

## Case Study:

# Increasing Safety at one of the Top Vacations Destinations in the United States

## Situation:

The 2016 Great Smokey Mountains wildfires in Tennessee started on Nov. 23rd and became an inferno by Nov. 28th. Gatlinburg evacuated 14,000 people from the affected areas. The fires spread quickly through drought-affected areas because of high winds. Sevier County TN., including Gatlinburg and Pigeon Forge, were affected along with the National Parks. 2,400 structures were damaged or destroyed, 17,000 acres burned, 191 people were treated for injuries and 14 fatalities occurred. Damages were estimated at \$500,000,000. Gatlinburg lost 5 outdoor warning sirens in the fire that protected the downtown area from fires, flooding and weather events. In Jan. 2017, Gatlinburg's Fire Chief Greg Miller initiated a project to replace the 5 damaged sirens and add additional sirens and technology to increase/improve mass notification throughout the City of Gatlinburg, surrounding residential areas in the mountains, and the National Park areas.

## Solution:



Federal Signal presented a **Phase 1** solution that included five (5) Modulator® Sirens (model MOD5020) mounted on concrete poles, using dual redundant Kenwood NEXEDGE radios and a KNOX-BOX key over ride switch at each pole. This was requested due to the fires knocking out the radio system on one of the mountains and burning the wood poles that held to old sirens. Gatlinburg runs 2 radio repeaters on 2 separate mountains. If one system goes down – they will have the second system as a backup. Phase 1 (5 sirens and 1 control point) was installed in the 3rd /4th week of April 2017. The Chief wanted the 5 sirens up and ready for river flooding season near the downtown area.

**Phase 2** was ordered in March of 2017, the bill of materials included five (5) Modulator Sirens in different sizes and four (4) 2001 sirens that would be used in the mountainous areas surrounding Gatlinburg. These are mounted on steel poles. One of the Modulator Sirens is installed in the National Park by the welcome center. Phase 2 included a second control point, a mobile activation case (model MAC-01), CommanderOne® mass notification software and IPAWS integration. One of our partners is supplying a AM radio station for emergency notification.

Phase 2 became a collaborative initiative and shared cost between Sevier County and the National Parks Service, and implementation began in January 2018.



## Outcome:

Federal Signal was able to provide a fully integrated and improved solution in a timely manner. They are currently working with other Sevier County entities, such as Pigeon Forge, Sevierville and Dollywood, to provide a similar solution. Integrating compatible solutions to each entity will allow Sevier County EMA to efficiently and effectively control all sirens on the system.