Winlink History

The Winlink 2000 development team has evolved since the early 1980's. The original program, Aplink (Amtor-Packet link), an earlier DOS-based mailbox program and the first versions of Winlink were the brainchild of Victor D. Poor, W5SMM, then a semi-retired engineering executive and one of the major forces behind the development of the modern microprocessor. (Read an oral history of Vic recorded for the Computer History Museum of Mountain View, CA.) This program, which linked Amateur Radio HF AMTOR into the VHF/UHF Amateur Packet networks, became widely used for long-haul Amateur and MARS (Military Affiliate Radio System) text based messages. Navy MARS users asked for and received a smaller client version of Aplink for their use aboard ships, called "PAMS." Aplink was also adopted by the ARRL National Traffic System digital services When the Windows programming language became available in the mid 1980's, Vic updated his messaging program to what is now called Winlink Classic. Over several years, it was much enhanced by Hans Kessler, N8PGR, while Vic cruised aboard his "temporary retirement" Trawler. One of the most important uses of Aplink was its use during the 1990 Gulf War. In fact, a CBS documentary, "The last Voice from Kuwait," spearheaded by Frank Moore, WA1URA, illustrates the heroic efforts of several Amateur Aplink stations, the USS Kennedy, and the Department of Defense.

During this period, Steve Waterman, K4CJX, was actively operating his own Mailbox station and assisting with the design and testing of Winlink Classic. When Internet e-mail became an accepted communications tool, the VHF/UHF Packet systems started to deteriorate. It was obvious that for Winlink to continue to have value, it now must also interface into this new and exciting communications medium. Steve spent many months searching for a willing programmer. Jim Jennings, W5EUT, a former Winlink Classic Mailbox operator and recently retired petroleum engineering professor at Texas Tech, stepped forward to "give it a try." Jim programmed and Steve tested and before long, "Netlink" was a working system, automatically supplying an interface between radio digital messages and the Internet e-mail system for Ham radio users everywhere.

Word spread fast and Winlink with Netlink became widely used by both the maritime and RV Amateur Radio communities. Word also spread to other mobile users, such as missionaries, emergency management, and medical relief programs. Soon other Mailbox operators added this feature to their Winlink stations, and before long there was a worldwide system of independent Amateur Radio Mailboxes serving the mobile Amateur with basic e-mail.

Jim Corenman, KE6RK, had also developed a client program for WinLink/Netlink called AirMail. Airmail followed the development of Winlink Classic, and continues to be a popular client program for Winlink 2000. AirMail is also used for commercial applications such as SailMail, making life easier for those who use both Amateur Radio and commercial e-mail systems.

One of the first users of the "Netlink" system was Rick Muething, KN6KB, a semi-retired chip manufacturer, and former college professor. Rick's interest had been sparked when he took his sailboat from San Francisco, CA. to Melbourne, Florida. During this extended trip around

Mexico, through the Panama Canal and into the Caribbean, Steve, K4CJX, was pasting messages to and from his family. This was being done while Jim, W5EUT, and Steve were testing the automated interface. As soon as it was implemented, Rick became "hooked on Winlink" and became an active Mailbox station. He later took over Netlink programming effort that Jim Jennings pioneered.

Because Winlink Classic was never meant to interface with Internet e-mail, the combination of Winlink and Netlink was limited to text messages. It was not an easy system to use and it required extensive knowledge to keep it running. It used an older programming language that was also limiting. Plans started being formulated between Steve (K4CJX), Rick (KN6KB) and Hans (N8PGR.) This interested Vic (W5SMM,) who had been away from his brainchild for years.

In 1998, Steve, Rick, Hans, and Vic, met in Cleveland, Ohio, and planned "Winlink 2000." The broad, general criteria was to develop a feature rich messaging system that would operate over Amateur Radio, use the Internet in a "star network" configuration for internal links, making it as spectrum-efficient as possible. Utilizing state-of-the-art object-oriented programming, Winlink 2000 would be very user friendly. The network would contain many stations worldwide, allowing mobile users to transfer messages regardless of which Winlink station they used. With AirMail, the system would provide e-mail between Amateur stations, internet recipients, and provide weather and help bulletins through the AirMail catalog. The system would also allow users to provide their geographical position to others. Lastly, the system would have complete redundancy and be "Emergency Management" ready.

At the time of the design, Vic Poor, W5SMM, was the chief technical consultant to Globe Wireless, one of the World's largest common carriers. He was, therefore, no stranger to HF digital messaging. Hans Kessler, N8PGR, was and is still the owner of a custom software programming company. Rick Muething was still involved with the computer chip industry as a consultant to several major chip companies, and Steve, K4CJX, had just retired as VP of a telecommunications software development company. The stage was set to start implementing the design.

In 1998, the plans for Winlink 2000 were announced at the annual November Seven Seas Cruising Association (SSCA) convention in Melbourne, Florida, and were brought to fruition around February of 1999. Since then, development continues on Winlink 2000, AirMail, and newer Winlink client programs.

Winlink 2000 has continued to receive broad interest and support from the American Radio Relay League (ARRL,) the Seven Seas Cruising Association (SSCA), the maritime press, and other news media. In addition with the help of Hans-Peter Helfert, DL6MAA, and Martin Clas, DL6ZAM, the inventors of Pactor, speeds have increased to over 3600 bits per second while features have become more sophisticated yet user-friendly. With the help of Jim Corenman, KE6RK, AirMail continues to evolve as a user-friendly client for the Winlink 2000 end-user. Thanks to Tim Rulon of the National Oceanic and Atmospheric Administration (NOAA), the system provides critical weather reports and forecasts to mariners and isolated users. The Winlink 2000 system has a following of faithful and informed maritime users. With the help of

the American Radio Relay league, Winlink 2000 is currently being deployed as an excellent digital radio alternative for e-mail in the Amateur Radio Emergency Services.

Currently, there are approximately 150,000 messages for 280,000 minutes flowing through the system Monthly to over 41 active Winlink participating network stations (PMBOs)from over 5,100 users. This does not include messages sent and received from the Airmail Telnet client nor those sent by the Winlink 2000 WEB Access facility.

The voluntary efforts of the Winlink 2000 development team, the participating stations and the user community have been on-going and extremely productive. Through the cooperative efforts among people from many different cultures and countries, Winlink 2000 has made the world a little smaller and a little friendlier. Winlink 2000 continues to provide a public service to both the everyday Amateur user as well as those deploying Emergency preparedness and disaster recovery for their community's agencies.

Recently, two members of the Winlink development team, W5SMM and K4CJX, served on the ARRL Ad-Hoc digital committee selected by the American Radio Relay League Board President. Here are the committee's recommendations. Currently, KN6KB, and K4CJX are serving on an ARRL ad-hoc ARESCOM committee to recommend a strategy and plan of implementation for a National digital network for the Amateur Radio Emergency Service. In fact, there are many agencies that are now planning the employment of Winlink 2000 for emergency management communications.

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