

How do I?

An occasional series

This week: FM Digital Modes. D-Star

Another installment in the series **Fun With VHF**

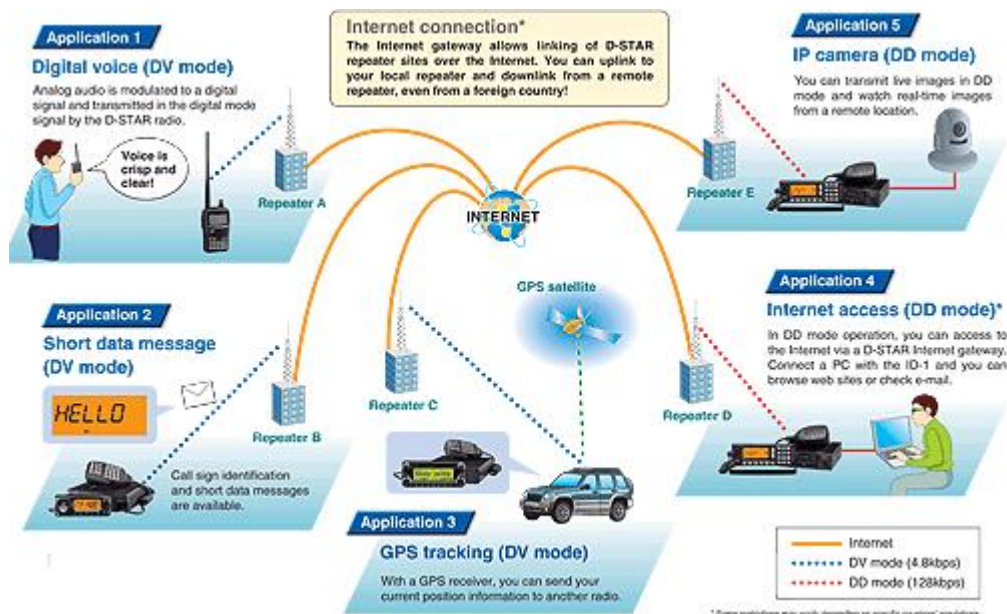
For more information, please visit the Icom website:

<http://www.icomamerica.com/en/products/amateur/dstar/dstar/default.aspx>.

Some of the material shown below is explained in greater detail on their site.

**D-STAR** stands for **D**igital **S**mart **T**echnologies for **A**mateur **R**adio. It is an open standard digital communication protocol established by Japan Amateur Radio League. Most protocols used in amateur radio began in commercial, government or military circles and migrated to the ham community. Icom and Kenwood are trying to make D-Star popular in commercial settings as well. The US railroad system was looking for an interoperable, common radio system so that any railroad could talk to any other railroad. While **NXDN** - another protocol sold by both Icom and Kenwood - won out, **D-Star** was a serious contender.

When you speak into a D-Star radio, it converts your voice to a series of digital 0s and 1s and transmits the data stream to the receiver, which converts it back to ordinary voice. D-Star also transmits data, photos, can provide internet access, etc.



D-Star is an established mode, with a fair number of radios available, but can be hard to find on the air. It seems that in many clubs, a few adherents will promote D-Star and get a

repeater established. But unless there are local D-Star advocates, there will only be analog (discussed elsewhere in this series) or one of the other digital modes, most often **FUSION** or **DMR**. I think for the first decade or so, the uncertainty of whether D-Star or **WIRES** was going to win kept people from investing in either. (Do you remember the Sony Betamax vs. VHS wars the 1980s?) Today there are radios or USB dongles capable of using multiple digital modes, and all digital modes seem to have become more popular as equipment prices came down.

I think also that while D-Star was conceived as an open source platform, the fact that Icom was the only commercial vendor for a long time made people wonder -- If D-Star is so good, why is Yaesu shunning it and creating their own proprietary WIRES system? Hmm. Today we seem to have moved past that puzzle.

So if you want to dive-in to FM Digital modes, check the repeater directory for your area and talk to your local radio club to see if D-Star is a good fit.

Catch ~~ya~~ on the air!