



TARGETED RESULTS. EXPERTLY MANAGED.
WE STAKE OUR REPUTATION ON IT.

Radio System Update Berks County, PA

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FCC Mandate

- FCC Narrowbanding Facts

- The FCC has mandated that public safety licensees in the VHF and UHF bands migrate to narrowband (15 kHz or 12.5 kHz) channels by January 1, 2013
- Agencies that do not meet the deadline face the loss of communication capabilities or potential fines or sanctions levied by the FCC.



System Performance Criteria

- 700 MHz Simulcast Trunked Radio System
- Estimate 22 sites, 14 channels
- APCO (TIA-102) Project 25 Compatible Phase I → Phase II
- Portable Coverage In Street County wide
- Additional coverage (sites) to penetrate medium and heavy buildings in the yellow (Medium) and orange (Heavy) areas of map
- Interoperability among all agencies in the County
- Capacity to support 5000 users with room for growth
- Vendor guarantees coverage, and tests to prove performance levels

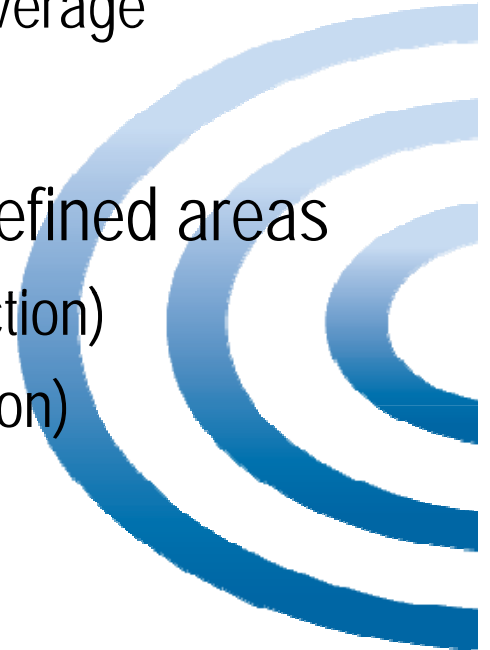
Project Goals

- Greatly Improve Coverage
 - Portable coverage in-street countywide
 - Additional coverage to penetrate medium to heavy buildings
 - At least 22 transmitter sites estimated to deliver coverage
- Reduce congestion
 - Trunking → More efficient use of channels
 - P25 Phase II → Two talkpaths per channel
 - Prioritization
 - Flexible allocation of special incident talk groups
- Provide for interoperability
 - Common Platform for all user agencies
 - Interface to State and neighboring county systems



Propagation Goals

- Provide portable in-street coverage throughout the county
 - Users of Portable radios will be able to communicate with each other and with dispatch from anywhere in the County
 - At least 22 transmitter sites estimated to deliver coverage
- Provide for additional “in building” coverage in defined areas
 - Yellow areas of map show 12 dB (medium construction)
 - Orange areas of map show 20dB (heavy construction)





See Accompanying Desired Draft Propagation Mapping



Project Progress

- Identifying candidate transmission sites
 - Driven by coverage requirements
 - Contacting site and landowners
 - County has provided lease-option documents
 - Will work to secure lease options with landowners
- Identifying “Early Action” sites
- List of candidate sites will be included with RFP documents



Candidate Sites

See Accompanying Propagation From Conceptual Sites Mapping



Project Progress

- RFP Development (Radio Network Infrastructure)
- Working with County DES to define requirements
 - Coverage
 - Redundancy
 - Connectivity
 - Capacity
 - Operational Requirements
 - Subscriber Equipment Needs
- Drafts delivered to County by June 30, 2010



Project Progress

- ITB Development (Construction)
 - Vendors will propose sites to provide required coverage
 - Kimball will work with County to develop standard site construction documents
 - County will release a separate bid package for site construction and modifications
 - This work must be closely coordinated with selected radio vendor



Project Progress

- Frequency Acquisition
 - Working through Region 28 to license 700 MHz frequencies
 - Kimball working closely with Region 28 regarding channel allocation procedures
 - Applications packages will be accepted June 1 to June 30
 - Region will review applications beginning July 1



Ongoing Communications

- Important to have a single consistent message
- Communications Committee will
 - Present monthly updates at Commissioner's meetings
 - Provide press releases and other information when needed
 - Continue to communicate with user community

