainage for site protection preparations. Six days later additional smokejumpers were ordered for additional site protection but were not able to deploy due to smoke. Limited visibility continued and on 8/1/09 the fire was 100% active with running, torching, and 50+ foot flame lengths. The following day some of the smokejumpers were demobed and a Type 2 crew was ordered to replace them. The fire perimeter was digitized revealing 145,652.1 acres had burned.

On 8/4/09 minimal fire behavior observations were collected due to smoke conditions. The Type 2 crew implemented site preparation and structure protection measures around Birch Creek Village. Rappellers were inserted to secure slop over across Beaver Creek. Additional crews were mobilized to the fire over the next week and a half and the smoky conditions prevailed.

The fire received precipitation and by 8/18/09 all personnel were demobilized and the fire was placed in monitor status at 169,638.7 acres.



Big Creek

#### Anchorage Fire Department

The Anchorage Fire Department responded to 141 grass and brush fires in the municipality of Anchorage from April thru September. The average fire size was 0.1 acres. The Izembek fire (5/23), the Jodhpur Fire (7/4) and the McCugh Creek fire (7/26) each were mapped at 1.0 acre. All other fires were kept at 0.1 acre or less.



## 2009 Incident Management Team Assignments

Incident Name	Area/Zone	Dates	IC	Туре	
Shanta Creek-	KKS	July 8-23	Gage	NIMO	(L48 team)
Mi. 17 East End Road-	KKS	May 14-24	Doty	IMT2	
Mi. 17 East End Road-	KKS	May 15-20	Wilcock	IMT1	
Broken Snowshoe-	SWS	May 27-June 5	Doty	IMT2	
Minto South Flats-	FAS	June 6- 23	Doty	IMT2	
Railbelt Complex-	FAS	July 29-Aug 17	Doty	IMT2	
Minto South Flats-	FAS	June 6-23	Allen	IMT2	
Hardluck-	FAS	Aug 4-19	Cowie	IMT2	(L <sub>4</sub> 8 team)
Crazy Mt. Complex-	UYD	July 31- Aug 15	Kurth	IMT2	



## 2009 Overhead Orders

- 3851 Overhead Orders filled
- 2638 Filled by Alaskans
- 1195 Filled by L48 Resources
- 18 Filled by Canadians
- 175 Unable to fill
- 377 Cancelled

## 2009 Statewide Fire Statistics

0	<u>Largest_fire</u> : Minto South Flats > 517,078 acres									
	311	>	1 acre							
	395	>	10 acres							
	441	>	100 acres							
	64	>	1,000 acres							
	37	>	10,000 acres							
	16	>	50,000 acres							
	9	>	100,000 acres							
	1	>	500,000 acres							
	39 R	esot	rce Benefit fires (lightning)							
	for 1,335,375 acres									

<u>1999-2008</u>		
5 year Averages		
	Fires	512
	Acres	2,451,813.0
10 year Averages	Fires	462
	Acres	1,702,277.0

<u>2000-2009</u>		
5 year Averages	Fires	476
	T II C5	470
	Acres	1,724,101.0
	<b>F</b> '	(
10 year Averages	Fires	407
	Acres	1,896,894.0



## Statewide Totals by Month





## <u>Alaska 10 – Year Fire Rank</u>

# of Acres  $3^{rd}$  # of Fires  $4^{th}$ 

2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
756,296	218,113	2,186,682	602,146	6,523,816	4,649,597	270,539	649,411	103,299	2,951,592
369	351	544	465	696	624	305	506	368	527



Statewide Fires and Acres Burned by Protection Agency and Management Option 2009									
Zone		Critical	Full	Modified	Limited	Total			
Alaska Fire Service	fires	11	35	15	91	152			
	acres	45.4	9,044.2	212,336.9	1,605,149.6	1,826,576.1			
State of Alaska	fires	220	54	12	44	330			
	acres	1,374.5	41,445.5	1,564.4	1,080,610.6	1,124,995.0			
U.S. Forest Service	fires	12	22	5	6	45			
	acres	6.5	8.5	0.9	5.9	21.8			
Total Fires		23	57	20	97	527			
Total Acres Burned		51.9	9,052.7	212,337.8	1,605,155.5	2,951,592.9			



Statewide										
F	ires an	d Acres B	urned by	Landowne	er					
	a	nd Manag	ement O	ption						
2009										
Owner		Critical	Full	Modified	Limited	Total				
Bureau of Indian Affairs	fires	1	0	0	0	1				
	acres	21.0	998.7	0.0	0.0	1,019.7				
Bureau of Land Management	fires	0	4	7	37	48				
	acres	0.0	10,819.8	167,824.7	480,522.5	659,167.0				
Fish and Wildlife Service	fires	1	4	4	33	42				
	acres	0.8	3.8	24,153.1	550,650.0	574,807.7				
	0				0					
Military Lands	fires	2	12	0	8	22				
	acres	0.2	32.0	0.0	38,651.9	38,684.1				
Native Claims Act Lands	fires	20	- 8	_		- 4				
Native Claims Act Lands	nres	20	20 81 420 6	5	26.880.0	54				
	acres	5,541.4	01,420.0	01,000.7	30,000.0	105,522.7				
National Park Service	fires	0	0	2	18	21				
Trational Fark Service	acres	0.0	0.0	ر 7 8 م ۸	101 110 7	105.850.4				
	ucres	0.0	0.0	4,740.7	101,110.7	10,0,0,0,0				
Private	fires	175	7	1	1	184				
	acres	716.8	666.8	0.1	28,086.3	29,470.0				
		,								
State of Alaska	fires	40	42	8	38	128				
	acres	486.4	49,032.5	64,659.9	1,242,869.1	1,357,047.9				
U.S. Forest Service	fires	5	14	3	5	27				
	acres	0.5	7.4	0.7	5.8	14.4				
Total Fires	fires	<b>244</b>	111	31	141	5 <sup>2</sup> 7				
Total Acres Burned	acres	6,767.1	142,981.6	323,067.9	2,478,776.3	2,951,592.9				

Number of fires is based on ownership and management option at point of origin. Acreage shown is actual acres burned by owner and Management option, i.e. fires that burned on multiple ownerships are counted as fires based on the ownership at point of origin, but the acreage burned is divided and shown based on the owner where the acres burned.

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Alaska Fire Service Protection Fires and Acres Burned by Zone and Management Option										
Zone Critical Full Modified Limited Total										
Galena	Fires	6	7	7	31	51				
	Acres	44.4	77.8	110.1	39,309.1	39,541.4				
Military	Fires	1	12	1	9	23				
	Acres	0.1	32.0	125,381.6	38,682.4	164,096.1				
Tanana	Fires	0	6	1.0	36	43				
	Acres	0.0	8,023.0	3,225.2	796,142.5	807,390.7				
Upper Yukon	Fires	4	10	6	15	35				
	Acres	0.9	911.4	83,620.0	731,015.6	815,547.9				
Total Fires		11	35	15	91	152				
<b>Total Acres Burned</b>		45•4	<b>9,044.2</b>	212,336.9	1,605,149.6	1,826,576.1				

U.S. Forest Service Protection Fires and Acres Burned by Forest and Management Option							
Forest		Critical	Full	Modified	Limited	TOTALS	
Chugach National Forest	fires	6	5	1	1	13	
	acres	1.0	0.7	0.1	5.0	6.8	
Tongass National Forest	fires	6	17	4	5	32	
	acres	5.5	7.8	0.8	0.9	15	
Total Fires		12	22	5	6	45	
<b>Total Acres Burned</b>		6.5	8.5	0.9	5.9	21.8	

State of Alaska Protection Fires and Acres Burned by Region/Area and Management Option									
Area Northern Region		Critical	Full	Modified	Limited	Totals			
Copper River	fires	13	5	0	1	19			
	acres	5.1	9.8	0.0	56,413.0	56427.9			
Delta	fires	36	5	0	0	41			
	acres	107.6	108.6	0.0	0.0	216.2			
Fairbanks	fires	38	19	1	7	65			
	acres	79.0	13,303.5	3.0	636,083.0	649,468.5			
Tok	fires	16	4	0	10	30			
	acres	23.2	0.4	0.0	35,045.5	35,069.1			
Southern Region									
Anchorage-Matsu	fires	85	1	5	1	92			
	acres	44·3	0.1	251.3	0.1	295.8			
Kenai-Kodiak	fires	26	4	0	5	35			
	acres	1091.9	23.0	0.0	13,254.1	14369			
Southwest	fires	2	14	6	20	4 <del>2</del>			
	acres	21.1	27,999.9	1,310.1	339,814.9	369,146.0			
Haines	fires	4	2	0	0	6			
	acres	2.3	0.2	0.0	0.0	2.5			
Total Fires		220	54	12	44	330			
Total Acres Burned		1,374.5	41,445.5	1,564.4	<b>1,080,610.6</b>	1,124,995.0			

BLM Fires and Acres Burned by Field Office and Management Option								
<u>Administrative</u>		- · · ·						
Office		Critical	Full	Modified	Limited	Total		
Anchorage Field Office	fires	0	1	4	9	14		
	acres	0.0	43.0	103,585.3	148.8	103,777.1		
Glennallen Field Office	fires	0	1	0	0	1		
	acres	0.0	9.0	0.0	0.0	9.0		
Northern Field Office	fires	0	2	3	28	33		
	acres	0.0	7,885.5	167,142.4	488,154.9	663,182.8		
						-		
Total Fires		0	3	7	37	48		
<b>Total Acres Burned</b>		0.0	7,928.5	270,727.7	4 <b>88,303.7</b>	766,968.9		

BLM
Fires and Acres Burned by Landowner
and Management Option

## **Administrative**

<u>Office</u>		Critical	Full	Modified	Limited	Total
Anchorage Field Office	fires	0	1	4	9	14
	acres	0.0	2,841.0	2,261.8	76,465.3	81,568.1
Glennallen Field Office	fires	0	1	0	0	1
	acres	0.0	9.0	0.0	0.0	9.0
Northern Field Office	fires	0	2	3	28	33
	acres	0.0	7,969.8	165,562.9	404,057.2	577,589.9
Total Fires		0	3	7	37	<b>48</b>
<b>Total Acres Burned</b>		0.0	10,819.8	167,824.7	480,522.5	659,167.0

National Park Service Fires and Acres Burned by Park or Preserve and Management Option									
<u>National Park</u>		Critical	Full	Modified	Limited	Total			
Denali	fires	0	0	2	4	6			
	acres	0.0	0.0	250.1	2,460.2	2,710.3			
Noatak	fires	0	0	0	10	10			
	acres	0.0	0.0	0.0	30.8	30.8			
Wrangell St.Elias	fires	0	0	0	1	1			
	acres	0.0	0.0	0.0	56,413.0	56,413.0			
Yukon Charlie	fires acres	0 0.0	0.0	1 41,742.9	3 292.5	4 42,035.4			
Total Fires		0	0	3	18	21			
Total Acres Burned		0.0	0.0	41,993.0	59,196.5	101,189.5			

National Park Service									
Fires and Acres Burned by Landowner									
	aı	nd Manageme	ent Op	tion					
National Park Critical Full Modified Limited Total									
-	fires	0	0	2	4	6			
Denali	acres	0.0	0.0	250.1	33,819.9	34,070.0			
Noatak	fires	0	0	0	10	10			
	acres	0.0	0.0	0.0	30.8	30.8			
Wrangell St.Elias	fires	0	0	0	1	1			
	acres	0.0	0.0	0.0	56,413.0	56,413.0			
Yukon Charlie	fires	0	0	1	3	4			
	acres	0.0	0.0	4,498.6	10,847.0	15,345.6			
Total Fires		0	0	3	18	21			
Total Acres Burned		0.0	0.0	4,748.7	101,110.7	105,859.4			

U.S. Fish and Wildlife Service										
Fires and Acres Burned by Refuge										
and Management Option										
<u>Refuge</u>		Critical	Full	Modified	Limited	Total				
Alaska Maritime	fires	0	0	0	1	1				
	acres	0.0	0.0	0.0	3,993.7	3,993.7				
Artic	fires	0	0	0	1	1				
	acres	0.0	0.0	0.0	80.0	80.0				
Innoko	fires	0	0	0	1	1				
	acres	0.0	0.0	0.0	42.0	42.0				
17 1. 1	C									
Kodiak	fires	0	0	0	2	2				
	acres	0.0	0.0	0.0	4.0	4.0				
Kenai	fires	1	2	1	5	9				
	acres	0.8	1.7	3,225.2	13,254.1	16,481.8				
Koyukuk	fires	0	1	0	1	2				
	acres	0.0	0.1	0.0	3,177.5	3,177.6				
Nowitna	fires	0	0	0	6	6				
	acres	0.0	0.0	0.0	104,846.7	104,846.7				
C 1 1	C					<i>.</i>				
Selawik	fires	0	0	1	5	6				
	acres	0.0	0.0	35.0	2,005.0	2,900.8				
Tetlin	fires	0	0	0	2	2				
	acres	0.0	0.0	0.0	1,096.5	1,096.5				
Yukon Delta	fires	0	2	0	3	5				
	acres	0.0	2.0	0.0	17,914.0	17,916.0				
Yukon Flats	fires	0	0	2	5	7				
	acres	0.0	0.0	20,892.9	403,375.7	424,268.6				
Total Fires	1	1	5	4	32	42				
Total Acres Burned	1	0.8	3.8	24,153.1	546,656.3	574,807.7				

State of Alaska Fires and Acres Burned by Administrative Unit and Management Option										
Administrative Unit		Critical	Full	Modified	Limited	Total				
City/Borough*	fires	4	1	0	0	5				
	acres	74·5	0.1	0.0	0.0	74.6				
Dept. Of Transportation	fires	14	1	1	0	16				
	acres	1.6	0.1	0.1	0.0	1.8				
Forestry	fires	6	7	0	10	23				
	acres	206.4	13,381.4	0.0	34,921.8	48,509.6				
Land & Water	fires	7	27	6	23	63				
	acres	7·3	35,639.5	64,658.8	699,069.2	799,374.8				
Mental Health	fires	2	2	0	0	4				
	acres	0.2	11.0	0.0	0.0	11.2				
Parks	fires	7	4	1	1	13				
	acres	196.4	0.4	1.0	0.1	197.9				
Refuge	fires	0	0	0	4	4				
	acres	0.0	0.0	0.0	508,878.0	508,878.0				
Total Fires Total Acres Burned	Total Fires 40 42 8 38 128   Total Acres Burned 486.4 49.922.5 64.659.9 1.242.869.1 1.257.047.9									

## 10 year Numbers





Human vs. Lightning



## Numbers through the Decades

Number of Fire Starts



#### Number of Acres Burned





Area/ Zone	# of Crews	# of Assignments	# of Days	
GAD	25	26	231	
TAD	6	9	55	
UYD	7	12	106	
CRS	1	1	6	
DAS	1	6	40	
FAS	4	14	123	
MSS	1	2	16	
SWS	12	29	201	
TAS	4	12	81	
Total:	61	111	862	

## *Type 2 EFF Crew Assignments*



1.9 assignments per crew - 7.77 days per assignment - No L48 assignments 61 out of 71 (85.9%) were utilized for an average of 1.8 assignments per crew

## Alaska Agency Crew Assignments

Name	Alaska	L48	Canada	
Chena IHC	13	1		
Midnight Sun IHC	10			
Pioneer Peak	13		1	
Denali (T2IA)	10			
Yukon (T2)	9			
North Star (T2)	5			
Gannett Glacier (T2IA)	7			
Alaska Interagency	1			
Alaska One (T2IA)			1	
Total:	68	1	2	



7.8 assignments per crew - 116 T2 Assignments - 108 T1 or T2IA Assignments in 2009

L48 Crews Assigned in Alaska: 18 T2 I - 18 T1 IHC - 2T1 IHC (2x)



Type 2 EFF Crew Assignments 2009								
* = includes reassignments		P = P	reposition or H	FD order				
Crew	Airport	Agency	Zone or	# of		# of days		
Name			Area	Assignments		Assigned		
		ALL Crews				<u> </u>		
Allakaket #1	(6A8)	AFS	TAD	1		13		
Allakaket #2	(6A8)	AFS	TAD	2	*	16		
Ambler	(AFM)	AFS	GAD	1		7		
Arctic Village	(ARC)	AFS	UYD	3	*	25		
Beaver/Stevens Village	(WBQ)	AFS	UYD	3	*	18		
Chevak #1	(VAK)	DOF	SWS-SCS	3	*	20		
Chevak #2	(VAK)	DOF	SWS-SCS	4	*Р	24		
Copper River	(Z93)	DOF	CRS-NRS	1		6		
Delta #2	(BIG)	DOF	DAS-NRS	6	*	40		
Fairbanks #1	(FAI)	DOF	FAS-NRS	3		28		
Fairbanks #2	(FAI)	DOF	FAS-NRS	2		22		
Fairbanks #3	(FAI)	DOF	FAS-NRS	7	*	57		
Fairbanks #4	(FAI)	DOF	FAS-NRS	2	*	16		
Fort Yukon #1	(FYU)	AFS	UYD	1		1		
Fort Yukon #2	(FYU)	AFS	UYD	1		14		
Fort Yukon #3	(FYU)	AFS	UYD	2	*	17		
Galena	(GAL)	AFS	GAD	2		11		
Grayling	(KGX)	AFS	GAD	2	*	14		
Holy Cross	(HCA)	AFS	GAD	1		15		
Hooper Bay #1	(HPB)	DOF	SWS-SCS	2		18		
Hooper Bay #2	(HPB)	DOF	SWS-SCS	1		11		
Hooper Bay #3	(HPB)	DOF	SWS-SCS	1		7		
Huslia #1	(HLA)	AFS	GAD	0		0		
Huslia #2	(HLA)	AFS	GAD	0		0		
Kaltag #1	(KAL)	AFS	GAD	0		0		
Kaltag #2	(KAL)	AFS	GAD	3	*	18		
Kiana #1	(IAN)	AFS	GAD	0		0		
Koyuk	(KKA)	AFS	GAD	1		12		
Koyukuk	(KYU)	AFS	GAD	1		16		
Lower Kalskag	(KLG)	DOF	SWS-SCS	3	*	17		
Marshall	(3A5)	AFS	GAD	1		6		
Mat-Su	(PAQ)	DOF	MSS-SCS	2	*	16		
Minto #1	(51Z)	AFS	TAD	5	*	21		
Minto #2	(51Z)	AFS	TAD	0		0		
Nikolai	(5NI)	DOF	SWS-SCS	6	*	32		
Nondalton #1	(5NN	DOF	SWS-SCS	1		10		
Nondalton #2	(5NN)	DOF	SWS-SCS	2	Р	23		
Noorvik #1	(ORV)	AFS	GAD	2		15		
Noorvik #2	(ORV)	AFS	GAD	2		30		

* = includes reassignments		P =	Preposition or I	HFD order		
Crew Name	Airport	Agency	Zone or Area	# of Assignments		# of days Assigned
	·	Galena Z	one			
Nulato #2	(NUL)	AFS	GAD	1		8
Pilot Station	(OAK)	AFS	GAD	0		0
Ruby	(RBY)	AFS	GAD	0		0
Scammon Bay	(SCM)	DOF	SWS-SCS	2	Р	12
Selawik #1	(WLK)	AFS	GAD	2	*	8
Selawik #2	(WLK)	AFS	GAD	0		0
Shageluk	(SHX)	DOF	SWS-SCS	2	Р	9
Shungnak	(SHG)	AFS	GAD	0		0
St. Michael	(5S8)	AFS	GAD	1		16
St.Mary's	(KSM)	AFS	GAD	1		12
Stebbins #2	(WBB)	AFS	GAD	3	*	29
Tanana #1	(TAL)	AFS	TAD	0		0
Tanana #2	(TAL)	AFS	TAD	1		5
Upper Kalskag	(KLG)	DOF	SWS-SCS	2		18
Upper Tanana #1	(6K8)	DOF	TAS-NRS	3	*	13
Upper Tanana #3	(ORT)	DOF	TAS-NRS	3	*	23
Upper Tanana #4	(TSG)	DOF	TAS-NRS	2		20
Upper Tanana #5	(ORT)	DOF	TAS-NRS	4	*P	28
Venetie #1	(VEE)	AFS	UYD	1		15
Venetie #2	(VEE)	AFS	UYD	1		16

## Type 2 EFF Crew Assignments 2009

2009 EFF Payroll		Feder	al Paid	State Paid		
	-	hrs. worked	gross wages	hrs. worked	gross wages	
Alakanuk						
Allakaket	AFS TAD	6613.75	\$148,121.80			
Anchorage		2670.50	\$55,082.76	159.5	\$3,607.07	
Angoon						
Ambler	AFS GAD	1630.00	\$33,410.28			
Anvik						
Artic Village		4854.50	\$103,898.03			
Beaver	AFS UYD	917.00	\$20,383.71			
Bettles			., , , , , , , , , , , , , , , , , , ,			
Buckland	AFS GAD	2245.50	\$48,654.85			
Central		295.50	\$6,774.60			
Chalkyitsik	AFS UYD	276.00	\$5,875.92			
Chevak	DOF SWS			8,535.5	\$179,667.51	
Chickaloon	AFS					
Circle	AFS	2491.50	\$51,492.38			
Chugiak	DOF					
Copper Center	DOF CRS			19,013.0	\$454,806.53	
Delta	DOF DAS			21,512.5	\$475,950.48	
Denali Park	AFS					
Ester	AFS	21.50	\$443.33			
Eagle River		619.50	\$15,760.08			
Eagle	AFS UYD					
Fairbanks	DOF FAS	22696.25	\$557,677.11	93,039.5	\$2,205,707.64	
Fort Yukon	AFS UYD	13826.25	\$302,689.22			
Galena	AFS GAD	6758.00	\$149,306.08			
Girdwood						
Glennallen						
Grayling	AFS GAD	2940.00	\$65,220.49			
Gustavus						
Haines	DOF SCS			20.0	\$346.72	
Holy Cross	AFS GAD	3189.50	\$84,184.48			
Homer				1,910.0	\$48,131.60	
Hooper Bay	DOF SWS			8,064.0	\$161,951.97	
Hughes	AFS TAD	1267.00	\$26,799.52			
Huslia	AFS GAD	8321.00	\$181,745.54			
Iliamna						
Juneau						
Kalskag, Lower	DOF SWS	177.00	\$3,538.98	2,999	\$62,370.59	
Kalskag, Upper	DOF SWS			5,028	\$103,847.47	
Kaltag	AFS GAD	5333.50	\$119,316.80			
Kasilof						
Kenai	DOF KNS			10,111.0	\$222,538.92	
Kiana	AFS GAD	1373.00	\$29,229.43			
Kotzebue						
Koyuk	AFS GAD	3685.50	\$81,587.67			
Koyukuk	AFS GAD	3877.00	\$84,174.48			
Larson Bay						
Marshall	AFS GAD	2089.00	\$44,699.07			
McGrath	DOF SWS			20,775	\$497,189.89	
Mentasta	DOF TAF					

Wages:			\$10,519,091.70		
Hrs worked:			466,545.0		
Totals :					
Subtotal:		157,527.00	\$3,523,803.34	309,018.0	\$6,995,288.36
vv asilia					
Wasilla	ATS UTD	11402.00	\$253,770.29		
Venetie		11462.00	\$252 <b>55</b> 0 20		
Valdoz		302.50	\$9,009.50		
Two Divore	DUF IAS	282.50	60 990 -6	21,039.5	\$503,492.31
Tok	DOFTAS			9,520.0	\$200,270.04
Totlin		2008.50	\$02,407.70	0.530.0	\$200 2 <del>7</del> 0 6 (
Tanacioss		2668 50	¢62.407.7°	3,730.0	\$79,733.00
Tanacross	DOF ΤΔS	23/.00	\$0,920.7/	2 720 0	¢70 722 88
Talkeetna	AIS OID	1917.50	\$6,000		
Stevens Villago	AFSUVD	1017 50	\$41.416.00		
Sterling	AI'S GAD	7020.00	\$150,507.91		
Stehhing	AFSGAD	7020.00	\$20,152.50		
Sitka		909.00	\$4,044.72		
Shungnak	AL2 GAD	060.00	\$4.044.72		
Shaktoolik	AFS CAD	591.00	ş12,411.00	3,901.0	\$00,023.10
Shageluk	DOFSWS	501.00	\$12,411,000	2 081 0	\$80.822.16
Seward	AI'S GAD	7005.50	\$100,397.50		
Selawik	AFS CAD	7665 50	\$166 207 58	3,195.0	\$03,251.04
Scammon Ray	DOF SWS	2290.50	\$52,503.50	2 105 0	\$62.251.84
St. Michael	AFS CAD	3290.00	\$52,002.3/		
St Mary's	AFS CAD	2200.00	\$72.862.27		
Phot Station	AFSGAD	4153.00	\$92,151.22		
Pilot Station	AESCAD	1975-75	\$53,472.08		
North Polo		1075 75	\$52,452,08	39,702.0	\$005,032.09
Dalmor	AF3 GAD			20 502 0	00-66-
Nulato	DUF IAS			15,233.5	\$330,081.19
NOOFVIK	AFS GAD	3083.50	\$01,493.50		(tag 0-
Nome		184.00	\$3,684.00		
Nondalton	DOF SWS	0		5,697.5	\$116,073.85
Noatak					6 0
Nikolai	DOF SWS			7,273.0	\$156,040.57
Nenana	DOF FAS			7,680.5	\$163,771.84
Mt. Village	AFS GAD	3527.50	\$74,277.98		
Mt. Mckinley					
McCarthy					
Minto	AFS TAD	6372.50	\$145,373.77		
2.41		-			

These figures include all emergency hire wages for the year 2009.

Individual as well as crew wages shown are payments made to zip codes Designated crews are shown by designator

## Alaska Wildland Fire Protection Areas



#### Information compiled by the

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