CCARES Digital Comm.

an overview of options

Digital Goals

- Requests from served agencies

  - Send simple messages quickly and accurately

  - Send messages in a way less likely to be picked up over the air

more Digital Goals

- Expected requests based on similar groups' experience
    - transfer files from USB key
    - print on agency's form
    - transfer and print ICS forms
    - email or web interaction out of disaster area

Options

- Plain-old Packet (TNC)

- APRS (TNC)

- Outpost (TNC)

- D-RATS (D-STAR radio)

- D-STAR DD (D-STAR radio)

Plain-old Packet

- Can send simple messages

- No message formatting

- No file transfer

- No email linking

- County wide with any digipeater

- Works on any OS (no special software)

APRS

- Mostly position reporting

- Simple messages

- Doesn't interoperate with plain-old packet

- Works on any OS (some packages)

- Can transmit location info with data

- Works county wide with digipeater

Outpost

- Sends messages and archives copies

- Prints messages

- Doesn't interoperate with APRS

- Requires BBS (packet or telnet)

  - can be as simple as KPC-3

- Works county wide with digipeater

D-RATS

- Sends and archives messages

- Transfers files

- Position reporting while sending data

  - gateway to APRS

- built-in Mapping software

- On-the-fly resizing of picture files

- Prints messages, formatting options
  can print like original forms

D-RATS (cont.)

- Can interface to Internet email if one station has an working connection

- Can use voice on same freq. while passing data traffic

- Under active development for ARES use

- Author is working with D-STAR community to be able to use gateway systems to provide Internet link

D-STAR DD

- 128 kbps
- Built in on the radio
- Only works on 1.2 GHz D-STAR radios
- Provides "Ethernet over wireless"
- Allows flexible networking
- Use exiting applications (web, email)
- Servers not included but needed

Demos

- Outpost

- Xastir (APRS software)

- D-RATS

Data points

- 6-7 ARES members with Packet stations

- 9 active ARES members have D-STAR radios

- D-STAR repeater has only been up since Aug 3,2008

- D-STAR can work simplex or repeated (much like packet)

N9DN's opinion on CCARES Data station

- Only buy D-STAR radios (ic-91ad)

  - Can do packet/APRS/Outpost (with TNC)

  - Can do D-RATS

- Buy inexpensive "net-book" that has a good battery (> 5 hours) ($300-400)

- Pick D-RATS software