

FRANKLIN COUNTY, PA
PUBLIC SAFETY RADIO PROJECT
MEMO

To: Grant recipients
Subject: New UHF radio system – compatible radio requirements

This memo provides information for County personnel who are purchasing, or planning to purchase, new UHF radios for existing systems and desire radios that will be compatible with the new P25 digital capable UHF radio system currently being designed.

Franklin County has started the process of converting the County radio communications systems to a new UHF multi-site, simulcast, P25 compliant trunked system.

When purchasing any new UHF equipment, consideration should be given to compatibility with the new system. This does not apply to low band VHF (30-50MHz) or high band VHF (150-174 MHz) radios you may be purchasing.

Requirements for new portable and mobile radios to be compatible with the new system are:

1. UHF band – 450-512 MHz capable (new system channels are not yet confirmed)
2. Project 25 (P25) compatible.
3. Fully programmable- 64 channels minimum
4. Operate in both an analog or digital P25 mode.
5. Operate in either a 12.5 kHz or a 25 kHz Channel bandwidth.
6. Operate in either a conventional mode using clear or digitally AES encrypted voice or data modes regardless of the manufacturer.
7. Operate in analog simplex (talk-around)
8. Operate in Common Air Interface CAI mode
9. Mobile and control station radios- 35 W output minimum
10. Portable radios – 3 W output minimum
11. Meet the applicable sections of MIL-STD-810E “Environmental Test Methods and Engineering Guidelines”.
12. The mobile and portable equipment shall be able to sequentially scan channels (at least 8) in both clear and AES encrypted voice.

IMPORTANT

Before purchasing equipment it is important to review and understand the grant requirements of P25 compliance. P25 compliance audits by grantors can be expected.