In the Matter of	)	**PS Docket No. 11-15**
COMMENT ON RAPIDLY	)	
DEPLOYABLE AERIAL	)	
TELECOMMUNICATIONS	)	
ARCHITECTURE CAPABLE OF	)	
PROVIDING IMMEDIATE	)	
COMMUNICATIONS TO DISASTER	)	
AREAS	)	

The Arkansas Interoperable Communications Executive Committee (AICEC) herby files and asks that the FCC (Commission) accept this document as comments to FCC DA 11-175 Public Notice released January 28, 2011. These comments are the result of the work of the Arkansas Interoperable Communications Committee (AICC) and the Arkansas Wireless Information Network operations group. The remarks below result from the discussions of the AICC and the need to ensure that public safety personnel in the State of Arkansas have back-up communications in the event that the statewide radio system is not available.

State of Arkansas Challenges

Wireless communication networks are a fundamental component in the effective delivery of services to citizens and public safety. Historically, Arkansas agencies built and operated independent radio networks, leading to incompatible equipment and delays in emergency response. In most cases, Arkansas' radio users could not directly communicate across jurisdictional or organizational boundaries to coordinate emergency response. Disparate radio systems created difficult situations where coordination was imperative, leading to the use of multiple radios in a single vehicle to provide communications.

Along with the typical issues faced by public safety agencies, the climate in Arkansas presents a number of challenges to providing reliable communications. Temperatures in the state vary during the year from lows of 15 degrees to highs of 100 degrees. This fluctuation of temperature and the states proximity to the Gulf of Mexico results in a large number of tornados and violent thunderstorms. Arkansas currently ranks 3rd in the nation for the number of killer tornados annually.

Winter weather presents another set of challenges for Arkansas. Annual average snowfall ranges from 10.4 inches in the extreme northwest to 2.8 inches in the lowlands of the southeast. Often ice storms cause more emergencies than snow fall; power outages caused by falling tree limbs being a significant problem.

The New Madrid Seismic Zone (NMSZ) extends from southern Missouri to northeastern Arkansas and has the potential to produce damaging earthquakes. The possibility for a large earthquake in this now densely populated area is recognized by scientists and government officials.

Emergency response and recovery guidelines and plans have been developed. The success of these plans is largely dependent on having proper backup systems and the personnel using the systems

being properly trained. The use of deployable aerial telecommunications upon the occurrence of a major event is key to the state's disaster recovery plan.

AWIN Background

Through the tireless efforts of state officials, Arkansas' first responder community, and with the support of stakeholder agencies, a plan was developed to secure funding and revitalize existing systems into a single statewide interoperable network that is state-of-the-art technology. The resulting AWIN system is a Project 25 based 700/800 MHz Motorola ASTRO25 IP network consisting of two (2) Master Sites, 74 RF Sites, 22 console locations, and three (3) High Performance Data (HPD) locations, providing statewide interoperable communication and integrated voice and data capabilities to 17,000 users throughout the state. AWIN implementation and integration was performed in two phases: the cutover of tower sites began in February 2005 and completed in March 2006.

In emergency events where time is of the essence, AWIN has improved the process for emergency response. As illustrated below, many first responders have the benefit of an AWIN radio on hand to assist in the quick and effective response to an emergency.

On April 02, 2008, a firefighter, outside of his jurisdiction, came upon an emergency in progress. An elderly couple traveling in a pickup truck skidded off the road into deep flood waters from the nearby White River. The firefighter grabbed his AWIN radio and called for assistance from the White County Sheriff's Office and the Searcy Fire Department's swift water rescue team. The water rescue team pulled the elderly couple through the flood waters to safety, thanks to an emergency response that was managed quickly and effectively through AWIN.

An ice storm hit the state on January 27, 2009 and devastated the northern third of the state. The damage started occurring 12 - 24 hours into the storm when trees and branches started falling, blocking roads and breaking power lines. There was no electricity in the area, no phone, no internet connectivity. For the first week of the event the only communications available was the AWIN system and limited amateur radio.

Finally, most recently, the state was impacted by heavy snows in January of this year. The AWIN system was used extensively to coordinate emergency operations of all types, for routine automobile accidents, to health care workers going door to door to check on shut-ins.

Comments

The State of Arkansas desires to make use of aerial telecommunications in order to provide a layer of redundant communications in the event of a widespread failure of the AWIN system. An event, such as an earthquake, could potentially cause just such a catastrophic failure. The current approach provides for two deployable suitcase repeaters that would be used on small aircraft operated by one of the state's emergency support function #2 agencies (For example: Arkansas National Guard, Civil Air Patrol, Arkansas State Police). In testing the repeaters were flown at an altitude of 6000 to 9000 feet and successfully provided communication for a large portion of the state. In practical use this

type of aerial telecommunications would be available to any public safety entity making use of the NPSPAC channels.

AWIN Operations provides the coordination for the AWIN system and some minor systems associated with AWIN. This coordination has worked well for the last 5 years, and should work well for any aerial telecommunications licensing we would endeavor. Coordination for aerial telecommunications would have to involve identifying the airspace that the equipment would be used in and working with the public and private organizations. Coordination and licensing prior to an event is preferable, however, some degree of flexibility maybe needed to ensure that coordination and licensing does not interfere with response to emergency situations.