

RADIO AND TELEGRAPH MILLS

It seems like an eternity now, but it wasn't long ago that typewriters, carbon paper, and white-out were an important part of everyday business. Many of us are old enough to remember telex, teleprinters, and, of course, telegraphy or radiotelegraphy in the military, maritime or commercial communications fields.

During the 19th Century, the telegraph industry was dominated by ink wells, stylus type pens and the standard telegraph key, known by radio amateurs today as a "straight key." Speeds on commercial circuits were limited to the ability of an operator to send Morse for 12 hours per day on a standard key or an operator's ability to



VOLUME 11, ISSUE 3

In this issue:

Radio and Telegraph Mills	1
A Hot Day in Cincinnati	4
It Can't be Done	4
Henry Ford's Radio Network	5
Some Thoughts on Prepping—The EMP	7
Why Support Radio Relay International	10
Circuit Discipline	12

Thanksgiving Season Issue

RRR Needs Volunteer Staff	13
Slander?	14
Solutions for Older Transceivers with no PL Tone	15
A Letter from the Family of Joe Ames (W3JY-SK)	21
Basic Radiotelephone Procedures	22
The Long Island CW Club	22

QNI MISSION STATEMENT

QNI is dedicated to promoting genuine emergency communications preparedness.

Our newsletter is independently published and distributed free of charge to the Amateur Radio and emergency management community. The opinions contained herein do not reflect

the policies or opinions of any particular net or emergency communications organization.

Our mission is to provide a forum for EmComm volunteers throughout North America. We operate on the premise that Amateur Radio public service volunteers should be, first and

foremost, communicators and technicians.

If you share this vision, please support QNI. Submit your news and articles for publication.

transcribe copy on a telegram or radiogram in the fine Spencerian Script of the day.

At the turn of the 20th Century, two advancements in office technology came together to transform the telegraph industry, one of which was the mass-produced typewriter, and the other of which was the Vibroplex telegraph key invented by Horace Martin. These two items transformed the telegraph industry by greatly increasing the speed on manual Morse circuits.

The telegraph industry and armed forces utilized a special typewriter colloquially called a “mill.” A mill is an all-capital typewriter designed for communications purposes. In the commercial telegraph industry, one generally encounters two types of mills, these being the Postal Telegraph Mill manufactured by Remington during the 1920s and the Western Union Mill, which was a specially modified Underwood Model 5. The font and type face of these mills is similar to those manufactured for the armed forces except for the lack of a “slash-zero” used in the latter.

For today’s youthful generation, “all-caps” is equated with “shouting” but for those who worked in telecommunications, the armed forces, or the press, all-cap messages were just another day on the job. Many will recall that all-caps became the standard for teleprinters (“Teletype” is a brand name). Associated Press, United Press, International News Service, and others regularly distributed copy to newspapers and broadcast stations using the ubiquitous model 15-RO Teletype units with their familiar all-cap text. These units were ubiquitous in baseball stadium press boxes, broadcast stations and at newspapers throughout the United States....but we digress.

The Postal Telegraph Company mill shown is fully restored and quite useable for copying radiogram traffic. Note the “Postal Telegraph” label and the Postal Telegraph name embossed on the right front pillar. This typewriter is configured for telegraph blanks, with a unique paper bail that holds the edges of the telegram/cable blanks.

The Western Union mill shown is a fairly standard Underwood Model 5. This ubiquitous design dominated the typewriter industry for many years, but the Western Union version is a bit different, with a unique red front panel and an all-capital type face. If one actuates the shift key on any of the letters, he will obtain a tilde. Your author remembers a stack of Western Union typewriters in a storage room in



A Remington Postal Telegraph Mill. “Postal Telegraph” is also embossed vertically on the right front pillar (see front page photo).



A Western Union Telegraph Company Mill with the unique red front panel. Serial numbers on some of these mills begin with “WU”

the Detroit Tiger Stadium press box. Rumor has it that one of these typewriters escaped the stadium (with permission) after a particularly long extra-inning game. The unit shown is not yet mechanically restored and cleaned, but it still types quite well.

Perhaps it was the armed forces that had the greatest variety of mills. Stored away, the author has an old Army Security Agency mill, and, next to the transmitter and receiver is a Remington Radiotelegraph Mill, which was purchased new from a typewriter distributor in Brooklyn back in the 1980s! This newer mill has the familiar slash-zero as well as an excellent, clean type face. During World War Two, many manufacturers made mills for the Allies, including Royal, Underwood, and Remington.

Telegraph mills are rather hard to find these days. Part of the scarcity results from the fact that they mostly look like regular typewriters and, of course, a much smaller quantity were manufactured due to their specialized purpose. If you have a mill, you are fortunate indeed, but if you really want to appreciate a mill, you absolutely must learn to copy radiogram traffic on it. There are few pleasures in radio operating that compare with copying a string of messages on a snappy CW circuit using a mill.



WESTERN UNION MILL FONT
THE QUICK BROWN FOX JUMPED OVER THE LAZY DOGS BACK
0123456789

Editor's Note: Please note that the Western Union Mill has not been restored, therefore the poor type quality. Note the similarity in font between all three versions.

REMINGTON 150 RADIOTELEGRAPH MILL FONT
THE QUICK BROWN FOX JUMPED OVER THE LAZY DOGS BACK
Ø123456789

POSTAL TELEGRAPH MILL FONT
THE QUICK BROWN FOX JUMPED OVER THE LAZY DOGS BACK
0123456789

Why support Radio Relay International?

- RRI is apolitical and mission focused.
- RRI is doing the hard work to revitalize traffic handling....work that was neglected for decades by others.
- Unlike other organizations, all RRI personnel and officers are traffic operators. For RRI, the health of the traffic system comes first. RRI puts the traffic system on a par with other operating interests.

A HOT DAY IN CINCINNATI

By Harry Moorman (SK)

One day, at radio station WSAI in Cincinnati, I was copying a baseball game [by telegraph] for Red Barber. The temperature was 108 degrees, the hottest day Cincinnati had ever seen up to that date in 1935. A re-created ballgame didn't need a fancy studio in which acoustics were controlled, so we were working a small room on the west side of the building with the sun beating unmercifully through the glass. Pretty soon, Red took off his shirt and then his undershirt. About all I could do was unloosen my tie. Just then, Powell Crosley, owner of the Cincinnati Reds, Crosley Manufacturing, WLW, WSAI, and W8XAL radio stations, entered the room accompanied by two dowagers, one wearing a lorgnette. Crosley was wearing a coat and high stiff collar, and the women were dressed in the height of fashion. Their entry didn't make Red even bat an eye. He nodded to Crosley and the women and kept right on with his ballgame description. You should have seen the expression on the faces of the two women. They were probably so shocked they couldn't speak, even if it were permissible. Red didn't even mention the incident after the game. It was unheard of in those days to go around bare-chested.



A youthful Red Barber behind the WSAI microphone.

“IT CAN'T BE DONE”



Elmo Neale Pickerill at the prop of his Fokker Super Universal Airplane provided by the Radiomarine Corporation (RCA). Photo by Thomas Coke Knight

It is with a bit of nostalgia that we remember one of America's most outstanding "brass-pounders".....Elmo Neale Pickerill of Mineola, New York who became the first person to communicate from an aircraft to both ground and ship stations by wireless telegraphy.

The date was August 4, 1910 when "Pick" made the historic flight, which took him on a round-trip from Mineola to Manhattan Beach, Brooklyn non-stop in a Model "B" Wright biplane. The flight was made at an altitude of only 1000 feet. During the flight, he established contact using a "push button" telegraph key with seven different stations—three of them being wireless stations aboard ships in the New York area, two coastal stations, a portable station at Manhattan Beach and a station in New York City.

The establishment of two-way air-to-ground communications was a significant scientific achievement in its day, yet not widely recorded in 1910 when people were not very air-minded. "Pick" was one of the early day greats in the wireless field. During his life, he had worked with Dr. Lee de Forest establishing wireless stations throughout the

USA. He also worked with Marconi and had many direct contacts with Nikola Tesla, Picard, Fessenden and John Stone, to name a few.

Pickerill was not a pilot; not until the obsession of experimenting to find out if wireless in an aircraft would work left no alternative but to learn to fly, and learn to fly he did. It took two short months before his historic record "first."

"Pick" had met Orville Wright in 1909 and asked if he could rent one of his machines and a pilot to go aloft to conduct experiments with his wireless apparatus. Wright scoffed at the idea, telling Pick that no airplane had sufficient power to fly two men plus a load of wireless equipment....it just couldn't get off the ground! Therefore, Pickerill made arrangements for lessons with the Wright Brothers thinking the weight of the second man displaced would enable him to carry his wireless gear.....and so it worked out.

While some experimentation went on with air-ground communications for the next decade, it was not until the establishment of the Air Mail Service that wireless (now called radio) came into its own.

Elmo Neal Pickerill was born in 1885 and died in 1968. At the beginning of the century, "Pick" was working the hot press wires of Associated Press, United Press, and Hearst Newspapers. He was one of the outstanding men in communications when he met Dr. De Forest at the St. Louis World's Fair in 1904. Later, he became identified as the Chief Radio Officer of the world's largest and most famous ship, the S.S. Leviathan.

Pickerill was a member of the "Early Birds Club," a membership organization for those that flew before December 17, 1916 as well as the OX-5 club.

HENRY FORD'S RADIO NETWORK

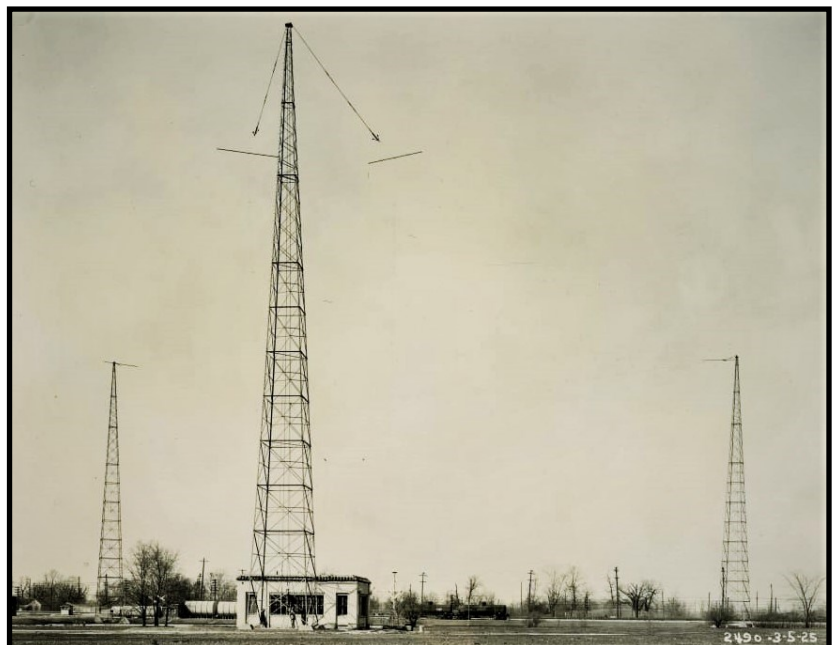
By James Wades (WB8SIW)

Henry Ford was not only a pioneer in manufacturing, but an early advocate of radio communications. Largely forgotten today is the widely distributed manufacturing facilities of the Ford Motor Company. Michigan is dotted with small manufacturing facilities and company towns once controlled by the Ford Motor Company. Some of these towns are located in Michigan's remote Upper Peninsula.

Ford was a complex man. On one hand, he could be ruthless, resorting to extreme violence to protect his financial interests. On the other hand, he saw urban culture as socially corrosive and therefore sought value in America's rural past as manifested in his attempts to distribute manufacturing to small communities. He was suspicious of the revolution in manners and morals taking place during the 1920s and he enforced a rigid social construct on his employees in exchange for good quality schools, health care and housing. It was an odd form of both beneficence and control.

With the rapid growth of the auto industry during the 1920s, and with his vast manufacturing empire spread throughout the Upper Midwest, Ford sought a technological solution to coordinate his operations. Radio seemed to be the answer and Ford jumped in with both feet.

In 1925, Ford opened a then state-of-the-art communications center at his Dearborn





headquarters near the intersection of Oakwood and Beech Streets. Its purpose was to link his outlying manufacturing plants and shipping fleet by radiotelegraph, and his nearby offices and plants by Morse wire and teleprinter. Three 165 foot towers were constructed 450 feet apart in a triangular configuration over a pond (which still exists on the Ford property). A transmitter facility operating at 1000 watts on a number of channels between 1550 and 1750 KHz as well as on 550 KHz.

The radio station was divided into five sections, these being the operating room, transmitter room, battery room, furnace room, and washroom. A power distribution panel was also included, as was a raised floor for the interconnect wiring between transmitters, rectifier units, control panels, and operating positions. An outside of glazed brick and plenty of plate glass windows for ambient light made for a pleasant operating environment.

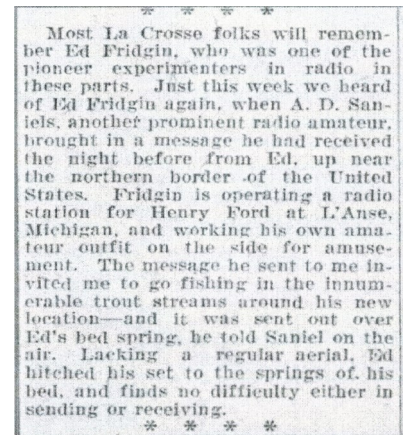
Acting as a message center, the radio station also maintained telegraph circuits to the Highland Park Plant, the Dearborn Engineering Offices, and the Rouge Plant, the latter utilizing a teleprinter circuit through which messages could be distributed to various offices simultaneously.

In addition to maintaining wireless communications with distant manufacturing plants, the radio station also played a role in the operation of Ford's Detroit, Toledo and Ironton Railroad. Car and locomotive repair shops and the train dispatcher's office at Jackson and Springfield, Ohio would report the status of on-track equipment and important train movements of coal, coke and raw materials via the DT&I.

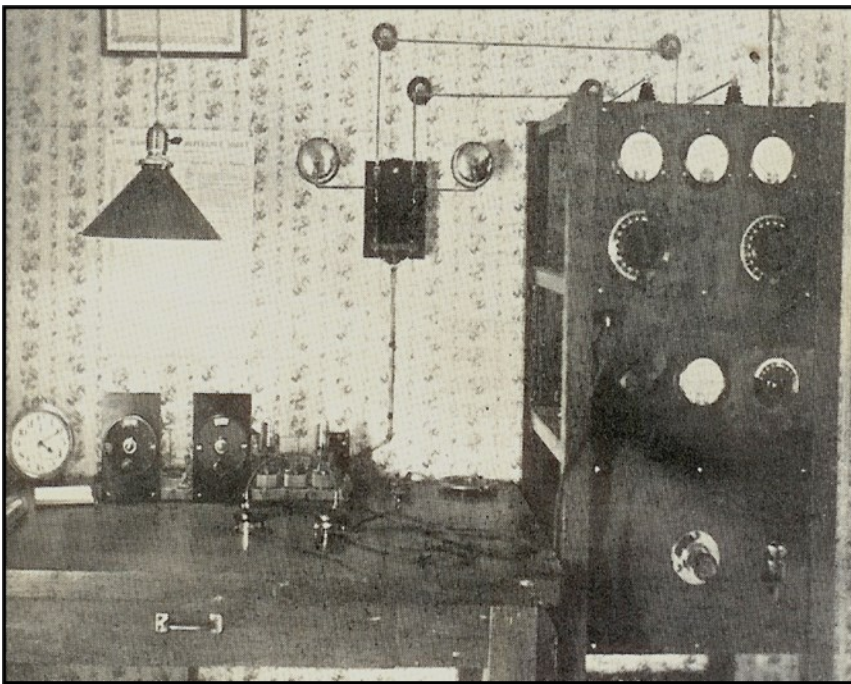
On the marine side of Ford's operation, the Lakers S.S. Henry Ford II and S.S. Benson Ford would regularly report position to the Ford Radio station, which were tracked on a map, thereby allowing company officials to follow the movements of taconite and other raw materials at a glance. Tab was also kept on Ford's blue water merchant vessels, the S.S. Oneida and the S.S. Onandaga while in range, the latter of which plied a route to rubber plantations in South America. Eventually, a radio station at L'anse, Michigan was also established to provide communications for the local Ford sawmill facility and to serve as a relay point for communications with Lakers plying Lake Superior to the pocket docks in Duluth.

The radio operator at Lanse, Michigan was Edward Fridgin. Fridgin was an early radio pioneer from LaCrosse, Wisconsin who would later be involved in the implementation and operation of the first State Police Radio System in the United States when the Michigan State Police pioneered statewide radio dispatching. Fridgin was also an active radio amateur whose personal station in Lanse was featured in "QST" magazine.

The Ford Locations served by radio included Lanse, Iron Mountain, and Northville, Michigan as well as Springfield, and Jackson, Ohio.



La Crosse Tribune: 17 May, 1925



Edward Fridgin's ham station at L'anse, Michigan.

With the creation of the Federal Radio Commission in 1927, followed by the passage of the Communications Act of 1934 and the creation of the F.C.C., the regulatory environment began to change significantly, with regulators creating a body of administrative law that more clearly defined the role of telecommunications common carriers. Over time, with changes in technology, improved commercial telecommunications infrastructure, and a more regulated approach to the use of the RF spectrum, the Ford operation would become obsolete. Yet, it would have been an interesting era to see and experience.

SOME THOUGHTS ON PREPPING—THE EMP

By James Wades (WB8SIW)

A segment of the "prepper community" is attracted to the Amateur Radio Service because of its inherent features of dispersal, decentralization, and overall survivability. While there is much to be said for incorporating Amateur Radio into one's preparedness plan, it is also important to understand some of the limitations one might face in doing so.

We won't delve into a philosophical discussion of prepping in general, other than to touch on the ham radio component, particularly with respect to an EMP event. Therefore, for the sake of discussion, let's assume that a series of high-altitude nuclear explosions are

utilized to create a significant EMP event across the United States. In such an event, one could anticipate a variety of cascading events.

It seems reasonable to assume that much of our consumer electronics and the infrastructure that supports it would be rendered inoperative. Anything attached to a wall outlet, cable system, or other telecom infrastructure would be extremely vulnerable. From the very moment of impact, a large segment of society would be isolated from cable media, the Internet, and the public switch telephone system.

Most terrestrial broadcast facilities would also be off air. Studio-transmitter links (STL), solid state studio production equipment, and access to network programming would likely be seriously disrupted if not inoperative. AM and FM broadcasting wouldn't do much better. In the era of solid-state transmitters, computer automation, and similar technology, it seems reasonable to expect that most broadcast stations would be off air. A few broadcast stations may remain operational, particularly the occasional major market station that retains an older redundant vacuum tube transmitter and the capability to originate some limited "real time" programming from the transmitter site.

The loss of significant elements of infrastructure would likely start a process of cascading failures impacting essential services. Much of our economy functions on automation. For example, point-of-sale inventory and financial systems would likely collapse due to telecommunications disruptions. Just-in time inventory management systems that track and order items at pre-determined thresholds would collapse. Deliveries via trucks would likely grind to a halt for a variety of reasons. Toss in a general panic and within hours, your local grocery and pharmacy would like be empty of inventory.

Utility systems would also be subject to cascading failures. SCADA networks and remote-control systems are ubiquitous in the utility sector. The loss of these systems would make it difficult if not impossible to operate natural gas, electric power, and pipeline distribution networks. In other words, many Americans would be sitting in the cold and dark rather quickly.

Gasoline would probably be unavailable at any price. Not only would the point-of-sale systems at your local service station be down, but deliveries would be significantly disrupted due to the petroleum distribution problems. Furthermore, it's impossible for your local service station to pump gasoline without electrical power.

Longer-term problems would begin to arise in our commodities distribution networks. For example, consider train control networks and their relationship to power generation. Both highway grade crossings and wayside train control (signal) networks would likely become inoperative. With solid-state vital processors, grade crossing predictors, and similar processor based technology connected directly to track circuits, these systems would be particularly vulnerable to an EMP. Rail traffic would slow to a crawl, if not grind to a halt, as would coal deliveries to power stations. Furthermore, many class-



The ham shack of Ed Trump, AL7N, STM for the State of Alaska

one railroads are dispatched from a centralized location that controls much of the United States. Delays of coal deliveries to power stations would result in shut-downs, which in turn would drive more power outages, which would impact industries, starting a downward spiral that would be hard to escape. The overall impact on industry would amount to a complex “failure grid” that would take months to repair and bring back on-line under the best case scenario.

Then we have financial services. In an era in which the average American relies on credit/debit cards, ATMs, and electronic banking, many would find themselves unable to purchase the rapidly diminishing supply of goods needed to sustain day-to-day life. Even if the groceries were to remain available, many would be unable to purchase them.

...and this is just the tip of the iceberg.

After an initial period of “shock and awe,” one could expect significant civil unrest. Looting would likely be rampant, some of which would be driven by criminal elements, some of which would be driven by political agenda, and some of which would be driven by simple opportunism, but over time, individuals faced with starvation, sick children, and the like, might feel there is no other choice but to take what they need.

Most likely, the government would not be able to rescue you. Government is, in fact, rather limited in its capabilities. For example, the United States Army currently has approximately 480,000 men serving on active duty. In contrast, on opening day of Michigan’s deer rifle hunting season, 550,000 armed men take to the field. In other words, the capacity of the United States government to respond to a catastrophic act of war or a similar incident of such magnitude is extremely limited.

In other words, for the prepper, the primary concerns would be security and resource management, not communications.

Within the microcosm of the Amateur Radio Service, one can certainly plan on VHF and UHF repeaters being inoperative. Systems such as mesh networks and packet radio system would likewise be unreliable or at least significantly degraded. In the aftermath of such an event, basic VHF/UHF simplex and HF voice or CW comms might be the only resources with sufficient resiliency to survive, assuming your radio gear survives the EMP.

Certainly, the prepper with his inexpensive Chinese handheld radio may find it is more useful to shore up the log in his slit latrine than as a communications device.



So, what about vacuum tube (valve) radios?

Contrary to popular belief, tube radios are not impervious to EMP. But they are more resistant. The old HW-101 or Johnson Viking One and Hammarlund Receiver may well survive, particularly if they are isolated from the antenna and AC Mains when the EMP occurs. However, assuming one’s tube gear survives the EMP, one must still confront the issue of powering it. Older technology (non-inverter) generators may continue to work, allowing one to get back on-air...at least until he runs out of gasoline. Careful and judicious use of fuel combined with a well-designed network management plan could limit on-air time and preserve stored

A Paraset built by Colin Chidgey (G3YHV)
<https://shirehampton-arc.org.uk/g3yhv-paraset/>

gasoline, while perhaps supporting some basic messaging and intelligence gathering

Longer-term use of vacuum tube equipment would require some creativity. Choice of gear would also be important. For example, an old GRC-9 transmitter/receiver unit with the hand crank generator could provide basic HF communications indefinitely for a prepper group. An old-fashioned low-compression Delco Light Plant that can run on almost any type of fuel might be sufficient to charge a battery bank, which in turn could drive an inverter that had been carefully packed and shielded in anticipation of an EMP event.

A simple vacuum tube QRP rig operating in the range of 5 to 10 watts range designed in the pattern of the “paraset” might prove to be useful.

Perhaps the best option is to store a set of solar panels, a QRP transceiver or two, and accessories in a “faraday screen.” There are many ideas on the Internet, some of which are better than others, but in the long run, a properly modified aluminum trash can with finger stock along the opening and lid combined with an insulated liner stored off the ground might prove to be the best option. One could even drop in a few FRS radios and a couple of CB radios for local comms with neighbors or fellow preppers. One simply opens the can after the EMP and set up communications, with power being provided by renewable energy. *Just remember that old soldier’s adage “two is one and one is none.”* There may not be just one EMP attack. A secondary attack, designed to disable back-up systems may follow. Therefore, having a second, identical commo arrangement in a Faraday screen might be necessary as well.

Lastly, don’t forget the value of skills. Owning a radio and the ability to transmit does not make one a communicator. Experience with CW, message handling, basic radiotelephone procedures, and even the ability to communicate using non-radio methods would do much to ensure communications survivability. One may find the ability to send a message using Morse and a flashlight will prove almost as useful as a Baefeng hand-held radio. Self defense skills and experience with firearms may also do more to ensure personal survival than the ability to communicate .

-30-

WHY SUPPORT RADIO RELAY INTERNATIONAL

By James Wades (WB8SIW)

Now and then, one encounters a small group of traffic operators who refuse to have anything to do with Radio Relay International. The motivations undoubtedly vary from individual to individual. Perhaps some are simply resistant to change. Perhaps others mistakenly view RRI as an “anti-ARRL” organization. Yet others may associate RRI exclusively with CW operators.....so let’s talk **reality**.

RRI was formed as an advocacy organization designed to promote the art and skill of traffic handling and to modernize our net infrastructure. The founders of RRI felt that NTS and traffic work in general had been neglected for many years. Without an organization “of, by, and for traffic operators,” the art and skill of traffic handling would be lost. Examining the NTS program, the facts were obvious to any open-minded radio amateur:

- For many decades, decisions about NTS were made by individuals who were not traffic operators.
- NTS was cast adrift on its own without financial support, meaningful coverage in QST magazine, or constructive inclusion in emergency communications and field services planning.
- Over the years, many services that once kept traffic handling visible within the Amateur Radio Community were eliminated including:
 - The “QCD Newsletter.”
 - The section reports in QST.
 - The “Traffic Topix” segment in QST

- The “Pink Card (FSD-212)
- Little, if anything, was done to protect NTS Cycle 4 from the derangement caused by the restructuring of the 75-meter band during the early 2000s.

Simply put, the parent organization responsible for NTS didn’t understand it nor did they see value in it.

Beginning in 2012, a small group within the NTS began working to raise the profile of traffic handling via outreach at major ham radio events, the creation of the “QNI Newsletter” and similar initiatives. These activities were so successful that FEMA asked NTS to participate in its 2016 “Cascadia Rising Exercise” during which NTS assets, operating a prototype National Response Plan performed with superior professionalism. Unfortunately, the ARRL Board responded not with the laurel wreath of gratitude, but by decapitating the entire national leadership of NTS!

It therefore became obvious to all open-minded radio operators that traffic handlers needed an advocacy organization that was “of, by, and for the traffic handler.”

The RRI philosophy can be summarized simply:

- RRI is apolitical. We avoid the petty politics that so often serves only to feed the ego of a few “leadership officials” while degrading the quality and fraternalism of the Amateur Radio Service.
- RRI is entirely mission oriented. We strive to modernize and improve all traffic networks while preserving the rich traditions of the past.
- RRI seeks to raise the profile of traffic handling as an important public service mission, and it’s being noticed by the rest of the Amateur Radio Community.
- RRI leadership comes from the traffic handling community. Our focus is traffic handling. We do not place traffic work in second, third or fourth place behind other “big dog” operating interests. RRI is “of, by, and for” the traffic operator.

So, if you are on the fence about supporting RRI, ask yourself the following questions:

Who publishes the “QNI Newsletter” for the traffic community and distributes it at no charge?

Who developed a wide range of updated, peer-reviewed training publications for new traffic operators?

Who regularly presents high-quality, professional grade training classes covering net procedures, emergency communications and traffic handling topics?

Who created the first national emergency response plan for the traffic system?

Who conducts periodic emergency communications drills and exercises to enhance the ability of the traffic system to respond to a major disaster in a meaningful and efficient manner?

Who has successfully bridged the gap between traffic handling and EmComm in hundreds of local communities?

Who does the work of supporting ARRL traffic nets and local ARRL® ARES organizations by providing training, planning, and operational support?

The answer is simple: Radio Relay International.

If you can honestly say that another organization has done any of this for the traffic handler during the past 30 or more years, then by all means, stick entirely with their agenda. In the meantime, please understand that.....

It is RRI that has restored confidence in the traffic system.

It is RRI that is doing the hard work.

It is RRI that strives to support local amateur radio organizations.

The truth is: RRI has never been an anti-ARRL organization. RRI is simply a traffic handling organization. If you value traffic work and want our nets to survive into the 21st century, you should support RRI.

Circuit Discipline By Lloyd Bankson Roach (K3QNT)

During the early 1960s, I was a shipboard operator aboard an Amphibious Warship called, USS Page County (LST-1076). One of the things they drummed into us early on was the importance of "Circuit Discipline." I feel that this applies significantly to traffic handling on amateur radio circuits.

So often we hear a phone net where the NCS allows the net stations to conduct side conversations during traffic handling operations. I hear this sort of activity most often on VHF/UHF repeater nets, which are too often casual. This is not a good idea for several reasons.

It is the responsibility of the Net Control Station to set the rules for the Net. A "Directed Net" means just that. It's much like the old saw, directed at young children.

"Speak when only spoken to." These procedures are not designed to be mean or rude but rather to give the net "room" to handle important traffic and operate efficiently.

Another bad habit that pops up is when one of the net members comments on the content of the traffic, such as, "I was down there today and the road looked OK to me!" The purpose of the traffic handler is to pass the traffic exactly as it is received, without commenting on its correctness, quality or veracity. That job is up to others.

Some operators also like to "help" the net by announcing their equipment capabilities and/or vast experience. I've heard this on the National Hurricane Watch Net (HWN). It drives the NCS stations crazy. Remember, others listen to our nets and keeping it business-like adds to the net's professional reputation and effectiveness. Leave war stories for another time, preferably off the air.

On CW nets in particular, "Radio Silence" is best rule of the road. Respond only when called. Keep your service traffic brief and always defer to net control.

One more notion about NCS stations: They are there to lead and direct the net, not give life-history lessons or "stories" about past incidents or the one underway. Net Control needs to demonstrate proper Circuit Discipline so everyone on the net gets the idea. I recommend the USCG Radiotelephone Handbook as an excellent reference on this topic. The document can be found here:

https://www.cisa.gov/sites/default/files/publications/CGTTP_6-01_1B_Radiotelephone_Handbook.pdf



Lloyd in his ham shack at Bedford, Pennsylvania

RRI Needs Volunteer Staff!

With the passing of Joe Ames (W3JY) and the increasing interest in the RRI mission, the workload at Radio Relay International has increased dramatically. Therefore, we need of some “administrative assistance.” We recognize that in the era of pandemics, inflation, and global uncertainty, many feel that volunteering is an additional burden. On the other hand, RRI provides an important service to the Amateur Radio community. If you can spare a few hours a week, we could really use some assistance in one of these job positions:

Volunteer Database Manager:

Duties:

- Receive incoming “registered radio operator” applications.
- Print and generate RRI Registered Radio Operator Certificates.
- Assemble and mail RRI “welcome packages” to new RRI registered radio operators.
- Update the “registered radio operator” database spreadsheet and mail to RRI Board members.
- Print certificates for “State Communications Manager” appointments.

Note: RRI will provide the necessary forms, materials, mailing account, and a color printer (and replacement ink cartridges as needed) so there are no “out-of-pocket” expenses associated with this activity.

Requirements:

- Good organizational skills
- Basic computer skills
- Familiarity with Excel Spreadsheet

RRI CW Bulletin Manager:

Duties:

- Transmit bi-weekly (twice per month) CW training broadcast.
- Recruit additional qualified operators to assist in either primary or secondary role.
- Coordinate operations to ensure bulletins are transmitted on time and on schedule.

Requirements:

- Ability to transmit the bulletin using a program such as FLDIGI or a similar automated program.
- A power level of 1 KW on 20 and 40 meters.
- An efficient antenna system.

Note: The training material consists of training radiograms of varying content. RRI will provide the pre-formatted texts to the CW bulletin manager.

RRI State Communications Manager

The State Communications Manager is an “on-the-ground” representative of RRI in his home state. Job duties include:

Representing RRI at high-level Amateur Radio events when practical.
Recruiting new RRI Registered Radio Operators in your state of residence.
Presenting talks on traffic handling to local radio clubs either in-person or on-line.
Presenting RRI training classes to local EmComm groups such as ARES®, AUXCOM, REACT, RACES, MARS, etc.
Interfacing with the RRI Board, RRI Emergency Communications Committee, and RRI Affiliated Programs Manager as needed.
Submit a quarterly report outlining activities.

Requirements:

Excellent verbal and written communications skills.
Comfortable speaking to groups, meetings, etc.
A professional demeanor and good “people skills”
A willingness to seek collaboration with all external organization in a positive and proactive manner.
An altruistic motivation that places community service at the forefront.
Proven experience with traffic handling and a solid, general knowledge of public service communications.
At least a General Class Amateur Radio License.

Please contact James Wades (WB8SIW) if you are interested in serving in any of these capacities.

Slander? An Editorial by James Wades (WB8SIW)

Recently, it came to your editor’s attention that an official associated with a certain large Amateur Radio association had made defamatory comments about a Radio Relay International board member. This minor, but nonetheless disturbing situation brought back painful memories of the much more serious, scurrilous press release that was issued in 2016, in which the late Joe Ames (W3JY) was **falsely** accused of inappropriate conduct. Because the press release was distributed Worldwide, it proved to be extremely harmful to Joe’s reputation and it did much to harm his ability to earn a living and support his family.

The official responsible for this more recent incident won’t be named, but his actions point to a certain poison that on occasion degrades the fraternalism and quality of the Amateur Radio Service. His actions also lead to the natural question of “what is the motivation for seeking to harm others in the context of a hobby or volunteer service?”

The individual in question has been an omnipresent “leadership” official for DECADES. He is a perennial presence in various elected offices. He is a perennial presence on various “Blue Ribbon Public Service Committees,” “Emergency Communications Committees,” and so forth. Like many of his ilk, his outward appearance is one of altruism and concern for Amateur Radio, but this action tends to reveal a less honorable internal agenda. In this example, we are reminded of the admonition:

“Don’t listen to what a man says. Instead, watch how he behaves!”

One can only speculate regarding the motivation for the behavior of such individuals. However, one theory is that some individuals are simply egotists who must harm others to feel assured that their power and control and perceived status in a community is protected or enhanced. Such individuals can utter all the platitudes they would like. They can claim to have the best interest of an organization at heart. However, their actions tell the tale and there can be no moral justification for such behavior.

Let it be said unequivocally here: Even if someone is believed to be “worthy” of defamation, the morally correct course is to always remember that human beings lack the ability to see into the heart of their fellow man. None of us have the ability to see into another man’s heart to understand his struggles. One may be a “leadership” official in a major amateur radio association, one may be President

of the United States, but none of us are Jesus Christ.

Your editor will leave the reader with this thought: If someone is willing to destroy the reputation of a fellow radio amateur over a disagreement or in service to his own ego, imagine what happens when real power, wealth or privilege is involved. If someone is willing to engage in lies, inuendo or manipulation over a hobby, imagine what happens in a Congressional campaign or in the board rooms of major multinational corporations.

Ham radio should be an escape from the politics of personal destruction. Ham radio should be a refuge from such dishonorable behavior, and fortunately, for the most part, it is. However, there are always a few supreme egotists, those narcissists who must contaminate the hobby with their Machiavellian intrigue.

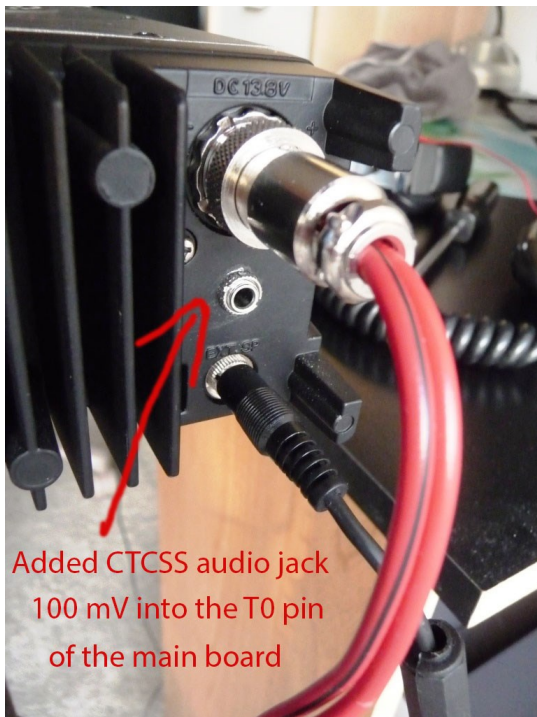
Your editor's personal message to this so-called "leadership official" is a simple and straightforward quote from Matthew 12:36-37:

But I say to you that for every idle word men may speak, they will give account of it in the day of judgment. For by your words you will be justified, and by your words you will be condemned."

Cheap Hardware and Software Solutions for Older Transceivers with no PL Tone By Daniel Romila (VE7LCG)

Problem: Use old transceivers, which do not know PL tones, with the modern repeaters, that require PL tones.

Solutions: Use an external computer, with a free audio application, connected at the audio INPUT. This is how I implemented this solution using my old Kenwood 7900, a 34 years old 2 meter transceiver.



(It also works with a cellphone on which it is installed a free audio generator application. It even works without electrical connection – just have the cellphone put at high volume generating the PL tone in front of your microphone, when you transmit and talk! I personally tried that.)

Using an external PL tone board. There are boards costing 100 EURO, and boards costing 2 EURO, including shipping and taxes, from aliexpress.com and other Chinese websites.

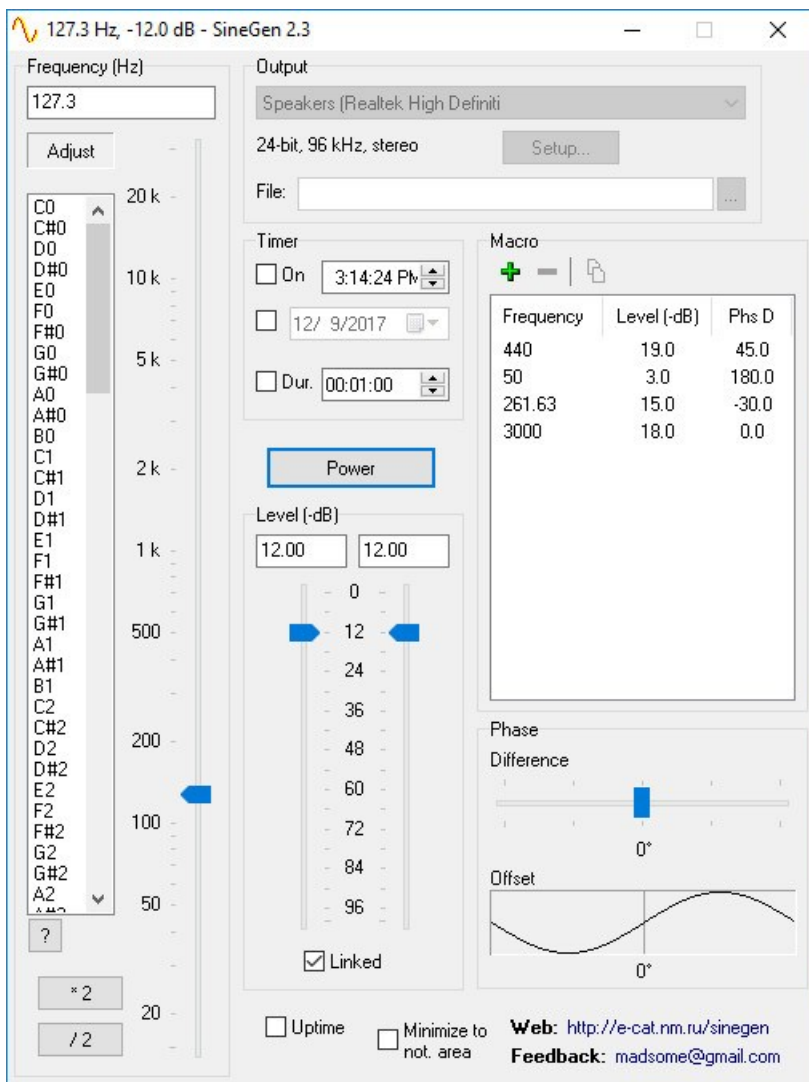
Those costing 2 EURO have a 3 digits display, so it will generate and display only 103 Hz instead of the required 103.5 Hz, for example. The wave is squared, but it is FM and it becomes somehow rounded in the audio chain, which does not keep the rectangle shape because it is all analog.

Experiment:

Is it really necessary such a decimal precision, or in fact that decimal just comes from dividing a single crystal frequency oscillator, and the results are that some PL tones are round numbers, and others just happen to have decimal?

Experiment method:

I used the Kenwood 7900 2 meter transceiver and I connected to various repeaters that require a PL tone. I introduced audio signal from a desktop PC, generated by the free application SineGen. I could variate the frequency and the level of the PL tone supplied to the Kenwood 7900 transceiver. I kept the signal level stable at the nominal PL required tone, and exactly the same level, not more, going a little up and down the PL nominal value.





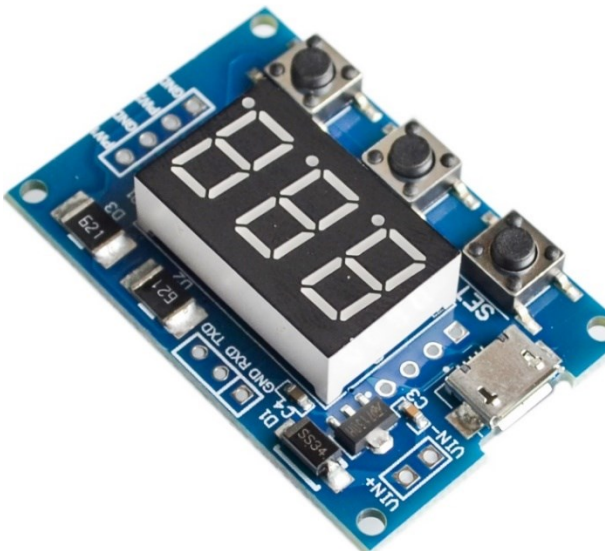
Experiment results:

K7SKW repeater, at 57.5 km tone 103.5 Hz. It works with a tone between 102 and 105 Hz
VE7SER repeater, at 93 km tone 167.9 Hz. It works with a tone between 167 and 169 Hz
VE7RFR repeater, at 94 km tone 100 Hz. It works with a tone between 98 and 102 Hz.
VE7VIC repeater, at 106 km tone. tone It works with a tone between 98 and 102 Hz

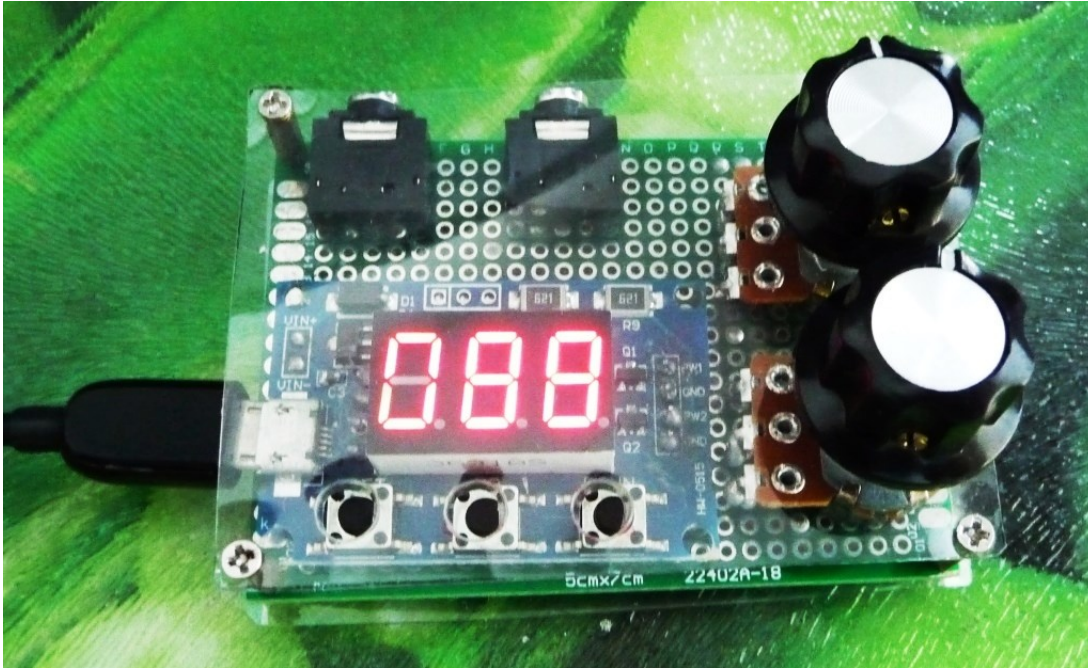
My thanks to VE7GLT from Victoria who helped me try the VE7VIC repeater.

Early Conclusion:

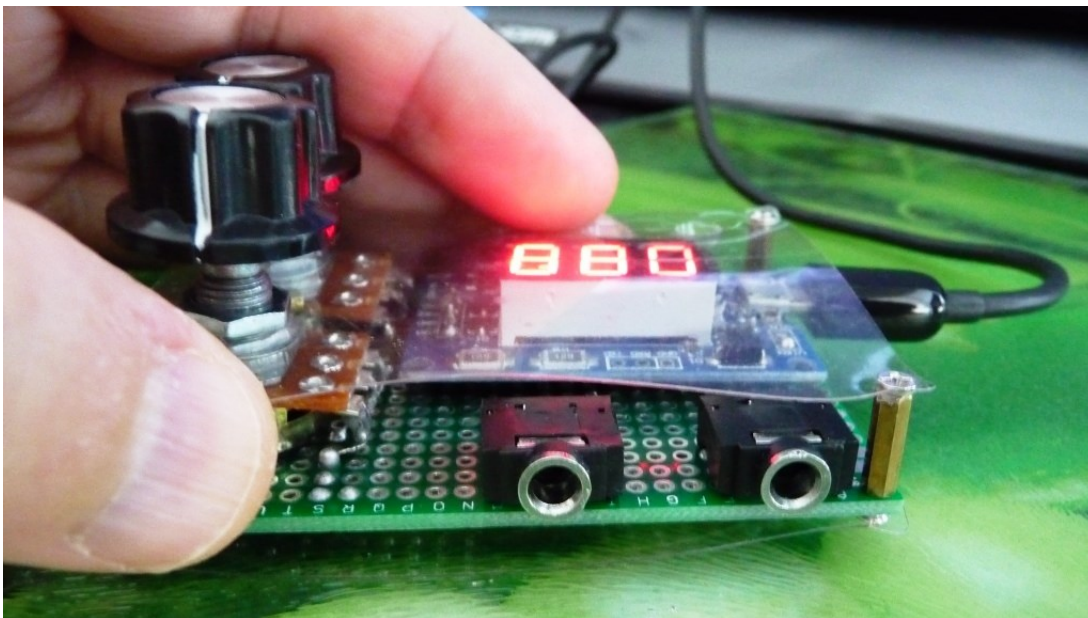
A 2.25 CAD tone board looks OK for the purpose. It worth trying it. I bought it and I wait for its delivery..



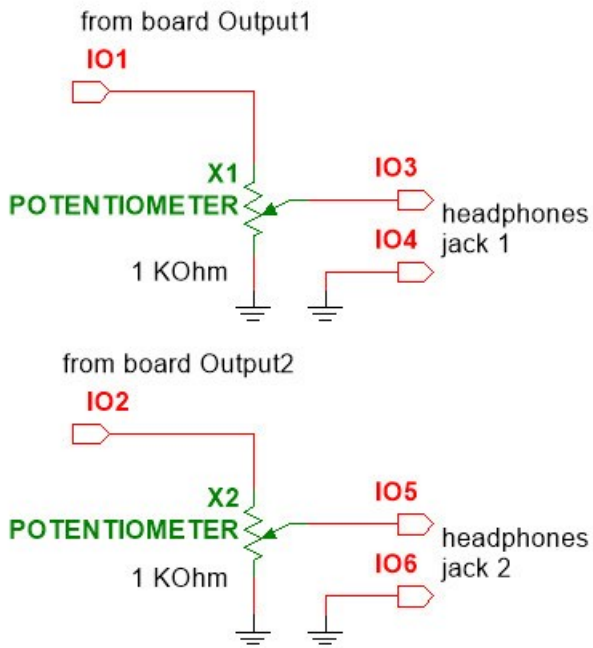
I received the board and I experimented with it. The results are so good that I decided to make it a permanent solution. I used a double sided perforated board as back support, and transparent plastic as protection for both sides, fixed each of them with 4 screws:



I needed the strong double sided perforated board because I mounted two potentiometers, for the two signal outputs, and two independent audio jack from which to extract the signal.



The plastic face has 3 small holes in it, to be able to access the settings. I just put 1 kOhm potentiometers at the outputs of the board I bought from China, and headphones jacks connected at the wipers of the potentiometers:



In March 2020 there are several options of such generator boards, some with one output and some with only one output. For example, with 1.68 EURO, shipping and taxes included, one can buy:



Or, with 3.3 Euro (shipping and taxes included) something already in a plastic case:



It can be power supplied from 3.3 V to 30 V. Strange enough, whoever made the plastic case for this signal generator wrote on it “meter”, which is not.

All the repeaters that I tried tolerated the small difference between the required PL tone and the generated PL tone. We are talking here about a difference of just 0.5 less than 1 Hz, and repeaters accept much bigger differences.

30

"When respect is shown according to what is proper, one keeps far from shame and disgrace." -Confucius.

Radio Relay International was established according to what is proper.

- Our success will not come at the expense of other organizations, operating interests, or individuals.
- We keep far from Machiavellian intrigue and petty politics driven by egotism and self-aggrandizement.
- We believe that quality individuals are attracted to a quality organization.
- We believe an organization is measured by actions, rather than empty promises or words.
- We believe the strength of an organization grows from its roots, not from the top. Our volunteers are our strength.

Others may claim to have the interest of the traffic community at heart, but are they interested in what is proper, or are they interested in power and control? Are their “leadership officials” altruistic or opportunistic?

The Joseph A. Ames Family

“W3JY”

10 Andrews Road

Malvern, Pennsylvania 19355

610-695-0175

Dear Radio Relay International Community,

It is with heartfelt gratitude that we thank all of you for your prayers and thoughtful support for us as we mourn the loss of our beloved Joe. We are humbled and overwhelmed by the level of your generosity. We used your gift of \$2300 to assist with funeral and burial expenses. We believe that Joe's spirit is still present with us, and know that he deeply appreciates your kindness and help for us right now.

Joe had a lovely service, honoring the man he was and the gifts he shared with his family, friends, and the various organizations of which he was a part. Those of you who watched the service are aware that his role in the amateur radio community was highlighted, as his friend and fellow ham, Bob Famiglio K3RF, gave one of the eulogies, commemorating Joe's tremendous contribution to the field. Joe was so passionate about the importance of amateur radio and the critical role that it plays in emergency communications. We know that his level of enthusiasm, commitment, and knowledge that he brought to the table as co-founder of Radio Relay International has been a significant part of the success of RRI. We also know that his loss has left a void, but we hope that his work and passion will continue as others pick up the torch that he carried.

Joe is now at rest at Washington Memorial Churchyard in Valley Forge National Park. Joe was a true American patriot, and viewed his role as amateur radio operator as a patriotic one, serving his local, state, and national communities. If you are ever visiting Philadelphia, we encourage you to visit the park and take in the history. The cemetery is divided into sections named after Revolutionary War generals. Joe is in the General Rochambeau section. There is no headstone yet; we made a cross out of rocks on top of his grave until a marker can be placed.

Thank you again for your generous and kind support for us. God bless you all.

Gratefully,

Joanne, Joey, and Tommy

QNI NEWSLETTER

C/O Emergency
Preparedness Associates, LLC
PO Box 43
Niles, MI. 49120
(833) 377-0722 option 4

Editor: James Wades
(WB8SIW)

Email: jameswades@gmail.com
Tel: 833-377-0722 x 700

Assistant Editor: Kate Hutton
(K6HTN)

Email: katehutton@gmail.com

A Traffic Operator's Newsletter

*QNI is published
quarterly...or more often
when the Editor feels like it!*

All contents are Copyright 2022.
This publication may be distrib-
uted unmodified and in its en-
tirety free of charge to the Ama-
teur Radio Community.



Basic Radiotelephone Procedures

Voice communications remain extremely relevant in all phases of radio communications. Our RRI training class entitled “Radiotelephone Net Procedures” has proven extremely popular with ARES® and other EMCOMM organization throughout the United States.

Voice communications is an important common denominator. Every transceiver has a microphone. Voice methods are ideal for mobile and portable (or hand-held) communications. Unfortunately, misperceptions about voice communications tend to limit efficiency. “Talking” is so natural, that radio operators assume plenty of circuit capacity exists to exchange traffic. “Talking” is so natural, we tend to add unnecessary words, language or content, almost without thinking...but “talking” is NOT “communicating.”

Imagine an ARES® net with 30 operators supporting a disaster response function. Now, imagine that each of those operators has roughly the same amount of message traffic of the same priority. Each operator will have only TWO MINUTES PER HOUR to conduct business!

EMCOMM and traffic operators must be TRAINED to make maximum use of voice circuits. Attend the RRI training class to learn HOW to communicate.

The Long Island CW Club

Are you interested in developing CW proficiency? Perhaps you would like to be sufficiently skilled to participate in CW traffic nets or compete in contests? Perhaps you know of the value of CW as a communications tool but haven't quite taken the step of learning the radiotelegraph code?

The Long Island CW Club offers an extensive series of training classes, forums and discussion groups catering to both the beginning and experienced CW operator. Whether you are just getting started in the process of learning CW, or if you are an experienced operator who wants to learn more about a specialized method, such as how to properly set up and use a bug or send more accurately, the Long Island CW Club has an opportunity for you.

The activity level of the club is fantastic. They hold “Zoom” forums throughout the week on a wide variety of topics, from CW practice and mentorship, to radio technology, boat anchor restoration, telegraph and wireless history, and other fun and interesting topics. Best of all, you don't need to live the NYC area. You don't even have to travel the world's longest parking lot (the Long Island Expressway).

More information is available at: <https://longislandcwclub.org/>