

Table of Contents

Page 1

Welcome

Pages 2-3

Volunteer Spotlight

Jon Rumsey

Pages 4-7

Community Events

A Special LFP Neighborhood
The Food Bank Experience
NEMCo Food Drive

Pages 8-9

Emergency Preparedness

FRS and GMRS Radio Use

Pages 10-12

Disaster Response

Super-volunteer Bill Westlake

Pages 13-14

Coronavirus Survey

Pages 15-21

Ham Bites

Kenwood APRS Setup
WinLink Virtual Workshop
Unique WinLink Packet Station

NOTE:

For the latest NEMCo updates, see the website

***** NEMCo Website *****

www.northshoreEMC.com

Photos in this edition were provided by Rick Bender, Hillary Bendiksen, David Buchanan, John Clark, John Cornaby, Doug Hilderbrand, David Jones, Carl Lunak, Jesse Morgan, Jon Rumsey, Rosie Schaffer, Randy Schaffer, and Bill Westlake

Welcome Back

By Rosie Schaffer, KD7YRH

Welcome to the NEMCo Outreach Committee's epic Spring/Summer 2020 edition of the Northshore Volunteer! We think there should be something of interest for everyone in this issue.

We provide a glimpse into the life of NEMCo's Chief Radio Officer, Jon Rumsey, as well as his volunteer work involving amateur radio.

We have stories from a Lake Forest Park neighborhood that make you want to move there; an extraordinary article from John Clark about what it is like to work at a food bank; and a feature on the wonderful effort by NEMCo volunteers at a local food drive in March.

The history and use of FRS and GMRS radios is discussed.

We have more than one "super-volunteer" in our midst. Bill Westlake is one. We shed light on his many disaster deployments.

Results from the Coronavirus Survey distributed to volunteers earlier in the pandemic are included. Twenty-one people responded.

We have amateur radio content relating to APRS and WinLink. One will reveal what NEMCo's May radio drill had to do with fishing ... and another may make you hungry for pi(e).



Filby

08/31/08 – 01/12/20

On Sunday, January 12th, we lost a long-time presence at NEMCo Meetings and Lake Forest Park Emergency Operation Center (EOC) radio checks. Zach's guide dog, Filby, passed away suddenly and unexpectedly. His death came as a complete shock.

Over the years, it was an amazing experience to watch Filby grow from a bit of a rambunctious youth to a well-behaved and completely loyal working dog. He served Zach well ... and both showed each other unconditional love. We know that we were saddened by this news and can only imagine how difficult Filby's absence has been for Zach and his family. Our heartfelt sympathies go out to them.



Volunteer Spotlight

Chief Radio Officer – Jon Rumsey

By Jon Rumsey, K7RMZ and Rosie Schaffer, KD7YRH

1) How, when and why did you become involved with amateur (ham) radio and emergency preparedness?

In my youth I had an interest in computers and electronics and a ham friend tried to encourage me to take the amateur exam to get licensed. I was put off by having to pass a Morse Code (CW) portion of the test, so I settled for a CB radio for a few years. Fast-forward to 2010 and I am looking for ways to give back to my community. My friend Ken told me about the activities he participated in with ESCA (the Emergency Services Coordination Agency). He mentioned that amateur training and exams were proctored by ESCA members and that the CW portion of the exam had been dropped. I earned my Technician license grant in December 2010 and started participating in local events that included amateur backup communications.



2) You are the Chief Radio Officer for NEMCo, as well as the Volunteer Lead of its RACES Steering Committee. What do those responsibilities entail?

Primarily, the role of Chief Radio Officer to NEMCo RACES is to be a partner with Carl, the NEMCo Emergency Coordinator (EC), to prepare and provide amateur radio service communication resources supporting NEMCo and its partner entities. On a regular basis, my duties include: 1) maintaining and updating the RACES plan; 2) executing the RACES plan to fulfill NEMCo missions; 3) acting as primary liaison to the NEMCo EC and/or EC's appointees; 4) supervising the FS-51 amateur radio room and its message traffic operations in terms of amateur communications and inter-operating with EOC managers and staff; 5) driving and supporting RACES volunteer training efforts; 6) providing leadership, support, and guidance to RACES volunteers; and 7) managing RACES and amateur radio related administrative tasks - for example: the Club call sign, repeater coordination, and post-exercise reports.

3) From the beginning of NEMCo, you have taken responsibility for drill participation, planning and preparation - using an ICS format. Tell us about that and about your decisions about who is contacted in drills.

FEMA sees the Incident Command System (ICS) as an organized structure that helps to integrate a combination of facilities, equipment, personnel, procedures, and communications. [see <https://www.fema.gov/incident-command-system-resources>]

Many agencies and governing bodies are implementing ICS concepts into their emergency plans. The amateur radio community, including neighboring agencies served by RACES, ARES, and ACS teams have embraced ICS forms and practices for both voice and digital communications. The Washington State Emergency Management Division conducts quarterly communications exercises, and they ask the amateur Emergency Communications (EMCOMM) community to practice creating, sending, and responding to ICS-formatted drill messages. As NEMCo refines its emergency plans and NEMCo RACES trains and practices ICS-based concepts, NEMCo will be well-prepared to bring rapid, accurate communications during an emergency.*

* RACES=Radio Amateur Civil Emergency Service; ARES=Amateur Radio Emergency Service; and ACS=Auxiliary Communications Service

4) You have been doing a tremendous amount of work planning and preparing for NEMCo's new Moorlands Repeater. Please tell us about the project and its challenges.

NEMCo RACES began planning for a new repeater about three years ago. The idea was to utilize a repeater for local and regional emergency communications and team coordination. With the help of the Steering Committee, I designed a presentation to promote the purchase of a replacement repeater and associated hardware (coax, antenna, etc).

NEMCo had an opportunity to acquire hardware and a frequency pair from the Snohomish County DEM (Department of Emergency Management). With some time and patience, NEMCo purchased the remaining hardware necessary to start to bring the repeater dream to fruition. But we encountered a couple of issues: 1) we needed a site to deploy the repeater and 2) we discovered a hardware component that was not operating within specification. This made for a busy time testing the equipment, calling technical support, and networking with other hams to get help solving the problem.

In 2019, the Northshore Utility District (NUD) graciously offered to host the repeater system on their property in the Inglewood neighborhood. Until the NUD's site was ready, we deployed the repeater to a few different locations, including Fire Station 51, where we used it occasionally for testing, programming, and on-air activities.

In early February of 2020, the NUD began preparing the new repeater site and provided a temporary housing for it. Deploying the repeater to the site required 150 feet of coax, 100+ feet of extension cord, an 8-foot pipe (for a mast), and assembling and mounting the antenna. Since then, RACES members, the amateur community, and the RACES Steering Committee members have been testing repeater operation and coverage, and we have learned a lot.

Each of these major steps required planning and coordination between NEMCo entities (especially the NUD), Carl (our EC), and NEMCo RACES volunteers. More planning is imminent though: completing the repeater installation (probably after the "Stay Home, Stay Healthy" Proclamation is dropped); preparing training sessions for RACES members on using the repeater; creating projects that RACES volunteers can get involved with to enhance repeater operation and features. There is a lot to look forward to!



5) What do you find most rewarding from being a member of NEMCo and what do you hope to see for its future?

I get a great deal of satisfaction planning future activities and I also like seeing others get involved and learning and doing new things. NEMCo has given its RACES members a great deal of leeway to determine our direction and I enjoy being a part of making NEMCo RACES an effective and fun volunteer organization.

6) Please tell us something about your background, your pets, the activities you enjoy, etc.

I am a Bellevue native and have lived in or near Seattle my entire life. Besides amateur radio, I enjoy skiing, playing guitar, camping, running, and fiddling with electronics. My wife, Melissa, managed to coerce me into agreeing to welcoming a pet into our family, so we now love and enjoy our very large German Shepherd Dog, Wiley. Despite the fact he is three years old, we still call him a puppy.

7) What is your favorite:

Movie - *Apollo 13*

TV Show - *Star Trek TNG*

Food - *Flame-grilled NY Strip Steak*

Dessert - *Chocolate Brownies*

Place you have traveled – *Whistler B.C.*

Place you would like to travel – *France or Germany (or both!)*

Memory - *Summiting Mount St. Helens in 2010 (it's an emotional and physical roller coaster but the view is amazing!)*

8) What is a fun fact about you that would be interesting for all of us to know?

I once recorded and mixed a song in a home studio where I played guitar, bass, and drums.



Community Events

Out in the Neighborhood

By Paula Palmer



Here is a glimpse of life on our street in Lake Forest Park. Ours is a tight knit neighborhood of 18 residences on a cul-de-sac. We have twice-yearly meetings to keep everyone abreast of safety and emergency developments, including one last summer to MAP our neighborhood. It is comforting to know who we can depend on and for what. For example, in addition to four CERT graduates, we have an abundance of human resources: two medical retirees - a nurse and a general physician, one active pediatrician, and two counselors. Our physical resources include chain saws, generators, poker chips, etc.

Our National Night Out get-togethers are a favorite with the Police Department. They have become noteworthy for inclusion of friends and neighbors from outside the immediate area, a great potluck, and the band that plays every year.

An example of the cohesiveness amongst us was a recent alert that a toddler is deathly allergic to peanuts. Those who feed peanuts to wildlife agreed to stop and provide other foods. Another result of the alert was a group activity where neighbors rallied together to scour yards and pick up peanut shells (scattered mostly by crows). The kids in the photo to the right are properly social distanced as they pick up shells.

Stretches of warm clear weather allow people to gather in the street to visit with appropriate social distancing, which helps during this time of COVID-19 related precautions.



Chapter 2 – An Update from the Neighborhood

I have to tell you about my latest endeavor involving my special friend Frankie, the youngest girl in the photo. I got to thinking about the Tacoma man riding around on his bicycle delivering messages (<https://www.youtube.com/watch?v=SIFETfWT0As>). I talked with Frankie and her parents and adapted this idea for her. What we developed has become a very satisfying way to brighten people's days and, hopefully, help Frankie form some positive memories of this surreal time. Twice a week beginning on April 17, we started delivering messages, packages, and gifts between neighbors and within households on our cul-de-sac to lift people's spirits and bring smiles to their faces. People drop off items or e-mail their messages to me. I then insert them in a template and print them out. I then accompany Frankie who hand delivers them (with both of us being fully masked and gloved). We recently used her wagon to help a family down the street collect 265 pounds of food and supplies donated by the neighborhood for the North City Free Little Pantry. So far, we have delivered over 90 messages between neighbors along with oodles of flowers, baked goods and packages of popcorn (since everyone is likely watching a lot of movies). Frankie has developed touching relationships with neighbors and fast friendships with all the dogs on the block! She is thinking about re-naming the service to include dog walking because that has developed into a completely new activity!

A Day in the Life of a Food Bank Volunteer

By John Clark, KD7OVQ and Rosie Schaffer, KD7YRH



In the article below, John provides a detailed description of what it is like to work at a food bank. On Friday, May 29th, John wrote to say that he had just finished his busiest day yet at the Tukwila location. On that day, the National Guard and volunteers loaded 540 thirty-pound emergency boxes (16,200 pounds), as well as an additional 450 twenty-pound boxes (9,000 pounds), into a refrigerated trailer – all for distribution the following Saturday morning.

John sent another update on Friday, June 5th. The Tukwila Food Bank broke yet another record when 13 tons (26,000 pounds) of food and supplies were loaded, all for distribution the next day. The photos in this article were all taken at this event.

NEMCo had better watch out! I think the National Guard may be working on recruiting John ... who could blame them?

As we know all too well, the current Pandemic has taken a sledgehammer to millions of families and their incomes. They are struggling to get bills paid and put food on the table. For many, there is a large gap between what comes in and what goes out. Food banks have stepped in to help bridge the gap.

Food banks have had to adjust to social distancing and providing personal protective equipment (PPE) – masks and gloves – to their volunteers. Hand washing is mandatory at the start of all shifts. Masks must be worn at all times. I often feel like a dolphin coming up for air because masks are so hard to wear in the fast-paced environment (I sometimes need to find a spot away from everyone and grab a couple of breaths without my mask).

For the last month I have had the opportunity to work at various food banks. In response to a request from the Volunteers of America, the City of Everett reached out to their CERT and Fourth of July Parade volunteers to assist at a food bank in north Everett. I had just started at that location when the Red Cross sent a message seeking volunteers to help pack food items in Skykomish, La Connor, Kirkland, and Bellevue. After that - about mid-month - the Salvation Army needed help assembling 10,000 food boxes for both local delivery and delivery in Eastern Washington. The project began with two intense days packing thousands of pounds of donated potatoes into five pound bags (which would then augment the food boxes). Once that was done, a massive conveyor belt was put in place and the boxing commenced.

Volunteers come from all over and include individuals and organizations. I have had the opportunity to work with retired veterans, furloughed Boeing employees, students, moms, Latter Day Saint students (literally hundreds), and members of the Swinomish Tribe. Some days there are plenty of volunteers and, other times, not so many (where we then need to double up on jobs to get everything done). The energy and enthusiasm of students was wonderful. Every hundredth box finished was greeted with a rousing cheer of “one hundred!”

Each food bank has a different routine to get supplies to those in need, with layouts configured for the specific location.

One of the biggest changes resulting from the pandemic took place at the Everett Food Bank. Just a few months ago, people could “go shopping” inside the building. Food items, dry goods, produce, and dairy were placed on long tables and clients strolled through to get what they needed. This routine “flew out the window” and a new one put in place. Everything is now bagged, boxed, organized and then taken out to the person waiting.

We start getting everything ready two hours before clients show up. We split up into work groups at designated spots for specific tasks. Pop up tents and tables are set up to receive “customers.” Markers on the ground help maintain social distancing.

Packing fruits and vegetables takes a good portion of our time. Grapefruits and onions may be packed two to a bag while potatoes and apples are portioned out at six to a bag. It takes a while to pack 250 pounds of onions into all those bags ... same for 400+ pounds of potatoes! Other fruits and vegetables are also included in the mix and must be hand-packed if they did not come from the vendor in plastic clam shells. Any bad or marginal items are thrown out. Romaine lettuce and celery can also take time because they do not easily fit in the bags.

Dairy items vary by what has been purchased or donated and might include yogurt, sliced cheese, cheese minis, and one-pound blocks of butter. These items are all packed in bags and kept cold until they go out the door. The selection varies daily. Milk is the hardest item to keep in stock. We can blow through a pallet of milk crates (20 crates x 4 gallons each) very quickly. Orange juice disappears just as fast.

Donated bread items are placed into a large tote box for sorting. There are literally dozens of types of bread that can show up. Items we pack include sliced breads of all kinds, bagels, sourdough rounds, dinner rolls, specialty and exotic breads as well as old standards like garlic bread. One loaf of bread is paired with another item, like bagels or dinner rolls, as part of the total package being delivered.

In addition to breads, we even have goodies for those with a sweet tooth. Donated pastries include sheet cakes, donuts, brownies, cupcakes (regular and minis), cinnamon rolls, fruit pies, and lots and lots of chocolate chip cookies.

During the packing routine, another team of volunteers is putting together bundles of meat products from the walk-in freezers. Again, these items vary by the day and week. Fish sticks, fish portions, pork roasts, pork patties, chicken (whole, parts or patties) and turkeys might go out the door on any given day. All these meat items get double bagged due to their size and the fact that they are frozen solid and tend to blow out of single bags.

Canned goods, beans, rice, raisins, cereal, canned or boxed apple or orange juice, and trail mix are packed into two, three or four bags depending on the number of items picked. Full boxes are then stacked 30 to a pallet and stored in the warehouse or the front room awaiting delivery.

Another piece of the giant “Food Bank puzzle” involves a team simultaneously working on assembling dry good boxes.

There has been a recent change. In the last week, the food bank has transitioned to standard-sized boxes packed by the National Guard. We add several more things to round out boxes for distribution and place 40 boxes per pallet.



At this point you may be totally confused, wondering how in the world we keep track of things and get anything done!

About ten minutes before we open, the Food Bank Lead gives us all a task: order desk, picker, shopper, or re-supply. The Order Desk fills out the family request sheet for dairy, meat and produce, as well as diapers, baby food, and cat and dog foods.

I usually get volunteered to be a picker which entails “driving” a large shopping cart on a designed route. A numbered pick ticket comes in and then it is off to the races for me. My first stop is to collect a dry goods box which is placed in the bottom of the cart. This is followed by the bread box, produce shelf, fruit shelf, pastry shelf, a milk jug, a dozen eggs, the meat bundle and lastly, the dairy bundle. Oh yes and don’t forget the roll of TP!



The cart is now full and is handed off to a “Shopper” who runs it outside to the waiting family member. Their number is called, and the items are placed on the table for pick up. The Shopper steps back and waits for the table to clear. The empty spot is now cleaned with bleach and the whole thing starts all over again ... and again.

Supply folks re-fill stations until we run out of everything.

It is fast and furious until closing time. Once the door is closed, the floors are swept and mopped. I am in the Utility Room scrubbing the big lugs that the meat and dairy products have been stored in. The bubble ice packs also get a good cleaning and are run back to the freezer for the next day’s use. Garbage and recycling are taken out. I finish the last lug, clean out the sink and spray it with bleach ... I am done!

NEMCo Food Drive

By Gail Siani, KG7UBU and Rosie Schaffer, KD7YRH

On March 26, 2020, NEMCo volunteers and staff assisted with a combined Food/Personal Protective Equipment (PPE) Drive at Fire Station 51. The Northshore community really stepped up. According to NEMCo’s Emergency Manager, Carl Lunak ... in the four hours the drive-through was open, 106 bags of groceries, 1,500 medical gloves, 400 N95 masks - as well as a large amount of personal care items - were collected. The food was donated to Cedar Park Northshore Food Bank in Kenmore and the personal care items to Mary’s Place. The PPE was made available to various Senior Care facilities. As Carl indicated, “the food bank went from low to overflowing.”





Emergency Preparedness

FRS and GMRS Radio for Daily or Emergency Use

By John Cornaby, K17YQR

NEMCo has a Radio Amateur Civil Emergency Service (RACES) component that focuses on use of amateur radio. We always encourage everyone who is interested to get an amateur radio (ham) license and become part of RACES. There is, however, another aspect of radio for daily or emergency use that does not require an amateur license. These are the Family Radio Service (FRS) and General Mobile Radio Service (GMRS) radios.

These have been around for a long time in various forms. When you were young you may have had a “walkie-talkie.” While it was a toy, it used what is now an FRS frequency. They had a very weak signal and you could (maybe) talk to someone else a half block away.

There have been a lot of improvements over time and there are numerous uses for having an FRS or GMRS radio. Families use FRS radios when they may be split up for activities such as skiing or trips to Disneyland.

In an emergency they can be useful for contact throughout your neighborhood or localized search and rescue. Since the radios all use the same frequency channel set up, people do not need to have the same brand of radio. Later this year, the Outreach Committee plans to sponsor a training session for CERT volunteers on the use of the Motorola T5100 FRS radios owned by NEMCo.



If you are interested in GMRS - which has more power and range - you need a license, but that is only a matter of paying a fee; there is no test involved. You can buy GMRS units that use up to 50 watts of power.

Now the caveat. If you are looking at FRS or GMRS radios, take the advertised transmission range with a grain of salt. The advertised range is often based on ideal conditions such as one person standing at a higher elevation with no obstructions in between.

Following is a little history of the development of both types of radio:

FRS (Family Radio Service)

- Improved Walkie-Talkie system introduced in 1996
- Narrow band operating in UHF around 462 and 467 Mhz
- Limited to 14 preset channels
- Limited to 0.5 watts of power
- Antenna must be fixed and could not be changed

GMRS (General Radio Service)

- Came to use in the 1970's as a split from business radios
- Shared all the FRS channels and added 8 more
- Channels 1-7 could be used using 5 watts of power
- Channels 8-14 could be used with 0.5 watts of power
- Channels 15-22 could be used with up to 50 watts of power
- A GMRS license was required

FRS was created to allow usage of some GMRS channels - but only at low power.

Why things changed ...

Companies started making hybrid radios, FRS and GMRS radios in one. The radio would use all 22 channels and put out up to 2 watts of power on the first 7 FRS channels as well as the GMRS channels (depending on the maker). Channels 8-14 were programmed to use only 0.5 watts. The very small manuals stated - in very small print - that you should get a GMRS license to use the GMRS channels. Very few people did that.

The FCC was faced with trying to enforce licensing on a huge number of consumers ... so they took another way out. The FCC looked at whether anyone was complaining about the GMRS frequency usage at low power and decided it was not really a nuisance.

On 9/28/2017 they introduced new rules (below). All the hybrid radios were declared to be FRS radios.

FRS

- Antennas must still be fixed
- Channels 1-7 can use power up to 2 watts
- Channels 8-14 can use power up to 0.5 watts
- Channels 15-22 can use power up to 2 watts (no license needed)

GMRS

- Same as before
- Need a license

Additional Information ...

Privacy channels are advertised by the manufacturers. In reality, these are just CTCSS codes in which you set the radio to only receive from another radio broadcasting that specific tone. So in a crowded area you only hear from that other radio. If you have a radio with no CTCSS tone set, you can hear all transmissions.

Interstitial frequencies are channels 8-14. The FCC still mandates those as limited to 0.5 watts. All FRS/GMRS radios are hard programmed to observe that power limit.

GMRS repeaters exist and frequencies have been reserved for them. Dedicated GMRS radios often have those channels, but repeater usage is often only by specific permission.

* CTCSS = Continuous Tone-Coded Squelch System (in case you want to know)



Disaster Response

National Disaster Deployments

By Bill Westlake, KD7KVA and Rosie Schaffer, KD7YRH

Organizations like NEMCo are fortunate to have volunteers who are willing and anxious to assist whenever needed. Many have “stepped up” for community fundraising events, food drives, the Fire Department’s Open House, and the Northshore Safety Fair.

Among NEMCo’s ranks are at least two “super-volunteers.” Both Bill Westlake and John Clark have responded to numerous disasters well beyond local borders. My interview with Bill about his nationwide volunteer work is below. He has led a lifetime of service. Bill served as a Cook in the Coast Guard from 1961 to 1981. At night, he would often make and decorate cakes for the crew – even wedding cakes!

The photos in this article are from the following five disasters:

- Western Montana wildfires (2007) – helicopter water bucket in high winds
- Daytona, Florida Groundhog Day Tornado (2007) – note the CERT “X”
- Hurricane Katrina (Sept 2005) – River Center (Red Cross Shelter), Baton Rouge, LA
- Hurricane Ike (Sept 2008) – destroyed house
- Pratt City, Alabama Tornado (Apr 2011) – devastated community

1) How did you get chosen to be deployed as a disaster volunteer? What agencies deployed you?

I joined organizations that provide emergency assistance or disaster relief, took their classes, and stayed active. My agencies were the American Red Cross (ARC) and sometimes the Emergency Services Coordinating Agency (ESCA – a predecessor to NEMCo).

2) How were the arrangements made to get to and from your destination?

After being contacted by the Red Cross for deployment, I called their Travel Agency to make my one-way travel arrangements. This was followed by going to the local ARC Headquarters to pick up a credit card and get the latest information on the area where I was being deployed. By this point, arrangements for the hotel, gym or church where I would be staying had already been made. I usually travelled with \$300.00 in cash. Credit cards are usually worthless if there is no power once you get to the disaster location.

3) How (and when) was your length of service determined?

We were told to pack for 22 days. The length of deployment depended on the nature of the disaster and the progress of the recovery. I have been deployed as short as 4 days - up to a total of 21 days. I have over 31 deployments.



4) How were your volunteer duties determined?

I would usually deploy as a Supervisor for disaster assessment or sheltering. Depending on the greatest need, though, I would take any position that was assigned.

5) How did you learn the chain of command for the site you are reporting? How much information did you have prior to your departure?

Once I would arrive at my site, I would report to the Damage Assessment (DA) Manager or the Shelter Manager to receive my assignment. If assigned to a shelter, I would usually request the night shift (almost no one wants it). This shift would usually run from 8PM to 8AM, unless there were enough volunteers to split into three 8-hour shifts. When assigned to Damage Assessment, I would be given a team of three others, along with a car. DA would run from daylight to dark. Meetings would be held every morning at 8AM. Volunteers would also be updated upon checking into every shift.

6) What were your most vivid memories from your first deployment?

My first deployment was to Hurricane Katrina in 2005, with my first impression being the extensive devastation. I was assigned to a shelter of 5000 clients. We went through 4 managers during the first week, all of whom were inexperienced for such a large shelter. It was overwhelming. Neither John Clark (who also deployed) nor I were ever given an assignment. John had a team of women with whom he was already working. I joined them and we just ended up doing jobs that needed to be done. John worked on medical needs and I organized the baby area. We each had 4 families we helped. Eventually a two-star general was brought in to manage this shelter and things were soon running smoothly.



7) Over all of your deployments, what did you find the most difficult from being a Disaster Response Volunteer?

Having to tell the elderly (50+) that they had lost everything. Younger people could start over. We did the best we could for them. The surprising thing is how resilient people are in disasters. Throughout the years, I have seen it repeatedly.

8) Over all of your deployments, what did you find the most rewarding from being a Disaster Response Volunteer?

The most rewarding thing for me was a smile or a "thank you." If I helped, I was thankful.

9) What advice would give to someone who wants to consider responding to disasters as a volunteer?

A person must be kind and lovable and treat people with respect. Always remember that these people have gone through a great deal of stress. Not only did they lose everything, some may have lost family and friends.

10) What is an interesting fact about you that your fellow volunteers may not know.

I have done a lot in my life. The two things of which I am most proud: 1) while serving in the Coast Guard, helping rescue 522 people from the Motor Vessel Prinsendam in Alaskan waters and 2) my volunteer work after Hurricane Katrina. The Prinsendam rescue has been recognized by Coast Guard Historians as second in the ten all-time great rescues conducted by the Service since 1790 (Hurricane Katrina is first).

I received two "Lifetime President's Volunteer Service Awards," each representing an accumulation of 4,000 volunteer hours. One was from President George W. Bush and the other from President Barack Obama. I received other annual service awards as well. I have accumulated a total of over 10,000 volunteer hours.

SUMMARY OF BILL WESTLAKE'S DEPLOYMENTS

DISASTER NAME	LOCATION	SERVICE HOURS	VOLUNTEER DUTIES
Hurricane Katrina	Baton Rouge, LA	552	Mass Care Helped take care of 4 families
Tropical Storm Ernesto	Tampa Bay, FL	96	Mass Care
Washington Flood Nov 2006	Everett, WA	46	Damage Assessment Drove around City of Snohomish evaluating damage
Daytona Tornadoes	Daytona Beach, FL	156	Damage Assessment
New Hampshire Apr 2007 Nor'easter	Concord, NH	171	Damage Assessment
Utah Wildfire	Duchesne County, UT	120	Damage Assessment Worked at an Indian Reservation
Western Montana July 2007 Forest Fire	Bonner, MT	288	Mass Care Worked in the kitchen as a cook
Northern Illinois Flood & Tornadoes	Chicago, IL	144	Damage Assessment Supervisor
San Diego Wildfire	San Diego, CA	192	Damage Assessment Supervisor
Washington Dec 2007 Flood	Everett, WA	102.5	Damage Assessment Supervisor
Wells Nevada Feb 2008 Earthquake	Wells, NV	145	Damage Assessment Supervisor
Hurricane Dolly	Edcouch, TX	344	Mass Care
Hurricane Gustav/Ike	New Orleans, LA	535	Mass Care Damage Assessment
Hurricane Ike	Galveston, TX	366	Mass Care Closed shelter
Washington State Flood	Monroe, WA Sultan, WA	24	Damage Assessment Supervisor
Western Washington Floods	Arlington, WA Skykomish, WA	88	Damage Assessment Supervisor
North Dakota March 2009 Floods	Fargo, ND	288	Mass Care Worked on the night crew at a large shelter
Compass Apartment Fire	Everett, WA	27	Mass Care
Tennessee May 2010 Floods	Nashville, TN Memphis, TN	288	Damage Assessment Mass Care
Lynnwood Washington Aug 2010 Apartment Fire	Lynnwood, WA	12	Mass Care
NW Washington Dec 2010 Flood	Everett, WA	38	Damage Assessment
Snohomish River Dec 2010 Flood	Everett, WA	9	Damage Assessment
Alabama Tornado	Birmingham, AL	363	Damage Assessment
Montana Floods	Bozeman, MT	435	Damage Assessment
North Dakota Floods	Minot, ND	175	Mass Care Opened shelter for displaced clients
Waldo Canyon Wildfire	Colorado Springs, CO	245	Damage Assessment Supervisor
Arapaho Wildfire	Wheatland, WY	96	Damage Assessment Inspected houses in the back country (with the Forestry Department)
OSO Mudslide/Flood	Arlington, WA	120	Mass Care Night Supervisor
Mount Vernon Apartment Fire	Mount Vernon, WA	60	Mass Care Night Supervisor
Everett Apartment Fire	Everett, WA	24	Mass Care Night Supervisor
Wenatchee Wildfire	Wenatchee, WA	250	Damage Assessment Supervisor



Coronavirus Survey

TOTAL	%	
1) How different do you find your life from that of only a few months ago?		
9	43%	Extremely
9	43%	Somewhat
3	14%	About the same
2) How do you find complying with Washington's "Stay at Home" order?		
5	24%	No problem at all
7	33%	Mostly easy
5	24%	Just ok
4	19%	Somewhat difficult
0	0%	Very difficult
3) My current status:		
14	67%	Retired
3	14%	Working from home
1	5%	Reporting to work at workplace & Working from home
1	5%	Reporting to work at workplace & Have kid(s) at home due to school closures
1	5%	Gave up looking long ago
1	5%	Work is closed, I am suspended
4) Regarding grocery (including curbside) delivery services:		
3	14%	I started using them for the first time
2	10%	I am using them about the same as before
13	62%	I don't use them
1	5%	Use curbside sparingly - others shop for us most of the time
1	5%	Used once before, but more often now
1	5%	Trying to use; not finding any available days/times for delivery
<i>One note: the delivery or pick up dates are too far out & some sites are not user friendly</i>		
5) When leaving your home, how safe do you feel from the virus?		
2	10%	Very
8	38%	Mostly
8	38%	Somewhat
1	5%	Not at all
1	5%	I never leave
1	5%	N/A

6) What do you find yourself doing more (or less) of as a result of the pandemic (indicate M, L or NA)?

MORE	LESS	SAME OR N/A	
11	1	9	Cooking
52%	5%	43%	<i>Cooking</i>
9	1	11	Eating
43%	5%	52%	<i>Eating</i>
3	8	10	Exercising
14%	38%	48%	<i>Exercising</i>
2	11	8	Grocery shopping
10%	52%	38%	<i>Grocery shopping</i>
0	1	20	Helping with homework
0%	5%	95%	<i>Helping with homework</i>
11	0	10	Learning new communications technology
52%	0%	48%	<i>Learning new communications technology</i>
14	0	7	Reading
67%	0%	33%	<i>Reading</i>
1	3	17	Searching for toilet paper
5%	14%	81%	<i>Searching for toilet paper</i>
6	1	14	Sleeping
29%	5%	67%	<i>Sleeping</i>
5	7	9	Spending time with family
24%	33%	43%	<i>Spending time with family</i>
13	0	8	Washing hands
62%	0%	38%	<i>Washing hands</i>
9	2	10	Watching movies
43%	10%	48%	<i>Watching movies</i>
11	1	9	Watching TV
52%	5%	43%	<i>Watching TV</i>
6	5	10	Writing
29%	24%	48%	<i>Writing</i>
1	0	0	The Black Hole (internet) has a tight grip
1	0	0	Building a new shed
2	0	0	Cleaning
1	0	0	Clearing out (some of) the clutter
1	0	0	Crafts
1	0	0	Dog walking
1	0	0	Gardening
1	0	0	Hobbies
1	0	0	Hobbies other than radio
1	0	0	Learning how to use more features of my mirrorless camera
1	0	0	Watching great new entertainment not available or not free before
1	0	0	Working on a couple of home improvements
1	0	0	Working through free French classes through an app



Ham Bites

APRS Setup for the Kenwood TH-D72 Handheld Radio

By Doug Hilderbrand, KF7RQ

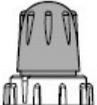
There are a few NEMCo members who have invested in the Kenwood handheld radio model TH-D72. This radio is the little brother to the TH-D74. The radio is packed with features and can be a bit overwhelming at first. It has a built-in TNC (terminal node controller) which can be used for packet radio and APRS (Automatic Packet Reporting System). The nice thing about this radio is that it has everything that is needed to do APRS while out hiking or while volunteering for a community event.

As with all ham equipment there are several small details that, once found, can make the process smooth ... but until you find them, configuration can be quite entertaining. This article explains the important menus that need to be set up for using APRS with the Kenwood D72 radio. All you need is a little time.

Step-by-Step Setup

In this article, we will use some symbols to enter settings into the radio. When referring to a radio button on the front, we will use brackets and the button name like [ENT].

Like many ham radios, this Kenwood model is highly menu-driven. The Kenwood TH-D72 has many internal menus that are accessed through the [MENU] button. The menu system in this radio can be referred to with a three-digit number (this numbered menu system is also used in the Kenwood TH-D74 and the mobile rig D710G). They can be accessed using the [MENU] button then

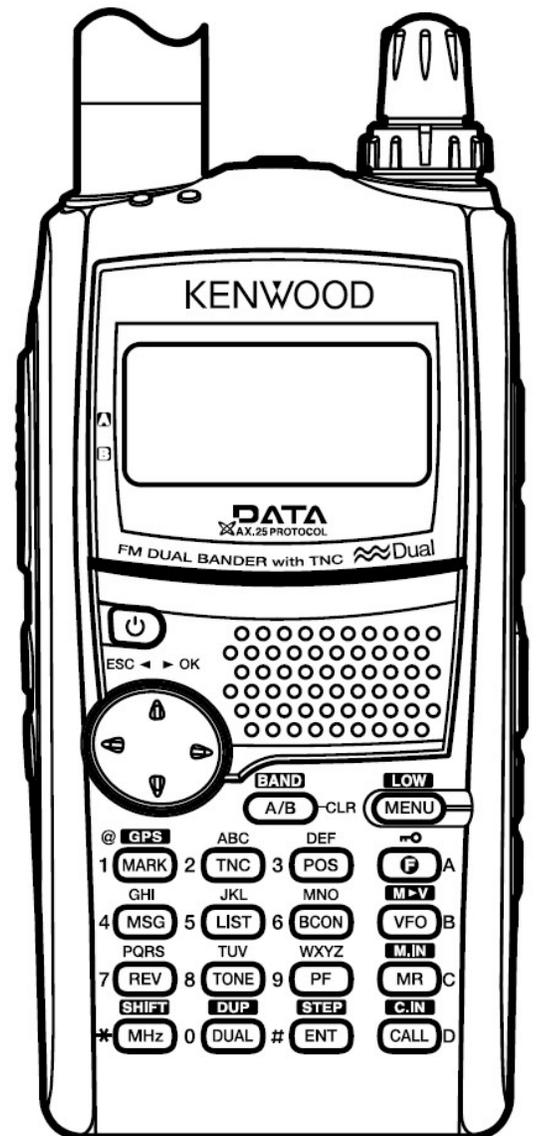
 the tuning control and the
ESC ◀▶OK
 navigation pad.

Remember, if you are looking around in the menu, you can always use the **ESC ◀** navigation pad to move back up a menu without making a change.

To use the menu system, push the

1. [MENU] button
2. Scroll the tuning control
3. Push the **▶OK** navigation pad to go down a level or accept an option
4. When done, push [MENU] or **ESC ◀** up one level.

It is actually a pretty nice and organized system of navigating the menus. They put some thought into this.



Setting Up the Radio

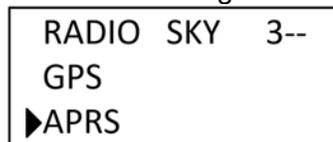
After turning on your radio, turn the GPS on. It can take time for it to get ready if it has not been on for a while. Push the function button [F] then [GPS]. A super small iGPS will show up in the upper right corner of the screen. Once the GPS locks on the iGPS icon will start to blink.

Enter the frequency:

Either go to one of your memories (remember that no tones are enabled) or use direct frequency entry by doing this:

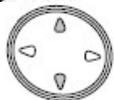
[VFO], [ENT] now enter the frequency you want on the keypad: 144.390

It is time to configure some internal menus. Press the [MENU] button and select  APRS (3--)



Then press

 OK



on the navigation pad. Then select  My Callsign and press



 OK



on the navigation pad

Notice that the 3 - - has changed to 30-

Use the select knob to scroll to My Callsign



Notice that the menu number in the upper left of the screen has changed to **300**. The menu number works well to find places in the menu structure. We will use this to describe other menu locations.

Use the select knob and the navigation pad to enter **your Call sign** and the dash number of your station, usually -1. If you make a mistake you can delete the character by pushing [A/B] -CLR.

When you are done entering your call sign push [MENU] to save and jump up one menu level.

With the menu number we can quickly describe the different menus that need to be set up. After setting the value, push the [MENU] to go back up a level. In many menus you can also push

ESC 



to go back up the menu structure without making a change.

Using the Navigation pad and the Selector knob, go to menu 301 and set the Beacon Type to APRS, then press [MENU].

Go to menu **3C0** and select your **symbol type**. This will be the small image that will show up on the web site APRS.fi and other radios.

Go to menu **3D0**, this will be the **TX Beacon** method. Select Manual for now. When done setting things up, this mode will be a beacon that you initiate by pushing the [BCON] button. But don't do that yet. There are other beaconing modes that can be timed, or you can use a smart beaconing algorithm.

The above constitutes the minimum menus that need to be configured. Next, we will start the APRS and send a beacon.

By now the iGPS icon should be blinking which indicates the GPS has locked onto a satellite.

To start the APRS modem push the **[TNC] button**. You will see an APRS12 icon on the top middle of the screen.

One last point ... like all the packet modes, they like lots of RF output power. These are short transmissions, so set your radio output power to 5W. Do this by pressing [F] [LOW] multiple times until you see a capital H on the screen.

You are all set and ready to broadcast. Now press the [BCON] button. On the top of the radio you will see the red LED flash on for a moment.

Now you are ready to climb to the top of a mountain and let the world know where you are.

There are other beaconing methods that can be used. For that, I recommend reading the radio manual. These other options will be located in the menu 3D0 area.

When you are done with APRS be sure to turn it off by pushing [TNC] again. And, if you want, turn the GPS off as well.



Chain Lake Traverse with 2m Ladder Line Antenna in Tree

Outreach Committee WinLink® Virtual Workshop

By Doug Hilderbrand KF7RQ - with Dan Agun KF7HJ, John Cornaby K17YQR, Kent Reade N7JTO, Jon Rumsey K7RMZ, and Randy Schaffer N7OYN

Normally at this time of year we would have had the Communications Academy. However, it did not happen this year due to COVID-19. The pandemic stopped all NEMCo face-to-face meetings. So what was a young organization to do? There did not seem to be a lot of things we could do - but after a brief, remote WinLink exercise, the Outreach Committee decided to launch a larger scale virtual workshop.

The goal was to provide WinLink training opportunities for NEMCo members as well as the ham radio public. Sometimes the most difficult thing in trying to work out WinLink issues is just having a reliable station where you can connect. Basically, if you could connect to us in any fashion we would respond and offer help in troubleshooting issues.



From March 28 to April 5, KF7RQ had a WinLink station up nearly 24/7 to receive and answer messages from NEMCo and other local community hams. This exercise was well received.

On April 26, the exercise was expanded with six operators committing to have their stations up and running for two weeks nonstop. They would all be peer-to-peer stations. That is, rather than going through a gateway, people could call directly and connect to send email to the station. Operators also had the option to use gateways, digipeaters or telnet. All of these modes are helpful in the learning process.

The six receiving stations did not fully realize what they had signed up to do. Few had ever had a station that was intended to be up and running for such an extended period and did not realize the effort that would be required to keep it running. We had a wide variety of station configurations in this group. They ranged from handheld data-enabled radios, plug and play data-ready radios, to raspberry pi's with Direwolf sound modems (see table below). To say that we learned a lot would be an understatement.

Station	Messages Exchanged	Radio	Antenna	Power Supply	Notes
KF7RQ	172	Kenwood TM-D710G, built in GPS and TNC, USB cable computer to radio	Multiwave 2m and 70cm antenna, 120 feet coax	Samlexpower 12V switching	Antenna gain makes up coax loss with a few dB to spare
KF7HJ	17	Kenwood TMD-700, set to 10W, used internal TNC	Similar to Comet GP-9, 30ft height, 140ft elev, 50ft coax	Alinco, variable volt, switching	Several component failures during exercise so limited contacts made
K17YQR	80	Kenwood TH-D72, built-in TNC, 5W	DBJ-2 roll-up, 2.1 dB gain and a Diamond SRH779 also 2.15 dB gain	HT battery	Mac Laptop with Windows emulator. See notes below for outstanding ladder work!
N7JTO	129	Kenwood TM-V71a, SignaLink USB	Dual band J-Pole on roof at 270ft elev	Lithium batteries charged by Powerwerx Supply	Only station with clear and consistent connections to K17YQR; able to reach both digipeaters
K7RMZ	72	See article in this issue describing his unique station setup			Digipeater station in addition to WinLink receiving station
N7OYN	100+	Kenwood TH-D74, built-in TNC, 5W but boosted to 45W out with Mirage BD-35 linear amplifier	Comet SB224 tri-band mobile antenna on steel picnic table, 100ft elev	Goal Zero Yeti 1250 (powered the amplifier)	Two laptop hard drive failures during exercise

Aside from getting our stations up and running and seeing who could contact whom, we learned a few things from our fellow RACES neighbors to the west of us in Shoreline, Washington. They maintain a gateway on the same frequency we used which made it convenient to jump between peer-to-peer and gateway operation. Shoreline also has a digipeater installed at Edmonds Swedish Hospital. This digipeater, along with one maintained by K7RMZ, provided interesting paths for low power stations, enabling some to reach normally unreachable peer-to-peer stations or even hit the gateway. We were also happy to hear from a few of the Shoreline Emergency Communications members who checked into the exercise.

The six receiving stations and several of the other participants benefitted from just managing the sheer volume of traffic. Switching modes to check for telnet traffic, peer-to-peer traffic while practicing using ICS forms and checking to see if our computers had crashed kept us all on our toes.

K17YQR used this exercise, with its guaranteed contact times, to test out other pieces of equipment and locations near his home. He went to Horizon View with his HT and a Diamond SRH779 telescoping antenna (2.15 dB gain) to attempt contacts. From this location he reached K7RMZ both directly and through the Edmonds digipeater (he had not been able to reach them from home).

K17YQR also tried different locations in his yard to attempt contacts through the Edmonds digipeater. At ground level he used both gain antennas but had no luck until climbing to the top of a ladder. Balancing a laptop in one hand, he held his HT up at arms-length with the telescoping antenna (*we assume he used all his toes to grip the "This is NOT a Step" step*). He could just reach the Edmonds digipeater and was able to contact N7OYN. He could not raise anyone else but did get some starts with K7RMZ's station but could not hold the contact. He used these findings to erect a temporary outside antenna - suspended from a fishing rod - for the May 30th NEMCo Drill.



There were several lessons learned during the workshop:

1. When you leave your station, make sure you have an open session and that it is in peer-to-peer mode, not telnet mode.
2. Send some traffic to each receiving station once a day to make sure that your station is working and to confirm they are still up and running.
3. It is a good idea to reboot your computer occasionally.
4. Plug and play data-enabled radios are great but with them you do not have the troubleshooting capability of a sound modem.
5. Direwolf sound modems are unique in that they allow your WinLink station to simultaneously be both a peer-to-peer station and a digipeater.
6. Digipeaters are great for low power stations and can overcome line-of-sight problems in some instances. It is helpful to have, in one station package, peer-to-peer stations that are also digipeaters.
7. If you are in a valley ... well, you are in a valley with limited range. Leaning your geographical difficulties and exploring other options like antenna type and placement, power output, etc is well worth doing during one of these virtual workshops.
8. A brick amplifier can do wonders for a handheld radio.
9. Practice made us all better operators.

A Unique WinLink Packet Station

By Jon Rumsey, K7RMZ

I have had a packet station of one form or another for several years, but the latest one I designed was based on a few goals:

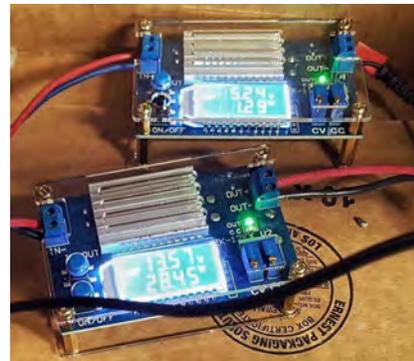
1. Must support APRS, WinLink
2. Must be portable and modular so it can "plug in" to other stations/setups
3. Small and low power, for battery-only or solar operations
4. Simplified physical connections
5. Support 300 baud to 9600 baud speeds

Packet Add-on Solution:

- Raspberry Pi 3-B with clear case running DireWolf and Xastir: very low power, usually less than 4 watts, but requires ~5.3v, not 12
- DROK DC-to-DC converter set to 5v: this takes the 12 volts from the power source and is set to 5.3 volts for powering the Pi
- Masters Communications RA-30 USB sound card dongle in a protective case: it supports PTT much like a Signalink but at much lower cost
- LinkSys WiFi router: 20 watt wall wart-powered, but can be powered from a 12v battery, power supply, etc and consumes less than 5 watts most of the time

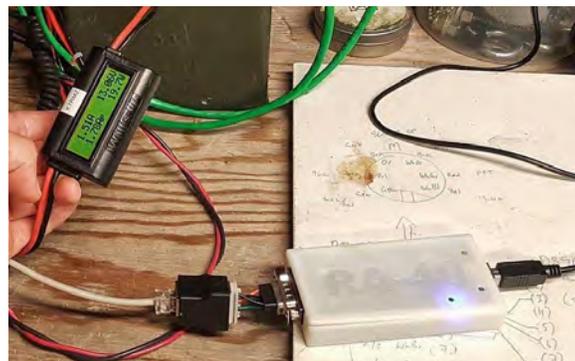


*Raspberry Pi 3Bv1.1 running DireWolf & Xastir
Underneath it, an old LinkSys WiFi router*



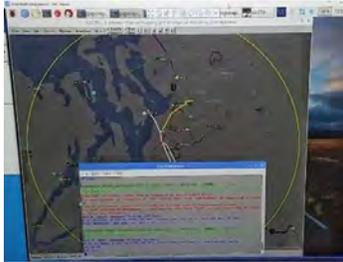
*DROK Power Converters
Upper is set to 5.24V; lower to 13.8V*

The Masters Communications RA-30 is a USB "dongle" sound card that has a wonderful feature: it knows how to trigger PTT on a ham radio! The only trick is to find (or make) a cable that connects the RA-30's 9-pin interface to the amateur radio. Currently, I am testing a few custom-made cables that convert the 9-pin to 6-pin mini DIN (that many modern radios now have). The RA-30 has audio adjustments and is pretty good as a kit if you like to practice soldering.



*The white case is the RA-30 (the case is marked "RA-40")
Note the customized cable connectors to the left of it*

DireWolf and Xastir are Linux-based software packages. DireWolf is a software TNC. Xastir is a mapping and messaging application for APRS. DireWolf can be installed on Linux or Windows and uses a plain-text configuration file to configure everything packet-related including Call Sign, Digipeating, Beacons, and many other features. Although DireWolf's user interface is command-line based, it is a very capable and high performing software TNC. Xastir is primarily an APRS + mapping program that can be configured to work with DireWolf to show APRS information on a live map (much like www.aprs.fi). It enables viewing ham station's current locations and APRS Messaging which is a "fire-and-forget" message service that can be useful out in the field. In this scenario, DireWolf does all the hard work, encoding and decoding packets, and making the RA-30 do the Push-to-Talk actions when needed. If I were in a car or out in the field, I could add a USB-based GPS "puck" and use it to display and transmit my current location to other APRS-enabled hams in the area.



A horribly distorted picture of what is running on the Pi: DireWolf (foreground) and Xastir (behind) showing a live view of APRS packets and a live map of APRS stations in the Puget Sound region

That was the portable, modular portion of my packet setup. As for the rest, I use a Yaesu FT-7900r dual-band 50/45w transceiver, 50 feet of LMR-400 type coax, and a dual-band J-Pole on my roof at about 15 feet above ground level. Because of my portable, modular goals, I could connect this solution up to most any ham station if it has "Data port" or a 9-pin serial connector.

I can use any computer with WiFi and WinLink Express to connect to the packet station. For use as a dedicated WinLink Session host, I have an Intel Compute Stick. This is a low-power, ultra-compact computer that plugs directly into an HDMI monitor (a-la Amazon Firestick or Roku Stick). The Compute Stick has on-board USB ports and built-in WiFi. I have a small HDMI monitor and a water-resistant keyboard with track pad, and I use this "mini-computer" setup as a portable WinLink Packet and APRS kit.



*Intel Compute Stick
Power, 2x USB, and HDMI connections are shown*



*A terrible pic of my Yaesu FT-7900r
Dedicated to packet work (lately)*

For NEMCo's WinLink exercise in April & May, I left both the Packet Add-on Solution and my Intel Compute Stick-based systems powered-on and set the transceiver to the planned frequency with a WinLink P2P session open. This way, any time another station attempts to exchange messages with me, WinLink Express and DireWolf handle the entire event automatically. On several occasions, I would get up in the morning and check the Intel Compute Stick station and have messages waiting for me! Also, the Digipeater function (Direwolf) would always be ready to do its job, relaying packet traffic between two other stations.

Hopefully, this answers most questions about my station setup and maybe provides some inspiration for others to experiment more with Packet/WinLink and APRS ... and/or duplicate what I have done.

FOOTNOTE: regarding Goal #4 "simplified connectors" - while I think the spirit of that goal was met, I am not sure it is as simple as I wanted. It seems that there are always caveats when it comes to the cables that connect a radio to something (anything) else. After a good deal of research and some fiddling with a few of my radios and lots of equipment over the years, I have found that "data port" connectors (6-pin mini DIN connectors) seem to be pin-standardized across manufacturers, meaning each pin has a designated purpose as far as ground, PTT, etc and it's just a matter of whether or not the transceiver has one.