# Lime Complex

ALASKA
INCIDENT MANAGEMENT
TEAM

# Incident Summary

June 14-June 28, 2022

**Alaska Type 2 Black**

Incident Management Team

**Ed Sanford**

Incident Commander

## Overview

The Lime Complex consisted of 18 fires in a 21-million-acre planning area. This area is located in Southwest Alaska and can only be accessed by fixed wing aircraft from larger cities such as Anchorage, Alaska. The boreal forest is made up of mostly tundra, black spruce and brush, with rolling hills to the north and open tundra to the south. The communities of Napaimute, Sleetmute, Georgetown, Red Devil, Crooked Creek, Stony River, Lime Village, Port Alsworth, Nondalton, Iliamna, Newhalen, 483 known sites, and 710 native allotments were protected. The agencies involved are the State of Alaska Forestry Fire Protection, Bureau of Indian Affairs, Bureau of Land Management, and the National Park Service, in conjunction with many stakeholders and cooperators.

## Fire Narrative

Early predictions suggested Alaska would have a below average fire potential due to record snow accumulations. In May, a fuels advisory was issued stating that portions of the Kenai and Mat-su areas were experiencing drought conditions, thus creating concern for large fire growth. In the following weeks, a large swath of lightning spread throughout the state sparking multiple fires. The AK Green Incident Management Team (AKIMT) was ordered to a fire in western Alaska which expedited the Black Team to staff up and eventually mobilize to the Lime Complex.

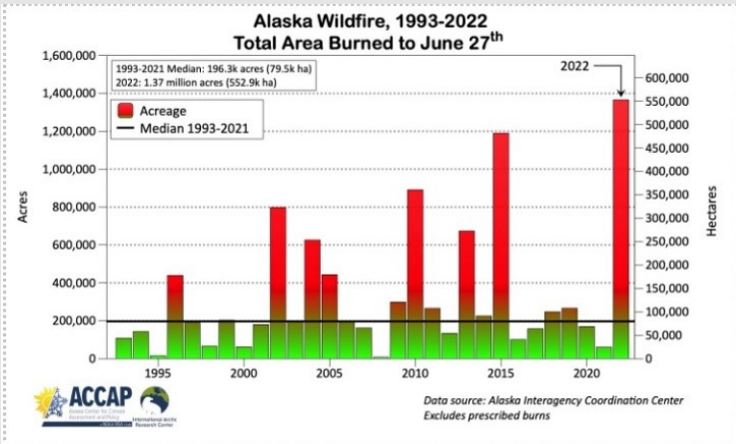
The Alaska Black Type 2 IMT assumed command of the fire on June 15th. It was clear from the beginning of the operation that supporting a large number of resources logistically would be challenging. 2 Type 1 Hand crews and 1 Type 2 IA hand crew were assigned to identify and protect structures and allotments in the known sites database. 71 new sites were identified during the team's command.

The team was responsible for initial attack (IA) within the planning area. No IA assistance was requested from the local dispatch.

Fire behavior ranged from moderate to active throughout the duration of the assignment. The weather was cyclical in between cooler and somewhat moist conditions to warming and drying trends with temps in the upper 70's and low 80's. The complex saw several burn periods resulting in rapid fire growth. The daily acres is not necessarily reflective of the growth for that day. Fire perimeters were updated by use of satellite imagery. Many times the imagery was not updated for all fire perimeters.

The Unaweep fire use module was ordered and began work on June 18th. They have conducted defensive firing operations around structures creating defensible space. The smoke jumpers and Type 1 crews have been implementing structure protection measures, re-opening saw lines around Lime Village, installing hose lays, and testing said hose lays.

The complex has a mix of fires that are being monitored, point protection or confinement using scooper drops, fire boss drops, and natural features.




## Lime Complex

**588,150 Ac as of 06/28/2022**

**Cause**

- Natural Cause—Lightning

**Protecting Agency:**

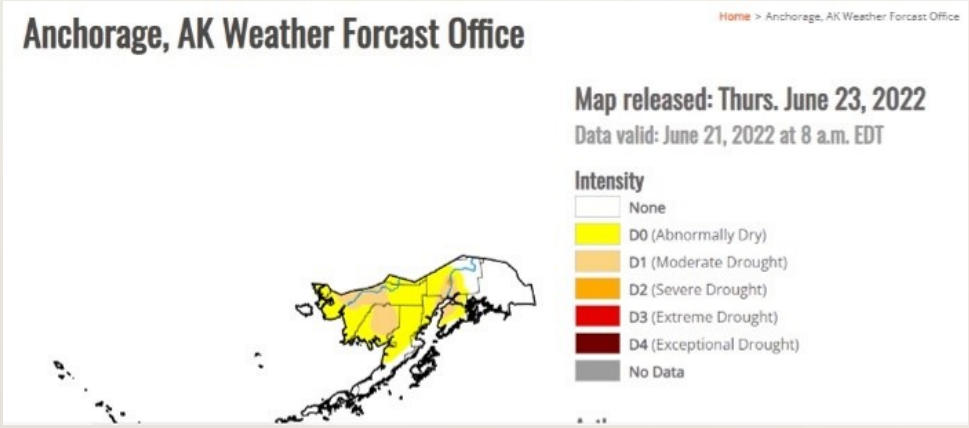
- Alaska Division of Forestry Mat-Su/Southwest Area

**Jurisdictional Agency:**

- Alaska Division of Forestry
- Bureau of Indian Affairs
- Bureau of Land Management
- National Park Service

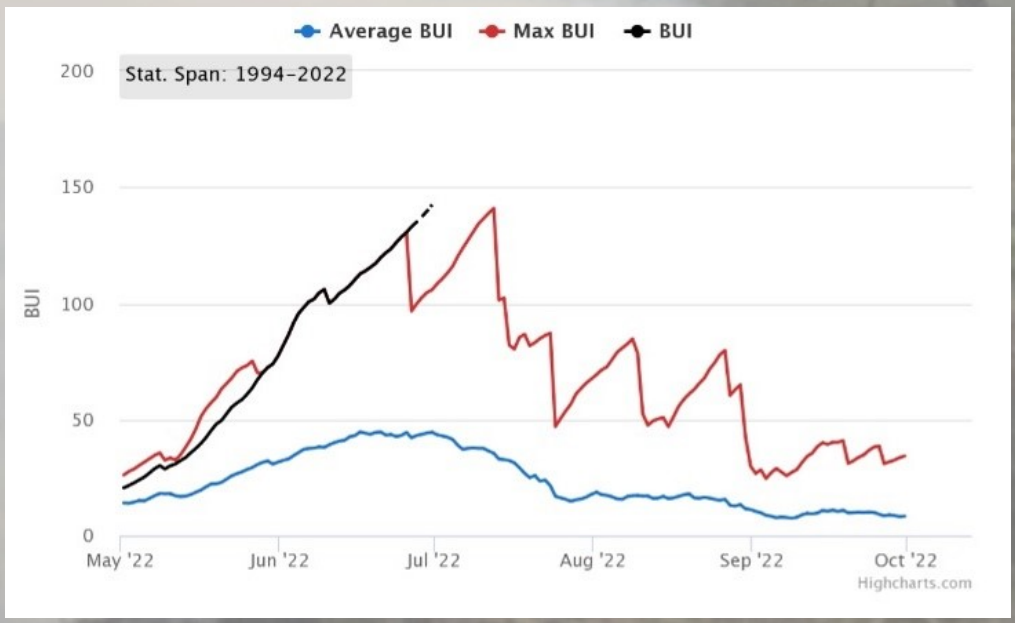
## Weather and Fire Behavior Summary

- The Fire Behavior Analyst, working with Alaska Interagency Coordination Center Predictive Services provided numerous FSPro, and Near-Term Fire Behavior projections.
- An Incident Meteorologist (IMET) was ordered soon after the team arrived after it was determined the complexity and expected long term weather outlook required expertise for the incident.
- Long term drought, coupled with favorable burning conditions allowed the fire to spread for most of the days the team had command of the incident.




- The most consistent and largest fire growth occurred in the southern part of the complex, coinciding with the record-breaking BUI in the area.
- Several minor rain events occurred that temporarily slowed fire spread in the northern parts of the complex, but fuels dried quickly and had negligible effect on long term indicators such as the BUI.
- The week of 6/20-6/24 featured generally warming and drying weather. Some isolated showers and thunderstorms clipped the area on 6/20 and 6/21. However, for most areas, these did not bring more than a few hundredths of an inch of rain. The exception was the NW portion of the Complex, near Fire 206. This fire received somewhere between 0.10-0.30" of rain, which caused its fire behavior to quiet significantly.

- By the weekend of 6/25-6/26, the warming and drying trend reached a peak. Temperatures climbed into the 80s with RH values dipping near 25%. A gusty southeast to southwest wind event made for a Red Flag Warning over the fires on 6/25.
- While humidities moistened and temperatures moderated on 6/26, winds were very strong from the south-southeast. Sustained winds rose into the 20-25 mph range with some gusts to 35 mph. This helped to ventilate and fan flames, leading to further fire growth,
- Buildup Index values exceeded the highest values ever recorded for the time of year at the Iliamna RAWS station, and are expected to break the highest ever value recorded on 6/30/22. Two weeks ahead of the normal trajectory for that indice.



# Incident Objectives

- **Firefighter and public safety are the highest priority values to be protection**

  **» A deliberate risk analysis was completed daily for fireline resources, ICP personnel, and FOB personnel**

- **Follow CDC, local, state, and federal COVID-19 mitigation guidance and protocols to reduce exposure and protect firefighters and the public from virus spread**

  **» A clear quarantine protocol was put in place should someone test positive. Contract tracing was completed for anyone that tested positive.**

  **» There is not an abundance of covid rapid tests available. Only those with symptoms were tested or those heading to remote villages.**

- **Protect the communities of Napaimute, Sleetmute, Georgetown, Red Devil, Crooked Creek, Stony River, Lime Village, Port Alsworth, Nondalton, Illiamna, Newhalen and structures within the corridors and tributaries of the Kuskokwin River.**

  **» Point protection was the main priority for operations. Crews completed structure protection on numerous allotments and structures throughout the communities and surrounding areas.**

- **Provide defense along Native Allotments, and other cultural values within the designated planning area.**

  **» Crews worked diligently on affirming locations in the known sites database.**

  **» Crews identified 71 new sites to add to the known sites database and updated 237.**

  **» Resources worked to create defensible space around structures where possible.**

# Incident Objectives (Continued)

- **Maintain and enhance relationship with agency partners, cooperators, stakeholders, and the public through timely information exchange**

  **» Cooperator meetings were held every other day and provided**

  **both an in-person and a virtual option.**

- **Support initial attack, as requested by the Southwest Forestry Fire Protection in the planning area.**

  **» While initial attack was required, crews did not respond to any**

  **incidents outside of the 18 fires within the complex.**

- **Ensure financial and documentation packages are prepared in accordance with agency requirements and agreements**

  **» Electronic records was set up from the start of the incident.**

  **A documentation unit leader (DOCL) was on site to help personnel ensure that the national naming convention was being followed.**

- **Treat all personnel with dignity and respect by providing a harassment-free zero-tolerance work environment**

  **» Clear expectations were set by the Incident Commander and**

  **section chiefs regarding this incident objective.**

# Command

**Key Decisions**

While rostering the team in a compressed timeframe, the Alaska Incident Management Team coordinated with the Alaska Wildland Coordinating Group, Alaska Operations Committee, and the Palmer/McGrath Fire Protection to determine scope of mission. The Agency Administrator provided the team with intent and the IMT was able to tailor the roster (Long team) and operational needs to support remote fire operations due to the anticipated needs for staffing distribution centers and spike camps.

The IMT is transitioning to another IMT2 (Alaska Green Team) due to the complexity involved with managing multiple large fires in remote settings. The complexity of the incident was driven by cooperator involvement, safety, hazards, fire information, difficult logistics, and remote aviation support.

**Significant Events**

As the seasonality of the event continued, the Alaska IMT continued to right-size for the mission by engaging the appropriate resources needed to manage a remote nimble workforce. Emphasis was on safety and supporting field operations, with due consideration of limitations regarding aircraft availability and support.

**Notable Successes**

At the midpoint, Agency Administrators and IMT members conducted a strategic planning session to develop a common operating picture, identify shared risks, and determine the course of action. The overall strategy was to keep fires from impacting adjacent communities, as well as identify and protect known sites, native allotments, and other infrastructure. Three strategic planning sessions were held during the team's tenure. Agency Administrators and Representatives were readily available and actively involved in incident oversight. Their local knowledge, insight, input, and availability were helpful to the success of the incident.

# Safety

The Alaska Black team assumed command of the Lime Complex on 6/14/22 with 4 qualified safety officers. Two of the Safety Officers are Alaska IMT members that are familiar with the hazards and environmental concerns of the area of operation. This was essential to the success of the operation which alleviated the concerns for the incoming safety officers. The most senior safety officer on the complex provided oversight for the forward operating base (FOB) serving as the information conduit to the line safeties.

The team ensured that all hazards were identified and mitigated using the Deliberate Risk Analysis (DRA) in conjunction with the ICS form 215R and daily operational briefings.

The Medical Unit was staffed by one Medical Unit Leader and one Medical Unit Leader Trainee. Several Line Medics/EMT's were also strategically placed to monitor critical operations.

2 National Guard ships were identified (Statewide use) with hoist capabilities.

The incident reported two positive COVID cases, one was quarantined asymptomatic, and the other was local and returned home. No additional cases were realized.

# Safety

**Notable Successes**

The Alaskan operational safety culture and the delivery of the safety messages in the field contributed to the overall success of the program. Having infrastructure in place with functional areas represented at the FOB at the Aniak Airport and middle school, along with corporate knowledge shared by field operations and safety personnel with Alaska experience, were instrumental in achieving the incident safety record. One Green injury occurred before Black IMT assumed command of the incident. One green injury occurred during the establishment of the FOB in Aniak; the (green) injury occurred during forklift operations associated with cargo movement. The third injury occurred at the Incident Command Post (ICP) slip/fall. Encounters with bears were avoided by keeping clean camps, removing trash, and conducting backhaul frequently. Utilization of local hire boats assisted in access to sites and transport of gear. This was done safely and messaged through the safety shop to slow speeds, avoid collision and wear personal flotation devices (PFDs). The boat operations helped provide an alternative to air transportation and the cutting of helispots on private lands and hauling equipment long distances from helispots.

Coordinated with the Medical Unit to implement Incident within an Incident (IWI) training opportunities for line Medics and radio operators (RADOs) to better facilitate a smooth fireline medical evacuation should there be a need.

Excellent safety record for aviation operations considering the visibility limitations for aircraft. There was a heavy reliance on logistical support and personnel transport to remote areas.

Minimal number of injuries to line personnel when considering the hazards presented with remote operations, type of terrain, heavy use of aviation assets, and remote village runways.

Utilized an adaptive fire management strategy due to limited aviation resources and a high reliance on boat operations to implement point protection strategies.

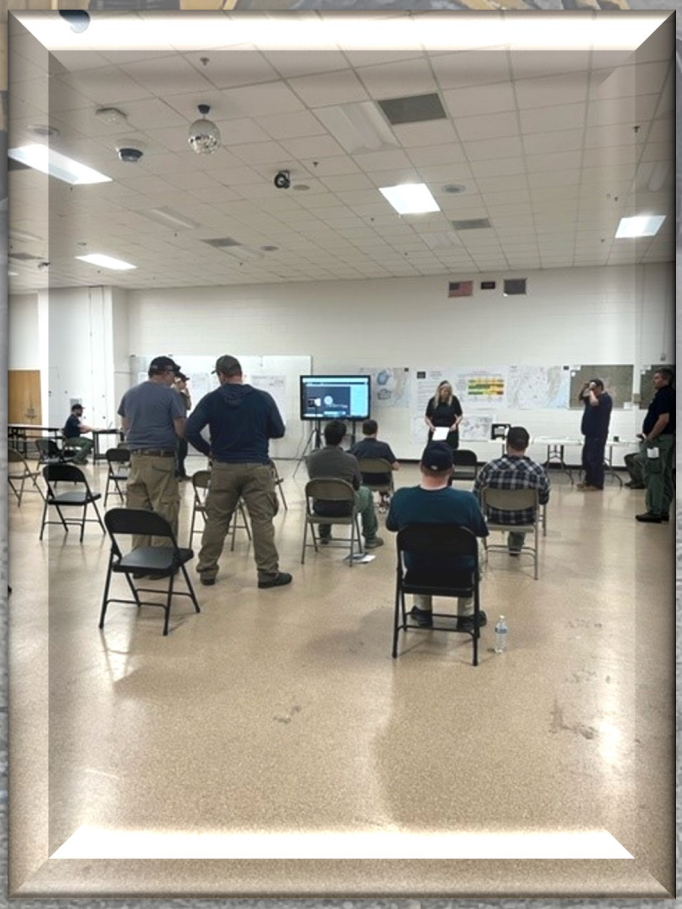
**Significant Challenges and Resolutions**

Applying risk management principles to mitigate fire line accident/injuries considering the remoteness of the operations and the amount of time needed to get patients to high level care.

# Liaison

Attendance in Cooperator meetings was consistently about 10% of the Cooperator Meeting email invitee list. This could have been due to the good outreach of the Information Section or the lack of one of the 18 fires actively threatening a community. Lack of connectivity in remote communities sometimes delayed Cooperators receiving emails and text messages. Updating contact lists and drafting preliminary emergency plans will assist with future fires in the region. The complex area has many Alaska Native Allotments, backcountry lodges/outfitters and mining stakeholders that rely on bush and float plane access. Outreach to this group of stakeholders is challenging, and AKIMT thanks the Bureau of Indian Affairs, the State of Alaska, Lake Clark National Park and Lake and Peninsula Borough for assisting in providing contact information.

Successes were creating a regional contact list for fires in the area, updating the community emergency operations center (EOC) contact plan information for the Alaska EOC , and drafting a fire evacuation/shelter in place AKIMT notification plan for Nondalton, Iliamna, Newhalen and Lake Clark National Park. Working with the Agency Representatives and Cooperators to consolidate contact information was a positive experience.



## Agency Administrators

- ⇒ **Bureau of Land Management**
- ⇒ **Bureau of Indian Affairs**
- ⇒ **National Park Service**
- ⇒ **Alaska Fire Service**
- ⇒ **State of Alaska Department of Natural Resources**

## Operations

**Key Decisions**

Staffing identified values from the known sites database. After validation, resources had the ability to support operations once Aniak supply depot was up and running.

The use of small manageable modules to asses values within such a large planning area created the ability to support these actions. It would have been difficult trying to support 20 person crews in the field.

Strategic location of small satellite staging areas such as Lime Village, Sleetmute, and Illiamna to support operations in the field, was critical to the success of supporting fireline resources to complete the operational objectives.

**Significant Events**

Moderate fire behavior of fires within the incident planning area allowed operations to do aerial reconnaissance with fixed wing assets and satellite imagery. This enabled the team to begin planning for the staffed fires and monitor and react to other fires within the planning area to begin point protection on validated known sites.

**Notable Successes**

No loss of values identified after the team transitioned.

Set up small manageable supply depots in Sleetmute, Lime Village, and Illiamna to support efforts to protect values identified in proximity to fire growth.

Secured an air attack platform to recon fires over a large planning area to monitor fires, and initiate the proper response.

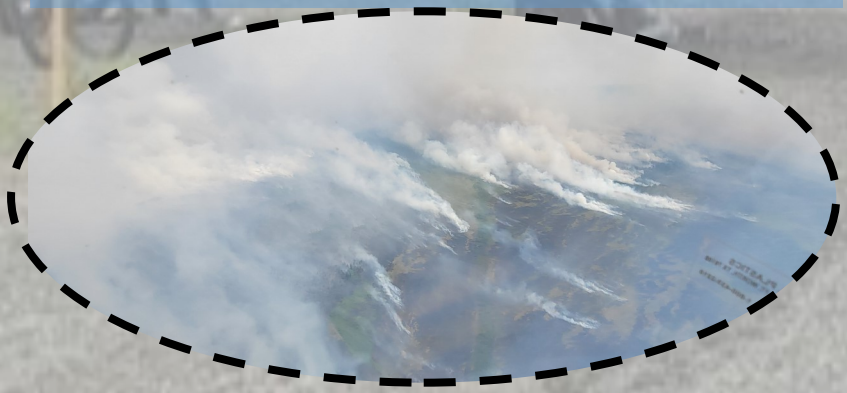
**Significant Challenges and Resolutions**

Aircraft use to support field operations remained a challenge.

> Working with air ops and the aircraft desk came up with a system to support movement of operational assets into areas where val ues need protection.

Long distances between staffed fires.

> Establishing small manageable refueling and supply sites and use of para cargo drops was challenging.



## Operational Strategy

| | |
|---|---|
| Monitor | 32% |
| Point Zone Protection | 36% |
| Confine | 32% |

**Air Operations**

Ordered ASGS, Gary Mullen ordered early to take field portion of air ops.

Staffed Aniak, Sleetmute and Illiamna with Air Ops and helos.

Moved people and gear into the field in a short period.

Challenges were long distances between airports, ICP, and the supporting warehouse

> Solved by having Air Ops prioritize missions and utilize the aircraft desk to utilize the right aircraft

Massive supply orders that taxed logistical support mechanisms

> Set realistic expectations by the field personnel to understand timeframes and logis

# Information

**Key Decisions**

Record and publish daily operational briefings on all social media platforms to inform the public of fire conditions and actions each day.

Cohesively integrate the Information Team based in multiple locations (Palmer and Virtual) in order to implement the robust Information strategy.

Highlight successful completion of operations on the fire line through collaboration with Operations, Stakeholders, and Liaison to accurately portray successful projects and events.

All Information personnel (including virtual and field) use Teams to ensure all materials are documented and archived appropriately.

**Notable Successes**

Strong dissemination of daily informational products through email and social media via written communications, pictures, videos, and operational briefings.

Collaboration with stakeholders to ensure accuracy of posts and give appropriate credit for key successes.

Radio podcast broadcasts to McGrath and Bethel radio stations daily

Photos and videos from the field from Operations

## Facebook Statistics

| | |
|---|---|
| ◊ Videos posted | 16 |
| ◊ Users reached | 29,703 |
| ◊ Engagements | 3,009 |
| ◊ Shares | 106 |
| ◊ Likes | 617 |

**Significant Challenges and Resolutions**

Short transition timeline and no written transition document. Challenging workload for minimal staffing.

Information team members worked in multiple roles to accomplish the work.

Operating an Information Team based in multiple locations

Established consistent check-ins with personnel

# Planning

**Key Decisions**

Ensuring the right size of the plans section through the recruitment of non-AK IMT personnel and virtual support was a vital decision and provided needed roster depth.

Due to the geographical extent of the Lime Complex, relocating a plans section chief to Aniak Staging was a key decision to help organize remote processes.

**Significant Events**

During the early term of the team's timeline the Incident was complexed and all team members were re-assigned different request numbers. This has cascading effects for plans and finance.

Both of Alaska's IMTs were committed to separate incidents simultaneously. This allowed for sharing of virtual resources in an effective and fluid manner.

**Notable Successes**

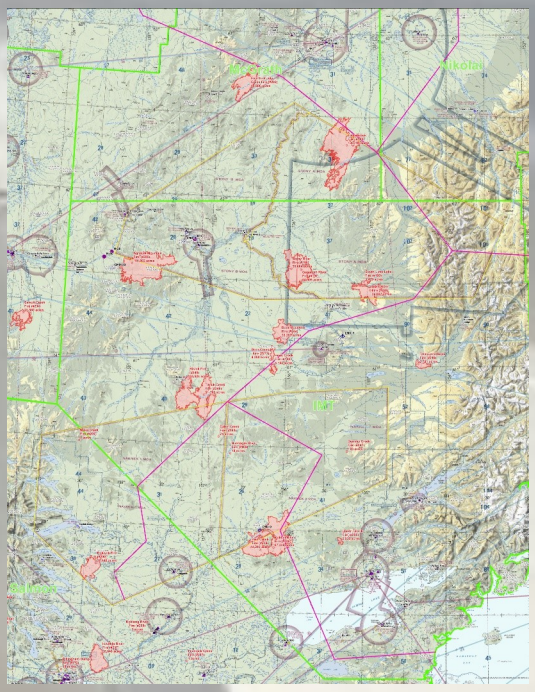
The QR code on the cover of the Incident Action Plan provided cross section assistance and solved one of the largest overall challenges of the Lime Complex; geographical extent. This code was a one stop shop for access to virtual forms, maps, and information.

Multiple key AKIMT Plans Section positions had trainees – PSC2, ITSS, FBAN, SCKN, GISS (all Alaskans)

**Significant Challenges and Resolutions**

The delegated area of responsibility included 18 fires within a 21-million-acre planning area. This presented a significant challenge for providing accurate fire perimeters, situation report inputs, identification and validation of known sites, map displays, and weather and fire behavior forecasts.

The resolution included staffing two Situation Unit leaders and three GISS with a dedicated leader. Use of an AGOL map effectively displayed all fires within the area of responsibility and the capability to zoom into individual fires for presentations (ops briefings, planning meetings, cooperators meetings, and strategic planning meetings).



## Planning Statistics

| | |
|---|---|
| Trainees | 34 |
| Daily IAPs | 60 |
| Published WFDSS Decisions | 1 |

## Resources at Peak

| | |
|---|---|
| Type 1 crews | 2 |
| Type 2IA Crews | 1 |
| Helicopters | 4 |
| Scoopers | 4 |
| Fire Boss | 4 |
| Boats | 10 |

# Logistics

**Key Decisions**

Setting up a staging area in Aniak supported by Logistic functions. LSC2, FACL, COMT, INCM, RADO, EMT's & BCMG

**Notable Successes**

Working with OSCs and the Palmer Cache to create a plan to support all the staffed fires.

The logistics section remained flexible during the entire duration of the assignment.

**Significant Challenges and Resolutions**

The large area to cover and the lack of aircraft made delivering supplies and food delivery a challenge.

> We are resolving this by having clear communication with OSC, supply, and Aircraft.

Communication to and from the line was a challenge to all sections. GCI phones were ordered through AK-NFDC. This was a very large hold up. We were told that on Friday the 17th that they were on the way. They did not arrive.

> The resolution was having Palmer warehouse issue GCI phones for our use and thanks to Sarah Burnett, the initial order was delivered on the 20th. Looking to the future the best resolution would be to have team phones travel with us, From GCI, AT&T as well as Verizon.

## Logistical Statistics

**FOOD**

| | |
|---|---|
| A/B Food boxes | 113 |

**FACILITIES**

| | |
|---|---|
| Staging Areas | 2 |
| ICP | 1 |

**COMMUNICATION**

| | |
|---|---|
| Radio Repeaters | 3 |

## Medical Statistics

| | |
|---|---|
| Patient Contacts | 62 |
| Recordable injuries | 2 |
| Medic assists (Public) | 3 |

# Finance

From the start, the Finance Section requested only resources that were current in e-AUTH and FireNet authorizations and had experience operating within a TEAMS environment. This single step allowed for no downtime getting these credentials, which could take several hours to days. From the start, a decision was to effectively staff the section to make sure the filing system met the national naming and filing standards and requirements. This was the first time Alaska State was going to all electronic filing.

For Alaska Incident Management procedures and protocols, use for reference 2022 State of Alaska Incident Business Management Handbook and also Division of Forestry INCIDENT MANAGMENT TEAM SUPPLEMENTAL (2022 version). Both are within the file box in the Finance Section. There is a thumb drive also with this and per diem and lodging documentation.

Under the Lime Complex, 18 fires were tracked within the e-ISuite database platform.

A mix of private, state, and federal resources were employed to meet the operational needs and management action points during the assignment. Effective communication between agencies and cooperators was necessary for a successful flow of information and data. The placement of team resources to field camps provided that effective exchange of information.