2021

MNICS

MINNESOTA INCIDENT COMMAND SYSTEM

Annual REPORT

Minnesota Incident Command System

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MNICS Mission

To provide coordination, education and implementation of the Incident Command System in Minnesota and support fire and all-risk incidents in the nation.

MNICS Goals

- Provide timely, safe, and cost-effective mobilization and demobilization of resources under the closest forces concept.
- Collect and disseminate intelligence data within specified local and national time frames.
- Assess the capabilities within Minnesota to respond to critical emergency situations.

Table of Contents

Message from the Chair

Reflecting on a wildfire season that undoubtedly is one for Minnesota's history books, on behalf of the MNICS Task Force, we express our gratitude for the emphasis MNICS agencies and staff placed on safety and professionalism and commitment to duty, respect, and integrity throughout the 2021 wildfire season. While we train for the level of preparedness MNICS agencies exhibited this season, we can all be proud to have risen above our expectations while navigating the ongoing COVID pandemic concerns with minimal impacts on our suppression efforts throughout Minnesota.

Understandably, decisions to withhold MNICS resources to support local preparedness while drawing in out-of-state resources to Minnesota may have been met with various feelings and concerns as the national preparedness level soared to PL-5. Traditionally, we are the ones supporting our partners in need. However, this year we faced an incredible season and called upon all of you and our neighbors to support our expanding needs. MNICS wildland fire managers and the Task Force recognize the resiliency you displayed and commend your willingness to be prepared and supportive of the ongoing incidents throughout the summer.

Sincere appreciation is extended to the MNICS Type 3 Teams that fulfilled 15 mobilizations on extended attack wildfires in Minnesota from the end of March through mid-October. The willingness to adapt and rise to the need while extending availability throughout the summer is remarkable. Along with the commitment of the MNICS teams, that same appreciation is extended to the Red Lake and BIA Type 3 Team, two out-of-state Type 3 Teams, two Eastern Area Type 2 Teams, and the Northern Rockies Type 2 Team, who supported and managed Minnesota's ongoing wildfire needs.

Everyone stepped up to the plate to ensure that over 1000 resources assigned to fires in Minnesota completed the task. You can hold your heads high and feel proud of your effort, whether on the fireline, in support roles, dispatch, aerial operations, incident command, or management. You are what makes the MNICS organization work year-in and year-out.

As we look forward to next season, reflect on your success and write down your incredible stories. Most importantly, be kind to yourselves, make time to be present in the moment, and acknowledge the impact this season has had on you, your loved ones, and your coworkers. On behalf of the MNICS Task Force, thank you for all you've accomplished during this historic season and for making safety a top priority.

William Glesener (Minnesota DNR)
MNICS 2021 Task Force Chair

2021 Wildfire Situation Report

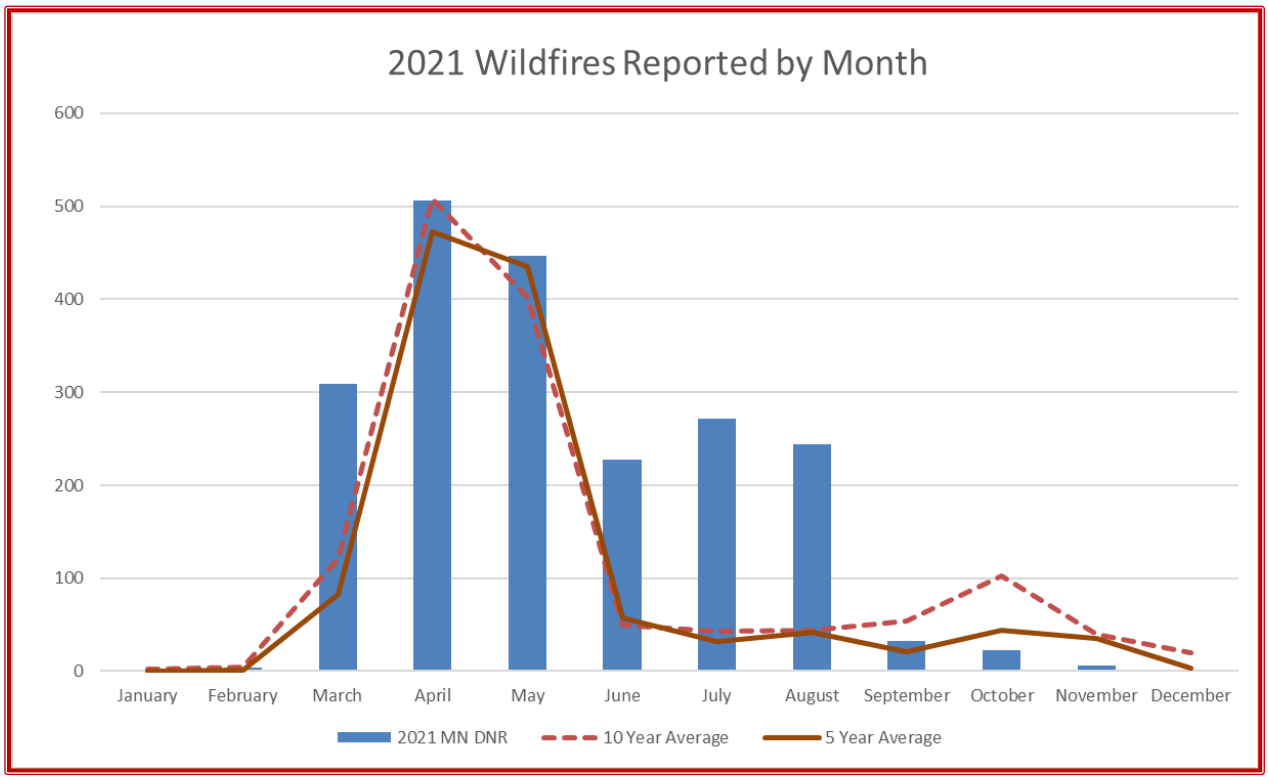
MNICS agencies reported on November 8, 2021 – 2,040 wildfires in calendar year 2021 totaling 69,400 acres.

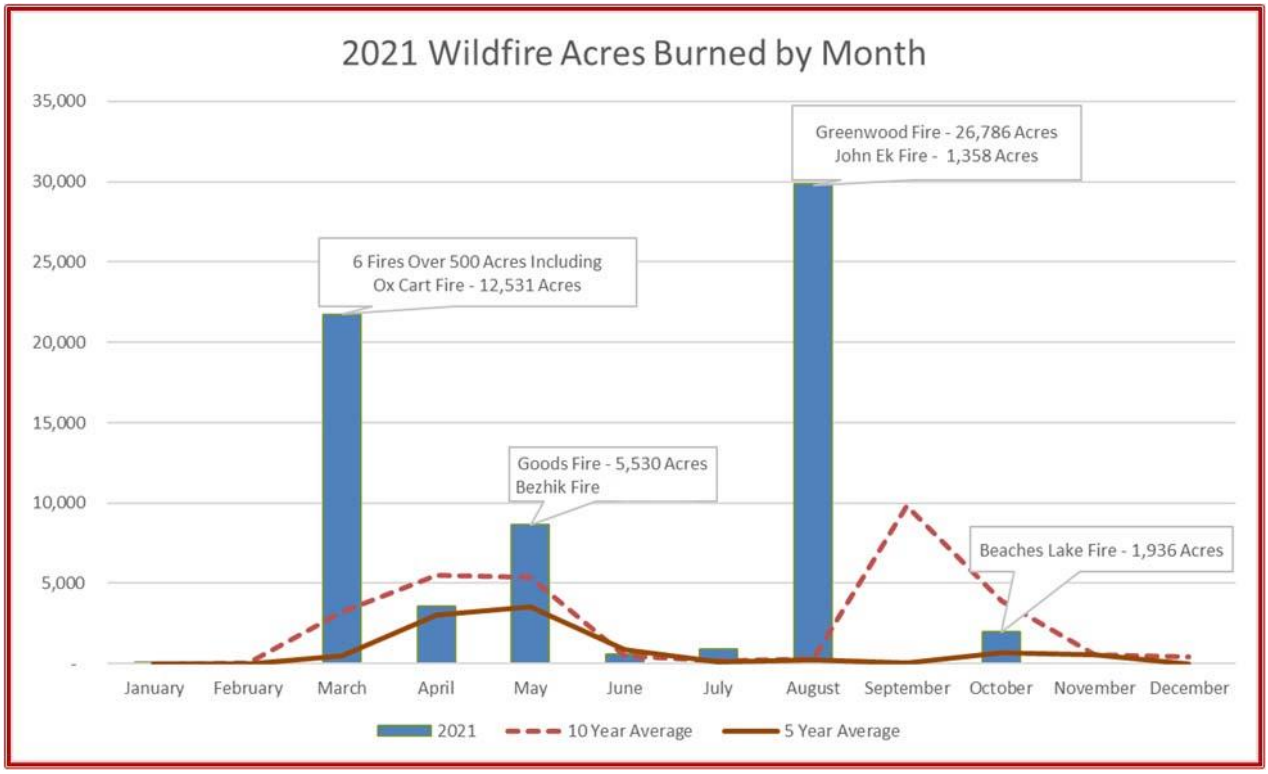
Agency	Wildfires	Acres
BIA	551	12,438
FS	128	29,847
FWS	43	14,100
NPS	7	29
State	1,311	12986
2021 Totals	**2,040**	**69,400**
5-year Avg	*1,227*	*9,696*
10-year Avg	*1,389*	*29,854*

2021 Prescribed Burning Report

Prescribed burning resumed on all MNICS federal, state, and tribal land in 2021 after a pause through the initial onset of COVID-19.

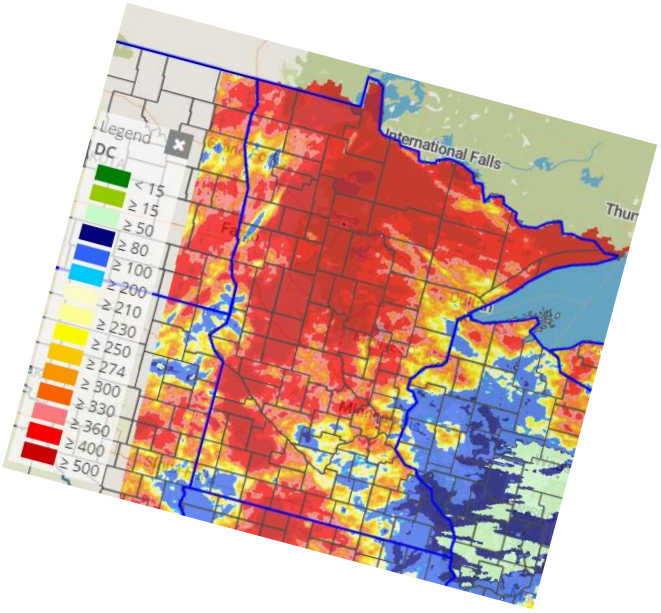
Agency	Prescribed Burns	Acres
BIA	74	16,377
FS	84	6,908
FWS	94	14,845
NPS	7	224
State	159	16,101
2021 Totals	**418**	**54,455**


2021 Wildfires Reported by Month
600
500
400
300
200
100
0
January
February
March
April
May
June
July
August
September
October
November
December
2021 MN DNR
10 Year Average
5 Year Average

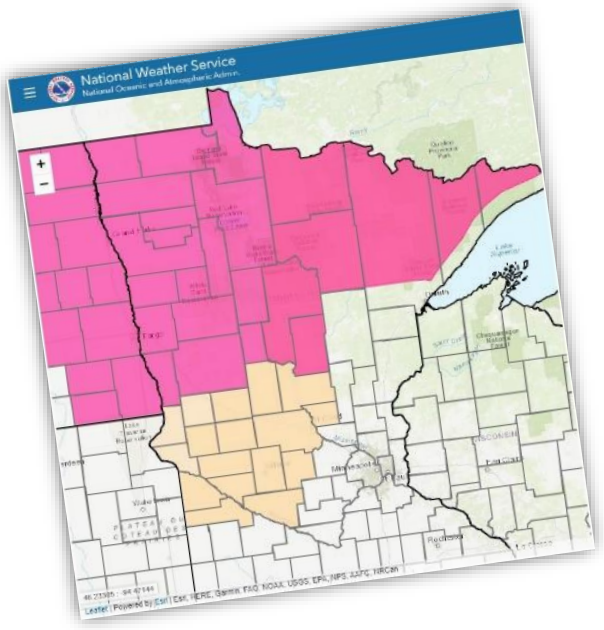

2021 Wildfire Acres Burned by Month
35,000
30,000
25,000
20,000
15,000
10,000
5,000
-
Greenwood Fire - 26,786 Acres
John Ek Fire - 1,358 Acres
6 Fires Over 500 Acres Including
Ox Cart Fire - 12,531 Acres
Goods Fire - 5,530 Acres
Bezhik Fire
Beaches Lake Fire - 1,936 Acres
January
February
March
April
May
June
July
August
September
October
November
December
2021
10 Year Average
5 Year Average

Fire Situation Review

Drought was persistent through the 2021 wildfire season. Drying conditions started to settle into Minnesota toward the latter half of fall 2020. A reduced snowpack throughout most of Minnesota was met with a rapid, widespread melt in mid-March. Along with the rapid melt, fire occurrence during March was nearly three times the average. The second-largest fire in Minnesota, the Oxcart fire, started at the end of March and totaled 12,907 acres.



Intermittent spring precipitation provided a little relief to central and northeast Minnesota, while the north-central and northwest areas remained dry. During April and May, near-average spring wildfire activity was observed, though persistent dry and warm weather patterns strengthened drought conditions leading into the summer months and extending the fire season.

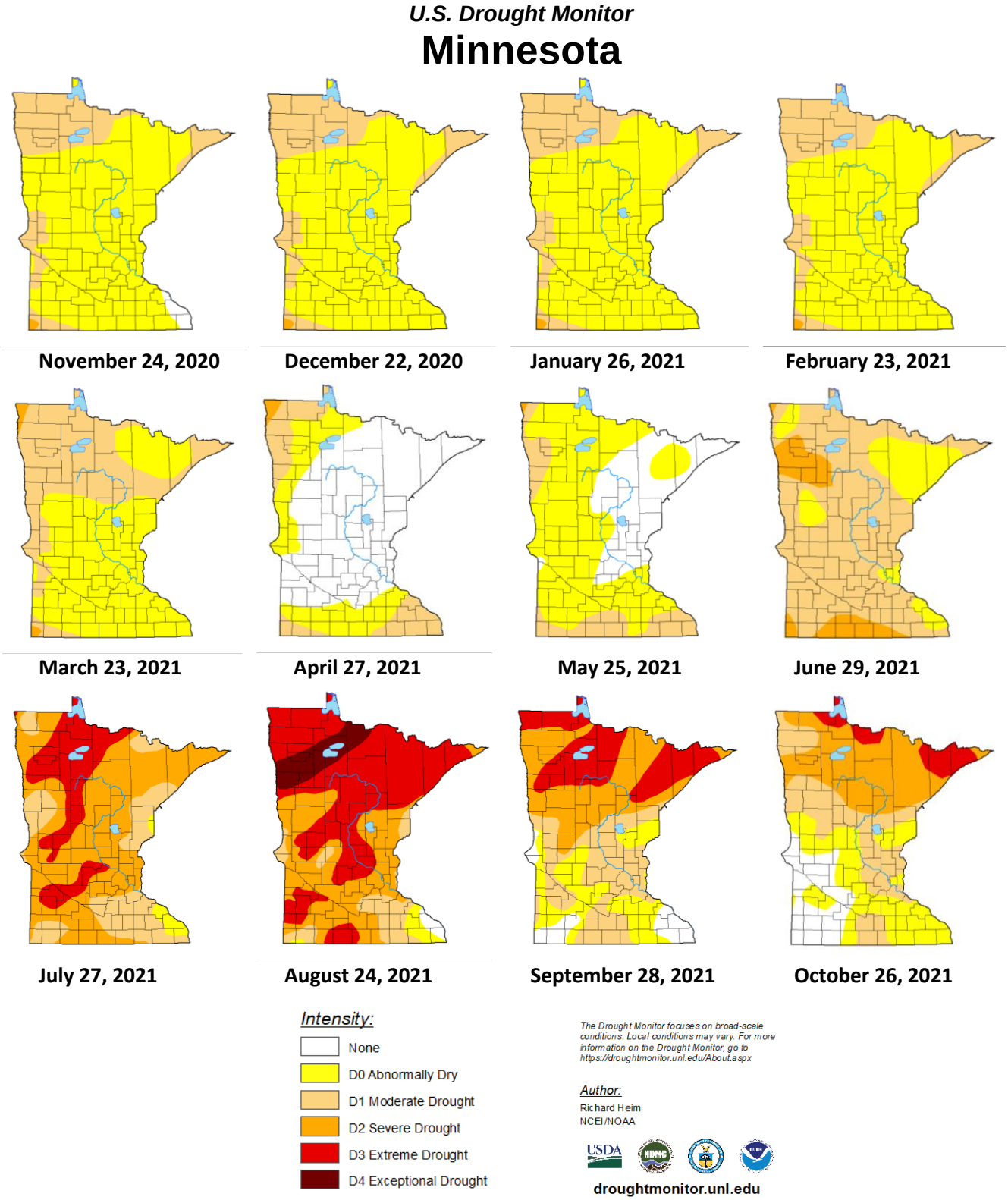


The persistent lack of precipitation through the summer deepened drought conditions from June through September, as warm and dry weather helped sustain high fire danger. Fire danger indices hit levels not previously recorded during June. Fire activity from June - August was 3 to 4 times the monthly averages. The largest fire of the year in Minnesota, the Greenwood Fire, started in mid-August and totaled 26,786 acres.

Timelier precipitation throughout the fall months lessened drought conditions for many areas, which led to a reduction in the number of daily fire occurrences. More than 75 percent of Minnesota remained in a state of abnormally dry to extreme drought conditions through the month of October. Observations from previous years indicate that a dry fall season tends to lead to an earlier active spring wildfire season.

Minnesota drought progression November 2020 – October 2021

A year of drought conditions by month. Photos retrieved from the U.S. drought monitor https://droughtmonitor.unl.edu/

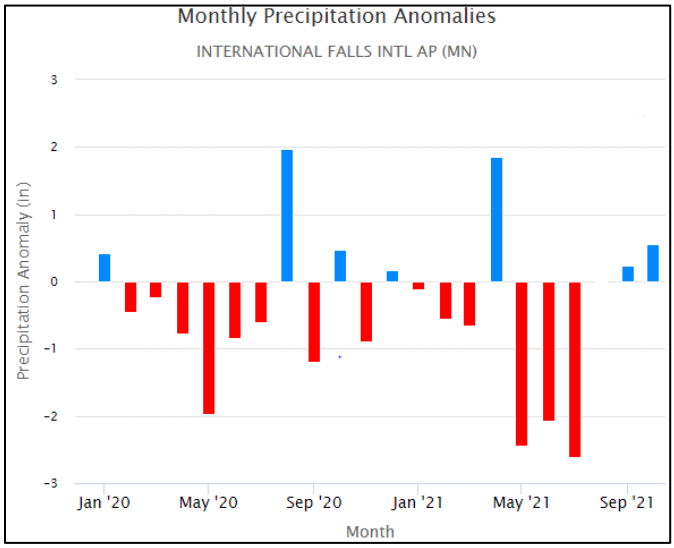


National Weather Service

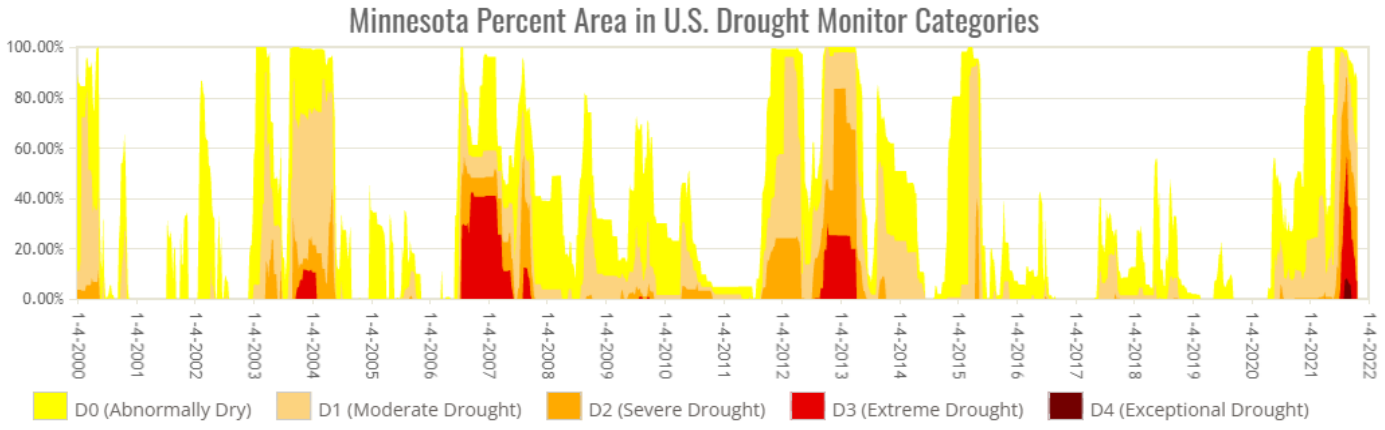
The year 2021 will long be remembered for drought. For the first time since the drought monitor was published in 2000, portions of Minnesota rose to the level of exceptional drought (D4) - the highest possible drought category. The significance of the 2021 drought was frequently compared to previous droughts of 1988, 1976, 1918 (Cloquet Fire), 1910 (Baudette Fire), and 1894 (Hinckley Fire).

Although the drought peaked in the summer of 2021, it started to develop in 2020. Though precipitation deficits were less extreme in 2020, weather patterns were persistently drier than normal, as evidenced by reports from the International Falls area, which saw eight of the twelve months in 2020 with below-normal precipitation

The subtle dryness in 2020 set the stage for drought to expand across the state as precipitation deficits continued to plummet well into the summer months of 2021. The worst of the 2021 drought occurred between May through July, when much of the state received less than half of its normal precipitation while at the same time experiencing temperatures two to five degrees above normal. July 2021 was the second driest July on record for Minnesota. Extensive drought coverage, including exceptional drought in north-central MN, along with the unusually active wildfire season peaked in August.

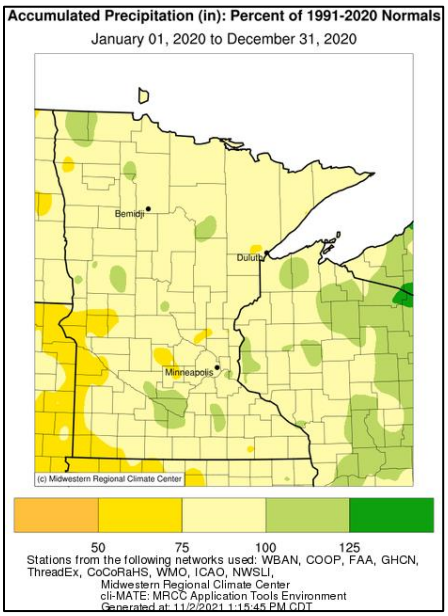


Monthly precipitation deficits at International Falls in 2020 and 2021. Note the persistently low level of dryness in 2020, the very dry May through July 2021 period, followed by near-normal precipitation for August through November 2021.

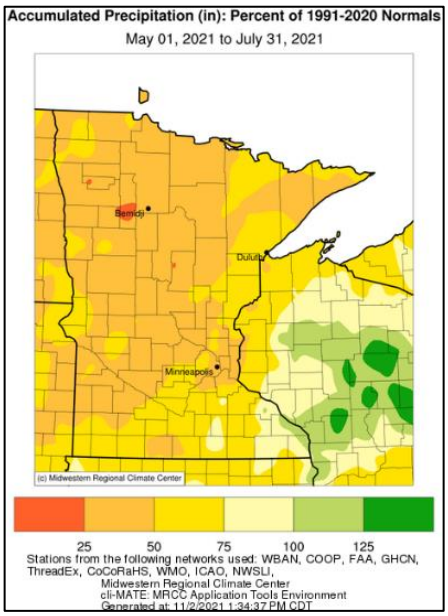


Fortunately, during the last two weeks of August, timelier precipitation events returned to the state. Though the rain events were not sufficient to fully improve the drought over the northern half of the state, the events did provide enough moisture to reduce the high level of wildfire activity that had been occurring during the summer months from continuing through the fall.

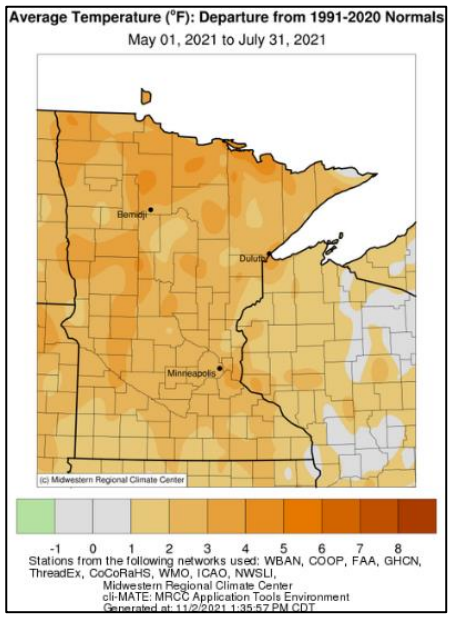
As 2021 draws to a close, a diminished drought remains on the landscape. As a result, Minnesota remains susceptible for another active season for wildfires in 2022, especially if precipitation falls short in the upcoming winter and spring months.



Percent of normal precipitation for calendar year 2020 resulted in a small precipitation deficit built up from 2021



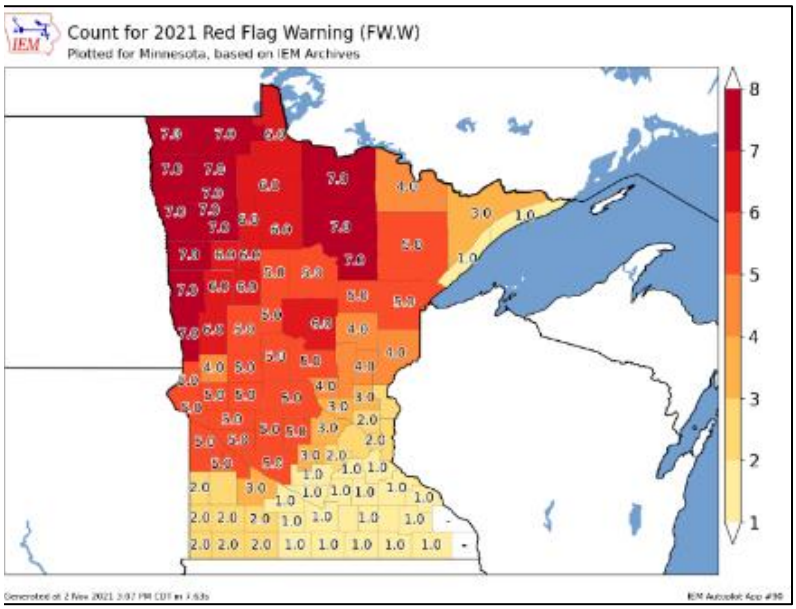
Percent of normal precipitation for May through July 2021



Temperature departure from normal for May through July 2021

RED FLAG | Fire Weather

The number of Red Flag Warnings issued in 2021 was slightly above a typical year. Red Flag Warnings that included one or more Minnesota counties were issued 12 times between March 20, 2021, and July 25, 2021. It should be noted that most locations where the Red Flag events occurred were strongly influenced by drought conditions. Northern Minnesota, where the drought was the most severe, received the highest number of Red Flag events in 2021.



Number of times Minnesota was included in a Red Flag Warning in 2021

MNICS Type 3 Teams
2021 Season Review

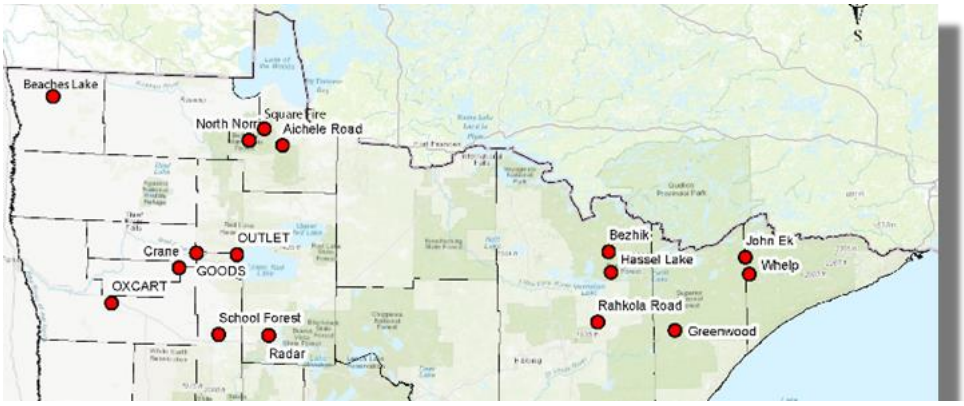
The 2021 wildfire season in Minnesota has become one for MNICS record books. A season of this proportion, though relentless at times, provided an extraordinary opportunity for MNICS to exercise its three recently formed MNICS Type 3 Incident Management Teams while on Minnesota turf.

"Overall, the 2021 season went incredibly well, especially considering the many moving parts," said Jim Edgar, MNICS Team C Incident Commander. "It's remarkable to think, after a season so highly reliant on aircraft resources and filled with risk and fatigue, we completed the season without serious injuries or fatalities, and all of those fires are either out or close to being fully out."

While the transition to the Type 3 organization is relatively new to MNICS, the three teams were rostered with fully qualified command and general staff ready to kick the season off the moment the snow melted. MNICS Team A was asked to start their rotation one day ahead of schedule amid critical fire weather conditions and growing concerns for high fire potential. By the afternoon of that first day on rotation, MNICS Team A was assigned to the first fire of the season on March 29, 2021, and historically, the first wildfire assignment for the MNICS Teams. It was the beginning of a long, rewarding season for all three MNICS Teams and those who supported the efforts.

"It was a scramble as an IC to keep a team staffed all season, especially with built-in team vacancies and folks with multi-team membership," said Tom Roach, MNICS Team B Incident Commander. "But the result of the busy season, and flexibility of team members who filled in voids, is a lot of learning happened, and an amazing amount of trainee experience was gained this year."

One of the benefits of rostering MNICS Teams is the ability to develop trainees on each assignment. The MNICS Team program involves rostering trainees and alternates who participate in all aspects of a Team mobilization. With drought worsening, and weather conditions primed for an extended season, trainees became one of the beneficiaries during this challenging wildfire season. For many working on earning their qualifications to support a Type 3 level command and general staff position, this fire season was the year to train alongside MNICS peers while staying close to home.



Over a span of nearly six months (end of March through mid-October), the MNICS Type 3 Teams mobilized to multiple wildfires that ranged in size and complexity. In total, MNICS Teams managed over 15 wildland fires assignments throughout northern Minnesota. Reflecting on the season, the MNICS Type 3 Team Incident Commanders express appreciation and gratitude for the hard work and commitment to all who supported the Teams this year. The following section shares a summary from the multiple wildfires managed by the MNICS Type 3 Incident Management Teams this season. The compilation of information is a result of the many fact sheets produced and shared by MNICS Teams and MNICS agency public information staff.

Oxcart Fire

During the late afternoon hours of March 29, a wildland fire was detected within Glacial Ridge National Wildlife Refuge, located approximately seven miles west of Mentor, Minn.

Red Flag conditions, involving strong gusty winds, unseasonably warm temperatures amid prolonged moderate drought conditions that had been building since fall 2020, contributed to the rapid progression of the Oxcart fire. The fire consumed 12,907 acres of grassland and brush.

Initial attack response included ground wildland fire crews from U.S. Fish and Wildlife Service, Minnesota DNR, and 12 local fire departments, air attack, four Fire Boss airtankers, four single-engine air tankers (SEAT), a large air tanker (LAT), and a helicopter were on the initial attack. Smoke and the rapid-fire progression prompted the temporary closures of U.S. Highway 2, State Highway 32, and Polk County Highway 45 during the evening hours as the fire jumped the U.S. Highway 2 corridor to the north, and State Highway 32 to the west.

A Minnesota Incident Command Team was requested by U.S. Fish and Wildlife Service to assume management of the Oxcart fire. On March 30, MNICS Team A, led by Incident Commander Ernie Schmitt, assumed command of the fire.

Spring weather conditions brought a mix of blustery conditions, rain, and snow. During periods of freezing temperatures, the use of helicopter buckets could not be utilized as equipment iced over. The Team returned command of the Oxcart fire back to the U.S. Fish and Wildlife Service on April 2.

Goods Fire

The Goods fire was detected late morning on May 1, burning through grass brush, and timber. It was located approximately 20 miles northwest of Red Lake, Minn. By the afternoon, red flag conditions, contributed to the fire's growth reaching 1,200 acres, as it threatened structures. Several aircraft, including Fire Boss air tankers, SEATs, a LAT, and helicopters were ordered to help to slow the fire's progression. Wisconsin DNR also contributed two SEATs to the initial attack response, which marked the first time a Minnesota wildfire received aircraft support from Wisconsin.

Due to the size and complexity of fire weather and growing drought concerns, along with public safety, a MNICS Type 3 Team was ordered by the Red Lake Agency and Bureau of Indian Affairs. MNICS Team B, led by Incident Commander Tom Roach, assumed command of the fire on May 2.

Throughout the next several days, firefighters and equipment continued making progress to secure the fire's edge, cooling down pockets of heat around the fire perimeter. By May 6, the fire was declared 100 percent contained and MNICS Team B transitioned management of the fire to the local Red Lake Agency fire organization.

Bezhik Fire

Late in the day on May 17, a wildfire, started by a lightning strike, was detected northwest of Bezhik (Beige-ik) Lake in the Boundary Waters Canoe Area Wilderness (BWCAW) on the Superior National Forest. The fire was located 16 miles north of Tower, Minn.

The fire's initial progression moved through open pine understory and aspen ground litter. Some single tree torching was also observed during initial attack. The fire grew to 950 acres.

During the hot, dry, and windy afternoon of May 18, the fire made a two-mile run to the north, impacting private property. Numerous air water drops were made by Fire Boss air tankers and retardant lines created by two Large Air Tankers (LAT) that helped to hold the fire south of Moose Loop Road. The remote landscape made safe access into the fire a challenge for ground crews. The Superior National Forest ordered a MNICS Type 3 Team to take command of the fire and provide additional support.

MNICS Team B, led by Incident Commander Tom Roach, assumed command of the fire on May 19.

The Superior National Forest also implemented a temporary Forest Closure Order around the Moose Loop area. The fire did exit the BWCAW near the south end of Forest 464 (Moose Loop) on May 18, impacting private property in the area.

Firefighters continued to engage in structure protection on private land, while working to cool down pockets of flames that were posing threats to private property.

On May 23, the Bezhik fire was declared 100 percent contained, and efforts moved from mop up into patrol and monitor status. MNICS Team B transferred the command of the fire to the local west zone fire organization the evening of May 23.

On May 24, the Superior National Forest rescinded the Forest Closure Order for the Moose Loop area.

School Forest Fire

The School Forest fire was detected mid-morning on May 29. The fire was located two and a half miles northeast of Bagley, Minn., along the School Forest Road. Near-critical fire weather conditions along with dry fuel allowed for significant spread and spotting to occur as the fire ran through swamp grass, brush, timber, and logging slash.

The Minnesota DNR and volunteer fire departments from Solway and Shevlin, Minn., initially responded to the initial attack, and the White Earth Agency soon followed bringing in additional support of firefighters and engines. In addition, aircraft were critical in supplying water drops that aided ground crew efforts by cooling down the rapidly advancing flame fronts. Aircraft included an air attack, Fire Boss air tankers, a SEAT, a LAT, and a helicopter. Aircraft remained on scene throughout the afternoon and evening.

By mid-afternoon, Minnesota DNR made the decision to order a MNICS Type 3 Team, as firefighters worked to construct a dozer line around the majority of the fire's perimeter. By 4:00 p.m., the fire was estimated to be 105 acres and 85 percent contained.

MNICS Team C, led by Incident Commander Jim Edgar, assumed command of the School Forest fire on the morning of May 30. The Team set out to establish the final 15 percent of the containment line, utilizing a wet line tactic involving water or fire-retardant drops along the fire line serving as a temporary control to prevent a low-intensity fire from spreading. Ground crews immediately began to mop up lingering hotspots from the containment line into the fire's interior.

The fire was fully contained by the end of shift on May 30 and entered patrol and monitor status on June 1. Excavators and hand crews then began rehabilitating the dozer line to prevent the exposed bare soil from potential damaging wind and water erosion.

MNICS Team C transferred the School Forest fire management to the Bemidji area forestry fire organization on June 3.

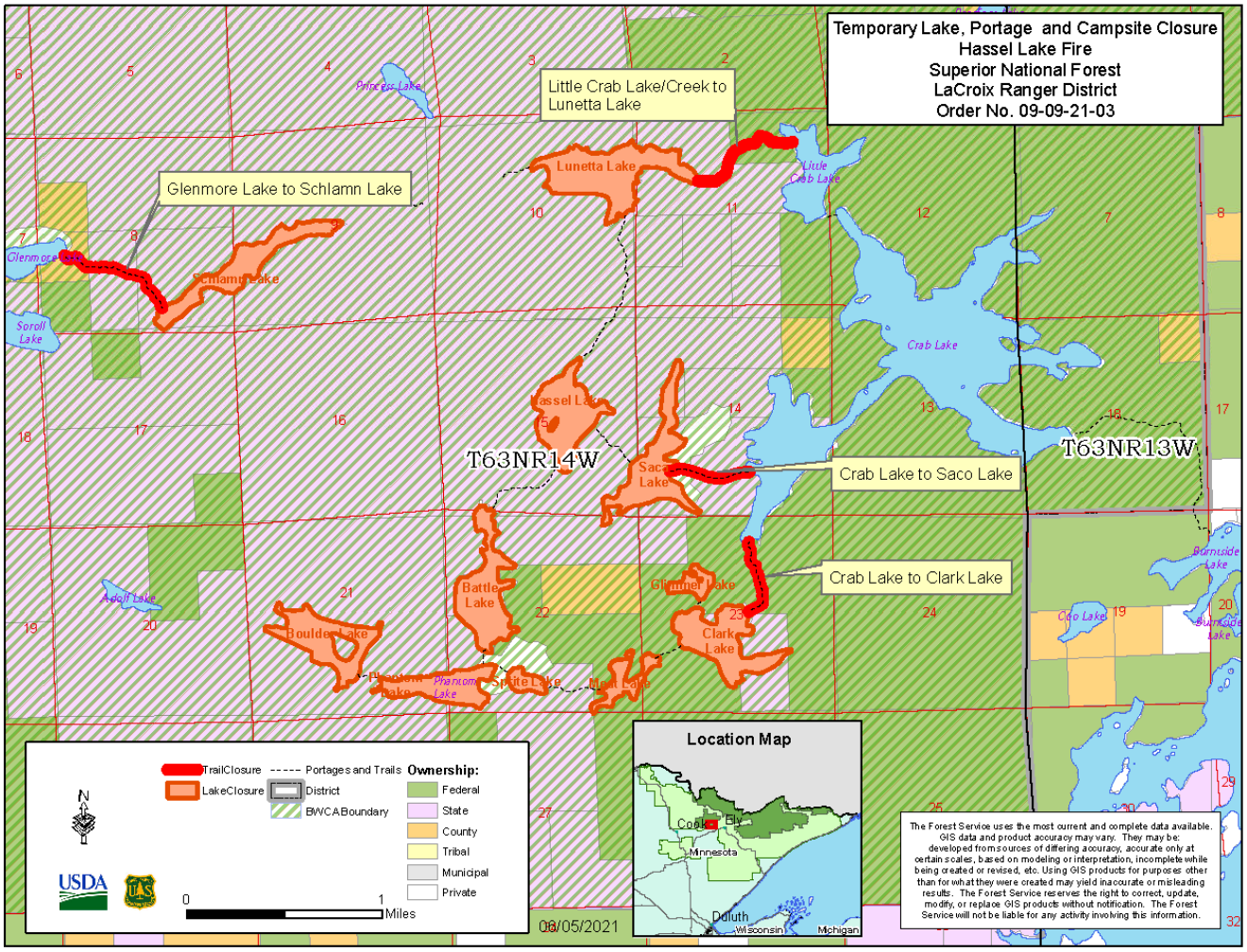
Hassel Fire

Late in the day of June 4, a wildfire was detected southwest of Hassel Lake, within the BWCAW on the Superior National Forest. The fire was located, approximately 16 miles northeast of Tower, Minn. The cause of the Hassel fire was determined to be a result of a lightning strike.

The fire was initially estimated to be two acres in size with moderate fire activity within the Boreal Forest, including aspen, pine, and balsam fir tree species.

Due to the remote location of the Hassel fire, it was inaccessible by lakes or portages, making initial access on the ground extremely difficult and unsafe for ground firefighters. Several Fire Boss air tankers were ordered and made several drops of water throughout the first day in the attempt to slow the fire spread.

As fire managers developed a suppression strategy, aircraft remained assigned to the fire to continue support with water drops. The Superior National Forest had already been maintaining additional crews and engines on the forest in anticipation of a busy spring prescribed fire and wildfire season and had a 20-person Wyoming Hotshot Crew and wildland fire engines with firefighters from several other national forests temporarily stationed on the forest to provide support for wildfire response.



The fire's remoteness and proximity to several small Wilderness lakes that visitors used in the area prompted the Superior National Forest to establish a temporary Forest Closure Order on June 5, as a preventative measure for public safety.

Ground firefighters were transported into the fire by aircraft on June 6 and began scouting the fire for a possible access route from Boulder Lake to the fire area.

Fire activity had remained minimal until June 7, when near critical fire weather conditions set in, and late in the day fire activity picked up increasing the fire to 21-acres. Several aerial water drop cycles were ordered using the Fire Boss and CL-415 water scooping airplanes along with helicopter bucket water drops.

The Superior National Forest made the decision on June 8 to order a MNICS Type 3 Incident Management Team. MNICS Team B, led by Incident Commander Nick Petrack and the Team took command of the fire on June 9. With the team in place, additional pumps, hoses and supporting equipment were ordered, delivered, and set up at strategic areas along the fire. Aircraft continued to support ground efforts with water drops to cool off areas of heat. Food for fire crews camping in the Wilderness was coordinated through the team's logistical support.

The fire was determined to be 100 percent contained on June 11, which meant a full containment line around the perimeter of the fire was in place that would keep the fire from spreading further. MNICS Team B transitioned the management of the fire back to the Superior National Forest at the end of shift on June 11, and the fire was placed in monitor status. An incident commander for the West Zone Fire organization remained assigned to patrol and monitor the fire, which was completed by observation aircraft flights over the fire.

Aichele Road Fire

The Aichele (Ike-Lee) Road fire was detected late in the morning of June 5, along the Aichele Forest Road near Beltrami Island State Forest. It was determined a lightning strike was the cause of the fire. Upon initial attack, the fire was observed to be actively running through lowland brush, conifers, and timbers. Excessive heat and windy conditions that day contributed to the fire's rapid spread.

Minnesota DNR and the volunteer fire departments from Baudette and Williams responded to the initial attack. They worked throughout the afternoon and into the night to suppress the fire while constructing a dozer line around most of the fire's perimeter.

Several aircraft were also ordered, including air attack, CL-415s, CL-215s, Fire Boss air tankers and helicopters. The aircraft provided water drops throughout the afternoon and evening. Water was retrieved from Lake of the Woods near Zippel Bay State Park, fascinating weekend park visitors.

CL-215 near Zippel Bay on Lake of the Woods

Recognizing the potential for impacted peat soils and the extended attack fire suppression needs, the Minnesota DNR made the decision on June 5, to request a MNICS Type 3 Incident Management Team to assume command.

MNICS Team A, led be Incident Commander Ernie Schmitt, took over the management of the fire on June 6. Team A ordered heavy equipment to mix peat soil with water. Track equipment, capable of transporting water into the fire, was also brought in and aided the work of ground firefighters as they identified and extinguished pockets of peat fire.

Precipitation moved through the area on June 9, which increased humidity and reduced fire activity. With the fire 100 percent contained, MNICS Team A transitioned command of the Aichele fire back to the local responding DNR area forestry on June 10.

Rahkola Fire

On June 18 a wildfire was detected near the Four Corners area of Embarrass, Minn. Due to extreme fire weather with high winds and low humidity, the fire quickly spread through 60 acres of pine, balsam understory, and areas of blowdown. The cause of the fire was determined to be a result of a powerline.

Crews from the Minnesota DNR, U.S. Forest Service, Embarrass Volunteer Fire Department and Pike-Sandy-Britt Regional Volunteer Fire Department responded to the initial attack. During the afternoon, four Fire Bosses, two CL-415 water-scooping airplanes, and two CL-215s conducted several aerial water-drop cycles. Two helicopters were able to provide bucket drops. The Minnesota DNR requested a MNICS Type 3 Incident Management Team to assume command.

The fire received some precipitation during the evening hours, which helped moderate fire activity. By 7:00 pm, dozers had constructed line around the entire fire perimeter. One engine remained on scene overnight to monitor fire activity.

MNICS Team C, led be Incident Commander Jim Edgar, assumed management of the fire on July 19. Fire crews began mop-up operations, extinguishing and removing burning material along the control line, as a track vehicle and an engine patrolled the fire's edge. Gusty winds continued to be a concern over the next couple of days, as crews continued mop-up efforts focusing on felling high-risk snags as they were encountered.

By the end of shift on July 21, the fire was 90 percent contained. MNICS Team C turned the command of the Rahkola fire over to the Tower DNR Area Forestry on June 23.

West Zone Complex Fires

The West Zone Complex was a series of fires that developed throughout July. The first round of fires initiated from a storm system that moved through the Superior National Forest near Ely, Minn., on July 6, producing significant lightning activity. On July 7, the Delta Lake and Astray fires were reported. A day later, it was determined that a previous fire, the Hassel Lake Fire, had flared again, along with another new start, the Picketts Lake fire. Of the four fires, the Delta Lake fire, burning in heavy blowdown and spruce budworm killed balsam fir, proved to be the fire that would require the highest level of suppression and mop-up attention. The Fourtown Lake fire, detected July 25 by aerial observation, was also located in a remote and inaccessible area of the BWCAW, approximately 12 miles north of Ely, Minn, was also added to the complex. The fire was initially estimated to be 20 acres in size. MNICS Team B, who had assumed command of the West Zone Complex of fires on July 25, also managed the Fourtown Lake fire. On July 27, the team carried out an aerial ignition burn-out operation using ping-pong-sized ignition devices. The burn-out operation allowed the fire to burn to natural barriers. In total, 265 acres were burned.

Delta Lake Fire

During the initial attack stage, aircraft proved vital to dropping cooling water on advancing flames of the Delta Lake fire, as safe access for ground firefighters into the remote areas of the BWCAW proved challenging. The Superior National Forest made the decision to order a MNICS Type 3 Team. On July 10, MNICS Team C, led by Incident Commander Jim Edgar, assumed management of the fire. That day fire weather conditions increased resulting in higher fire activity and spotting.

Due to the Delta Lake fire's proximity to recreation sites and private cabins, structure protection was necessary. While structure protections plans were being developed, fire crews from Pennsylvania and Connecticut began work on establishing safe access into the fire. Air resources continued to provide cooling water drops on active flames, helping support ground efforts.

Concerns were growing about seven wildfires burning north of the BWCAW in Canada's Quetico Provincial Park. Two of the fires were near the international border. The threat of the fires breaching into the BWCAW became a grave concern and daily monitoring flights of the Canada border wildfires commenced.

On July 11, the Superior National Forest and MNICS Team C recognized the growing complexity involved with the Delta Lake fire, and the Canada wildfires and the decision was made to order an Eastern Area (EA) Type 2 Incident Management Team. The EA Silver Team arrived on July 12, in-briefed with MNICS Team C, and transitioned into management the following day. Fire crews began the arduous process of constructing containment line, and structure crews began staging pumps, sprinklers, and hose at structures nearest the fire's edge.

Fire crews covered nearly two thirds of the containment line with saws and hose lay by July 14, and the mop up process began. In total, nearly four miles of hose line was established around the Delta Lake fire. The EA Silver Team continued to focus on monitoring the behavior and movement of the Canada wildfire nearest the border and honing contingency plans.

The Delta Lake fire was reported 85 percent contained on July 25. That day, the EA Silver Team transitioned management of the Delta Lake fire and the West Zone Complex to MNICS Type 3 Team B, led by Incident Commander Tom Roach. Fire crews began the process of hauling sprinkler systems, hoses, and pumps out of areas near the fire that were secured with contingency lines.

The Delta Lake fire reached 100 percent containment on July 31. Fire crews began the long process of breaking down hose lay and prepared for back hauling of equipment off the fire line. MNICS Team B remained in command of the fire through August 6, when they returned management of the Delta Lake fire back to the Superior National Forest.

Radar Road Fire

Late in the afternoon of July 13, a rapidly spreading wildfire was spotted northwest of Bemidji, Minn., in Eckles Township near Radar Road. Due to the extreme fire weather conditions and the fire's quick progression through grass and jack pine, several nearby homes were evacuated.

Multiple aircraft, including CL-215 water scoopers, SEATs, a Fire Boss and helicopters, were ordered to support the initial attack response. Minnesota DNR along with the Beltrami County Sheriff's Office, Beltrami Fire Department, and Solway Fire Department responded to the initial attack, working into the evening hours. Minnesota DNR made the decision to order a MNICS Type 3 Team to assume command of the fire. MNICS Team A, led by Incident Commander Ernie Schmitt, assumed management of the fire on July 14.

As mop up efforts progressed, firefighters assigned to the Radar Road fire were made available to support local DNR area forestry with a new start on July 15. Once controlled, crews returned to mop up efforts on the Radar Road fire. By the afternoon of July 18, the fire was declared 100 percent contained. MNICS Team A transitioned management of the fire to the local Bemidji area forestry office on July 19.

Initial attack on the North Norris fire

North Norris and Square Fires

Late in the afternoon of August 14, a wildfire was detected approximately two miles north of the historic Norris Camp in Lake of the Woods County, approximately 20 miles southwest of Roosevelt, Minn. Located within the Beltrami Island State Forest, the fire actively burned in heavy timber and brush. Several aircraft, including SEATs, a LAT and a helicopter, were brought in to provide water and retardant drops to help slow the fire's spread.

Square Fire

Early afternoon of August 15, a wildfire was detected actively burning in black spruce and bog three miles northwest of Graceton, Minn., in Lake of the Woods County. The rapidly growing fire required several aircraft, including SEATs, CL-415 water scoopers, and a helicopter to support the initial attack efforts by delivering water and retardant drops that helped slow the fire's spread. Aircraft remained on the fire well into the evening.

The area where both fires were detected in Lake of the Woods County had been under extreme drought conditions since July 20. Concern for wildfires to take hold in areas of peat soil was high. DNR ordered a MNICS Type 3 Incident Management Team to assume management of both fires.

Combined management – North Norris and Square fires

MNICS Team B, led by Incident Commander Tom Roach, assumed management of both fires on August 16. Firefighting crews, including a 20-person Type 2 initial attack hand crew from Ohio, and heavy equipment were utilized to construct and improve control lines around each fire.

Aircraft, including two Minnesota Air National Guard Black Hawk helicopters, supported ground crew efforts over the next five days with water drops that helped cool hotspots and brought moisture to dry soil. Aircraft drew water from Winter Road Lake. A third helicopter provided air traffic control between the Black Hawks and ground crews aiding in safe communication from air to ground.

Fire crews receiving a logistics update during a MNICS Team B morning briefing

Blackhawk helicopter delivering buckets of water to the North Norris fire

Heavy equipment was valuable to help turn peat soil that was mixed with wetter topsoil.

Hot, dry, and windy weather conditions persisted during the early days following the initial attack, with temperatures ranging in the low to mid-90s and south winds ranging 15 – 25 mph. A favorable weather system with precipitation moved through the area on August 20. The North Norris fire received more than two inches of rain from the event, and the square fire received approximately one-half inch of rain.

Due to the amount of peat soil continuing to hold heat inside the perimeter of the Square fire, containment efforts turned to mixing the peat soil with soil that had received favorable moisture from both water drops and recent precipitation. Timber resources that held heat in their root systems were also removed, and the heat was then extinguished by ground firefighters using water pumped in through hose line. Excavators, skidders, and dozers completed the tedious work to turn the soil.

The North Norris fire was declared 100 percent contained on August 23 and went into patrol and monitor status. The Square fire was declared contained on August 24, and MNICS Team B transitioned the management of both fires to a local DNR fire team to monitor.

John Ek & Whelp Fires

The John Ek fire was detected late in the day on August 14, resulting from a lightning strike. The fire was located within a remote portion of the BWCAW on the Tofte Ranger District, approximately two and a half miles south of Little Saganaga Lake.

The Whelp fire, also a result of lightning, was detected on August 14 four miles northwest of Sawbill Lake, within a remote portion of the BWCAW on the Tofte Ranger District

The Superior National Forest issued a closure order for the area impacted by the Whelp fire on August 17.

Fire crews mop up a hot spot along the Square fire perimeter

Crews load equipment in preparation for placement into the Wilderness. Photo credit Superior National Forest

Aircraft remained the primary resource for suppression. Persistent drought along with gusty wind conditions contributed to the growth of both fires. The John Ek fire reached 1,357 acres, while the Whelp fire grew to 50 acres in size. Float planes were used to sweep the area for potential forest visitors.

On August 24, the Superior National Forest decided to order a MNICS Type 3 Incident Management Team to assume management of both fires. The first of several public meetings was held on August 25, at the Tofte Town Hall.

A crew of 14 firefighters made their way into the Whelp fire on August 26, and a reconnaissance crew was sent into the John Ek fire on August 27. The goal for the crews was to establish communication with the Incident Command Post and identify safety zones, helispots and areas that could be utilized for spike camps.

MNCIS Team C transitioned management of both fires to the Eastern Area Gold Team on August 27. The Eastern Area Gold Team remained in command of the Greenwood, John Ek, and Whelp fires through September 1, when they transitioned the management of all three fires to the Northern Rockies Incident Management Team 3.

Crews prepare for placement into the Wilderness. Photo credit Superior National Forest

A spike camp was set up on September 1, and crews worked on improving portages to the John Ek fire, as hose lay started and sprinkler system sites were installed. Structure protection along the south side of the Gunflint trail began, and contingency lines were constructed on the south side of the Whelp fire from Phebe Lake to Sawbill Campground.

The Superior National Forest announced On September 9, the plans to scale back closures within the BWCAW associated with the John Ek and Whelp fires. Areas that remained closed were still serving as basecamp and staging areas for firefighting personnel.

The Northern Rockies Incident Management Team 3 transitioned management of both fires to the Superior National Forest on September 11.

Greenwood Fire

The Greenwood fire was detected in the afternoon hours on August 15 near Greenwood Lake, 15 miles southwest of Isabella, Minn. Driven by gusty winds, dry vegetation, and warm conditions, the Greenwood fire was initially estimated to be 200 acres in size with crowning and spotting contributing to rapid growth

While aircraft and ground resources responded, residents in the McDougal Lake area were notified to prepare for a possible evacuation. The Superior National Forest immediately implemented public safety closures in and around the McDougal Lake area.

The fire was estimated to have grown to 1,000 acres by August 16, as southerly winds continued to push the Greenwood fire northward. Unified command was established between the Superior National Forest and Lake County, and an Eastern Area Type 2 Incident Management Team was ordered.

Lake County placed the McDougal Lake area under evacuation, which included 75 residents. The impacts from smoke, ash and active fire forced the closure of Lake County Highway 2 and State Highway 1. The Superior National Forest expanded the closure order impacted by the Greenwood fire that encompassed many campgrounds, trails, and boat launches.

Several aircraft were brought in to help limit the fire's spread to the north, as southerly winds continued to contribute to extreme fire activity and produced long range torching. By the evening hours of August 16, the fire had reached 2,000 acres in size.

Additional closure orders, including a small portion of the BWCAW, were applied across the Kawishiwi, Laurentian and Tofte Ranger Districts by the Superior National Forest on August 17. A Red Cross shelter was set up at the Finland Community Center for the residents displaced from the evacuation order.

The Eastern Area Type 2 Incident Management Gold Team, led by Incident Commander Brian Pisarek, assumed management of the Greenwood Fire on the morning of August 18. The fire had reached 3,200 acres and no established containment had been gained.

Ground crews continued full suppression and sought out suppression opportunities along the east and west sides of the fire. Engines, dozers and tracked vehicles began building a fireline along the south end of the fire near Greenwood Lake as helicopters and fixed wing aircraft continued to drop water to cool the advancing flames along the north side of the fire. Air quality alerts were issued for the area and would remain in effect for three days. By the evening hours of August 18, southeast winds pushed the fire west then north with active growth along the west side perimeter, south of Stone Lake. The fire had reached 4,000 acres.

The fire grew another 700 acres throughout the day on August 19. At this point in the fire management effort, there were 145 personnel 25 engines, two dozers, three water tenders, and three aircraft assigned to the fire. Structure protection crews were well into identifying threats and carrying out structure protection, which involved defensible space mitigations. Crews were running day and night shifts, constructing fireline and laying hose along the south side of the fire during the day and patrolling and monitoring fire activity at night. The first of many public meetings commenced on the evening of August 19 at Wolf Ridge Environmental Center in Finland, Minn.

Equipment and personnel continued to expand with 253 personnel assigned on August 20. Resources included three hand crews, 38 engines, two dozers, three tenders and three aircraft assigned, while numerous unassigned aircraft continued to contribute support throughout the Greenwood fire incident. Critical fire weather conditions were again a contributing factor to extreme fire behavior. As a result of the weather conditions, the Greenwood fire jumped from the east side of Highway 2 (a designated Management Action Point or M.A.P.) to the west side. The progression of the fire to the west triggered evacuations in the Jackpot, East and West Chub lakes, and Slate Lake. The fire grew to 8,862 acres and remained zero percent contained.

The Superior National Forest made the public safety decision on August 21 to close the BWCAW due to "the active and increasing fire activity, extreme drought and limited resources."

Two Minn., air national guard (MNARNG) Blackhawk helicopters were ordered to the Greenwood fire after their release from the Square fire on August 21. The Blackhawks continued to contribute to suppression efforts for the next ten days.

The Greenwood fire more than doubled in size to 19,493 acres as near critical fire weather conditions persisted on August 23. By the early afternoon, the fire made a run, producing a pyrocumulus cloud and fire-caused lighting. The cloud was visible for miles, and smoke and ash were reported as far away as Lutsen, Minn. Fire crews expected the fire would cross over State Highway 1 near the Lake County Highway 2 intersection.

Greenwood fire extreme fire behavior on August 20. Credit to Superior National Forest.

As the fire progressed northeast into the McDougal Lake area, it forced firefighters and structure protection crews to retreat to safety. All aviation, equipment, and crews working the fire were pulled off due to safety concerns. Additional evacuations were also ordered, including the evacuation of 159 dwellings north of Highway 1 and east of Slate Lake. The Red Cross Center moved their evacuation center to the Babbitt Municipal Center.

Improvements to weather conditions helped moderate fire activity. The fire was estimated to be 21,720 acres. As a result of the fire's run that occurred on August 23, suppression work expanded to the east and south, and a more secure fireline was located along the south end of the fire. Improved conditions allowed for structure

protection crews to resume efforts in the McDougal Lake area and along Lake County Highway 2.

The Superior National Forest implemented additional closures on national forest lands and roads along the upper portion of the Gunflint Trail on August 25. The closure did not include county and private roads.

Defensive firing operations that involved air resources, engines, and bulldozers were conducted along the north and west sides of the fire, which helped to reduce natural flammable fuels near homes and the highway. Logging efforts were also underway along U.S. Highway 1, as trees were to selectively remove trees along with brush that could carry fire. Aesthetics along the Highway 1 corridor were considered during the tree selection and removal process.

By August 26, the Greenwood fire reached 25, 991 acres and remained at zero percent containment. Resources continued growing, as 479 personnel, including cooperators and contractors, were assigned to the fire. Defensive firing operations continued along the southwest side of the fire along Highway 1 and County Highway 2.

Photo credit to Superior National Forest

Fire crews continued to work on holding and improving firelines. As resources continued to arrive, the Incident Command Post relocated to the Finland Community Center in Finland, Minn.

The Eastern Area Gold Team assumed management of the John Ek and Whelp fires, located north of Tofte in the BWCAW, on August 27. The Superior National Forest closed dispersed camping on all Superior National Forest lands outside of designated campgrounds on August 27.

Containment of the Greenwood fire began to grow by August 28. The fire remained at 25,991 acres and due to the suppression and fireline efforts, it had reached 14 percent containment.

The local community's desire to support the firefighters with food donations created black bear safety concerns and another layer of a logistical challenge. Communication outreach efforts explained the generosity increased bear activity posing a risk to firefighter safety within the established fire camp, and donations were no longer accepted at fire camp.

Improvements to the weather moderated fire activity, and containment continued to grow. On August 31, the fire was reported to be 26,028 acres and 37 percent contained. Fire crews were making substantial progress, constructing nearly a half mile of fuel break daily. Fire support at this time reached 505 personnel.

On September 2, the Eastern Area Gold Team transitioned management of the fires with the Type 2 Northern Rockies Team 3, led by Incident Commander Mike Almas.

The closure order and evacuated section of Highway 2 was lifted on September 3. The Greenwood fire was reported to be 26,089 acres in size, and 484 personnel were assigned to the fire. Crews focused efforts on securing the western and northern perimeter, while completing mop up as hotspots were discovered.

The Lake County Sherriff's Office began issuing security pass cards on September 6 to all primary resident homeowners in the restricted Isabella area along Highway 1.

As mop up and patrol continued to expand, resources were slowly being released. By September 7, the Greenwood fire was reported to be 26,112 acres and 49 percent contained. On September 10, Highway 2 had fully reopened to all traffic. Firefighting efforts shifted to mop up along the Highway 1 corridor, as patrol and monitoring continued along Highway 2. The fire was reported to be 26,797 acres and 54 percent contained.

The Northern Rockies Incident Management Team 3 transitioned management of the Greenwood Fire to MNICS Type 3 Team C, led by incident Commander Jim Edgar on September 14.

The Superior National Forest lifted the remaining closures along the Gunflint Trail on September 15 and lifted fire restrictions across all Superior National Forest system lands on September 17. The fire remained at 26,797 acres and was 80 percent

contained. Assigned fire personnel had declined to 196. Rehabilitation work to minimize potential for erosion along highways, roads and containment lines had begun.

Highway 1 reopened on September 20. Portions of the Greenwood fire closure area were reopened on September 21. MNICS Team C transitioned command of the Greenwood fire to MNICS Team A, led by incident Commander Ernie Schmitt on September 28. As fire activity remained minimal, and containment reached its highest level of 80 percent, the decision was made to transition management of the Greenwood fire to the Superior National Forest on Oct 1. Fire personnel from the Tofte Ranger District continued monitoring the Greenwood fire, and the Superior National Forest once again reduced the closure around the Greenwood fire.

Beaches Lake Fire

Late in the afternoon on October 5, a wildfire was detected east of Lancaster, Minn., within the Beaches Lake Wildlife Management Area. Dry conditions resulting from extreme drought along with steady winds contributed to rapid fire growth through grass, brush, timber, and marshland. The fire advanced north toward Kittson County Highway 4, nearing the U.S. - Canada border. A successful firing operation was conducted by the local fire departments that helped reduce the available fuel between the flame front and Highway 4. As a result, the fire was held south of the highway.

Helicopters were brought in during the initial attack to help cool and slow the fire's progression. Fire crews from DNR and local volunteer fire departments continued to work throughout the night to establish a control line around the fire perimeter.

Fire crews immediately began mopping up brush, branches, and stumps that continue holding heat along the fire perimeter. Working with tracked vehicles, fire crews were able to bring water to the interior of the fire to mix the water with peat soil that continued to hold heat. Heavy equipment, including dozers and tracked vehicles, was used to establish, and secure a containment line around the fire's perimeter.

DNR requested a MNICS Type 3 Team to take over the fire management. MNICS Team A, led by Incident Commander Ernie Schmitt, assumed management of the fire on October 8.

More than an inch and a half of rain fell over the fire, and calmer, cooler weather conditions followed, greatly reduced the fire's activity and increasing containment.

MNCIS Team A transitioned management of the fire to the local DNR area forestry fire personnel on October 13. The Beaches Lake fire has thus far been the final wildfire assignment for the MNICS Type 3 Teams.

Cooling smoldering pocket of heat in peat soil

2021 AVIATION PROGRAMS SUMMARY – Spring 2021 – October 15, 2021

Aircraft – contracted, utilized, or shared in Minnesota

Helicopters					
Agency	T3 EU	T3 CWN	T2 CWN	T1 EU	T1 CWN
BIA	1	2	-	1	-
DNR/USFS	-	1	-	-	-
DNR/ FWS	-	1	1	-	-
BIA/DNR/USFS	-	-	1	-	-
DNR - Forestry	8	5	2	-	-
USDA Forest Service	3	1	3	5	-
DNR - Enforcement	-	1	-	-	-
Minnesota Air National Guard	-	-		2	
Total	12	11	7	**8**	-

** EU - exclusive use, CWN - call when needed*

Fixed Wing Aircraft				
Agency	SEATs EU	SEATs CWN	Fire Boss EU	Fire Boss CWN
BIA	1	1	1	2
FWS	-	-	-	1
BIA/DNR	-	1	-	-
DNR/USFS	-	1	-	-
DNR - Forestry	2	5	4	3
USFS	-	-	-	4
Wisconsin DNR	-	2		
Total	3	10	5	10

** EU - exclusive use, CWN - call when needed, SEAT - single engine air tanker*

Fixed Wing Aircraft				
Agency	LAT	CL 215/415	ATGS	LT F/W
BIA		3		
U.S. FWS				
BIA/DNR		3		
DNR/USFS				
DNR - Forestry		1	5	16
USFS	4	4	6	7
DNR - Enforcement				3
Wisconsin DNR				
Ontario MNR		4	1	
Manitoba MNR		2	1	
Total	4	17	13	**26**

** EU - exclusive use, CWN – call when needed, SEAT - single engine air tanker, Light fixed wing - detection*

UAS	
Agency	Quadcopter (drone)
BIA	1
FWS	1
USFS	1
Total	3

**UAS – unmanned aircraft system*

Training and Briefings

- Due to the ongoing COVID-19 pandemic the Minnesota Wildfire academy was cancels so no aviation assets were not requested.
- Hosted a virtual MNICS and Great Lakes Forest Fire Compact (GLFFC) Air Operations meeting
- Examined several mishap scenarios involving interagency aircraft and cross-border response
- Developed and shared "Ordering DNR Aviation Assets" with DNR fire team leaders for distribution to fire departments
- Conducted flight evaluations with USFS Helicopter Pilot Instructor (HIP) and Minnesota Air National Gaurd pilots in August

MNICS Agencies Aviation Accomplishments

Minnesota Department of Natural Resources aviation accomplishments

- Aerial seeding was completed on 2,400 acres of forest land
- Aerial herbicide completed on 1,000 acres
- DNR SEATs and Fire Boss aircraft delivered a total of 2,656,425 gallons of water, gel, and retardant to fire suppression efforts
  - 1,885,911 gallons of water
  - 382,239 gallons of gel
  - 388,275 gallons of retardant

Bureau of Indian Affairs aviation accomplishments

- UAS module embedded into the Columbine Wildland Fire Module (WFM) conducted thermal imagery flights on the Goods fire and bench tested the sensors detecting heat from burning peat.

USDA Forest Service - Superior and Chippewa National Forests aviation accomplishments

- Chippewa National Forest completed one prescribed burn using UAS ignition
- The Ely Tanker Base delivered 294,000 gallons of retardant and more than 2,271,000 gallons of water
- Beaver aircraft dropped 27,000 gallons of water
  - 17,000 gallons dropped during initial attack
  - 10,000 gallons dropped during training
- Beaver aircraft performed 16 search and rescue missions, completed 39 wolf, moose, and deer surveys for the U.S. Geological Survey, and stocked fish in 23 lakes for DNR fisheries
- Two Beaver pilots were hired and trained this year bringing the compliment of Beaver pilots to three

Assistance to Minnesota (01/01/21-10/15/21)

Many states aided Minnesota this season including the following aviation positions:

ATBM (9)	ATGS (9)	SEMG (11)
RAMP (6)	FWPT (9)	MXMS (2)
HLCO (1)	HEBM (2)	HMGB (30)
HECM (57)	ACDP (12)	

GLFFC partners assisted with Quick Strikes including two from Ontario and one from Manitoba. In addition, Manitoba provided Minn., with a Birddog and two CL-415s for 13 days in August and September.

U.S. Fish and Wildlife Service contributed severity funding for cost-sharing T2 and T3 helicopters, as well as contracting a Fire Boss in Bemidji, with the DNR.

Several states, including Washington, Michigan, Montana, Nevada, New Hampshire, Wisconsin, and Idaho, provided support to the Aviation desk with aircraft dispatchers.

Out-State Assistance (01/01/21-10/15/21)

- A DNR helicopter manager mobilized to support Idaho Department of Lands (IDL) helicopter program
- DNR provided aircraft assistance to Wisconsin and Michigan, including a National Park Service fire on Isle Royal.
- USFS helicopter supported one Plastic Sphere Dispenser (PSD) aerial ignition prescribed burn and trained three personnel on Red Dragon operations
- Red Lake Helitack provided 60 days of coverage for the Mescalero exclusive use helicopter in New Mexico, Arizona, and Colorado
- 26 aviation overhead resources mobilized to out-state incidents. HECM and HMGB were the most common requests filled. They mobilized to nine states and supported 13 separate incidents

2021 Air Desk Fire Season Statistics (3/12/21 – 10/05/21)

Aviation Dispatches

MNCC Aviation desk received 852 aircraft requests on 274 fires throughout the 2021 season. These totals do not include aircraft assistance for large fire support

Helicopters

First mission was flown on Marth 20 and the last mission on October 5. Helicopters responded to:

- 174 DNR fires
- 45 USFS fires
- 7 BIA fires
- 3 USFWS fires
- 2 NPS fires
- 2 Wisconsin fires

Air Attack response

First mission was flown on March 12 and the last on October 5. Air Attack responded to:

- 79 DNR fires
- 26 USFS fires
- 15 BIA fires
- 2 USFWS fires
- 2 NPS fires
- 2 Wisconsin fires
- 2 Michigan fires

Fixed-Wing Tankers

First mission flown on March 19 and the last mission on October 5. Fixed Responded to:

- 77 fires DNR fires
- 26 fires USFS fires
- 16 BIA fires
- 2 FWS fires
- 2 NPS fires
- 2 Wisconsin fires
- 2 Michigan fires

Detection Aircraft

- DNR – 15 detection routes for 2,788 hours
- USFS used three Beaver aircraft and seven contract aircraft for detection routes within the Superior and Chippewa National Forests

Responding to the Moose Fire, a Fire Boss dips for water on Hill Lake, near Hill City, Minnesota. Photo Credit to Kurtis Garton, cabin owner, Hill City, Minnesota

Minnesota Interagency Coordination MNCC



To say the least, the 2021 wildfire season was busy. Dispatchers from all three sections of the Minnesota Interagency Coordination Center rose to meet the challenge, working tirelessly to mobilize available resources, personnel, and equipment supporting initial and extended attack throughout the long season, while also keeping MNICS agencies apprised of current intelligence.

COVID and telework presented continued challenges to staffing and managing the additional workload. Logistics used a virtual expanded dispatch with dispatchers working remote throughout the Geographic Area. The flexible model proved effective, and MNCC Logistics will consider a similar model in the future.

This year marked the third year MNICS rostered three Type 3 Incident Management Teams. The MNICS teams were requested to manage a total of 15-complex wildfires throughout the extended season. Three Type 2 Teams were also requested to manage wildfires within the Superior National Forest, including both Eastern Area Type 2 Teams and a Northern Rockies Type 2 Team.

Incident Resource Ordering Capability (IROC) saw continued improvements to the overall functionality and capability of the application. Dispatchers have been able to participate in virtual practice training and many have taken assignments. Feedback from the dispatch community indicates it's been a positive change.

A big thank you goes out to all our supporting dispatchers for your help, skills, and dedication this season.

January 1 – October 15

Out-State resources support of Minn., incidents

- Engines – 200
- Equipment (excluding engines) – 149
- Overhead – 814
- T2 IM Teams – 3
- T3 IM Teams – 2
- Crews (T1, T2IA and T2) – 49
- Aircraft – 63

Local resources supporting Minn., Incidents

- Equipment (excluding engines) – 315
- Agency Engines – 205
- Fire Department Engines - 178
- Overhead – 713
- Suppression Module – 9
- CCM Squads – 20
- Type 2 Initial Attack Crew – 1
- T3 Incident Management Team – 14
- Aircraft – 229

Out-State Mobilizations – 10/1/20 – 9/30/21

- Overhead – 283
- Equipment (Engines) – 37
- Crews – 0

The following states shared resources to assist with the ongoing fire needs in Minnesota:

Alabama	Arkansas	California
Colorado	Connecticut	Florida
Georgia	Idaho	Illinois
Kansa	Maine	Maryland
Michigan	Mississippi	Missouri
Montana	Nevada	New Hampshire
New Jersey	New Mexico	North Dakota
Ohio	Oregon	Pennsylvania
South Carolina	South Dakota	Tennessee
Utah	Washington	Wisconsin

Contributors: Mike Mackey and Tasha Woodwick

Northeast Interagency Supply Cache

Northeast Interagency Support Cache

Unlike the past few fire seasons, the 2021 fire season was busy for the Eastern Region. The lack of rain statewide in Minnesota through the spring and much of the summer resulted in many extended attack fires with drought conditions statewide. The cache supported 15 Type 3 and five Type 2 incidents, all in Minnesota. Except for one.

NEK processed and shipped 5,451-line items of supplies totaling over $6.3 million. We processed 2,089-line items of returns totaling $3.3 million. We utilized the National Cache System by bringing in $4.5 million from other caches to support fires in Minnesota.

The NEK supported the National Cache System by shipping over $1.2 million worth of supplies to caches in several states, including California, Colorado, Montana, Oregon, and Kentucky. NEK also supported the National System by refurbishing pumps for the Southern Area and Rocky Mountain Caches.

The Cache provided supplies and equipment of more than $193,000 for the following training sessions:

- Itasca Community College's Natural Resources Program, S-130/S-190
- Basic Firefighter, Vermillion Community College's Pumps class,
- Fire Department Training, and Lake Superior College's Emergency Response Training Center

We also provided supplies to nine contract helibases and four tanker bases

NEK staff supported the western fire season by assisting in the following positions: Logistics Section Chief, Aircraft Dispatcher, Supply Technician, Assistant Cache Manager, Materials Handler, Equipment Manager and Ground Support Unit Leader(T). Cache personnel did a total of twelve fire assignments.

National Symbols Program

The National Symbols Cache processed 1,575 orders for over $685,000 in sales in fiscal year 2021. This number was down substantially from our average of approximately $1 million in sales in a normal year. This was obviously caused by the COVID-19 Pandemic since events that would normally distribute these items were non-existent in 2021.

We currently stock 92 products, plus 36 digital downloadable products. New products this past year included: "Be Outdoor Safe" posters in English and Spanish, "Outdoor Fire Safety" brochures in English and Spanish, Woodsy Owl 50th Birthday backpacks, Woodsy Owl Lend a Hand backpacks, Woodsy 50th Birthday water bottles, Woodsy 50th birthday Natural Inquirer cards, and Smokey Bear die-cut erasers. These products, along with our standard product offerings, can be viewed and ordered on the website at www.symbols.gov.

Welcome to Amber Jackson, who filled our vacant Supply Technician position in the National Symbols Cache.

Contributors: Brian Wise

Bureau of Indian Affairs

The MNICS partnerships are part of the foundation that allows for safe and effective wildland fire operations in Minnesota and throughout the United States. The Bureau of Indian Affairs and Tribal Fire Programs of Minnesota Agency and Red Lake are proud to serve their communities and assist our interagency partners.

Fire season was off to an early start the first week of March. It didn't take long for fire activity and occurrence to pick up.

The Minnesota Agency Tribes and Red Lake received a lot of support from our MNICS partners throughout the season, which was a key part of our success. We also received a lot of support from BIA's Great Lakes Agency, Michigan Agency, Crow Agency, the Midwest Region staff, and the Shakopee Mdewakanton Sioux Community.

The Goods fire at Red Lake started on May 1st, which resulted in the mobilization of MNICS Team B. The support the team provided to the BIA and Red Lake Forestry was fantastic and allowed local resources to focus on the initial attack for other fires. Red Lake later hosted a UAS module and was able to conduct some testing of the equipment used to detect heat signatures from burning peat.

The BIA had its usual complement of aircraft including a Fire Boss, SEAT, and T3 helicopter in Bemidji on exclusive use contracts. The agency and brought in several aircraft on Department of Interior On-Call contracts. Additional aircraft included SEAT's, T3 helicopters, T1 helicopters, and Fire Bosses. BIA also worked with the MN DNR and USFS to mobilize the CL-215T's and CL-415's.

Red Lake/BIA Type 3 Team Outlet Fire August 2021

Out-of-state mobilizations were somewhat limited due to the drought conditions, but we able to support severity assignments and incidents in Minnesota and some personnel were able to mobilize out of state including those supporting the Eastern Area T2 Teams, the Red Lake Helitack Module who provided leadership and crewmembers to the Mescalero Helitack program, resources from Grand Portage and Fond du Lac that went to assist at Isle Royale, and a BIA fire suppression module that mobilized to Montana towards the end of the season. Many task books were completed throughout the season, and we look forward to being able to continue to expand our capacity. We view the 2021 season as a great success.

Reservation	Wildfires	Acres	Prescribed Fires	Acres
Red Lake	387	11,219	16	15,383
White Earth	130	1,138	33	881
Fond du Lac	6	1	7	28
Mille Lacs	25	76	2	40
Bois Forte	2	2.5	3	12
Grand Portage	1	1	25	384
Leech Lake*	N/A	N/A	0	0
Total	**551**	**12,438**	**86**	**16,728**

* Leech Lake wildfires are reported by the Chippewa NF

Contributor: Cory Berg

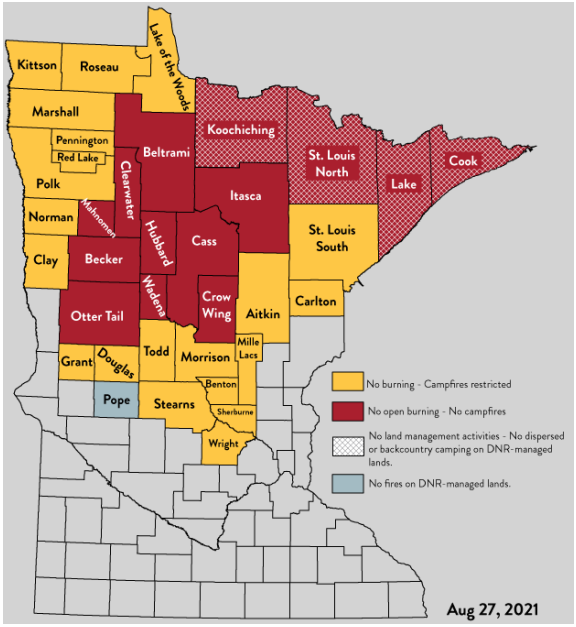
Throughout the 2021 wildfire season, fire response in Minnesota resulted in above-average wildfire activity, especially in the state's northern regions, where drought conditions were strongest. As of November 10, DNR reported suppression action on 1,311 wildfires for 12,986 acres burned.

Increased preparedness and interagency burning restriction coordination

With the wildfire conditions continually growing into the summer months, fires that did develop were growing more complex, requiring increased response efforts to control and contain. More decisive measures to prevent human-caused wildfires were warranted. Preparedness levels (PL) remained at a PL-4 or PL-5 for 93 days in Minnesota.

During this time, DNR activated the Ready Reserve, calling upon all DNR employees who held wildland fire qualifications to support wildfire needs throughout the state. Wildland fire resources came in from Colorado, Florida, Idaho, Illinois, Iowa, Maryland, Michigan, New Jersey, Ohio, Pennsylvania, Texas, West Virginia, Wisconsin, and Wyoming to support wildfire preparedness and response in Minnesota.

On June 18, DNR implemented the first set of burning restrictions that included north-central and northwest Minnesota counties. The burning restrictions aligned with restrictions implemented on national forests and tribal nation lands throughout northern Minnesota. As conditions continued to expand, progressing further into the arrowhead region, additional restrictions followed. By August 27, 2021, DNR implemented the strongest level of restrictions to date that included 35-counties. In addition, restrictions were heightened in 14-northeast counties bordering the Superior National Forest and Canada. The restrictions included no open burning and no campfires. In addition, dispersed or backcountry camping was paused on DNR-managed land in the arrowhead's four most northeast counties, along with no mechanical operations.



Interagency cooperation and coordination

Rarely does a wildfire in Minnesota reach the size, complexity, and duration that requires ongoing involvement from local, state, and federal fire response organizations. The Greenwood Fire, within the Superior National Forest, is one of these rare wildfire events that occurred this summer.

Early on, the erratic fire behavior forced the closure of roads, recreation sites, threated structures, and even resulted in evacuations of residence and cabin owners. The Greenwood fire required varying levels of interagency wildfire response to support the

suppression needs, as well as three interagency incident management teams.

While mutual aid from local fire departments often occurs upon initial attack, the extended need for structure protection drew in support from over 90 different pieces of equipment from many local fire departments. The excellent working relationship between the Forest Service, DNR, and Department of Public Safety allowed the State Fire Marshal's office to secure necessary equipment to provide structure protection. Existing fire department agreements with the state allowed these resources to be secured and ensure they will be reimbursed for their efforts.

Training

The 2021 Minnesota Wildfire Academy was once again canceled due to COVID-19 concerns. As COVID mitigations remain in effect, DNR and MNICS partners seek alternatives like smaller class sizes to promote social distancing, utilizing multiple locations, or hosting virtually when possible.

DNR delivered the annual RT-130 Wildland Fire Safety Training refresher course virtually to DNR participants this year, and opened online formats to MNICS partners. The annual refresher was made available in two formats, a webinar and as a self-paced online course. The required shelter deployments were conducted at local facilities to assure social distancing and COVID cleaning procedures could be met. Work Capacity Tests were also offered more frequently this spring to limit participant numbers and improve social distancing.

Due to the heightened wildfire activity both within Minnesota and nationally, there was an increase in interest from many local fire departments to train and qualify firefighters to support wildland fires. Holding these qualifications opens the opportunity for local fire departments to support Governor-approved Emergency Management Assistance Compact (EMAC) requests. EMAC requests are coordinated through the Minnesota Department of Public Safety's Homeland Security and Emergency Management.

On August 28, 35 firefighters from the metro area and rural fire departments participated in a one-day hands-on training session to fulfill the field experience and shelter deployment requirements for basic wildland firefighter training. The session was hosted by Minnesota DNR's division of forestry wildfire section at the Minnesota Interagency Fire Center in Grand Rapids, Minnesota. Participants progressed through stations that introduced them to the use of wildland fire equipment like hand tools, pumps, and hose and working as a crew to establish a fireline (fuel break) and grid for hotspots from the fire's perimeter inward.

Fire Prevention

DNR's wildfire prevention efforts this year continued to be greatly impacted by public health measures necessary to limit and slow the spread of COVID-19. DNR has made great efforts to substitute traditional prevention efforts that involved interacting one-on-one with the public (community and classroom events) with virtual or other activities that did not involve large gatherings.

Wildfire Prevention Week was hosted the third full week of April this year. It focused on social media communications in addition to traditional radio ads that helped to raise awareness of wildfire prevention. With the resurgence of COVID cases, DNR made the difficult decision to limit

participation at the Minnesota State Fair to protect staff and volunteers, and to focus efforts on wildfire suppression needs during the record-breaking fire season in Minnesota. While the buildings on the DNR grounds remained closed, DNR was able to participate in the Governor's Fire Prevention Day activities on both the DNR grounds and at the flag raising ceremony.

Fire Prevention staff presented numerous virtual webinars and virtual training events to continue providing information to communities at risk for wildfire. DNR also worked with numerous fire service partners to develop an interactive, virtual event, which included a DNR-created virtual fire tower tour. The virtual event extended the traditional one day of public interaction to six weeks of activities that children and families could participate in from home.

DNR Firewise staff participated in the Northeast Regional Strategy Committee this year to support the National Cohesive Strategy. The committee is developing a Wildfire Risk Assessment Portal for public and natural resource professional and emergency manager use. The tool will help identify risks and connect landowners and community planners with mitigation specialists.

Rural Fire Program

The Division of Forestry's Rural Fire Program strives to support rural fire departments through programs that open access to low-cost equipment, manage cost share grants, and provided technical expertise.

Equipment and supplies from military bases across the country are obtainable to rural fire departments through the Federal Surplus Property Program, and often help supplement budget line items for many rural Minnesota communities. In 2021 items from the program, including medical supplies and portable generators, were distributed to 410 Minnesota Fire Departments, and three state agencies.

A total of nine trucks were purchased from the state fleet program and sold at a reduced cost to local fire departments this year. The vehicles are often utilized to support suppression efforts for small grassland wildfires.

The Volunteer Fire Assistance (VFA) grant program received 285 applications for the 2021 grant cycle. The grants were awarded to 146 communities. A total of $488,457 in federal and state funds were granted to applicants that will provide cost share for radios, pagers, personal protective gear, water movement equipment, and wildland firefighting safety items.

Minnesota's fireworks sales tax funding was incorporated into this year's grant cycle. The additional $100,000 dollars of funding provided 26 additional grants to rural communities.

The DNR Rural Fire Department assistance program is also working with Minnesota fire departments to develop best practices to prevent the spread of aquatic invasive species.

Aviation

Due to the early onset of wildfires conditions, aircraft began staffing tanker bases on March 16, 2021. Traditionally, aviation contracts are reduced to one Fire Boss and a helicopter by early June. Based on the extreme conditions and occurrence of wildfire activity throughout the summer and into fall, multiple contracted aircraft remained in Minnesota through October 5, 2021.

As wildfire conditions reached extreme levels and resources throughout the state stretched thin, Governor Tim Walz authorized the National Guard to assist with aerial wildfire aircraft on August 15, 2021. The Blackhawk helicopters and crews were made available, and supported suppression efforts on the North Norris and Square fires in Lake of the Woods County.

Homeland Security and Emergency Management

Historic Activation

Minnesota State Fair Vaccination Site

Four hundred and 75 days. That's how long the State Emergency Operations Center (SEOC) was activated for Minnesota's response to the COVID-19 pandemic, making it the longest in state history. SEOC operations wrapped up on July 2, 2021 after beginning March 15, 2020.

The SEOC supported the Minnesota Department of Health (MDH) in its mission to prevent the uncontrolled spread of the virus in Minnesota. That meant everything from distributing personal protective equipment and hand sanitizer to coordinating testing; from contact tracing to helping staff nursing homes and the vaccine site at the State Fairgrounds.

COVID-19 covered every aspect of our lives.. It took a total mobilization of state government, along with private and nonprofit organizations, to respond to this once-in-a-century pandemic. The SEOC helped them bring in the resources, coordinate their efforts, and make life-saving connections.

New SEOC Project

The Minnesota Department of Public Safety division of Homeland Security and Emergency Management (DPS-HSEM) has started preparation work on the new SEOC facility. It will be a much larger, standalone building situated on a 10-acre parcel of land north of St. Paul.

The project is in the predesign phase with a design firm drawing up plans for the facility. Construction will start in early 2022 and is set to open in 2023.

The new SEOC will not only give HSEM staff the room and resources they need to manage emergencies; it will also be the state's designated "continuity of government" facility. This means that during a catastrophic event, the SEOC will be the place where the governor and other officials would relocate.

Emergency Management Assistance Compact Missions

In August, ten Minnesota National Guard soldiers deployed to Washington State to help with wildfire response. The soldiers and Black Hawk helicopter provided medivac support to ground firefighting efforts and aerial fire suppression.

In September, 22 Minnesota firefighters deployed to Louisiana to assist with Hurricane Ida recovery. Nine departments sent the personnel to assist with local fire protection in areas where local firefighters were on duty since the storm hit.

Cut Off Golden Meadow Debris Removal

The Emergency Management Assistance Compact (EMAC) is a mutual aid agreement between all 50 states. A requesting state asks for resources based on their needs. Agencies in other states can respond to those requests. HSEM coordinates the state's EMAC requests.

Contributor: Amber Schindeldecker

Points of Tarp and Water Distribution

Debris removal

Fiscal Year 2021 State Disaster Declarations

As of October 2021, Gov. Walz has authorized the use of the State Disaster Contingency Account for emergency incidents indicated in the table below. Disaster recovery specialists from HSEM will work with the counties to reimburse them for repair and recovery costs related to those incidents.

State Disaster Number	Incident Period	Incident Type	Counties Included in Declaration
SD-054	May 19-20, 2021	Severe thunderstorm, heavy rains, and flooding	Marshall
SD-053	Dec. 23-24, 2020	Severe winter storm	Faribault
SD-052	Aug. 13-14, 2020	Heavy rains and flooding	Cass, Itasca, Norman
SD-051	Aug. 8, 2020	High winds and heavy rains	Goodhue, Yellow Medicine
SD-050	July 25-27, 2020	Heavy rains, flooding, and slope failures	Brown, Nicollet, Renville, Sibley
SD-049	May 27-June 3, 2020	Fires related to civil unrest	Hennepin (Declared Nov.5, 2020)
SD-048	July 15-17, 2020	Severe thunderstorms with heavy rainfalls, flooding and damaging winds	Cass, Kittson, Marshall
SD-047	July 6-8, 2020	Severe thunderstorms with damaging winds	Wilkin
SD-046	June 23- July 3, 2020	Heavy rains and flooding	Kittson, Le Sueur, Morrison, Renville, Washington
SD-045	June 17, 2020	Severe storms and flooding	Roseau
SD-044	June 6-10, 2020	Severe weather and flooding	Kittson
SD-043	Mar. 9- May 7, 2020	Spring flooding	Hubbard, Kittson, Marshall, Norman, Polk

Criteria: Incident End Dates July 1, 2020 – June 30, 2021
Exception: SD-049 added because of declaration date

USDA Forest Service

Wildfires

The Chippewa National Forest began their fire season on March 19. In total, the Chippewa National Forest had a total of 62 fires for more than 85 acres. The largest of these fires was the Easter Fire, which occurred on April 4 on the Deer River District. It burned 30 acres in grass and brush.

The Superior National Forest began their fire season on March 28. There was a total of 65 fires that burned more 30,000 acres. The largest of these fires was the Greenwood Fire, which occurred on August 15. It burned 26,797 acres in brush, timber, and timber litter. The fire was managed by two Type 2 Incident Management Teams: one from the Eastern Area and one from the Northern Rockies Area, as well as a MNICS Type 3 Incident Management Team. The John Ek and Whelp Fires began on August 14 and burned a collective 1,407 acres in brush, timber, and timber litter. They were also managed by the previously mentioned teams.

The Chippewa and Superior National Forests received a large amount of assistance from agencies nationwide this year due to the prolonged high fire activity.

Prescribed Fire

The Chippewa National Forest completed 13 projects for over 1,494 acres. The Superior National Forest was able to complete 61 projects for over 4,927 acres at the time of this report.

Wilderness Crews

MNCC Operations continued their partnership with the Superior National Forest Wilderness Program in tracking Wilderness Rangers in the BWCAW. The Wilderness Rangers assisted with search and rescue operations, fire reporting and response, as well as closure and evacuation notices and fire restriction notices to wilderness recreationists.

Search & Rescue

The Superior National Forest welcomed Carlisle "Lisle" Doria this summer as the new Beaver Pilot. The program now maintains three full-time pilots out of the Ely Seaplane base. Assistance was provided on 31 Search and Rescue, Medical Aid, and Public Assist incidents at the time of this report. Our aviation staff was flexible in their approach to providing excellent public assistance amid the pandemic, cooperating with emergency services partners, and providing for responder safety first.

Contributor: Matthew Karges

U.S. Fish & Wildlife Service

Covid, extreme drought, and a persistent wildfire made the year a wild ride for firefighting personnel and support staff around the state. The year proved to be one for the record books despite the many challenges, it was a very productive one. Starting in January, resources were detailed to the southeast, assisting with prescribed fire while working on completing critical task book training assignments. In early spring, resources from Minnesota traveled to Iowa and Illinois to assist with fuels projects, while other resources assisted FEMA with setting up vaccination centers.

Fire season abruptly started with the Oxcart fire at Glacial Ridge National Wildlife Refuge on March 29. The Oxcart fire not only initiated the first MNICS Type 3 Incident Management Team activation of the year, but it was also the first MNICS Type 3 Team deployment in MNICS history. The Oxcart fire continued to make its presence felt throughout the summer as pockets of organics continued to be detected and suppressed.

All FWS lands in the NW part of the state entered long-term severity on June 10 and didn't see reprieve until August 30, setting new records for the drought monitor index and Energy Release Component, Buildup Index, and 1,000-hour fuels. Despite the challenges of wildfires and increasing drought conditions, FWS field stations conducted 176 prescribed burns totaling 23,880 acres. There were also 56 wildfires for 11,363 acres on U.S. Fish and Wildlife Service lands.

2021 marked the ten-year anniversary of FWS participation in Lessard-Sams Outdoor Heritage Council funding authorized from the Clean Water, Land & Legacy Amendment. By partnering with Minnesota Prairie Chicken Society and Minnesota DNR Division of Wildlife, FWS has increased prescribed fire accomplishments by 158,000 acres over that past ten years.

Mobilizations

The fire season proved to be busy this year with 123 personnel dispatched off their district to support operations, logistics, finance, plans, information, law enforcement, and command positions across ten states. Unlike most years, 60 employees deployed off district, but remained in state.

Contributor: Seth Grimm

Personnel Changes

FWS welcomed Mike Hill, who joined the west zone as the Zone Assistant Fire Management Officer. Mike is stationed at the Fergus Falls Wetland Management District.

Special Thanks

- MNCC (aviation, logistics, and operations) for the tireless efforts during the 2021 season.
- Rob Johnson, Matt Woodwick, and Cory Berg for their creativity, guidance, and willingness to partner on aviation assets throughout the zone's long-term severity commitment.
- All partners and USFWS resources that responded during the 2021 season

Wildfire and Prescribed Burn Statistics as of November 2, 2021

Station	Wildfires	Wildfire Acres	Prescribed Burns	Prescribed Burn Acres
AGASSIZ NWR	3	115	4	774.0
BIG STONE NWR	1	0.1	11	2,177
CRANE MEADOWS NWR	0	0	3	160.0
DETROIT LAKES WMD	5	160.0	15	2,153.0
FERGUS FALLS WMD	2	1.0	23	4,025.0
GLACIAL RIDGE NWR	3	10,429	9	1,583.0
HAMDEN SLOUGH NWR	1	151	7	190.0
LITCHFIELD WMD	16	247.0	16	2,472.0
MN VALLEY NWR	5	43	4	725.0
MORRIS WMD	3	57	39	4,474
RYDELL NWR	0	0	8	39
SHERBURNE NWR	11	32	11	2,522.0
TAMARAC NWR	2	1	2	18.0
WINONA DIST	0	0	1	.5
WINDOM WMD	6	127	23	2,568.0
Zone Totals	**58**	**11,363**	**176**	**23,880**

National Park Service

As with all MNICS agency partners, 2021 was a crazy year for the National Park Service's Midwest region. The North Dakota units reached their fire severity in March and experienced many fires throughout the season. The North Dakota season lasted all summer and well into the fall.

Fire season for Voyageurs National Park was also very busy, reporting seven fires for the season. Of those seven fires, two resulted from human-caused activity, while the others were lighted-caused.

On two occasions, multiple aircraft were utilized during initial attack. Most fires turned into extended attack due to the extremely dry conditions.

Voyageurs National Park was in fire severity from June through September. As a result, the Park hosted several out-of-area resources during the length of the extended fire severity.

Spring saw a return of pile burning in Voyageurs National Park, along with the initiation of a cattail restoration project.

The Apostle Islands National Park staff were able to conduct some burning this season.

Isle Royale National Park's Horne fire started in mid-August. The Horne fire burned well into the fall. A strategy of confine and contain was used, focusing on structure protection. Aircraft from Minnesota supported air operations. It is estimated that the fire reached approximately 600 acres.

Hats off to the Air Desk, all the aviation folks, and Minnesota Interagency Fire Center staff for all of the support this summer, it was greatly appreciated.

Personnel Changes

Welcome to Greg Carlson, who accepted the Fire Management Specialist position with Voyageurs National Park. Greg came to Voyageurs from the Ozark National Scenic Riverways.

Contributor: Kurt Fogelberg

MNICS Working Team Updates

Air Operations Working Team

The MNICS Air Operations Working Team focused on several key issues moving into 2021 including:

- Interagency approvals of all contracted aircraft and pilots for all jurisdictions in the spirit of MNICS. This is achieved with interagency approvals for the aircraft and pilot as well as with Cooperator Approval letters of authorization.
- Coordinated communications plans that work for all MNICS agencies.
- Contributing to the interagency RT-130, with a focus on analytics and resource response times versus fire behavior and rate of spread.
- Type 3 incident aviation support to meet the needs of extended attack incidents.
- Cooperator approval for Minnesota Army National Guard (MNARNG) helicopters and pilots to deliver both water to the fireline and hoist support for federal incidents and personnel.
- Coordinated and cost-shared COVID-19 mitigations across agencies to meet the needs of social distancing at airtanker bases and helibases

In addition to these, significant partnerships were utilized to have the right aircraft available at the right time. These are too numerous to list but include cost-share agreements for SEATs and helicopters as well as water scoopers, large air tankers, and qualified personnel to load, manage and coordinate these aircraft.

Darren Neuman, Working Team Chair

Communications Working Team

Our communications trailers got to see wildfire action on numerous fires around the state. Multiple trailers helped immensely when the Greenwood Incident Command Post moved from Wolf Ridge, Environmental Learning Center to the Isabella Community Center. A second trailer was set up beforehand and had communications running with no gap during the transition.

The 100-foot portable tower was lost because of high winds that shut down the Ely Blueberry Arts Festival during the Delta Lake Fire. A 135-foot boom truck as a repeater tower at the Superior NF Meander repeater site, enabling the Crooked Lake fire crews to have better radio coverage. We found a turf-covered landfill hill during the Beaches Lake fire near Lancaster, Minn., to place the 50 feet portable tower.

Pat Coughlin retired this past year, taking with his incredible wealth of knowledge. Filling behind him, the new communication technicians did a great job working through their learning curves and have a better understand of what needs to be accomplished during future incidents.

Communication trailer inventory will be reviewed after the season to excess any unused gear and make necessary upgrades. The MNCC IA Dispatch completed the C-Soft upgrades to six consoles.

Finding radio operators (RADOs) and Incident communications technicians (COMTs) proved difficult in Minnesota and nationwide. However, some trainee task books were signed off, and they can now support these voids in the future.

David Jalonen, Working Team Chair

Dispatch Working Team

The top dispatch story for 2021 is the extended local fire season. Our season came on early this year, with the first team mobilized at the end of March. The sustained level of initial attack, extended attack, and dispatch support needed to maintain safe operations kept the focus on Minnesota throughout the summer. Altogether, 19 Minnesota dispatchers supported the Minnesota Interagency Coordination Center while completing 51 assignments in all dispatch functions.

In 2021, COVID continued to impact dispatch training plans and the inability to meet in person began a push to provide virtual training, orientation and practice opportunities. IROC Practice sessions kicked off in March of 2021 and continued through June. Dispatchers wanting to get into IROC and become acquainted with the program took advantage of these monthly sessions. IROC Basic User was held at the Mid Atlantic Fire Academy and was supported with instructors from MNICS. A web based IROC orientation training was available to all dispatchers. This self-paced training gave users a good entry level training on the use of IROC.

For 2022, the MNICS Dispatch Working Team is collaborating with the Eastern Area Dispatch Working Team to schedule and implement dispatch courses. D-110 is planned for the first quarter of 2022 and will be hosted virtually. As we move into the second quarter of 2022, a D-310 course is on deck. The D-310 course curriculum is undergoing revisions, so dates for the course remain tentative, with a target of late June. The D-310 course will see students and instructors back in the classroom.

Nationally, there was no shortage of dispatch support needs. MNCC mobilized six dispatchers filling 12 out-of-state requests in 2021. Our dispatchers mobilized to support fires in eight states, providing much-needed assistance to busy centers and expanded dispatch locations including:

4 – EDSD, Extended Attack Support Dispatcher
5 – IADP, Initial Attack Dispatcher
3 – ACDP, Aircraft Dispatcher

Four of these requests were filled with trainees who gained valuable experience on western assignments. The shortage of dispatchers continues to be a nation-wide concern. Anyone interested in becoming a dispatcher is highly encouraged to talk with a member of the MNICS Dispatch Working Team for more information.

Melissa Gregerson, Working Team Chair

Finance Working Team

The Finance Working Team continues discussing issues related to administrative management on emergency incidents in 2021.

2021 Overall Summary

The fire academy was canceled in June, placing any finance classes on hold. At the end of last season, all Finance members were encouraged to sign up as priority trainees for the 2021 season if they had open task books. We participated in the Incident Management Remote Response (IMRR) Finance calls. Discussions during these calls focused on how to accomplish Finance goals in a COVID environment and on-site, remote, and virtual processing of information. The calls were invaluable by giving the entire nationwide finance community (regardless of agency) the same information simultaneously.

Minnesota was very busy in 2021 with Type 3 incidents. The Finance Working Team members worked on more than 48 assignments combined (both in and out of state.) As a result, several members experienced finance fatigue. We work together to back each other up, filling roster voids when needed. We struggled to get enough staff at the in-state incidents to cover the workload. On a positive note, the shortage of qualified finance personnel generated interest from new members in finance. We anticipate these people will become actively involved in the future.

Lessons Learned

The Finance Section recognizes we will need more personnel to help convert documents and filing structures that meet the requirement for digital files on federal incidents. Because of this, we are continuously looking for ways to increase the numbers in the finance section and identify training opportunities to get task books completed.

Finance needs to have a physical presence at the Incident Command Post (ICP). Having high-quality scanners and printers connected directly to finance computers is a must. They are necessary because it is unreasonable to assume resources on the line can generate and submit electronic files, let alone provide an electronic signature. We also found that securing signatures for virtual demobilizations created additional issues.

Donna Edelman, Working Team Chair

Information Working Team

The 2021 wildfire season offered many excellent opportunities for Public Information Officer (PIO) trainees holding task books to join a MNICS team or jump into a wildfire PIO assignment in our backyard. While supporting needs in Minnesota, PIOs also fulfilled critical information needs on the Eastern Area, Northern Rockies, and Northwest Incident Management Teams.

Many thanks go out to our qualified and trainee PIOs for their efforts to work together and adjust schedules to fill voids on the MNICS Type 3 Teams throughout the extended season.

The season has been invaluable in helping the Information Management Working Team better understand the role we can fulfill to unify public information efforts throughout Minnesota and continue building on quality training and skills development experiences for new PIO trainees. Looking ahead, we will be researching how best to incorporate all MNICS agencies and wildland fire within Minnesota onto the InciWeb platform. We will also continue exploring the many benefits FireNet offers for public information coordination.

As we round the corner into 2022, the Information Management Working Team is working on establishing a date and developing the agenda for our next Public Information Officer Workshop.

Leanne Langeberg, Working Team Chair

ITSS-GISS Working Team

In the next few months, the newly combined Incident Technology Support Specialist (ITSS) and Geographic Information Systems Specialist (GISS) Working Team will meet virtually to discuss topics, strategies, and needs that include:

- ArcGIS Online (AGOL) and Collector-ArcGIS training.
- Covid 19 protocols and procedures
- ITSS/GISS position training and recruitment
- Eastern Area Team Trailer set up and equipment needs
- A formal Agreement between Minnesota IT Services (MNIT) and MNICS for incident support.
- Number of people in GISS/ITSS positions, only three certified and no trainee's in ITSS, four certified and a trainee in GISS supported the position for 2021.

The ITSS-GISS working team plans to host a winter refresher to discuss implementing goals and new procedures in March or April. The refresher will focus on core learning concepts for GISS, ITSS, and SITL working team members, including ArcGIS online (AGOL), Collector, Setting up an incident (ITSS), and status check-in. The working team also plans to discuss recruitment, training, and retention

for ITSS and GISS positions in Minnesota. The team also plans to review new online forms and processes in MS Teams and the new GISS procedures and data storage procedures. We'll also discuss assignments and share experiences or issues we may have faced over the last season.

During the 2021 fire season out west, 12 GISS, GSAN, ITSS, and SITL positions accepted assignments in six states. They assisted with fires in Colorado, Montana, California, Idaho, Michigan, and Arizona.

The ITSS and GISS also assisted with 13 Type 3 assignments and two Type 2 assignments within Minnesota.

Joel Perrington, Working Team Chair

Logistics Working Team

Over the past year, the Logistics Working Team acquired two trailers from the Federal Access Person Property Program (FEPP). The trailers will replace the worn-out FEMA trailers.

A new communications trailer will be a converted enclosed cargo-style trailer – 8-feet wide by 22-feet long. Conversion work on the trailer is planned to begin this winter, hoping to have it incident-ready by spring 2022. The trailer is towable by a three-quarter-ton or one-ton pickup truck.

The general office trailer, an enclosed semi-trailer entirely self-sufficient for power, air, and heat, is scheduled to be converted this winter. The trailer is 8-feet wide by 44-feet long and is wired with CAT5 and electrical outlets. The trailer was previously used as a simulator trailer. With good intention, the plan is to have the general office trailer incident-ready by spring 2022. However, work completed for both trailers is dependent on how far the approved DNR funding will stretch to cover the improvements.

The general office trailer, an enclosed semi-trailer entirely self-sufficient for power, air, and heat, is scheduled to be converted this winter. The trailer is 8-feet wide by 44-feet long and is wired with CAT5 and electrical outlets. The trailer was previously used as a simulator trailer. With good intention, the plan is to have the general office trailer incident-ready by spring 2022. However, work completed for both trailers is dependent on how far the approved DNR will stretch to cover the improvements.

Other MNICS Team items from the 2021 season include purchasing a couple of portable copiers so MNICS Type 3 Teams can print 11X17" maps and purchasing a handful of small desktop scanners.

During the 2021 season, the 100' portable Radio Tower was no longer usable. It is currently being rebuilt and will be ready for the 2022 fire season.

Kevin Carlisle, Working Team Rep.

Operations Working Team

The Minnesota Wildland Urban Interface plan is complete and available to view online at:

- MNICS.ORG > Administrative > MNICS Coordination > Working Teams > Operations > Structure Protection.

Due to ongoing COVID mitigations, the MNICS Type 2 Initial Attack (IA) crew was on hold again this year.

Past notes for the Operations Working Team have been collected by Aaron Mielke and are available to view online at:

- MNICS.ORG > Administrative > MNICS Coordination > Working Teams > Operations > Meeting Notes

IQS Crosswalk

Last spring, a committee was formed with the State Fire Marshal, Fire Chief's Association, and DNR to formulate a solution. The next hurdle to be tackled is deciding who will collect and where to store the collected IQS information. Unfortunately, the 2021 Fire Season placed this process on hold that will hopefully soon resume.

Jim Edgar, OWT Working Team Chair

Prescribed Fire and Fuels Working Team

Given the high fire activity this year, many of our members were occupied with working on fire assignments, and no meetings were held. Given most tasks for the group were delegated to individuals or sub-groups, not meeting wasn't a significant setback. We continue to work through many of the same tasks we did last year.

Minnesota Smoke Management Plan Update

The MN Smoke Management plan underwent a periodic revision with little fanfare. Changes were relegated to wordsmithing, updating tables, and validating procedures. So, don't expect any alterations to implement the plan. The final version is being routed for signatures as we speak. Weather Training Webinars

Travis Verdegan, predictive services, organized several weather training webinars covering a variety of products, including National Weather Service's Fire Weather Dashboard and Meso-West. The webinars were well attended, and the Working Team is considering similar webinars for future training opportunities.

Fire Needs Assessment

The fire needs assessment is a long-term project helping to identify areas of Minnesota that are in greatest ecological fire need. The assessment employs similar methods used by Wisconsin and will result in the production of a spatial layer. The Wisconsin product has helped fire management agencies prioritize fire treatments and increased funds for burning. A Cohesive Fire Strategy Grant of $25,000 helps fund the project, led by Mike Lynch of The Forest Stewards Guild.

Scott Weyenberg, Working Team Chair

Training Working Team

The 2021 Wildfire Academy was once again canceled due to Covid concerns. The Training Working Team conducted several meetings throughout the year to discuss training needs, virtual courses, COVID restrictions, and other training concerns.

Due to a lack of student applications, course announcements were sent out for the following:

- S-215 – Fire Operations in the WUI
- ICS 300 and 400
- L-280 – Followership to Leadership
- S-230 – Crew Boss
- S-231 – Engine Boss
- S-270 – Basic Air Operations

A Great Lakes Forest Fire Compact sponsored M-410–Facilitative Instructor course (sponsored by) and an RX-410–Smoke Management course have been scheduled for January 2022. Most of the RT-130 annual fire refresher sessions were hosted virtually this year, and most Work Capacity Tests were completed with COVID mitigations in place.

Several saw refresher courses were delivered throughout Minnesota. Most people who sought to complete their Basic Wildland Firefighting courses were able to complete the coursework online and then attended a local S-130 field day.

We are working on compiling the Training Needs Assessments from all the MNICS agencies. The Training working team met in November and plans to meet again in December to work on adding training sessions to the training calendar.

We remain hopeful for the possibility of a 2022 Wildfire Academy.

Brenda Miles/Training Working Team

MNICS Type 3 Incident Management Team Working Team

The year started out busy for the newly formed MNICS Type 3 Incident Management Teams Working Team. The first official meeting of the Working Team was held during the MNICS Annual Meeting week in December 2020. The group established Membership and began working on developing the working team charter. Members also reviewed and updated the Type 3 Incident Management Team standard operating guide, COVID protocols, and developing plans for the Annual Meeting.

The fire season quickly transitioned from planning to utilizing the Teams, as the first request for a MNICS Type 3 Team was made on March 30. The initial request marked the start of a very busy, active, and prolonged season for the MNICS Type 3 Teams. In total, the MNICS Teams were utilized by several MNICS agencies through October 15 and

managed 15 incidents throughout Minnesota. In addition to the MNICS Teams, MNICS brought in two out-of-state Type 3 Teams to cover two separate rotations for the MNICS teams, giving them time to rest between assignments. During one of these rotations, the visiting team managed the Crane Fire.

After two years and only one previous MNICS Type 3 Team mobilization, the activity this season and the Teams' utilization and success show the value of all the planning and coordination work that has gone into standing up the MNICS Type 3 Teams. Many thanks to all who contributed. Certainly, the efforts paid off with a quality interagency product and high-level service to the MNICS partners.

Another benefit of the busy fire year was training opportunities that became available with Team mobilizations. Each mobilization provided trainees with various opportunities across all the sections. The MNICS Teams were committed to involving as many trainees as possible on team assignments. Priority on maintaining a strong emphasis on quality training opportunities is key to the continued success of the MNICS Teams.

The Working Team has already started the 2021 season After Action Review (AAR) process with the Teams and Sections as the season winds down. The AARs will be conducted, and reports summarized before the 2021 MNICS Annual Meeting. With the high level of activity this past season, this information will be helpful to improve and build upon the MNICS Teams operations and delivery of a successful product.

The MNICS Teams fully expect to be busy in the future. There are many opportunities to become involved and contribute to a MNICS team. Our Working Team continues to look for diverse membership and encourages anyone interested in providing their expertise to contact a Working Team member for more information.

MNICS Type 3 Incident Management Teams Working Team Primary Representatives:

- Natasha Woodwick, **MNCC**
- Terry O'Conner, **BIA**
- Brian Leitinger, **DNR**
- Dan Paulson, **FWS**
- Nick Petrack, **USFS**
- Kurt Fogelberg, **NPS**
- Aaron Mielke, Working Team Chair

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2021 MNICS Awards Recipients

Legacy Award

BARB MEYER

Leadership Award

ERNEST SCHMITT

THOMAS ROACH

JIM EDGAR

Partnership Award

HARLOW THOMPSON

Outstanding Performance Award

DAN CARROLL

JEROME SKARBA

KEVIN CARLISLE

LEANNE LANGEBERG

MIKE WURST

Teamwork

ANNA GRANNES

AUSTIN DANE

DAN CARROLL

JOEL PERRINGTON

KIRK JOHNSON

LEANNE LANGEBERG

PAUL LUNDGREN

PETER LESCHAK

TODD MANLEY

WILLIAM GLESENER

Retirement Award

DEBORAH HAHN

DIANE NYGAARD

GAYLE HAUSER

LISA FOUST

MARY NORDEEN

PAT COUGHLIN

PETER LESCHAK

ROY HOLMES

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