

## The D-Star vs P25 Debate

A popular debate which seems to creep into most threads is whether amateurs should adopt the D-STAR digital standard, or the APCO P-25 standard for digital voice/data radios.

From an engineering perspective, are there any significant technical merits of the P25 standard which would justify the higher cost for this technology? Why would I want to buy an Icom F1721D P25 radio instead of my ID-800H?

I don't see amateur interoperability with public safety communications systems a big issue. Currently, you cannot legally use a radio certified for Part 97 amateur use in a Part 90 licensed land mobile system. Likewise, unless they are licensed amateurs, public safety officials cannot transmit messages on the amateur bands. I am a volunteer Search and Rescue K9 handler and have both amateur and Part 90 certified radios. I can't legally reprogram my ham radio for use outside the ham bands, and I can't justify the cost of getting a Part 90 certified radio for both Part 90 public safety and amateur work.

As I have stated before, I am an avid fan of recycling commercial radio equipment in the amateur service. The vintage Motorola and GE land mobile equipment that I have is rugged and performs very well on the air. The initial outlay for older surplus equipment was often less than \$100, and for the cost of a few crystal pairs, you could be on the air.

Newer land mobile radios are a different matter to convert to amateur use. Just about all new radios require programming software and cables to re-channel. Unless you are a radio shop tech, most of this equipment is difficult or very expensive to come by. Also, the price of P25 surplus equipment is still high compared to new D-STAR equipment. Even if you get a great buy on a P25 radio, there is that problem of getting it programmed on the amateur bands. The commercial radios are not made to be user programmable so if you want to put in a new repeater pair, it means a trip to a radio shop or the purchase of the

proprietary programming tools to do it yourself.

I think that the best bet for amateurs is to adopt and use the D-STAR standard for now. It is economically priced and based on my limited experience, it performs its basic functions well enough. There is always room for improvement, but that is the fun of new technology - taking part in its evolution.

Seriously - if you have compelling reasons for amateurs adopting P25, please share them with us. Your arguments should include the costs vs. benefits. I don't care who owns the P25 technology licenses - I want to know how much it is going to cost me to license the P25 technology and implement it.

Thanks in advance for your insights. We need differing opinions so that we can all make well informed decisions on where to go with digital radio technology.

---

Pierre Loncle  
AL7OC  
GEHT Field Engineer