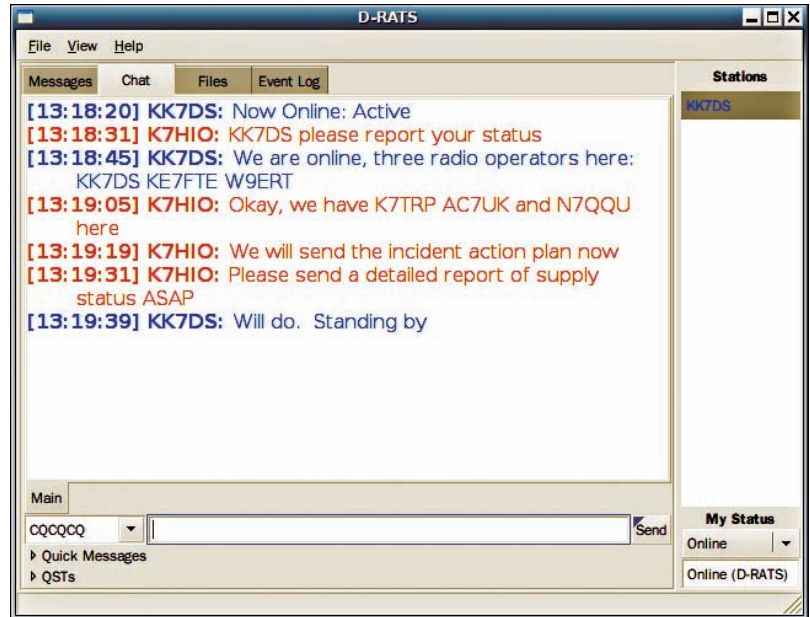## What is it?

A multi-platform integrated tool for communication using D-STAR radios. With only a pair of radios (or an entire repeater stack) a variety of data transmission methods are supported, including:

- Instant-message chat
- Automatic beacon messages
- File transfers with error detection
- Structured forms
- GPS position reports
- And much more!

Developed for 1st responders

Initially developed for the Washington County ARES/RACES group in Oregon, D-RATS quickly evolved into a full blown multi-platform EmComm software suite for data communications using D-STAR radios. Once you try it, D-RATS will become the most used tool in your EmComm tool box!

Picture is a simulation
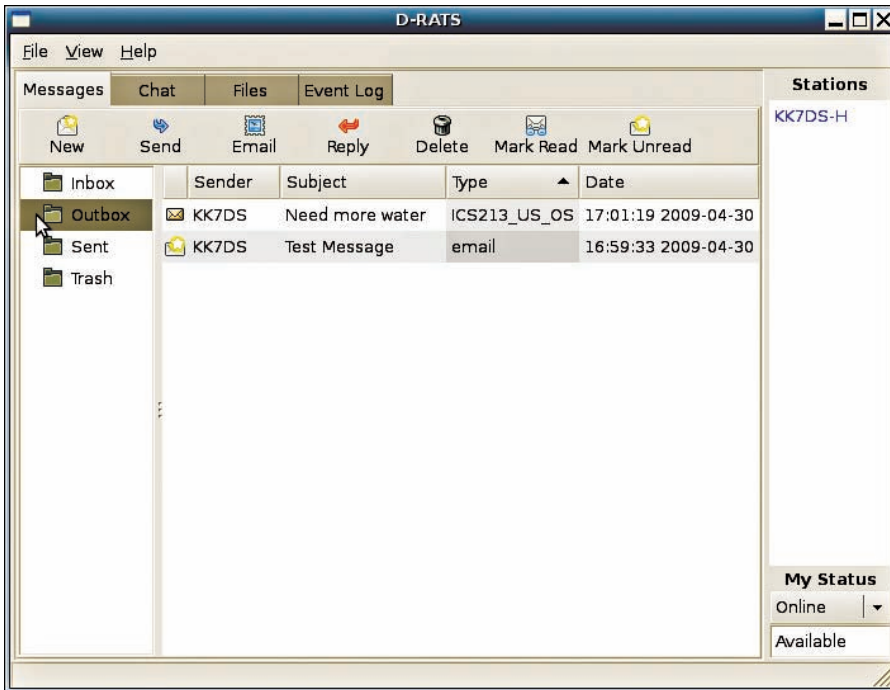
"Why say it when you can send it?"

In time of emergency, message accuracy is vital. Don't let a language barrier get in the way. If it is easier to show a data document than verbally describe something, then let D-RATS do it! You'll get better EmComm efficiency, accuracy and accountability.

D-STAR is all-digital which means voice and data coexist simultaneously – no complex configuration or mode-switching is required to operate data alongside voice.

A great tool for 1st responders

The D-RATS suite is powerful and can give you access to additional resources such as image transfer, custom communication forms, e-mail portals over several miles with the D-RATS e-mail gateway, as well as full asset tracking with multiple layer resource maps.

What's with the name?
(hint: spell star backwards)
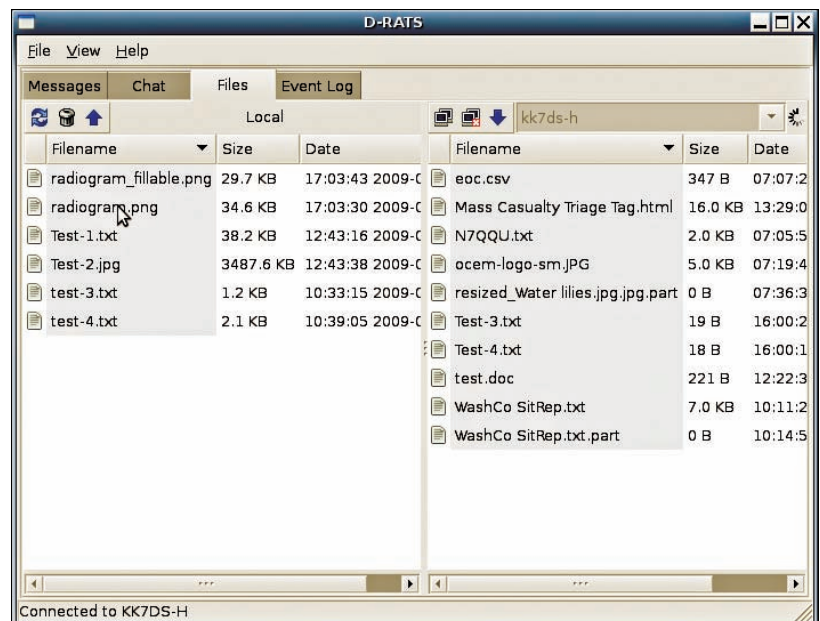
"Don't think, just do"

In addition to accuracy, accountability and speed, simplicity ranks high on the 1st Responder Leader's EmComm information wish list. But how can communications be simple during or after an emergency, when infrastructure support may be partially or completely compromised?

The D-RATS suite is extremely scalable. It's well suited to everyday communications, not just emergency situations. For example, say you need to send a few support messages during a civic marathon event, or during some field training exercises – the D-RATS software suite's keyboard-to-keyboard text messaging, file transfers, and position reporting maps keep things basic. It's much like the everyday communications we're all now used to.
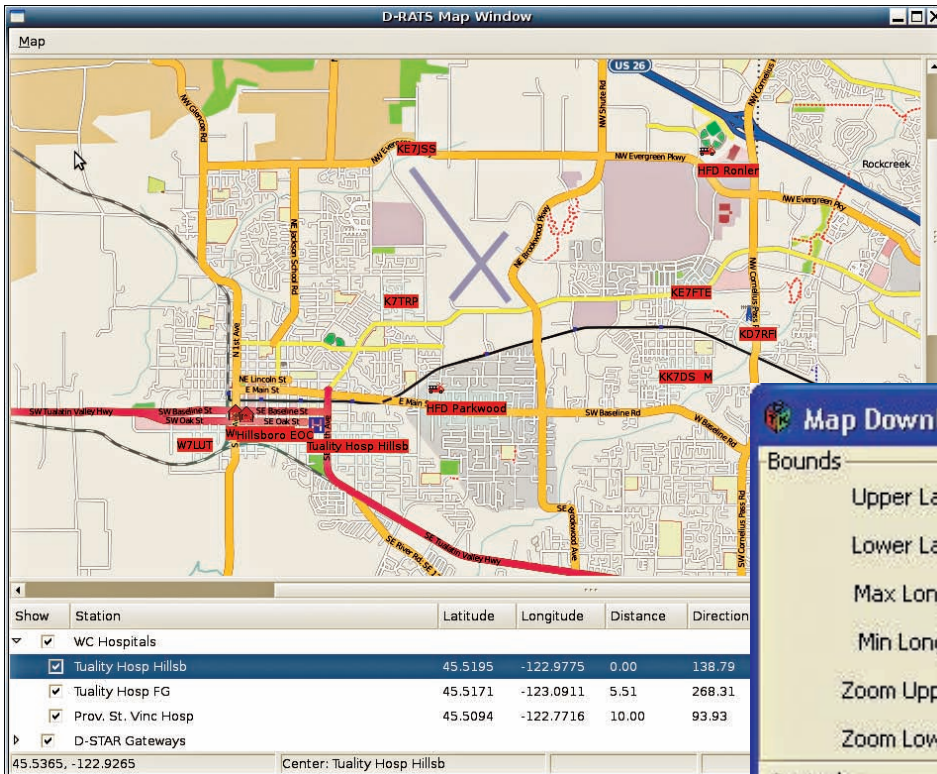
Going to a new area? Not a problem, the D-RATS Map Downloader "fetches" map images before you get into the zone!
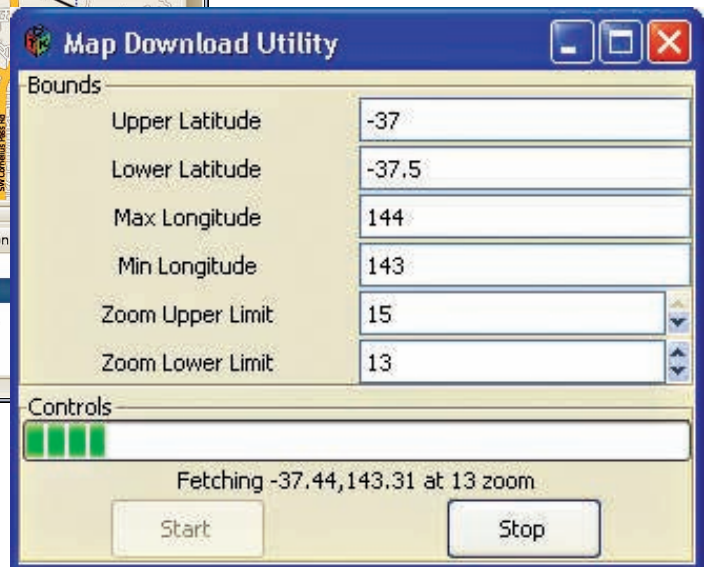
"Real-Time" Map Overlays

EOCs can quickly assign 1st responder assets in "Real-Time" using the D'PRS® function of D-STAR's DV mode and D-RATS map overlays.

Example: Say you get a call over the radio from your incident assessment team. "We have a 3 story building with smoke coming out of the 2nd floor windows and people trapped on the roof" With the D-RATS map overlay, you can "real-time" see the person who just called, their location, and what assets are the closest to that location for immediate dispatch.

Fast information access for 1st responders

Fast access to information is critical to 1st responder team leaders. How that information is presented can mean the difference between being an asset and a liability. D-RATS presents the most professional communications package for today's Amateur Radio EmComm Specialist!

Asset Tracking (Mapping)

Basic Mapping Features
- Zoom in/out with the slider

- Single-click anywhere on the map to set a cross-hair for measuring

- Double-click anywhere on the map to re-center (All distances in the list below are calculated with respect to whatever your center is)

- Double-click on a station in the list to recenter on the last known position of that station

- Check the "Track Center" box to have the map stay centered on the current center point, if it's moving

- Right-click on the map for more actions

D-RATS E-mail Gateway infrastructure

D-RATS RF Client

D-RATS RF Client

D-RATS RF Client

D-RATS Gateway

Internet

Regular E-mail User
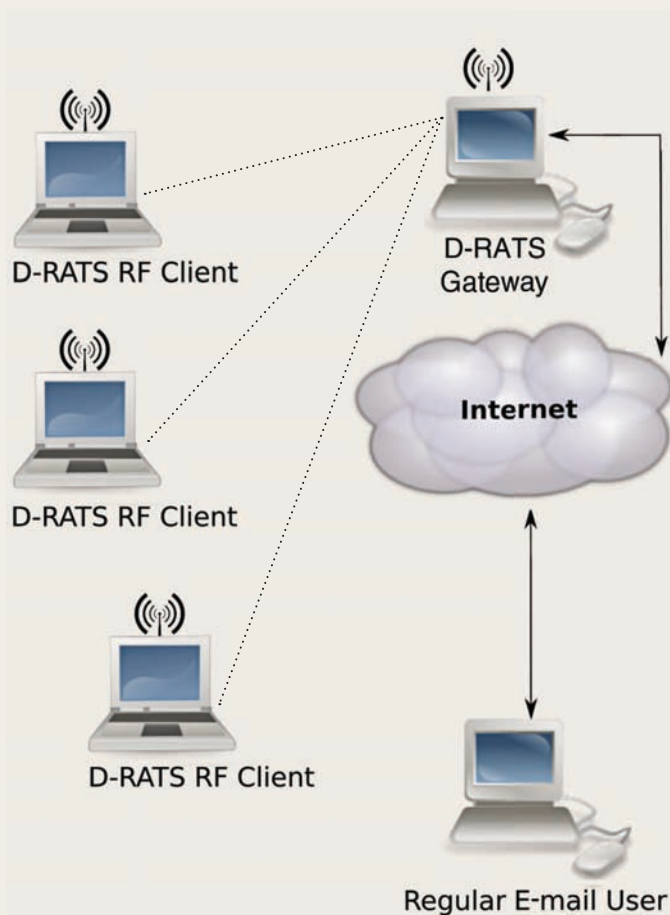
Security in obscurity

While utilizing D-STAR technology as the transportation layer, a basic layer of obscurity, D-RATS uses data compression, and other data technology to generate a second layer of obscurity. Obscurity is the best security you can legally have over Amateur Radio.

Open Source Graphic OS support

Use D-RATS on these popular operating systems: Mac OS®X, Linux/Unix, Windows®

Windows CE, Windows Mobile® and operating systems below Win2k are not supported.

Feature list

- **Instant-messaging style chat**
- **Multiple automatic QSTs at varying schedules, containing:**
  - Simple messages
  - Command output
  - File contents
  - Weather Underground reports
  - GPS position reports
  - RSS/CAP feed items
- **File Transfers with adjustable-sized packets**
  - Transparent block compression
  - Highly efficient binary encoding for fast file transfers, despite the limitations of D-STAR radios
  - Unattended operation with automatic negotiation
- **Other features**
  - Online/offline status notifications
  - Ignore capability to "dim" messages that match a search string
  - Notice capability to highlight messages that match a search string
  - Canned messages
  - Chat logging
  - Tabbed interface to filter traffic based on a search string
  - Structured data (i.e. Forms) transmission with multiple form templates, graphical editor, and HTML exporting
  - Arbitrary TCP forwarding over the RF channel
  - GPS position tracking, distance/direction calculation, static beacon support, and integrated map viewer with offline caching
  - Network-linkable repeater/proxy co-application
  - Ability to address a transfer to a specific station
  - Packetized chat traffic with checksum validation to eliminate broken messages
  - Ability to chat during a file or form transfer
  - Ability to ping a remote station to test connectivity
  - Retrieval of GPS data from GPSD server
  - Incoming e-mail-to-form gateway
- **For more information**
  - Multi-platform: runs on Linux, UNIX, Windows®, and Mac OS®X
  - For more information on current features, see the D-RATS download page for recent changes
  - New feature requests can be made on the issue tracker: http://www.d-rats.com/trac