

The NTSD in 2008

Wouldn't it be interesting to have the information technology in 2008 that could be applied to providing a nationwide Amateur Radio emergency communications system? The user interface could look and work like a familiar e-mail program and the messages could be delivered within minutes anywhere in North America or even anywhere in the world that's its legal. Maybe even multiple addressees could receive their messages within a few minutes of each other. The system could have ample flexibility and redundancy. Maybe we could even get Amateur Radio links and Internet links to back each other up. Nodes could maybe be quickly created wherever shelter managers, Emergency Management officials, fire bosses, etc. needed them. Instead of being clerks copying messages, maybe hams could be network managers, controlling, repairing and reconfiguring the circuits, a role more likely to appeal to the people we're trying to attract to ham radio. Users at both ends could do their own typing. Well, these requirements can now be met by existing, off-the-shelf technology and all of it has been developed by hams. Most of the components are already in use for processing messages of various kinds on the NTSD every day of the year.

- We now have the Winlink 2000 which is a message server program that runs on specialized packet station computers called Participating Mail Box Operators. PMBO's collect messages from nearby terminals and decide how to route them most efficiently to their destinations, using a combination of Amateur Radio and Internet links. In the beginning, each terminal was dedicated to its PMBO, but now any terminal can use any PMBO. Winlink compresses message bodies and attachments using an algorithm called B2F, which provides some security and conserves bandwidth. "Hubbing" PMBO's survive loss of their Internet connection and continue to serve their local clients much as a repeater does when the autopatch goes down.
- PacLink is a newly-released program that resides on either the user's computer or on an office email server. It interfaces between the familiar e-mail client like Outlook Express, and Winlink on the PMBO. When the user wants to communicate by Amateur Radio, they simply select an alternate e-mail account from the choices offered by Outlook Express or whatever is being used.
- TelPac runs on Internet connected fixed stations and provides a bridge to low-power stations like the Kenwood DH-7A with a Palm Pilot running Term. In other words, TelPac is a bridge between the client's radio frequency and an internet path to the PMBO.

- The “fixed” station could be a well-equipped mobile serving as a movable digipeater and client, tracking the emergency operation from the high ground. Unlike older packet systems the path to the PMBO is automatically noted by the Winlink 2000 system. Users are free to move about using any available radio link to a system component. All this software can be obtained without charge for Amateur use. Air- Mail users have averaged more than 150,000 messages per month for the past several years. The NTSD, which is the digital parallel to NTS, uses Pactor on 3 Area hubs. These are fed by 7 Region hubs and 50-60 Section hubs, some of which are on VHF. There are now 13,000 plus winlink 2000 users in the USA.

WINLINK 2000 INFORMATION

A link to the below Common Message Server – System Traffic Summary can be seen at <http://www.winlink.org/status/CmsTraffic.aspx> , this site updates several times daily.

Get both last month and this month new before doing lesson

Common Message Server - System Traffic Summary

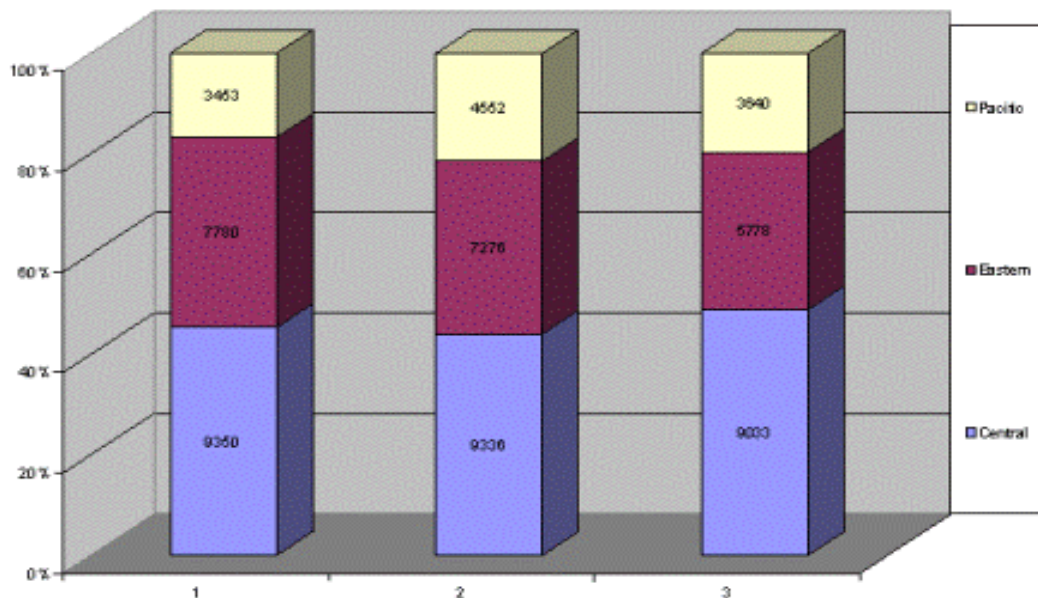
Last Month's Traffic

Telnet Messages Received or Delivered	105459
Telpac Messages Received or Delivered	12080

WEB Messages Received or Delivered	0
APRS Messages Received or Delivered	142
VHF Messages Received or Delivered	571
HF Messages Received or Delivered	49422
HF Minutes Air Time (All Stations)	164538
HF Average Minutes Air Time Per Message	3.33
HF Average Message Size (Characters)	3263
Total Messages Received or Delivered	167674
This Month's Traffic So Far	644
Telnet Messages Received or Delivered	644
Telpac Messages Received or Delivered	111
WEB Messages Received or Delivered	0
APRS Messages Received or Delivered	7
VHF Messages Received or Delivered	17
HF Messages Received or Delivered	319
HF Minutes Air Time (All Stations)	927
HF Average Minutes Air Time Per Message	2.91
HF Average Message Size (Characters)	2751
Total Messages Received or Delivered	1098

Messages are only counted when sent or received by a licensed amateur.

Below is a chart showing the three month period from March. 2007 to May 31, 2007



The above chart was the last updated information: In the Central Area which is made up of AR, MO, KS, TN, LA, TX, OK, MS, THERE WERE 9350 winlink 2000 messages sent and received in March, 9336 in April 2007 and 9030 in May 2007.

There are 13.000 registered Winlink 2000 users in the USA.

In Arkansas, there are two PMBO's that can handle messages sent from winlink users to anywhere in the world. One at ADEM and the other at ADOH. For VHF, there are 24 relay systems set up around the State that will automatically link you into these two PMBO's. Should one or both of these two PMBO's go down there are Central PMBO's in TX, KY, LA, MS, MO, TN and KS that can and does operate on all HF bands that we in Arkansas can and do access to send/receive winlink 2000 messages.

The web site, http://home.earthlink.net/~bscottmd/n_t_s_d.htm is a great site to visit that has all the info you will ever need to get started, to help you understand how many folks are now using winlink 2000 and anything you want to know.

How can all these pieces be integrated into a sturdy, flexible, manageable *system* for collecting and distributing emergency messages throughout the nation? The answer to this question will be answered on another Winlink 2000 training session soon.