Aware

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Onsite Support to Core Partners for Mount Rushmore Fireworks Event

*By **Dave Hintz,** Meteorologist in Charge, NWS Rapid City, SD*

NWS Rapid City, SD, provided onsite decision support for the Mount Rushmore fireworks display on July 3, one of the office's first planned onsite decision support events during the COVID19 pandemic.

The National Park Service (NPS) requested Incident Meteorologist (IMET) support because the fireworks were contingent on a Go/No-Go checklist that included several weather parameters. Along with the potential for wildfires enhanced by moderate drought conditions, the area experiences frequent severe thunderstorms. Further, President Trump announced he would attend, so the White House Military Office forecasters became involved in the planning, adding a whole new level of coordination.

Fireworks over Mt. Rushmore in South Dakota.

NWS Rapid City, SD, MIC Dave Hintz at the July 2 staff morning briefing.

MIC Dave Hintz and Warning Coordination Meteorologist Susan Sanders provided weather forecasts for the NPS Incident Management Team briefings as early as June 24. Dave served as the onsite IMET July 1 –3. Susan wrote heat safety messages for TV screen posts.

Rapid City staff also produced a 1-page situational report for local and state partners emphasizing weather hazards for their personnel supporting the event. The office also scheduled an additional forecaster to collaborate with the onsite IMET the afternoon and evening of July 3. Forecaster Keith Sherburn was in constant communication with Dave on NWS Chat.

The day shift forecasters stayed to assist with forecasting and warning operations. In addition to its regular warning notifications, the office announced warnings that included Mount Rushmore on a dedicated radio channel.

On July 2, several rounds of strong to severe thunderstorms developed near Mount Rushmore. Dave relocated from the Incident Command Post to the communications trailer so he could immediately relay advisories and warnings. While the strongest storms just missed Mount Rushmore, lightning started five fires.

On the day of the event, Mt. Rushmore was under a marginal risk for severe thunderstorms. Wind was the biggest threat because storms would develop in the early evening on the nose of the low-level jet. The program was scheduled to start at 6:30 pm, MDT, with the fireworks beginning at 9:18 pm.

Dave began hourly briefings to staff from the Park Service and office of the Secretary of Interior at 4 pm until 6 pm when the NPS made the Go/No Go decision. At the 6 pm briefing, Secretary of Interior David Bernhardt was briefed that the storms would be very close to the monument by the time fireworks would end, and lightning would be visible to the south. Dave also coordinated with the White House Military Office forecaster about takeoff minimums for Marine 1, which transport the President. Just after the show ended, the storms moved in with very heavy rain, gusty winds, and small hail. The President safely returned to Ellsworth Air Force Base near Rapid City.

NPS, law enforcement, and Interior Department staff commented on how well NWS Rapid City and staff performed. The Chief of Presidential Weather Operations offered his thanks for the outstanding service, coordination, and excellent teamwork. When a high-profile challenge was in front of the office, the entire staff performed at the high level that is expected from NWS.

Working with Military Vital Link to Fighting Wildfires

*By WCM **Alex Tardy**, NWS San Diego, CA*

Fire departments from the California Office of Emergency Services, Marine Corp. Air Station Camp Pendleton fire department, the counties of Los Angeles, Orange, Riverside, and San Diego, and dozens of city fire squads took part in the 5-day live burning exercise. The exercise was held on the massive Camp Pendleton open space area in Oceanside, CA. This wildfire prone military base has as many as 80,000 residents on base on any given day.

Days 1 and 2 had high clouds and sun with good burning activity due to no marine clouds and breaks in the high clouds.

The goal of the fire school was to train new or existing firefighters by burning 8,000 acres on the base while simultaneously reducing wildland fire occurrences and size. Each day consisted of a 9 am operational briefing to more than 100 participants. NWS San Diego WCM Alex Tardy provided in person weather briefings; everyone was required to respect social distancing and wear face masks.

The firefighters experienced all types of weather, from sunshine and high clouds, clear skies and hot temperatures in the lower 90s, deepening new marine layer and partial clearing over higher terrain, and finally widespread cloud cover, measurable drizzle and even showers on Day 5.

The hot day, full sunshine and low humidity on Day 3 spawned a wildfire that escaped perimeters. Despite mostly cured grasses and brush and already dry dead fuels, Day 5 included poor burning conditions due to the cloud cover and light showers.

A week after the school, southern California experienced a rare Santa Ana wind event with minimum humidity in the single digits. On Camp Pendleton alone, three wildfires burned 8,600 acres of brush, demonstrating the critical value of fire school trainings. Despite record wet conditions in March and April, by mid-summer fuel moisture had returned to critical levels and near record minimums.

NWS Bring 911 Centers into Emergency Alert Circle

*By **Tim Troutman**, WCM, NWS Riverton, WY*

NWS Riverton, WY, recently completed a fully functional severe weather Decision Support communications exercise with all 11 counties in its county warning area. The test was the first use of the WYOLINK communications network to broadcast warnings directly to 911 centers. As always the test included emergency management coordinators in our county warning area. Adding the 911 centers eliminated the need to make a bunch of phone calls when the office issues a warning.

WCM Tim Troutman issues test exercise tornado warning during the functional exercise.

This one 30 second call on the WYOLINK system eliminates about three minutes worth of three separate phone calls and allows our forecasters more situational awareness during severe weather events. The change to just notifying these three entities during a severe thunderstorm, tornado or flash flood warning has combined the previous three calls that had to be made into one coordinated call, making our warning communication process much more efficient and also allowing for more back and forth coordination during a severe weather event by the use of the WYOLINK communications network. It has been a big success this severe weather season!

The 2-hour exercise consisted of WCM Tim Troutman providing test tornado warnings for all 11 county emergency managers and 911 centers. The objective of the functional exercise was to ensure that all counties were ready for the upcoming severe weather season and to provide severe weather training to the county emergency management coordinators and 911 centers in central and western Wyoming. A detailed After Action Review of the functional exercise is online.

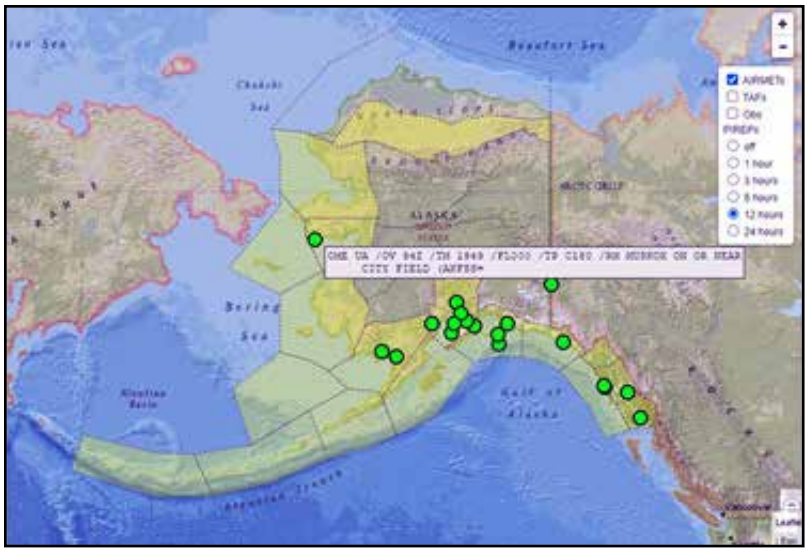
Unique Wildlife Create Airport Hazards in Alaska

*By **Audrey Rubel**, Physical Scientist, Alaska Region Headquarters, Anchorage, AK*

Weather has a tremendous impact on aviation, particularly during takeoff and landing. For example, aircraft are sensitive to wind speed and direction, not only affecting pilots, but also air traffic controllers who may have to adjust flight paths.

NWS forecasters use pilot reports (PIREP) to help them refine forecasts and warnings. Pilots provide information on flight level winds, cloud bases and tops, turbulence, icing, temperature and low-level wind shear. Since Alaska is home to more than 40 active volcanoes, aviation forecasters use PIREPS to estimate the height of volcanic ash plumes.

On July 4, WFO Fairbanks received a PIREP about a musk ox on or near the Nome Airport, and then shared the information via Facebook. Grasses are a favorite food of these animals.When Fairbanks WCM Ed Plumb was in Gambell in January 2017 for a post-storm survey, high surf had washed waves over the runway, knocking out runway lights and depositing clams. DOT runway maintenance had to wait for local residents to finish collecting the clams before clearing the runway.



Graphic showing the PIREP issued on July 4 for a musk ox near the Nome Airport (far left green dot). Green dots represent PIREPS, yellow areas are AIRMETS.

Bearded seal on runway at the Wiley Post-Will Rogers Memorial Airport in Utqiagvik, AK (courtesy Scott Babcock, Alaska Department of Transportation and Public Facilities).

In September of 2017, salmon swam across a flooded runway in Seward. Then in October, flights into Utqiagvik were halted while authorities positioned a 450-pound bearded seal onto a sled and removed it by snowmobile. The community was accustomed to musk ox, polar bears, and caribou visiting their landing strip, but the seal's presence was a first.

Other animals staff have encountered at Alaska's air- ports include black bear, brown bear, moose, fox, deer and of course birds, the most notorious by far for colliding with aircraft.

The FAA staff maintains a database of wildlife strikes. So, the next time you fly to Alaska, keep an eye on the airport because you might start sightseeing before exiting your aircraft!

Aware

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