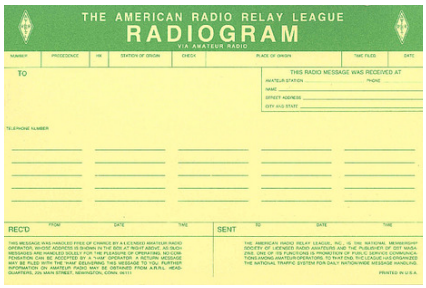
QNI—THE NTS NEWSLETTER

SEPTEMBER 30, 2012

RADIOGRAMS GROUP CALLS FOR BETTER TRAINING

A new "Yahoo Group" called radiograms has been stepping outside the box to promote NTS and investigate new ways in which NTS can be made relevant to Amateur Radio. Represented on this new discussion group are individuals ranging from rank and file ARES and NTS members to Section Traffic Managers, Section Managers, and others with an interest in preserving NTS.


THE AMERICAN RADIO RELAY LEAGUE
RADIOGRAM
VIA AMATEUR RADIO

Join the "radiograms" group and share your ideas for promoting and improving NTS.

Recent discussions have revolved around the need for better member recruitment and retention. In addition, many of the participants feel that Sections must make formal net training available to a wide variety of radio amateurs.

Other discussions have included ideas for promoting accuracy, timely delivery, and better tracking of NTS radiogram traffic. Many of the discussions have been lively and informative. A few have been heated. However, the tone of the "Radiograms" group has offered a positive message of reform and improvement for many active traffic handlers.

In addition to the on-line discussion group, a files section provides a variety of tools designed to aid the traffic handler. This includes training documents, power-point presentations, various forms and other useful documents.

Why not join the discussion? Simply log onto www.yahoogroups.com and search for "Radiograms." You will find participation to be very worthwhile.

VOLUME 1, ISSUE 1

In this issue:

Special CW Net Issue

QNI MISSION STATEMENT

QNI is an *independent* newsletter dedicated to promoting NTS and 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 the *ARRL*, the National Association for Amateur Radio, nor those of any particular NTS net or emergency communications organization.

Our mission is to provide a forum for NTS 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.

The Case for CW

Have you ever wondered why contesters, DX hounds, and CW traffic operators cling to this supposedly obsolete mode? Whether you enjoy CW or whether you wouldn't be caught dead touching a key, this article will at least help you understand the nature of CW and CW nets….

With the elimination of the FCC Element One telegraphy exam for all classes of Amateur Radio License, it is hoped that individuals will now take a more dispassionate, logical look at radiotelegraphy, without concerns regarding possible hidden agendas or other politics related to the regulatory process.

It is the purpose of this article to provide an opportunity for new radio amateurs to gain some insight into the advantages of radiotelegraphy. Ideally, the reader will walk away with a few myths dispelled and perhaps some valuable insights into the motivations of those individuals who continue to strongly support and promote radiotelegraphy despite the development of many new automated digital techniques. Most importantly, it is hoped this article will encourage new radio amateurs to learn and use "CW."

The Beginning…Morse Telegraphy

The fountainhead of all modern communications is the electromagnetic telegraph. The telegraph was a true revolution in telecommunications. It standardized time, made safe rail transportation possible, and revolutionized industry, war, and commerce. It transformed local stock and commodities exchanges into worldwide engines of capitalism and economic progress. The telegraph supported the development of other modern infrastructure, from pipeline storage and distribution systems to modern urban fire departments.

In comparison to the telegraph, its modern successor, the Internet, is simply a refinement. It accomplishes the same tasks more efficiently, but fundamentally, it still performs the same tasks as the telegraph. The real revolution occurred nearly 150 years earlier.

It is interesting to note that the electromagnetic telegraph saw commercial use well into the mid 1980s, at which time it remained in use in railroad, brokerage, and similar business applications. Sadly, modern historians tend to overlook the history of the telegraph, resulting in the general perception that it disappeared with the development of the telephone. Ironically, even the Bell System utilized telegraphy to coordinate the repair and maintenance of long-distance telephone toll circuits, radio and television programming distribution networks, and the like. Telegraph systems were typically less expensive to utilize, easier to maintain, and telegraph carriers could be composited to operate simultaneously on voice circuits.

There must be a reason this very basic technology survived well into the later half of the 20th Century, and it had everything to do with efficiency!

Radiotelegraphy

The development of wireless communications in the late 19th and early 20th century brought the application of telegraphy to radio communications. For the first two decades of the 20th Century, voice communications was difficult to accomplish. The reasons for this are somewhat technical; however, a brief explanation is in order.

Early radio transmitters produced a damped oscillation caused by discharging a high voltage spark across a parallel resonant circuit, which was then coupled to an antenna system. The process was somewhat like ringing a bell. Each high voltage discharge across the gap would excite the L-C circuit, which would then "ring" at its resonant frequency with a decreasing amplitude (decrement) over time until again excited by the succeeding high voltage spark discharge. The "damping" effect associated with early spark transmitters made it impractical to modulate these early RF carriers.

In an attempt to overcome the deficiencies of early spark technology, continuous wave transmitters were developed, which produced "undamped" oscillations. The earliest versions produced high-power, long wave signals utilizing alternator and arc technology. While this improved efficiency through better energy transfer and narrower bandwidth, such systems were also difficult to modulate due to the high power levels employed.

Only with the development of reliable, stable vacuum tube transmitters in the late 'teens and early twenties did it become possible to efficiently transmit voice communications. Low-level circuits could be modulated at manageable levels, and the modulated signal could then be amplified to achieve the needed power output and coverage area required of the radio transmitter. This gave birth to a wide range of technological applications such as commercial radio broadcasting, police radio dispatching, long-distance radiotelephony, and so forth.

It is interesting to note that utilizing "CW" as a description for radiotelegraphy is somewhat of a misnomer dating from this early period. The term actually arose to differentiate a continuous wave radiotelegraph transmitter from its predecessor spark technology. In a sense, all modern radio and wireless devices utilize

continuous wave, from 1920s radio transmitter to the latest cellular telephone or wireless Internet device!

Why CW?

So why did radiotelegraphy, or "CW" remain in widespread use for so many years after the development of voice communications? Why is it still utilized today for some applications? Why do so many radio amateurs place so much emphasis on what often seems to be "just another mode of communications" to the uninitiated? The answers are many!

Efficiency:

A competent radiotelegraph operator can transfer information at a maximum speed of perhaps 40 to 60 words per minute. The average person on the street talks at speeds ranging from 200 to 300 words minute. Yet, the radiotelegraph operator will often clear message traffic at speeds ranging from two to four times faster than a voice operator handling identical traffic. It seems paradoxical doesn't it? The reasons for this are surprisingly straightforward.

First, voice methods encourage unnecessary language. The convenience of voice methods, and their similarity to daily, casual discussion, guarantees that a radio operator will *trend* toward adding unnecessary phrases, comments, and clarifications. The *perception* that plenty of time is available on the radio circuit due to the immediacy and convenience of voice communications encourages operators to "think aloud," and engage in spontaneous, informal communications and problem solving.

Second, even when voice methods are managed through strict discipline and training, such as on military radio circuits, problems arise. The letter "B" sounds like "D," which in turn sounds like "E," and "C" and so on. Therefore, it becomes necessary to institute phonetic alphabets and similar procedural phrases to maintain accuracy. When such practices are bypassed in favor of speed, receiving operators tend to make assumptions about the meaning and nature of words, which may only have been partially perceived. For example, a public health message in reference to "pneumonic plague" is transcribed as "bubonic plague." "Ethyl" becomes "Methyl" within a complex chemical name, and so on.

Radiotelegraph operators, on the other hand, trend toward eliminating unnecessary language. The fact that the individual operator naturally "thinks" faster than he/she can send constantly encourages the elimination of any unnecessary word, phrase of procedure. Furthermore, phonetic alphabets are unnecessary due to the fact that every sound pattern for the various Morse characters is absolutely unique. For example, complex chemical names containing "Methyl" or "Ethyl" are more likely to be transcribed accurately.

It is not uncommon to hear one operator transmitting a quantity of messages to a receiving station, only to hear a single "dit" as acknowledgement of receipt between the messages. This is an example of the trend toward limited language inherent in CW methods. In this example, both operators intuitively understand that the "dit" indicates acknowledgement.

Both a language and a system:

Radiotelegraphy is unique in the world of radio communications because, in the hands of an experienced operator, it becomes a hybrid between a communications method and a natural language. As such, it combines the best benefits of a digital radio system with the intuitive nature of language. The skilled operator thinks in Morse, he processes the language of Morse "in his mind" in the same way he responds to voice communications, yet, when it comes time to transcribe information, he can do so with greater accuracy due to the "digital" nature of the mode. The operator can seamlessly move from a basic discussion or tactical problem solving mode to a record message traffic exchange with ease.

This is a difficult concept for the beginning radio operator or the uninitiated to understand, particularly when one's experience with Morse is limited to 5 or 10 words per minute and before he has successfully made the transition to the point where he can process Morse in the same manner he does the spoken word. As in the case of learning a foreign language, it takes time and effort to develop the skills necessary to utilize Morse as a language. However, once one does, an entire new world of communications efficiency opens to him.

Technical benefits:

We have all heard the tired old explanation that a simple CW transmitter can be easily constructed from just a few parts. This is true, but few today are willing or qualified to do so. However, CW offers a variety of benefits, which make it ideal for basic emergency communications.

First, a ten to twenty watt CW transceiver offers the same level of efficiency as a 50 to 100 watt voice (SSB) transmitter. This has everything to do with bandwidth. Whereas a CW signal occupies perhaps 200 Hertz of spectrum, voice and some data transmissions occupy up to 4000 Hertz of spectrum. So why is this important?

In a disaster situation, one can operate a CW transmitter and communicate reliably in an net situation for days utilizing little more than a couple of lantern batteries or gel cells as a source of primary power due to the low RF power output required for reliable communications. In order to accomplish the same level of reliability, a voice transmitter requires a generator and fuel for extended operation. Those that suggest this is a minimal obstacle have never tried to locate fuel in a disaster area,

nor have they tried to compete with police departments, fire departments, state and federal agencies, hospitals, and other critical services for any fuel that remains available.

Drop a CW operator into a disaster area with a simple man-pack radio, a couple hunks of wire, a solar panel and a few gel-cells, and one has a reliable communications system, which can operate indefinitely. Unlike those operators employing digital modes, he will not need to worry about powering a laptop computer, PDA, and similar peripheral devices, all of which consume additional power. Furthermore, many computers and electronic devices are easily damaged by environmental factors, such as rain, vibration, and so forth. A simple CW unit can be kept nice and dry, with only a simple key exposed to the elements.

Multiplexing:

Set up a radio network with multiple stations, and one quickly discovers that occupied bandwidth is an issue for other reasons. A CW net can efficiently dispatch multiple stations off-frequency to simultaneously exchange message traffic with minimal impact on overall spectrum use. Unfortunately, voice nets find that the same technique creates real problems. Send two voice operators to simultaneously exchange messages on adjacent frequencies, and one quickly discovers that a single net operation is now consuming a minimum 10.5 KHz! Toss in a couple speech processors or inappropriately adjusted transceivers, and that figure expands yet further.

The fact is, a single CW net can send several traffic exchanges off the main net frequency and still have less impact on adjacent users than a single voice net.

Q-Signals:

Q-Signals, procedural signs ("prosigns"), and the like offer little advantage on voice, yet they do wonders on CW. A net control operator may say WB8SIW QNY K8SIW d 3 SEOC. Both stations respond with a simple "dit" and they are now 3-KHz lower exchanging a message for the State Emergency Operations Center.

Q-signals, Z-signals, and similar abbreviations and prosigns convey tremendous amounts of information with minimal time and effort. Unfortunately, they do not translate well to voice operation for the reasons mentioned above.

Language barriers:

Not only do Q-signals and prosigns translate universally via CW, a qualified CW operator can transmit and receive messages written in many foreign languages without knowledge of the language itself. The International Morse Code is quite universal and facilitates message exchange despite barriers that would be insurmountable using voice methods.

Basic level of security.

While it is true that some computer programs can detect and decode CW, they often respond poorly to hand-keyed Morse. Additionally, Morse nets are difficult to locate unless one has some prior understanding of net times, frequencies, and procedures. A typical media outlet is not likely to comprehend "QNY D 3" or QMN QNA SEOC." Rather, they will seek out the voice nets, which are easily understood and followed with a minimum of effort. For situations in which a degree of confidentiality is required, CW is an excellent choice.

CW offers an additional advantage. Whereas voice nets are often inundated with spontaneous, untrained volunteers in time of emergency, CW nets often continue to operate unaffected. While the unfortunate voice operators are contending with inexperienced individuals, poor procedures, and unnecessary language, the CW net keeps right on moving traffic, often at peak efficiency.

Analogs:

Many anti-CW operators point to the fact that the Department of Defense and maritime services no longer utilize CW. This is not entirely true. US Army Special Forces personnel are still trained in Morse, and many of the world's militaries still utilize it, albeit to a much lesser extent than in years past. In fact, the military and maritime services have not so much abandoned CW as they have abandoned the High Frequency infrastructure, which once required its use. Global satellite platforms now support much of our military and maritime communications. As such systems are immune to selective fading, geomagnetic storms, and similar propagation anomalies; there is little need for CW.

Unfortunately, Amateur Radio does not have access to the same stable, geosynchronous satellite systems. Instead, Amateur Radio continues to rely on High Frequency spectrum for a much of its statewide, regional, and international communications. Such spectrum continues to prove problematic for high-speed digital modes and voice communications due to occasional solar flares and the like.

CW does offer tremendous advantages under poor propagation conditions. This fact, combined with the advantages noted above continues to render CW of value for both routine and emergency communications functions via Amateur Radio.

Digital Modes:

Today, radio amateurs have access to numerous digital modes, some of which occupy limited bandwidth and offer surprising reliability. However, problems arise here as well. Whereas SSB and CW are common denominators, readily available on nearly all High Frequency transceivers, digital modes are not. Visit a random sample of 100 digital equipped operators, and one quickly discovers that no common system is universally available. Unlike an army signal corps, which has universal standards enforced to insure interoperability and uniformity, no such standards exist within Amateur Radio. One will encounter different terminal software, different TNC command structures, and a variety of different digital capabilities amongst Amateur Radio stations.

In reality, voice and CW are the only universally available common denominators within Amateur Radio. A qualified operator can walk up to any HF transceiver, plug in a microphone or key, and communicate instantly on a radio circuit, regardless of the age or type of HF radio transceiver.

It is interesting to note that many digital modes are also cumbersome in a net configuration. Whereas break-in CW offers instant access to a radio net for high-priority traffic, this feature is difficult to implement on a digital radio net. As stated earlier, the fact that CW combines both language skills and many features of digital communications allows a single net control station to quickly check individuals in and out of nets, provide rapid instructions, and yet clear traffic accurately. This is one reason why many emergency drills have revealed that CW nets are consistently more efficient than PSK-31, MFSK-63, and similar modes.

I***s Amateur Radio needed?***

Some will argue that modern cellular telephone, Internet, and satellite infrastructures are sufficiently developed to the point where High Frequency communications is no longer needed. The argument is somewhat inferential; if Amateur Radio HF resources aren't needed, then by extension CW is not needed. As such, any imperative to learn or develop CW proficiency is moot.

The devastation of Hurricane Katrina revealed the fragility of our nation's common carrier infrastructure. Ultimately, satellite telephones provided significant service for many government agencies. However, satellite telephones have some significant disadvantages, not the least of which is cost. The average call via satellite telephone can range from 1 to 3 dollars per minute, a steep price for many non-profit relief organizations. Satellite telephones are also problematic when utilized inside buildings.

Most modern telecommunications networks are extremely reliant on the electrical power grid. The distributed nature of networks means many nodes, control points, and RF access points are backed-up only by battery power. This is sufficient for 99 percent of power outages, which may last only hours or days. However, it is extremely insufficient for long-term outages. The fact is, any major disruption to the US electrical power grid due to natural disaster, technological disaster, or coordinated terrorist attack is likely to disrupt extensive segments of most modern networks. Yet, a CW equipped HF operator will be able to efficiently transfer basic text information indefinitely through the use of renewable energy and similar techniques.

Sadly, both the general public and the US government have been lulled into a level of complacency. Our infrastructure is the best in the world and it is so ubiquitous and reliable, most individuals are incapable of imagining a situation, which may render large portions of it inoperative. Yet, such hazards do exist and do occur from time-to-time.

***Non-profit and decentralized*:**

There remains a place in society for a non-profit, decentralized radio service that is neither dependent on extensive infrastructure nor controlled by any particular government or business organization. Amateur Radio offers independence, survivability, and remains an unprecedented disaster communications resource.

CW in general, and CW nets in particular, offer great reliability and tremendous efficiency for both casual use and emergency communications. The wise radio amateur will want to invest the time and effort necessary to become fluent in the language of radiotelegraphy. It is not only fun, but incredibly useful as well.

Mode Parochialism

This first issue has a number of articles about the "first and oldest mode;" radiotelegraphy. However, we do wish to point out that *QNI* is a non-partisan publication. In future issues, we will publish articles about all modes used for traffic handling including voice modes, digital methods, as well as all flavors of traffic nets.

We believe that mode parochialism is a bad thing. There is room for every method in emergency and public service communications. Each mode had advantages and disadvantages, which should be considered when selecting the best method to apply to a particular emergency communications function.

We support the development of new methods and new technologies. However, we also believe that technologies are not necessarily mutually exclusive. There may be times when CW is the best option for a particular application. There may be times when WINLINK offers advantages and so on.

Most importantly, traffic handling is an enjoyable operating activity. As such, there is room for everyone to use their favorite mode while developing the skills needed to prepare for a major communications emergency.

Section Updates

In future issues of *QNI,* we hope to include a variety of news from various ARRL Sections and independent nets throughout North America. In particular, we want to know what is happening in your section. We want to know about your successes and failures. Has your section tried a new and innovative program, which is showing results?

Submit your news to *QNI.* Share your ideas and experiences so we can improve NTS throughout North America.

HF Mobile

By James Wades, WB8SIW

I travel extensively on business. With problematic air travel, which is a nice way to say the airlines treat people worse than most farmers treat their livestock, I now travel by automobile to appointments, which are within a day's drive. Of course, six or eight hours behind the windshield has its disadvantages beyond the high price of gasoline. For example, one quickly learns that eight hours of "talk radio," whether it's the conservative, liberal, or the sports variety gets on one's nerves! Two meters also isn't much of an option these days. Even in large metropolitan areas, repeaters have fallen into disuse due to more pressing distractions such as text messaging and smart phones. If one does hear a fellow radio amateur on a repeater, he often won't talk to "outsiders."

Recently, I was issued a new company car. It's one of those nice little Nissan SUVs, which, of course, can't be modified in any way. Fortunately, I had a new low-profile Comet UHV-6 HF mobile antenna sitting in storage. Therefore, I was able to install it on the vehicle without drilling any holes. Because I travel to some unpleasant areas, such as questionable neighborhoods in Newark, Camden, Detroit and the like (I've had three cars stolen) it is unwise to leave anything of great value in the vehicle. Furthermore, company policy prohibits drilling holes in the dash board.

Fortunately, despite money being tight these days, it turns out I have an old Special Forces PRC-320 man pack radio that does very little. It fits nicely on the passenger seat, and its straight key straps conveniently to one's leg. It offers either three or twenty watts output, CW or SSB, which is more than sufficient for HF communications. When traveling, I set it on the seat beside me, connect the mobile antenna coax, strap the key to my leg, and I'm on the air! At night, the radio can be slung over my shoulder and carried into the hotel room, where it is safe from theft.

Being active on HF mobile using CW yet again reaffirms my confidence in the mode. I have had reliable mobile contacts while running as little as three watts. After a recent QSO on the SKCC frequency, I was called by a German station (DK2SC), and we had a pleasant 20 minute chat while I drove down US-131 in Michigan.

One can also check-in to traffic nets…and *one can be heard reliably*. I have no doubt that in the event of a major disaster, I could exchange message traffic with ease using this simple HF mobile installation. Of course, the armed forces have been using HF portable and mobile units for years, so this should come as no surprise. However, many new hams often think only in terms of the convenience of two meter repeaters or they believe it is necessary to run considerable power or perhaps the digital modes for reliable communications.

While two meters and similar resources remain the backbone of disaster communications, HF mobile offers yet another option for a variety of applications ranging from overflow traffic to medium or long-haul circuits, or situations in which VHF repeater networks are at capacity or unavailable due to damage.

NTS nets as well as many independent nets meet throughout the day. In the absence of a local VHF ARES net or cellular service, one has many options for requesting assistance or setting up an ad-hoc circuit to clear message traffic on behalf of one's community or a disaster operation. Best of all, the use of NTS nets provides a greater likelihood that the operator on the other end of the circuit has the basic skills needed to handle and process formal message traffic.

Perhaps most importantly, HF mobile is not difficult. The time invested in setting up my installation was a couple of hours on a Saturday morning. Because I am rarely home, I was almost never on-air. Now, I can have some fun with ham radio and be better prepared in time of emergency.

-30-

Spam-Grams vs. Real Traffic

The NTS is a multi-faceted organization that operates on several levels.

First, NTS is a system. The layered networks are designed to integrate seamlessly to ensure traffic systematically moves across the Continent in a timely manner. In reality, NTS does this quite well. Most delays occur at the Section level when outlets can not be found for a particular message.

Second, NTS is an operating activity. It offers a genuine operating challenge, which is far more difficult than chasing numbers or casual QSOs. In some respects, it is more challenging than DXing and contesting. The message content varies greatly, and one MUST be able to communicate at specific times, over specific distances, on any net day, regardless of propagation conditions.

Third, NTS is a service. It is designed to train radio amateurs in basic net procedures and public service communications in a convenient manner. While it does this, it offers the opportunity for radio amateurs to reach out to the public and explain the hobby, its value, and its purpose. This later function takes place during the radiogram delivery process.

Finally, NTS is an emergency network. Nets meet throughout the day, any of which can be immediately pressed into service in the event of a communications emergency. Best of all, the majority of NTS volunteers already have the skills needed to support such an operation.

It is tempting to try to compare NTS to common carrier networks, such as cellular data systems, "Ma Bell," or the Internet. Some apply a certain inferential fallacy of logic in this way to argue that NTS is "obsolete." Yet, they overlook the fact that NTS never had the capacity to compete with a Western Union, Postal Telegraph, or AT&T, whether it was 25-years ago or 50-years ago.

NTS was never designed to be a poor man's telecommunications common carrier or a pale imitation of the Internet. Rather, it was intended as an enjoyable operating activity, with a parallel purpose focused on emergency preparedness.

In reality, NTS is probably Amateur Radio's best kept public relations secret. If a significant number of radio amateurs became involved, a real diversity of meaningful, personal radiograms were originated, and new and innovative methods for delivering message traffic were implemented, each radiogram could be a tool for promoting Amateur Radio and raising its visibility in the mind of the public. In other words, every radiogram would become a direct marketing advertisement for our hobby.

Consider these ideas for improving our NTS program:

1. Imagine an attractive HTML radiogram form upon which a copy of a message could be delivered to the addressee as a follow-up service via e-mail. The background would be the traditional "green and yellow" radiogram blank. However, it would also include links to the ARRL web page, perhaps the local radio club of the individual delivering the message, information about upcoming licensing classes or links to local emergency preparedness information!

2. Imagine a program in which radio clubs or ARES groups would be recruited to support NTS; a NTS certified city or county program could be created for example. Those originating a radiogram would be able to access an online list of those locations at which there is an assurance that a group or organization has taken steps to ensure an outlet is available on a daily basis. This would do much to ensure radiograms arrive at their destination for delivery within 24 to 48-hours!

3. Imagine a series of good-quality training videos available on a web page in which the basics of NTS, net procedure, and the radiogram are clearly explained. A set of separate videos could introduce methods such as voice, CW, and digital techniques.

4. Imagine each Section having a *real* STM whose job extends beyond collecting net reports to recruiting, retention, and *real* emergency preparedness in concert with the SEC.

5. Imagine creating innovative programs, which collect weather data, river gauge data, or even water quality data for natural resources agencies, which is then originated and delivered via NTS?

What are your ideas? Do you believe that NTS has real value if properly supported? Who will come up with the ideas needed to make NTS a mainstream operating activity like DXing, contesting, or "rag chewing?"

It can be done. However, experience shows the necessary support won't come from ARRL Headquarters. Instead, it is up to each and every one of us who is active on existing NTS nets.

Instead of waiting for others to do something for us, why not get your fellow net managers and your most active traffic handlers together in your section. Put together a Committee and become activists. Change is up to us!

Is an idle committee a dangerous thing?

What is the difference between a manager and a leader? More than one major industry has been "managed" out of existence. A lack of a cohesive vision and planning for the future has led to irrelevance or the loss of that "competitive edge." However, some businesses continue to thrive, thanks to leadership that understands the difference between "management" and "vision."

NTS is well managed. We have numerous committees and managers, who recruit volunteers, maintain statistics, or simply keep things going. However, one might argue that NTS is a headless animal. Unlike the old "Communications Department" of years ago, there is no one articulating a vision of the future for NTS. There is no one individual advocating for the system.

Perhaps the time has come for NTS to create a Committee, *the focus of which is NTS.* This would not be another "blue ribbon public service committee," but rather a Board of Directors charged with the responsibility of promoting NTS and implementing ideas, which will improve its viability.

Such a Committee would be charged with the responsibility to develop methods for improving NTS at the grass-roots level. It could support NTS by distributing a positive message to the broader Amateur Radio community. This could be done with or without the support of ARRL Headquarters. This does not mean the process should be adversarial, but rather that it should simply recognize the fact that the "League" is now focused on operating activities toward which it has a strong bias; activities, which do not include NTS.

Are You an Author?

Are you an author, or do you just have strong (constructive) opinions? If so, why not write an article for submission to *QNI?*

Any subject applicable to traffic handling or *real* emergency communications preparedness is most welcome. Don't worry about grammar and punctuation. There is a reason most publications have an editor. Most importantly, the Editor shouldn't be writing all the articles himself. **Fresh ideas are always needed**.

Pick up a pencil or sit down at a computer today, write up an article designed to inform, enlighten, or entertain your fellow NTS members.

Upcoming "Digital" Issue

In our next issue, look for a feature article explaining the NTS Digital System and how to get started in this exciting and up-to-date program!

The Origin of "30"

We have been asked why we insert a "30" at the end of some of our articles. This is a homage to the telegrapher. "30" originated with the Western Union Wire Codes. It means "end of work." It was traditionally transmitted at the end of press reports. Eventually telegraph editors picked up the habit of using "30" at the end of newspaper articles, and, over time, it became a tradition.

Of course, the public never saw "30" in a print publication. Yet, older newsmen are likely quite familiar with it. We include it here because NTS has much in common with the telegraph networks of the past. Many of our traditions originate with telegraphy, including the radiogram form, which is simply a modified version of the Western Union message format.

Amateur Radio Operators use "30" on a regular basis, yet few realize it. The prosign "SK," transmitted as "di-di-di-dah-di-dah" is actually the numerals 30 in American Morse Code. In this older code used by railroad and commercial telegraphers, the numeral 3 is "di-di-di-dah-dit" and the numeral 0 (zero) is the long dash or "daaaah." In Amateur Radio practice, the 30 has essentially the same meaning, which is "close of work," which is transmitted at the end of a CW QSO.

So next time you see "30" at the end of one of our articles, give some thought to the men and women who were the pioneers of the first true telecommunications revolution. After all, the Internet and mobile data networks are simply a refinement compared to the revolution of telegraphy. When some suggest there is an "Internet Revolution," they overlook the fact that the real revolution started over 150-years ago with four simple words…

"What hath God wrought?"

-30-

E. Frank Bowen—Press Telegrapher at the Detroit Free Press c. 1954

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NEWSLETTER

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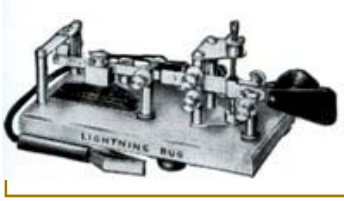

Why handle traffic?

In an era in which instantaneous communications is ubiquitous, it is tempting to ask "why handle traffic?" The question is usually phrased in a rhetorical manner as if to say "why bother with a quaint anachronism such as the radiogram and traffic nets?

The reasons for becoming active in the NTS are many. For example, consider these possibilities:

1. NTS nets provide valuable, convenient training ideal for preparing the individual for operation in emergency nets of *any* type. Operators learn the correct usage of prowords and net discipline.

2. NTS provides a readily available communications resource throughout the day, which can be pressed into service in time of emergency.

3. The radiogram format provides better accountability and audit control of important communications. The radiogram format translates readily into any of the common ICS or FEMA message formats.

4. NTS is a challenging and fun operating activity. In many respects, it offers greater variety and content, which is far more challenging than contest exchanges or the usual "RST-QTH-Name" exchange.

It is easy to be lulled into complacency by cellular data networks, smart phones, and the ubiquitous Internet. Yet, what happens when the big one hits? For that matter, what happens when a fiber optic cable is cut, isolating your community from the rest of the world?

Have some fun while developing useful skills. Get involved in a NTS net today!

ILLINOIS CW NET TO BE RE-ORGANIZED

The Illinois Section has always had an active Amateur Radio community. However, in recent years, the various NTS nets have suffered from diminishing participation and traffic levels. One casualty of this trend has been the Illinois CW Net, which went "dark" over a year ago.

Thanks to a supportive Section leadership, there is a movement to revive ILN. A new discussion group has been formed to exchange information and coordinate the re-establishment of the net.

The ultimate goal is to provide a robust and reliable CW emergency communications network to serve the State of Illinois in time of emergency. Because the state is on the New Madrid fault and because it is also subject to major tornadoes and similar disasters, access to an effective and highly survivable CW net could prove very advantageous.

CW Nets are ideal for facilitating low-power, portable operations using compromise antennas and renewable energy sources. While not a substitute for newer digital methods or traditional voice nets, CW is an ideal additional tool in the emergency communications "tool belt."

Plans call for operations to commence on November 1. The net will meet at 7:15-PM Central Time (0145Z) on 3438-kHz.

Liaison will be provided to NTS Cycle 4 for both CW as well as the Illinois SSB Net. A late session will be established as participation levels increase.

If you live in the State of Illinois, please support ILN!