

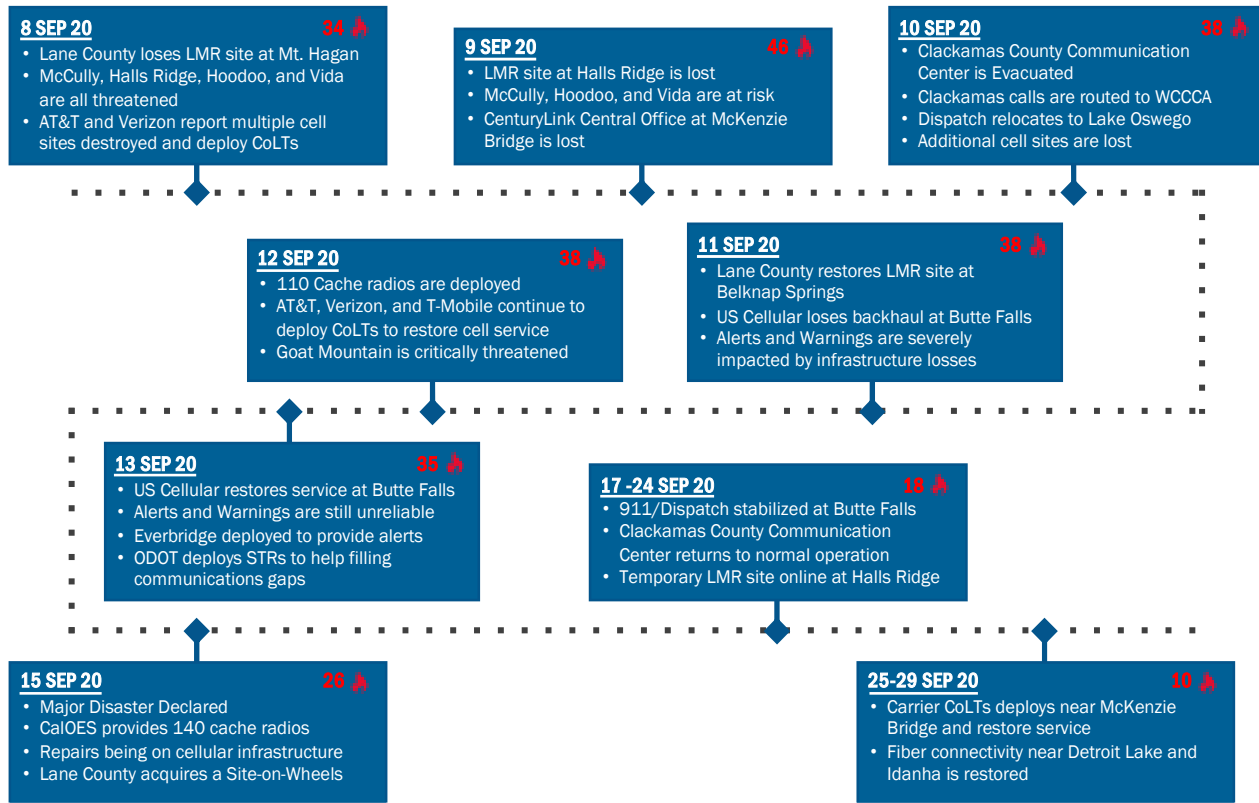


DEFEND TODAY, SECURE TOMORROW

# 2020 Oregon Wildland Fires Communications After Incident Report

## BACKGROUND

The State of Oregon suffered many devastating wildfires, particularly during the period of September 8 to October 11, 2020. Due to the sudden and overwhelming number of fires, the State was forced to request assistance from many agencies, at all levels of government, and across all parts of the United States. In total, 21 fires destroyed over 1 million acres of land.



Several key components of communications infrastructure were destroyed including: two critical high elevation radio sites, several cellular sites, and a considerable amount of aerial fiber optic lines. The loss of assets greatly hampered communication for both public safety responders and citizens.



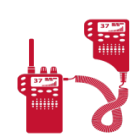
**Loss of Telephone**  
 The Blue River Central Office and many overhead telephone wires were damaged impacting landline services including alerts and warnings



**Loss of Cellular Services**  
 Many cell towers were destroyed. Others were isolated after losing power. This made cell service unreliable around the state



**Loss of Data Services**  
 Damaged overhead fiber resulted in impacts to data services.



**Loss of Radio Sites**  
 Two critical radio sites were destroyed. A lack of mutual aid frequencies compounded radio communications issues

## BUILDING FROM STRENGTHS

### Oregon Emergency Support Function #2 (ESF-2) – Communications Annex

The ESF-2 in Oregon is jointly operated by the State-Wide Interoperability Coordinator (SWIC) and the Public Utilities Commission (PUC). The effective working relationship between Lisa Gorsuch and William Chapman was noted by many interviewees. This relationship enabled the ESF-2 to be a very effective problem solving and decision-making body. It enabled rapid, properly prioritized decisions regarding temporary infrastructure installations as well as longer term restoration plans.

Operating out of the Oregon Emergency Coordination Center, the ESF-2 function enlisted support from many entities including:

- Oregon Department of Transportation
- Oregon Department of Forestry
- Oregon State Police
- Oregon Public Utilities Commission
- Oregon Military Department
- Oregon Wing of the Civil Air Patrol
- Oregon Office of Emergency Management
- Oregon APCO/NENA (911)
- Information Technology Disaster Response Center
- Oregon Internet Response
- AT&T / FirstNet
- Verizon
- T-Mobile
- DHS Federal Emergency Management Agency
- DHS Cybersecurity and Infrastructure Security Agency

The ESF-2 held daily conference calls to identify issues and needs and to coordinate resources and priorities. A daily Situation Report (SitRep) was published to ensure transparency and up to date knowledge of the situation. These reports were disseminated via the FEMA Region X RECCWG site to help coordinate activities with agencies located out-of-state. The DHS HSIN site was used as a real time collaboration and situational awareness tool.

Peak Workload on September 15, 2020 included:



### Clackamas County Continuity of Operations Plan (COOP)

By September 10th, 6 PSAPs were reporting radio outages, 5 lost telephony, and 8 lost electrical power. The Riverside fire was threatening the PSAP in Clackamas County. The decision was made to execute the Continuity of Operations Plan for the center and move the operation to Lake Oswego.

The evacuation plan was designed to work around service disruptions occurring during typical operational workloads experienced on a normal workday. Fortunately, their Continuity of

Operations Plan (COOP) had been tested and practiced periodically. As a result, the County was able to route call taking to the Lake Oswego Emergency Communications Center, and operated dispatching from the Washington County Consolidated Communications Agency (WCCCA) with very little impact to the citizens calling 911.

They remained in their offsite location for several weeks. Their COOP plan has since been updated because of lessons learned and will be better prepared for the future.

## OPPORTUNITIES FOR IMPROVEMENT

### **Maintain a program to train and exercise COM-C, COM-L, and COM-T personnel:**

Many response participants praised the valiant efforts of the Statewide Interoperability Coordinator. A recurring theme was how Mr. Chapman worked tirelessly throughout response and recovery. Without diminishing Mr. Chapman's efforts, it is important to recognize the potential bottleneck that can be created when one person bears a disproportionately large responsibility for coordinating activities during a large incident. This issue can be complicated even more if the incident is likely to continue for more than two or three days.

The first step to finding capable deputies is to offer training for the ICS positions needed to support an incident. The communications unit and IT service unit position training can be requested free of charge. This training will help the SWIC create a pipeline of new talent that can be utilized as the need arises.

The second step is to host exercises that will allow newly trained personnel to work with seasoned personnel and grow their skills and network of relationships. The basis of these exercises should include scenarios from previous incidents. These scenarios should be presented in such a way that the participants are forced to access to set priorities, manage complicated tasks, and work in a coordinated fashion.

The final step is to assign the role of deputy to the personnel who have demonstrated the skill needed to provide state-level coordination and the interest to help. These deputies would work with the SWIC during a planned event or small-scale incident to provide the SWIC with the opportunity to provide mentoring and to build mutual trust.

### **Establish a program to develop a Deputy SWIC program:**

The previous recommendation stresses the importance of developing communications unit personnel and maintaining a cadre of personnel to support the SWIC during a large-scale response. This same need exists for the SWIC.

There are several reasons to identify and train several deputies for the SWIC. The Deputy SWIC allows the ESF-2 to operate 24-hours per day with the SWIC and a Deputy working in shifts. The Deputy SWIC can be used to reduce the span-of-control burden if the incident grows or when it is divided by geography into branches, and the Deputy can be forward-deployed into the area-of-operations to provide "ground truth" and enable some decisions to be made on-scene. Finally, as the incumbent SWIC decides to vacate the position, a Deputy may fill the role ensuring there is no gap in leadership caused by a lengthy transition.

The challenge in implementing this role is maintaining a pipeline of qualified and interested candidates. This pipeline should be fed by several different pools of resources. The first pool

by include persons identified as high potential from the communications unit training and exercise program mentioned above. Another good source of candidates are the dispatch center managers and radio system owners around the state. Finally, it may be possible to find qualified personnel among the members of the Statewide Interoperability Executive Committee (SIEC).

**Maintain deployment ready radio cache:**

During the fires, many responders requested radios to support their deployment. In some cases, radios were found to be too old to program, damaged, or otherwise undeployable. It is recommended that jurisdictions keeping caches of radios plan for the maintenance and upkeep of the equipment. These caches should be serviced regularly to ensure the radios are tuned correctly and the batteries are healthy. In addition, jurisdictions should develop tactical communications plans using an ICS Form 217A that outlines the radio channels and frequencies the cache can support.

**Build redundancy into infrastructure and eliminate single points of failure:**

Many of the radio sites not destroyed in the fires were forced into site-trunking mode due to several critical single points of failure in the backhaul connections. This left some less populated areas without radio coverage for months on end. Converting single line systems into redundant loops would greatly reduce the potential long-term impacts of damage to the infrastructure. ECD may be able to provide technical assistance to jurisdictions that need help identifying and working around these issues.

Adding resiliency and redundancy to the system can be accomplished in many ways. Learning from the AAR developed after the 2019 Winter Storms, Lane County assembled two trailers capable of supporting radio communications. These were deployed in response to the loss of the Mt. Hagan site. Similarly, the Oregon Department of Transportation deployed Strategic Technology Reserve (STR) Trailers throughout the impacted areas. The limiting factor for these solutions is trained personnel that can deploy and support these assets. Several responses indicated that the impact of these assets was impaired due to the lack of local knowledge on how to implement the capabilities of the assets.

The Civil Air Patrol (CAP) provided outstanding support during the incident including participation in ESF-2 and assisting with equipment programming, distribution, and tracking. They also provided aerial reconnaissance and conducting damage assessment using multiple types of camera equipment. These missions were successful despite low clouds, fog, smoke, and high winds.

In addition, there were requests to fly portable repeaters, to overcome some of the damaged infrastructure. Unfortunately, Oregon Wing of CAP only has portable repeaters on the USAF frequencies assigned to them. No other suitable portable repeater assets were identified, and that mission was not completed.

This proposal has however been effectively used numerous times by Federal Urban Search and Rescue (US&R) teams using lightweight “desktop” repeaters. A similar approach has been used successfully in California with the California Wing of CAP owning two sets of two repeaters to provide continuous aerial repeater coverage anywhere in the state.

Oregon should investigate acquiring portable repeater equipment that could be flown by CAP. Enough equipment should be acquired to allow for 24-hour coverage over an area with compromised infrastructure or in areas with no coverage whatsoever.

**Sign up for Priority Telecommunications Service (PTS):**

CISA ECD manages a suite of programs at no-cost to local agencies that improves communications resilience across the Nation. The Government Emergency Telecommunications Service (GETS), Wireless Priority Services (WPS), Telecommunications Service Priority (TSP), and Next Generation Network Priority Service (NGN-PS) programs provide priority connection and restoration of services for landline, cellular, and data networks. These programs increase the likelihood of making and connecting landline and cellular calls during an emergency for any emergency first responders enrolled.

**Develop and drill continuity plans for Communications Centers:**

As described earlier in this document, the Clackamas County Communications Center evacuated during the fires. Due to their pre-planning, they were able to do so without major interruptions to service. Continuity plans for communications centers are critical to communications resilience and should be regularly trained and exercised.

## CISA EMERGENCY COMMUNICATIONS DIVISION

Formerly known as the Office of Emergency Communications (OEC), the [Emergency Communications Division \(ECD\)](#) is part of the U.S. Department of Homeland Security's [Cybersecurity and Infrastructure Security Agency \(CISA\)](#).

ECD supports the Emergency Communications critical infrastructure sector through the [National Emergency Communications Plan \(NECP\)](#) and the [Interoperable Communications Technical Assistance Program \(ICTAP\)](#), which provides free, expert-led training to Federal, state, local, tribal, and territorial public safety entities. Offerings in the technical assistance catalog range from classroom training to facilitated workshops focused on developing SOPs and program governance. ECD also provides [Statewide Communication Interoperability Plan \(SCIP\)](#) workshops for State and local public safety representatives and stakeholders to collaborate on identifying and implementing strategic goals and objectives for interoperable emergency communications.

For more information about ECD's technical assistance please visit:  
<https://www.dhs.gov/publication/ictapscip-resources>