

Franklin County, PA Radio Project Back Ground Data

In 2006, Franklin County entered into contracts with the L.R. Kimball Corporation, Motorola, and Alcatel Lucent Microwave to design and construct a conventional Ultra High Frequency (UHF) radio system. To date the County has completed 7 tower sites to support radio transmissions, installed a microwave network to transmit radio signals and applied to Federal Communications Commission (FCC) for radio frequencies.

As part of the process of installing a new radio system, Franklin County conducted a facility assessment of the current location of Department of Emergency Services (DES) which comprises of the Emergency Management Agency (EMA) and the 911 dispatch center. It was determined that the current location had many deficiencies and would require a substantial investment to bring this facility up to standards to accept the new radio equipment. Additionally, the current location does not allow expansion for future growth. The decision was made to relocate to a new facility which would have state of the art infrastructure to accommodate the county's new radio system and allow for future grow of DES. This new facility was completed in early 2009. The EMA department moved into their new offices in July of 2009.

As the County progressed with the development of the originally proposed radio system several items became apparent. As designed the conventional UHF radio system offered limited expandability with a useful life of approximately 5 to 7 years. The system required numerous radio frequencies to operate and many of the desired frequencies were not approved for use by the Federal Frequency Commission (FCC). The conventional UHF system marginally meets federal narrow banding requirements; however, any future more stringent requirement may make this system obsolete. Interoperability with other radio systems and P25 compliance became an issue when it became apparent that the original radio system would require dispatchers to manually initiate and terminate radio patches and talk groups to achieve this functionality.

As these discussion transpired, the county included field users consisting of police, fire, ambulance services and the Franklin County Emergency Services Alliance Radio Committee which, represents all emergency agencies in Franklin County.

Based on the recommendation of the county's consultant L. R. Kimball Corporation and with the support of the emergency response community, Franklin County approved a contract change with Motorola to install a simulcast digital trunking radio system. This contract change in the amount of 4.2 million dollars was approved by the county, on June 30, 2009. The digital trunking radio system has a useful life of 15 to 20 years, meets all current and anticipated future FCC narrowing banding requirements, it is P25 compliant, provides many life safety features for our valued field users: police, fire and ambulance services, with a touch of a button providing interoperability with surrounding counties and agencies.

The digital trunking radio system will require that some field user radios be flash upgraded. The County is continuing to work with Motorola to provide these upgrades at a discount cost.

The decision to move forward with the redesign of the radio system was a cooperative effort between the Franklin County Emergency Services Alliance Radio Committee, local emergency service agencies, Motorola, L.R. Kimball and Franklin County. The simulcast digital trunking radio system will provide the citizens and emergency responders of the county with a reliable radio system for their health, safety and welfare.