

**Testimony of John “Chris” Maisch, Alaska State Forester
On Behalf of the Alaska Division of Forestry and
The National Association of State Foresters**

Submitted to the U.S. Senate Committee on Energy and Natural Resources

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Good morning, Ms. Chairman Murkowski, Ranking Member Cantwell, and Members of the Committee. My name is Chris Maisch, State Forester and Director of the Alaska Department of Natural Resources, Division of Forestry (DOF) and past President of the National Association of State Foresters (NASF). I appreciate the opportunity to speak with you today and submit written testimony as the Committee entertains an after action review of the 2015 fire season and the complex issues surrounding wildland fire management. The mission of the DOF is to proudly serve Alaskans through forest management and wildland fire protection. The DOF is the lead agency for wildland fire management services on 150 million acres of land with a primary goal to protect life and property. In addition, the agency oversees the management of 47 million acres of forests on state land, including approximately two million acres in three designated state forests. The Division also regulates commercial forestry practices on private, municipal and state lands with a mandate of protecting fish habitat and water quality during timber management activities.

The NASF represents the directors of the state forestry agencies in all 50 states, eight territories, and the District of Columbia. State Foresters deliver technical and financial assistance, along with protection of forest health, water and wildfire for more than two-thirds of the nation’s forests. While the duties of state agencies vary from state to state, all share common forest management and protection missions and most have statutory responsibilities to provide wildland fire protection on all lands, public and private. In fiscal year (FY) 2014, state forestry agencies provided this service on approximately 1.5 billion acres and helped train nearly 102,000 firefighters via funding from the USDA Forest Service (Forest Service), State Fire Assistance (SFA) and Volunteer Fire Assistance (VFA) programs. State Foresters work closely with federal partners to deliver forestry programs and wildfire protection.

2015 Wildland Fire Season

This was another difficult wildland fire season nationally, and in Alaska it will go down in the record books as our second worst fire season for acres burned. Approximately 5.1 million (M) acres or about 54 percent of the 9.4M acres that burned nationally this year were in Alaska. The worst fire season on record for Alaska occurred just over a decade ago (2004) at 6.4M acres (Figure 1). As you examine the graph, you will see a dashed line that indicates the rolling 11-year average of acres burned and you can see that 2004 was a tipping point for the state. The workload as represented by acres burned has doubled from the previous long-term average and this past season underscored the type of wildland fire season we are faced with on a more frequent basis.

The Alaska season unfolded with a very dry and warm spring that cured the fuels and set-up the potential for a significant fire event should ignition sources develop, which for Alaska is usually lightning in June. Many of our fire/fuel indices were at record or near record levels around the state. The season started in earnest with two large, urban interface fires, one in the Matsu Valley near the community of Willow, called the Sockeye fire, and the other on the Kenai Peninsula near the town of Soldotna, called the Card Street fire. Both of these incidents occurred during fire weather red flag warnings, which was primarily due to predicted high winds. The Card Street fire was reported at one acre and grew to 1,000 acres on the first day - 9,000 acres by the second day. The Sockeye fire was initially attacked at two acres and by the second day the fire had grown to 6,500 acres. Unfortunately, there were 59 primary residences lost, mainly in the Sockeye fire. These incidents were a sign of things to come and in mid-June a seven-day lighting event ignited 295 fires (30 to 50 per day) when over 61,000 lightning strikes occurred (Figure 2). Needless to say, the Alaska wildland fire suppression resources were down to nil by the end of this unprecedented seven day run, despite the pre-positioning of resources that had been done in anticipation of a large fire event.

Assistance was coming from the Lower 48 states (L-48) and Canada, but it takes several days for resources to arrive. On June 17th there were 999 staff assigned to fires, 2,000 by June 23rd and 3,174 staff by June 29th. By the end of the season, 45 states and two Canadian provinces had provided resources to Alaskan fires. Roughly speaking, about 48 percent of the resources used were Alaskan based with the balance (52 percent) coming from other state, federal and Canadian sources. This example underscores the importance of the sharing of wildland fire resources and building capacity of both state and local cooperators to respond nationally during extreme events.

As the season progressed, over 90 fires merged, with the largest being the Big Creek Two fire, which joined with four other fires that totaled 433,685 acres. At one point, two rural communities, Tanana and Koyukuk on the Yukon River, were surrounded by a complex of fires. At the time I was reminded of the town of Wallace, Idaho that was destroyed in the infamous 1910 fire known as the “Big Burn.” Fortunately in this case, losses were kept to a minimum by a key interagency partner the Alaska Fire Service, but many of the residents of these two villages were evacuated for an extended period of time. In the end, there were 766 fires statewide and the state was at planning level five for 24 days - the highest level of activity. Luckily, the month of August had abundant rainfall in many locations around the state and there were few new fire starts. However, there was plenty of fire on the landscape, and fire fighters were continuously assigned to fires from May 16th until September 10th, a very long fire season for Alaska. The last major fire of the season was on Kodiak Island, another wind driven fire that reached 5,000 acres in just two days. The fire burned all the way to the ocean, where it finally stopped! (Figure 3).

While all this activity was taking place in Alaska the L-48 fire season began to develop into a more active and challenging series of incidents. Many of the Western states, particularly Oregon, Washington and California were having another difficult fire year and this was on the heels of a record-breaking year for two of these states in 2014 (WA and OR). There were 53,798 wildfires reported nationally between January 1st and October 30th with the number of acres burned exceeding the ten-year average (6.5M acres) by almost 3.0M acres. My colleague, California State Forester Ken Pimlott, has indicated to me that due to drought in his state, they

now have a year round fire season. The issue of wildland fire is not just a Western U.S. problem. As you look around the nation you have difficult and challenging fire seasons from all jurisdictions but fortunately so far, not usually in the same years. So, what did we learn from this past season and what can we do to address this growing problem?

Communities at Risk

In FY 2013, the total number of communities at risk from wildland fire in the U.S. was more than 72,000. During the same year approximately 17,000 communities have completed Community Wildfire Protection Plans (CWPP). Last week there was a fire chiefs White House roundtable on climate change and the impacts at the wildland urban interface (WUI). There is a growing recognition that what was once considered unusual or extreme for an individual fire, or the duration and intensity of a fire season, is becoming more common place.

The NASF is a key partner in the development and implementation of the National Cohesive Wildland Fire Management Strategy (Cohesive Strategy) and its three primary goals:

- Restore and Maintain Resilient Landscapes
- Develop Fire Adapted Communities
- Provide Efficient and Effective Response to Wildfires

I believe members of this Committee are familiar with these concepts and you will hear from other speakers today on some of the details of these three goals, so I'd like to illustrate the importance of these objectives by sharing a story about the Funny River fire from the 2014 Alaska fire season. I think many of my fellow State Foresters could share similar stories from their experiences. I don't believe this is a unique example.

The Kenai National Wildlife Refuge has been creating fuelbreaks – these are large landscape level projects. These projects were part of an interagency and multi-landowner effort to design and construct fuelbreaks that would protect homes, businesses and other values at risk should a fire start on the refuge and move toward the community (Figure 4-5). The DOF was a key partner and completed the on-the-ground treatments over the course of several years. At the same time, individual fuel mitigation projects were pursued with homeowners utilizing the FireWise program as part of the overall implementation of the communities CWPP. These advanced preparations paid off and in the spring of 2014 a lightning initiated fire threatened the outskirts of the town of Soldotna, in an area called the Funny River Road.

On the Funny River thick plumes of smoke dominated the skyline as firefighters dispersed through subdivisions. Some people had already been evacuated and the entire area was now under an evacuation order. People streamed out the one highway that leads into the area. The community was sandwiched between the approaching fire and the Kenai River, with only one way in and out. It was also the start of the Memorial Day weekend and this was the last thing most people had on their minds a few days earlier. Now they were wondering if they would have a home to which they could return. Moving fast on multiple fronts, firefighters were looking for any break they could get.

The fuelbreaks made all the difference. The call came in around midnight that the fire was going to hit the Funny River Road. By the time crews arrived, there was not much time to start a burn out to rob the approaching fire of fuel. For the Incident Commander the question was where to start? “Suddenly I realized I was in an area that was thinned of trees; they had built a fuelbreak!” he said. “The fuelbreak slowed the fire down enough for crews to safely and successfully light the burnout.” Over 2,400 structures were protected with an assessed value of more than \$250M.

This incident illustrates a number of key elements of successful fire management: advanced preparations made by communities and individual homeowners, proactive management of high risk fuels by state and federal agencies, and an interagency “all hands, all lands” approach.

Nationally and in Alaska, there is not enough funding being allocated for high risk fuels mitigation work. Each year in rural Alaska there is at least one fire in the wildland that is caused by burning at the local land fill. This year, there were two and these types of ignition sources are preventable, but only if humans cooperate. To improve the odds of eliminating these types of ignitions, every land fill in rural Alaska should have fuel mitigation projects completed around the facilities and a CWPP for the community completed. This investment would be paid back rapidly; consider that the two fires from this season alone cost over \$7.0M to control.

Aviation and Wildland Fire

The national shortage of air tankers is finally moving in the right direction with the development of new platforms and resources, including next generation air tankers (Figure 5). These aviation assets are a key part of initial attack operations, to keep fires small, but are also deployed on larger project fires. The key to using air tankers in this role is using the right tool for the job and ensuring there are ground forces available to back-up the use of retardant and water drops. Attempting to build line with air tankers might look good, but this is an expensive resource and operation staffs on the fire line need to ensure the impact on control efforts is worth the cost (Figure 6).

An ongoing problem for many states with wildland fire aviation programs is the issue of “carding” individual pilots and aviation platforms. Both the Forest Service and the Department of Interior (DOI) fire suppression agencies, thru their Office of Aircraft Services (OAS), require additional verification of any aviation asset that will be used on a federal fire. The two agencies are not well coordinated in this effort, despite using the same carding standards for certifications. States have a combined aviation fleet of 197 fix wing aircraft and 184 helicopters in addition to their National Guard assets and this inter-agency situation has caused some real problems during the fire season and I’ve highlighted several here:

- A state of Alaska (AK) contract helicopter that is based out of California (CA) had been carded at the beginning of the fire season by the Forest Service and had to be re-carded by OAS when it reported to AK for work.
- Colorado sent its multi-mission aircraft (infrared mapping), which was approved by the Forest Service in its Region-2, to Oregon (OR) where it had to be carded again by Forest

Service Region-6. It was approved within a couple of days, but this second action should not be required.

- Nevada was required by OAS to add a second digital radio to an aircraft, which is not in the current standards.
- In OR, additional issues included delays in receiving a tanker identification number for a state Single Engine Air Tanker (SEAT) and National Interagency Fire Center (NIFC) staff initially refusing to load NIFC radios onto an OR state aircraft to transport back to OR. An email authorization was required from the Forest Service, Region-6. This was a time sensitive issue due to ongoing wildfires.
- In Montana (MT), state FEPP helicopters can't be carded due to interpretation on maintenance practices (i.e. Ex-military vs. Federal Aviation Administration standards).
- In AK, two National Guard Black Hawk helicopters doing bucket work on a Forest Service fire were not utilized for a second mission when it was determined they were not carded.
- Multiple states including CA, OR, WA, Idaho and MT activated numerous National Guard Type 1 and Type 2 helicopters this past summer.

These examples illustrate some of the challenges faced by states this season and the federal agencies should engage state forestry agencies as equal partners to update the National Wildland Fire Aviation Strategy, and clarify language in the memorandums of understanding, cooperators standards and mobilization guides to facilitate continued interagency use of state aircraft with an efficient and consistently implemented cooperative approval process.

State and Local Wildland Fire Responders

The Forest Service (SFA) and (VFA) programs are the fundamental federal assistance programs that states and local fire departments use to develop preparedness and response capabilities for wildland fire management. They provide crucial financial and technical assistance to support state and local fire management activities, including preparedness, planning, training, hazardous fuels treatments, and the purchase and maintenance of equipment.

Continued support and sufficient funding is needed for the SFA and VFA programs. These programs' recognize the essential role of state and local government in responding to and managing wildland fires and help to ensure these entities can respond effectively to wildland fires on all jurisdictions.

In FY 2014, the SFA program directly funded hazardous fuel treatments on 111,002 acres (with another 120,241 acres treated with leveraged funding) and provided assistance to communities around the country, supporting 3,117 risk assessment and fire management planning projects and 9,972 prevention and education programs. However in many states and localities, funding cuts have drastically impacted wildfire emergency response and preparedness capacities. Recent changes to the national VFA funding allocation methodology caused a 75 percent decrease in grants to rural Alaska fire departments.

There are two additional programs critical for supporting the capacity of state and local agencies; the Federal Excess Personal Property (FEPP) program and the Firefighter Property Program (FFP). Over a five-year period (2008-2012) this program delivered more than \$150M annually in equipment used to fight wildfires.

The FEPP Program loans federally owned property to state forestry organizations and their cooperators for use in responding to wildfire. This includes equipment such as trucks, fire tools, hoses, vehicle parts, nozzles, generators, air compressors, fire protection clothing, aircraft, and aircraft parts. While the FFP gives firefighters access to Department of Defense property for use in firefighting and other emergency services. Further, FFP allows ownership to pass from the federal government following a specified period of use.

These two programs are crucial to rural communities and for many small fire departments as federal excess equipment may be the only affordable equipment available to them. States and local fire departments are more often the first responders to fires – they utilize the equipment these federal excess property programs provide to keep wildfires small and contained, provide major cost-savings to states and their cooperators, and offer the critical protection for adjacent communities.

Continued federal assistance is needed so that all these programs will continue to help the many thousands of communities at risk to prepare for and mitigate the risks associated with wildland fire.

Proactive Forest Management and Cost of Wildland Fire Suppression

While not a focus for this hearing, members of this Committee are aware the Forest Service once again exhausted its available fire suppression funds to fight wildfires and was forced to transfer \$700M in FY 2015 from non-fire programs to pay for fire suppression costs. This interferes with ongoing work in the field and delays or completely stops new contracts for all types of activities including those that contribute to reduced wildfire risk across forested and rangeland landscapes. This is the eighth time since 2002 that the Forest Service has needed to invoke its transfer authority to pay for shortfalls in fire suppression needs. In total, the agency spent \$1.7 billion on fire suppression in FY 2015 and in Alaska the state spent a record \$82M to \$84M this fire season. Meanwhile, the DOI has had to transfer funds from non-fire programs to pay for fire suppression six times since 2002, though fortunately DOI did not have to carry out fire transfers in FY 2015.

Fire transfers represent just one part of the broader wildfire funding problem. In recent years, the portion of the Forest Service and DOI budgets allocated to fire programs has grown while the overall budgets for the agencies have remained relatively flat. As more funding is allocated to fight fires, less is allocated to other areas of the Forest Service and DOI budgets. Suppressing fires is becoming more expensive and complex as a result of prolonged drought, lack of active forest management, and more people moving into WUI areas. As an example, in 1995 the Forest Service's fire programs budget represented 16 percent of the agency's total budget; in 2015, over 50 percent of the agency's total budget was dedicated to fire.

The NASF urges Congress to enact a permanent solution this year to resolve the wildfire funding problem. Specifically, NASF supports a solution that allows access to disaster funding, eliminates the negative impacts of transfers on other programs, and addresses the increasing costs of fire suppression. NASF supports the bipartisan Wildfire Disaster Funding Act (S.235, H.R.167) along with a diverse group of over 260 other organizations. NASF greatly appreciates the recognition by members of this Committee and others in Congress that the current budgeting framework and status quo for wildfire suppression funding is broken. We welcome the opportunity to work with Congress to identify a bipartisan solution.

Conclusion

Thank you for the opportunity to appear before the Committee today on behalf of the Alaska Division of Forestry and the National Association of State Foresters. Wildland fire response is one of the most challenging facets of our jobs. The NASF and I stand ready to assist the Committee in finding ways to address the challenges we all face as the wildland fire problem continues to grow and consume larger and larger portions of our state and federal budgets. Finally, I would like to thank the Committee for its continued leadership and support of efforts to both respond to wildland fire and to take the necessary actions to address the underlying causes through increasing active management of all forestlands.

Attachments

Figures 1-7

Acres burned 1950-2015 with 11-year rolling average

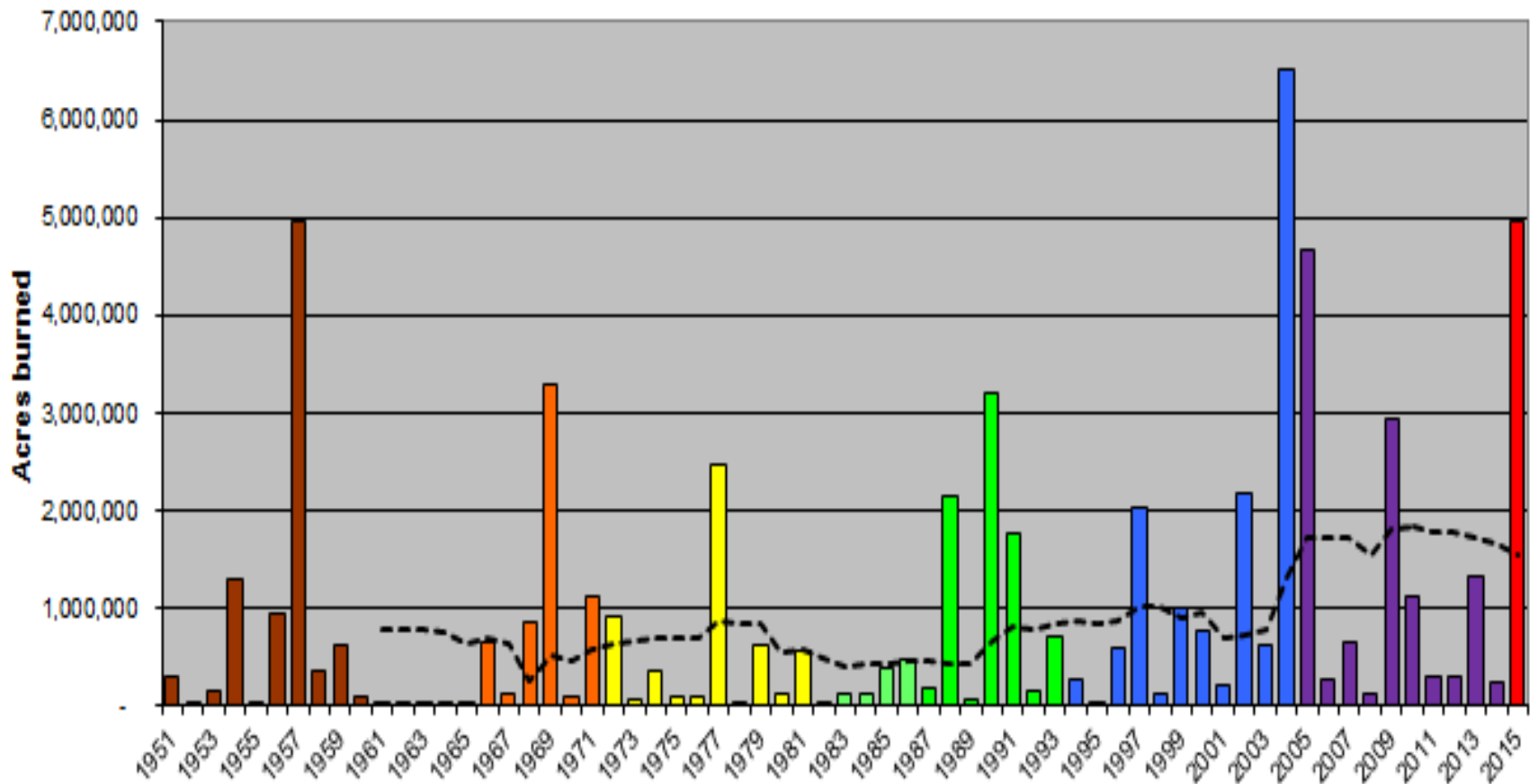


Figure 1.- History of acres burned by year in Alaska with rolling average by eleven year increments. Note the significant jump in the running average that began in 2004.

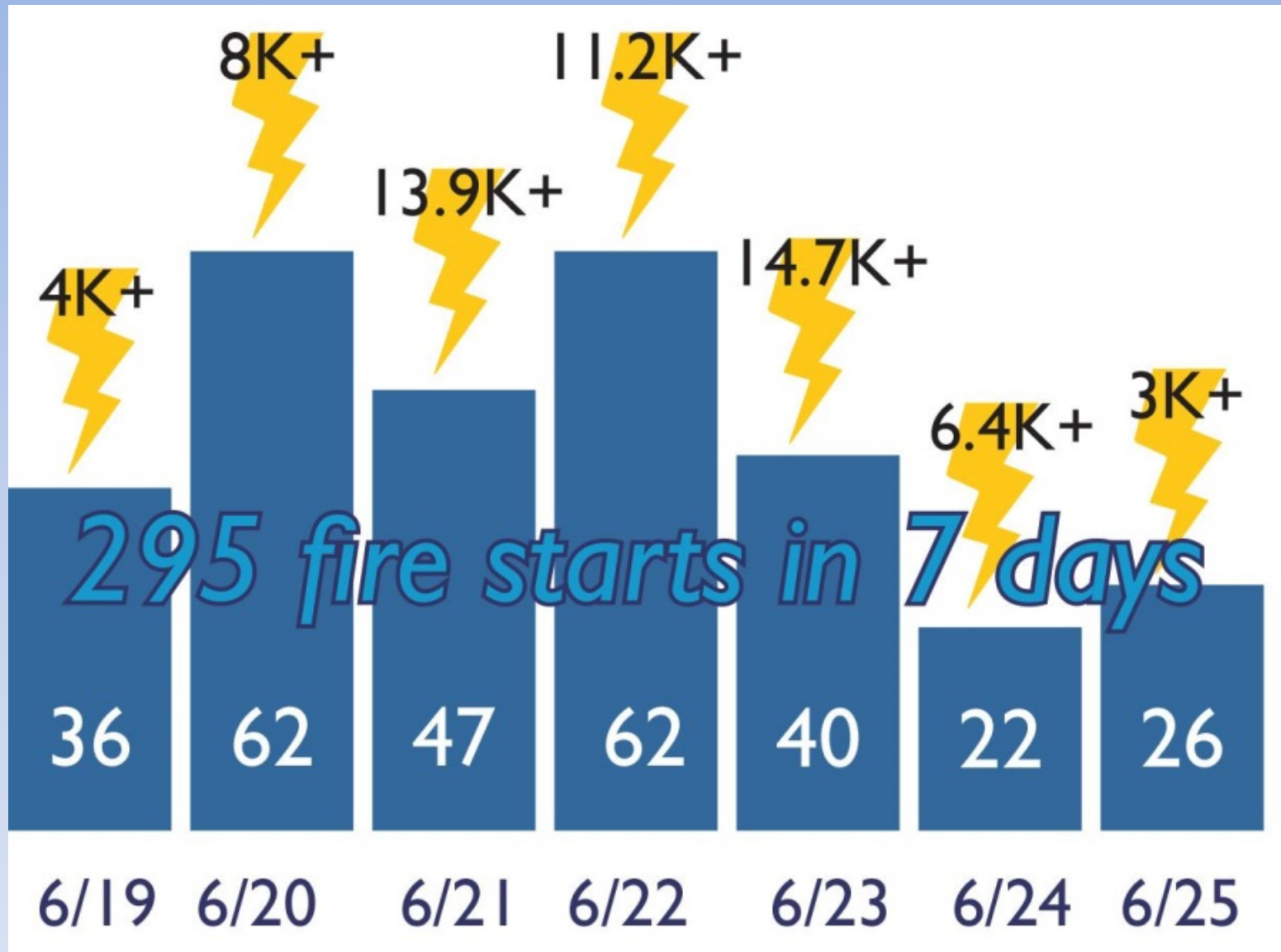


Figure 2.- Number of lightning strikes (61K) across Alaska during a critical seven day period in the 2015 fire season and the number of new fire starts each day.



Figure 3.- Extreme late season fire activity on the Twin Creeks fire on Kodiak Island. Image was taken from the community of Kodiak looking across the ocean on the evening the fire started. The settlement of Chiniak is between the fire and the ocean shoreline.



Figure 4.- A portion of the fuel break near the Funny River Road that was utilized in a burn out operation during the Funny River Fire.



Figure 4.- Example of shaded fuel break and natural barriers working together to reduce wildland fire risk for the community of Nikolai. (Bureau of Indian Affairs and Tanana Chiefs Conference, Inc. project)



Figure 5.- Next generation air tanker making retardant drop.



R.L. Johnson

Figure 6.- Structure protection along the Kenai River with C-580 retardant drop.