



October, 2011

Volume 16, Number 10

NNN0ALL Minnesota

by NNN0GAZ Tim

Greetings. To all of you who participated in the emergency communications drill in September – THANK YOU! Your efforts did not go unnoticed. For those of you who missed the drill – there will be yet another opportunity to participate before the end of 2011. I encourage all of you participate in evening nets, listen in to the training net and participate in our next drill, it is time well spent.

With our MARS emergency communications exercise comes the review. We have some errors to correct, nothing serious. Over the next month I trust that our training and emergency communications officers will be working to resolve any issues through training and discussion. One thing I do want members to realize – as you fix the obvious issues through training, the folks evaluating us will look closer. Once we’ve “picked the low hanging fruit,” reviewers look closer pushing us to become better – and that is ultimately our goal, to get to a point where even the reviewers have to work to find issues.

Over the next month or so, the Minnesota Emergency Communications Plan will be getting a review and update. With the release of the Region

Five Ecom Guide, it is time to update old procedures and bring our local plan up-to-date. We will be eliminating references to the MDS, including updated addressing, basically giving the plan a new look. When we’ve got it done, we will distribute the material to all hands for a review and questions.

After a two-month process, I think we’ve arrived at a replacement for Community Zero. You will find additional information inside. Let us know what you think.

For those looking for a fun activity – the annual Jamboree-on-the-Air takes place in October. We’ve included information about this scouting program that introduces young people of both the Boy Scout and Girl Scout programs to amateur radio. I’ve personally taken part in this program; it’s just as fun for the sponsors as it is for the participants.

Please remember our evening nets. We are always in need of additional stations to serve as NECOS or TREPS. As the weather begins to cool and the sun sets a little earlier, please join us for the net, some

training and conversation.

Enjoy this issue of the Minnesota MARSGRAM.

BT OVER



The MINNESOTA MARSGRAM is published for the benefit of Amateur Radio Operators in Minnesota and other interested individuals. The contents DO NOT reflect official Navy positions.
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MINNESOTA TRAFFIC NETS

Designator	Frequency	Local Times
5G1B	Pri. NCE	18:30 Daily
	Sec. NBG	
	Ter. NAR	

MINNESOTA ADMIN. NET

5G4A	Pri. NCE	19:00
		2nd Sunday

Website <http://www.mnmars.org>

Test Your NIMS Knowledge

Each month we take a look at a topic covered in the FEMA on-line courses required of all emergency communications volunteers. See how much you recall from the course.

The use of common terminology for ICS titles helps to reduce confusion between a person's position on an incident and his/her:

- A. Day-to-day position.
- B. Level of authority.
- C. Chain of command.
- D. On-scene responsibilities.

Check in next month's MARSGRAM for the answer.

September NIMS Solution

An Area Command organization does not include an Operations Section because:

- A. Operations are conducted on-scene.

BTOVER



Art Collins was one of our greatest pioneers. He was instrumental in introducing something to the Air Force in the early 1950's. What was it?



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Community Zero Replacement

In the July Minnesota MARSGRAM, membership was made aware that CommunityZero.com was ceasing operations on July 31, 2011. Since that time, NNN0GAZ has been evaluating other sites and also working with NNN0GAZ THREE to determine if we could keep our "secure" materials on our own website.

Maintaining secure folders on our current mnmars.org website requires additional work on the part of the Webmaster. Due to the nature of rosters, Ecom Plans, etc. frequent changes of material are necessary – and the frequency seems to be even more often of late.

One site has emerged as being reasonably priced and easy to configure and maintain. That site is "Keep and Share," information can be found at <http://www.keepandshare.com>.

This site would function similar to Community Zero, one membership is paid and all others can login to download files, review calendars, see to do lists, etc.. At this time we are asking you to simply look at the site and read through some of their material.

Some questions that have come up....

- Why do we need somewhere to store these files, just email the material to us? The reason we began storing information was so that members would have access to a variety of material on their terms, 24 – 7, not when someone got around to mailing material.

- Why do we need to pay? We can go the "free" route, however, the host company needs to pay for operations and they do so by selling advertising on their sites. To avoid the advertising, we pay a membership. At this time no one is being asked to pay anything, we are simply asking you to have a look at the site. Keep in mind, the current state website is being hosted on the state director's ISP, at no cost to the membership. We could host at navymars.org, however, we are then not permitted to have certain materials on our website and there is some influence to make the site appearance "uniform" with other state, region and national sites.

Please have a look at the KeepandShare information and ask any questions you may have.

BTOVER



Q. Which insects are the smartest?

A. Spelling Bees!

Training Corner

Operating Signals "Q" And "Z" Part 2

by: Bob, NNN0GAZ FOUR

The listing of the "Q" signals, as is the listing of "Z" signals, is contained in NTP8 (D), ANNEX C, Para. C100. "Q" signals may be used in military communications where no suitable "Z" signal exists. Of the approximately 50 signals set forth in Para. C100 there is listed below a sample or selection of those that might be used in Pactor or sound card modes.

INT QAP Shall I listen for you (or for...) on ...KHz (...MHz)?
Note: if the frequency is given in megahertz, the abbreviation MHz to be is to be used. (See also signal QSX).

QAP Listen for me (or for ...) on ...KHz (...MHz). Note: if the frequency is given in megahertz, the abbreviation MHz is to be used. (See also signal QSX.)

INT QCX What is your full call sign?

QCX Use your full call sign until further notice.

INT QRA What is the name of your station?

QRA The name of my station is ...

INT QRB How far approximately are you from my station?

QRB The approximate distance between our stations is ... nautical miles (or ...kilometers).

INT QRG Will you tell me my exact frequency (or that of...)?

QRG Your exact frequency (or that of ...) is ...KHz (or ...MHz).

INT QRH Does my frequency vary?

QRH Your frequency varies.

INT QRI How is the tone of my transmission?

INT QRM Are you being interfered with?

QRM I am being interfered with ... 1) nil; 2) slightly; 3) moderately; 4) severely; 5) extremely.

INT QRN Are you troubled by static?

QRN I am troubled by static 1) nil; 2) slightly; 3) moderately; 4) severely; 5) extremely.

INT QRO Shall I increase transmitter power?

QRO Increase transmitter power.

INT QRU Have you anything for me?

QRU I have nothing for you.

INT QRV Are you ready?

QRV I am ready.

INT QRX When will you call me again?

QRX I will call you again at ... hours on ... KHz.

INT QRZ Who is calling me?

QRZ You are being called by ... on ...KHz (or MHz).

INT QSB Are my signals fading?

QSB Your signals are fading.

QSK I can hear you between my signals; break in on my transmission.

INT QSL Can you acknowledge receipt?

BTOVER

Two Speed Soldering Iron

By Lyle, NNN0APL

Here's a simple way to convert your single speed soldering iron into a two speed model. It makes a 50W iron into a 50W/25W iron, or a 100W iron into a 100W/50W iron. This is especially useful when soldering many of the small components and wires in present day equipment.

An added benefit is that you save soldering iron tips from burning up, by leaving the iron turned on in the low heat mode, until you need full heat for soldering larger items. It takes very little time to return to full heat from the low heat mode. Much less time than when you used to turn your iron off and on or unplug it and plug it back in again. I've used my irons this way for over 25 years, but have never seen anything written up, so I thought it was time to share it.

The modification consists of inserting a silicon diode into one side of the ac power cord, with a SPST lamp cord switch to short out the diode for high power. Here's a picture of the finished unit, and a second picture showing the 1N4004 diode mounted inside the switch. (Any silicon diode can be used that will handle the power and line voltage of your iron. The 1N4004 is rated at 1A. 400V PIV, and will safely handle a 100W iron on 120V AC):

An added feature that doesn't show up very well in the pictures, is that I have marked the visible portion of the thumbwheel on the switch, with a permanent marker to be visible when in the high power mode. When switched to the low power mode the black markings disappear inside the switch cover.

Use a good sturdy switch. There are some flimsy ones around. Mine is a

LEVITON 6A. 125V that is large enough for the diode and the 3W AC power cord of my iron. I had to enlarge the lamp cord entry holes with a side cutter and file. I also had to cut off the sharp



brass points of the prongs designed to pierce the lamp cord insulation and contact the lamp cord wires. Next I soldered the diode across the two switch contacts and then cut one side of the line cord and soldered each end to opposite ends of the diode.

(Tip! You should use a different soldering iron than the one you are converting, to solder these connections!) Carefully reassemble the switch housing so that the diode switch and AC cord fit inside.

BTOVER

Heathkit Returns

A notice on the Heathkit website announces that the venerable kit manufacturer, well-known to all Amateur Radio operators of a certain age, will be reentering the kit business in late August. The notice states, in part: "Heathkit will debut their new line of Do-it-Yourself kits for common around-the-house items. The first kit will be a Garage Parking Assistant (GPA). The Garage Parking Assistant kit lets you build your own system that uses ultrasonic sound waves to locate your car as it enters the garage. The system signals to the driver using LED lights mounted on the wall when the car is detected and in the perfect spot for parking.

"The GPA-100 kit consists of two primary assemblies — the LED Display in kit form and the pre-assembled ultrasonic range module. The kit will include everything you need to complete the project except a soldering iron and hand tools.

"Next on the market will be a Wireless Swimming Pool Monitor kit followed by many more.

Heathkit wants to continue to bring to its customers interesting, unique Heathkit products. Heathkit is interested in learning what types of products kit builders would like to build. Kit builders can submit their suggestions through this website using the Contact Us email."

Heathkit Educational Systems hopes to reenter the Amateur Radio market by the end of 2011, due in part to the response from Amateur Radio operators urging Heathkit to develop several Amateur Radio products.

"When we made the announcement on our web page about a month ago, we had no intention of entering the Amateur Radio kit market," Ernie Wake, Heathkit's Director of Sales and Marketing, told the ARRL. "The response was really overwhelming, exciting and scary. The scary part is that the brand name has so much loyalty that we don't want to disappoint the people who have such fond memories."

Wake said that Heathkit is presently working on developing a few Amateur Radio kits. "Initially, the kit line will include a few 'accessories,' like kits for a Dual Watt Meter, Antenna Tuners and the Cantenna," he explained. "Once we are a little more 'settled,' I think we will develop a QRP receiver. We won't rush to market just to get there. We want to develop a line of kits in the tradition of Heathkit. I'm hoping to have one or two kits by the end-of-the-year."

BTOVER



Jamboree-on-the-Air

October 15-16, 2011

The Jamboree-on-the-Air, or JOTA, is an annual Scouting event that uses amateur radio to link Scouts around the world, around the nation, and in your own community. Held on the third full weekend of October each year, this worldwide jamboree requires no travel, other than to a nearby radio amateur's ham shack. Amateurs may participate by setting up at a Scout camporee, or perhaps they already have a ham shack at your council's camp. There are many ways to get involved in JOTA.

Scouts of any age can participate, from Cub Scouts to Boy Scouts and Venturers. Once at the ham radio station, the communication typically requires speaking into a microphone and listening on the station speakers. However, many forms of specialized communication can also take place, such as video communication, digital communication using typed words on the computer screen transmitted by radio, communication through a satellite relay or an earth-based relay (called a repeater), and many others.

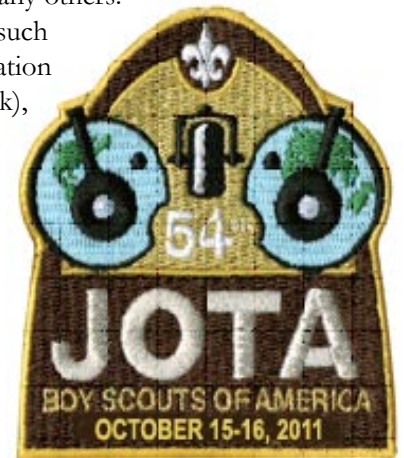
The exchanges include such information as name, location (called QTH in ham speak), Scout rank, age, and hobbies. The stations you'll be communicating with can be other Scouts across town, across the country, or even around the world! The World Scout Bureau reported that the 2010 JOTA had just over 700,000 Scout participants from nearly

6,000 amateur radio stations! A participant patch is available, as is a certificate/log sheet that can also be used to fulfill a Radio merit badge requirement.

The 54th Jamboree-on-the-Air is October 15–16, 2011. The official hours are from Saturday at 00:00 hours local time (right at midnight Friday) to Sunday 24:00 (midnight Sunday evening). So you've got the whole weekend to make JOTA contacts.

Scouts who want to participate should contact the local Scout council and see what may already be planned in their area. They can also contact a local ham radio operator or a local amateur radio club. They can find a searchable database of clubs at: www.arrl.org/find-a-club

The club search website is operated by the American Radio



Scouts Word Search

B W D K B J C E R L K H Q P A L X H E L P F U L A
 Y E G N Y Z D I N G U C M W F C X N R S R T M I M
 B I H P R T O A B I F X O P Z N Q X C M T N G U F
 E S J S L N E L O Y A L A N S P M Y O X I T G C Y
 A F O V G L A F Q O D D U E H A L R F V A A Z H C
 N R U J C F Q Q Y Z B X J R P N I F W X H W T Y S
 F D V B E L E C T R O N I C S E O O C S G R M P A
 K A M V I A V B C X H Y & K N B H K A I O O A W E
 H I N Z W G L O M C F P T T O D B F B W A C D E V
 Z C L Y Y G M B C Y C K E Z S O E T T N E E Z C J
 E Z G L D P D W W O K E O U V T H S J S I U D I J
 D C Z I U O G S M K R P O S Y R U Q E W E F F V Y
 Q Q V T H L X P M I U E K N I R X X B W M R J R M
 K J E L E E A A N E T T G F T Z P H E J I K G E O
 T R H X P S M G H R R M T I P L U N L E L F Y S N
 S L L W S D K B U J C Y E R O L G K N H Q P A L O
 X A U Y E G E O N Y Z D I R G I U D C M W F C Y R
 X N F R S R C V T M I M A B N I L H P R T O B T T
 I F R X O P Z N A Q X T C E M Y T N G U F E Y I S
 S J E S L R N A N R I S E P Y X I T G C A G F N A
 O V E G A F A Q O O B R D D U E H L F V R A A U Z
 D C H N R U J T N Q I Q Y Z B X J R N E F W X M H
 W N C Y L I A D S N R U T Y D O O G N A F O D M D
 V B I O O C G M G A K A M V I T N E I D E B O O V
 B X H K R A D I O Y K B H K I T N E R E V E R C O

See if you can find these 26 words in the table. The words may appear in any direction! Scouts will no-doubt see many familiar words in the list. Happy hunting!

- | | |
|---|--|
| BRAVE
CHEERFUL
CLEAN
COURTEOUS
FRIENDLY
HELPFUL
KIND
LOYAL
OBEDIENT
REVERENT
THRIFTY
TRUSTWORTHY | COMMUNITY SERVICE
DO A GOOD TURN DAILY
FLAG POLE
MAP & COMPASS
ASTRONOMY
COMPUTERS
ELECTRONICS
ENERGY |
|---|--|



Jamboree-on-the-Air *cont'd from pg. 4*

Relay League, the national association for amateur radio, which is cooperating closely with the BSA on JOTA and many other activities.

A local club may be able to direct Scouts to planned JOTA activities. These can include ham stations set up at camporees or other events. Or, if there are no planned activities, Scouts can either work with them to get something set up or arrange to visit a local radio operator's ham shack at a scheduled time to participate in JOTA.

Ham radio operators should contact their local Scout council and see what may already be planned in your area and how they can help. You can find a list of local councils at: <http://scouting.org/LocalCouncilLocator.aspx>. The Northstar Council, which covers Scott County, can be found here: <http://www.northernstarbsa.org/>

If nothing is currently planned, or if current plans aren't reaching your area, Hams can work with the council or a local unit (pack, troop, crew) to set up a JOTA station or arrange for visits to your ham shack. You can also participate just by making QSOs with the many JOTA stations that will be on the air.

BTOVER



That's Fast!



VIRGINIA BEACH, Va. An F/A-18 Hornet from the East Coast Hornet Demonstration Team assigned to Strike Fighter Squadron (VFA) 106 performs a high-speed pass at the 2011 Naval Air Station Oceana Air Show. This is the 53rd anniversary of the air show, which is a celebration of the Centennial of Naval Aviation with both military and civilian performers in vintage and modern aircraft. USN photo.

September Crossword Solution IGS 100

Across

1. PRIVATESECTOR—Organizations and entities that are not part of any governmental structure. Includes for-profit and not-for-profit organizations, formal and informal structures, commerce, and industry.
2. AREACOMMAND—An organization established to oversee the management of multiple incidents that are each being handled by a separate Incident Command System organization or to oversee the management of a very large or evolving incident that has multiple incident management teams engaged.
4. UNITYOFCOMMAND—Principle of management stating that each individual involved in incident operations will be assigned to only one supervisor.
5. CHECKIN—Process in which all responders, regardless of agency affiliation, must report in to receive an assignment in accordance with the procedures established by the Incident Commander.
8. TERRORISM—Activity that involves an act dangerous to human life or potentially destructive of critical infrastructure or key resources; is a violation of the criminal laws of the United States or of any State; and is intended to intimidate or coerce the civilian population, or influence or affect the conduct of a government by mass destruction, assassination, or kidnapping.
13. OPERATIONALPERIOD—The time scheduled for executing a given set of operation actions, as specified in the Incident Action Plan. Can be of various lengths, although usually they last 12-24 hours.

Down

1. PLANNINGSECTION—The Section responsible for the collection, evaluation, and dissemination of operational information related to the incident, and for the preparation and documentation of the Incident Action Plan.
3. JOINTINFORMATIONCENTER—A facility established to coordinate all incident-related public information activities. It is the central point of contact for all news media.
6. COMMANDSTAFF—Consists of Public Information Officer, Safety Officer, Liaison Officer, and other positions as required, who report directly to the Incident Commander. They may have an assistant or assistants, as needed.
7. RESPONSE—Immediate actions to save lives, protect property and the environment, and meet basic human needs. Response also includes the execution of emergency plans and actions to support short-term recovery.
9. GENERALSTAFF—A group of incident management personnel organized according to function and reporting to the Incident Commander.
10. STAGINGAREA—Established for the temporary location of available resources. Can be any location in which personnel, supplies, and equipment can be temporarily housed or parked while awaiting operational assignment.
11. EMERGENCY—Any incident, whether natural or manmade, that requires responsive action to protect life or property.

cont'd col. 2

Dos-a-dos Steam Runabout

A very special car will cross the auctioneers block next month - it's the world's oldest running motor car, a historic 1884 de Dion Bouton et Trepardoux Dos-a-Dos Steam Runabout. The second prototype built by Count de Dion, the car participated in the world's first automobile race.

The world's first race is generally regarded as being the Paris-Rouen trial of 1895, but there was indeed an earlier race in 1887 - billed as "Europe's first motoring competition", run by the editor of France's top selling bicycle magazine, *Le Velocipede* - only one car turned up to race - this car. It completed the course, and although it's arguably not possible to have a race without two competitors, this is the car that "won" that race, achieving a claimed top speed of 37 mph on the straights.

Commissioned by French entrepreneur, Count de Dion, and built by Georges Bouton and Charles-Armand Trepardoux, the 1884 De Dion steamer was nicknamed "La Marquise" after the Count de Dion's mother. Measuring just nine feet in length, La Marquise features twin compound steam engines, "spade handle" steering and seats four people "dos-a-dos" (back-to-back). The seats are located on top of the steel tank, which holds 40 gallons of water, good for about 20 miles; its sophisticated boiler, fed by coal or coke, can be steamed in 45 minutes.

If there's a surprise, it's the functional nature of the prototype - it seats four dos-a-dos, takes more than half an hour to



1884 de Dion Bouton et Trepardoux Dos-a-Dos Steam Runabout

prepare before it can drive, and requires watering every 20 miles, but it is one of the most significant automobiles in history and it goes to auction on October 6. The de Dion is naturally expected to create quite a bit of interest with auctioneers RM Auctions expecting somewhere beyond US\$2.0 million.

BTOVER

cont'd from col. 1

12. ALLHAZARDS—Describing an incident, natural or manmade, that warrants action to protect life, property, environment, public health or safety, and minimize disruptions of government, social, or economic activities.

BTOVER

Deer Ticks

Bugs Carrying a New Disease

Rochester, Minn. - A new disease has been identified in Wisconsin and Minnesota that is being spread by a familiar pest the deer tick. Ehrlichiosis is a bacterial infection caused by a newly discovered species of bacteria named ehrlichia species

Since 2009 at least 25 cases have been reported in Wisconsin and Minnesota. The Mayo Clinic has reviewed thousands of blood samples and has analyzed thousands of ticks from across the United States. So far, only samples from Wisconsin and Minnesota have tested positive for the bacteria. "It is apparently being transmitted by the same old tick that everybody hates, and that's the one that transmits Lyme disease," said Dr. Jenifer Coburn, a professor at the Medical College of Wisconsin, who is a nationally recognized expert on diseases spread by ticks.

She said the symptoms of Ehrlichiosis are often nonspecific and include fever, feeling lousy, chills, and aches. The initial symptoms are more severe than those of Lyme disease and ehrlichia does not cause a bull's-eye rash that is a common sign of Lyme disease.

"With Lyme disease the symptoms are often so mild that they go unnoticed early in the infection or they are simply dismissed," Coburn said. "The ehrlichia, if they make you sick they are going to make you pretty sick. You are going to feel lousy, and there is not the sort of stealthiness that is true with (Lyme disease). It will make you sicker faster than the Lyme disease agent will."

The ehrlichia attack and replicate in the blood cells that normally fight infections. As they replicate, they reduce the body's ability to fight off other infections. This can make people who have been infected susceptible to a secondary infection from other bacteria. People who already have a compromised immune system are at particularly high risk of severe disease from this complication.

The fact ehrlichia makes people sick enough to seek medical help quickly might be a blessing in disguise because it is easily treated with antibiotics. Prompt treatment lessens the likelihood of a secondary infection and the antibiotic used to treat Ehrlichiosis will also be effective on a secondary infection.

The frontline treatment for Ehrlichiosis is doxycycline, the same antibiotic used on Lyme disease. So far this antibiotic has been a 100 percent successful treatment, and ehrlichia has not shown the ability to form resistance to antibiotics the way some staph infections have.

A blood test is through the Mayo Clinic to test for Ehrlichiosis and doctors in region have been made aware of

the disease. The recorded incidences of Ehrlichiosis may increase due to this recognition. In the past, patients may have been misdiagnosed, but were still treated with doxycycline because it is effective against other bacterial infections.

"People can't diagnose something they don't know exists," Coburn said. "With the publicity this has gotten and the interest this has generated, I think physicians will be much more on the lookout for this set of symptoms that the patients will present with."

Coburn said bacteria are constantly evolving and ehrlichia may have only recently mutated into a species that can infect humans. "The emergence of new diseases is often due to some crossing of a threshold," she said. "This new species of ehrlichia might just recently have developed the ability to be transmitted by the ticks. It may have expanded from a wildlife reservoir in which it is maintained in the wildlife by other tick species. It's a really interesting question how did this disease emerge into the human population?"

Coburn said prevention is the preferred way to combat any disease spread by ticks. She recommends wearing long pants tucked into footwear and treating clothing with a spray containing Permethrin. Exposed skin should be covered with a repellent that contain a high percentage of DEET.

"People need to really, really check very carefully for ticks," Coburn said. "Nobody in the summertime wants to walk around with long pants tucked into their socks. The ticks are sneaky. They are tiny. They love to crawl into places where they are not going to be easily seen or noticed or dislodged like the scalp or other areas that are not easily accessible to inspection."

The Mayo Clinic and Coburn agree the best way to remove an embedded tick is to grab the tick as close to the mouth parts as possible with a tweezers. Pull the tick out steadily and slowly without twisting. If the mouth parts break off, remove them with the tweezers.

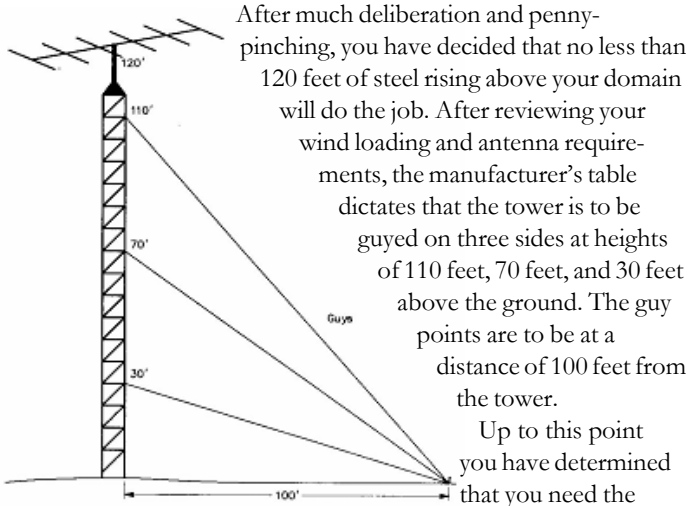
Many people believe covering the tick with petroleum-jelly or liquid soap will cause the tick to back out of the skin. These methods can make things worse because the covering triggers the tick to release more of its body fluids, which causes a greater chance of infection.

Lyme disease is still the primary tick problem. "The prevalence of Lyme disease has grown both in numbers of cases in the endemic regions and in the geographic spread of where those endemic regions are," Coburn said. "Unfortunately, that is a disease that is continuing to expand."



Dastardly Deer Tick

Solution for September Skills Test



After much deliberation and penny-pinching, you have decided that no less than 120 feet of steel rising above your domain will do the job. After reviewing your wind loading and antenna requirements, the manufacturer's table dictates that the tower is to be guyed on three sides at heights of 110 feet, 70 feet, and 30 feet above the ground. The guy points are to be at a distance of 100 feet from the tower.

Up to this point you have determined that you need the

following supplies: 1200 feet of guy wire, 36 insulators and a .minimum width of land must be 156 feet. You've decided in addition to the rotating Yagi, you would like a 160 meter dipole, cut for 1.850 MHz to be tied to the top of the tower with the opposite end at ground level (fortunately your lot is flat) – how far will the opposite end be from the base? If the feed cable is to connect at a switch box at the tower base and that feed cable drops vertically to ground level from the feed point, how much cable is required?

Answer:

Using the favorite formula for the length of a dipole ($468/f$), the length is found to be 253 feet. With one end at 120 feet, the other is at ground level, the distance from the tower will be:

$$\sqrt{(length)^2 + (120')^2} = 222.7 \text{ feet}$$

The second part is pretty easy – the feed point of a dipole is exactly in the middle of the dipole, correct? That means that $120/2 = 60$ feet above ground and $222.7/2 = 111.4$ feet from the tower for a total of $111.4 + 60 = 171.4$ feet of cable.

BTOVER

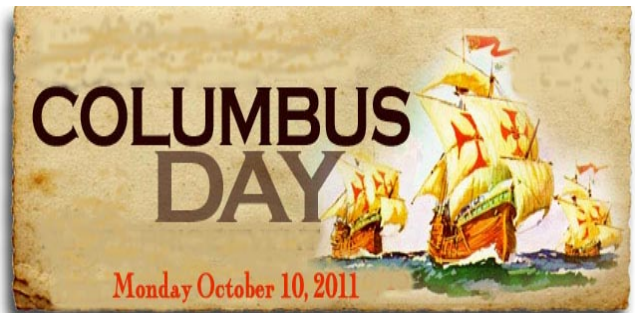
Foreign Postal Address

Collecting QSL cards as evidence of contacts with Hams around the world is an enjoyable part of the hobby for many amateurs. Addressing the envelop to a foreign country is often a mystery.

We all know the sequence of information for the USPS on the normal three-line address format. What about the 'strange' information in many addresses found in the callbook?

Here is a website that takes much of the mystery out of properly formatting of many international addresses: <http://www.columbia.edu/~fdc/postal/> Now, while you wait for that rare QSL card at least you can be assured that you got the address correct. Hopefully the mailman brings you some good cards soon.

BTOVER



Great Lakes Naval Training



NAVAL STATION GREAT LAKES, Ill. Members of the Joint Civilian Orientation Conference (JCOC) listen to Boatswain's Mate 1st Class Eric Alexander explain the USS Marlinpike Line Handling Trainer at Recruit Training Command. JCOC is sponsored by the Secretary of Defense to provide civilian public opinion leaders greater knowledge of the military and national defense issues. JCOC is the oldest existing Department of Defense outreach program having been held more than 80 times since its inception in 1948.

5G1B Net Schedule

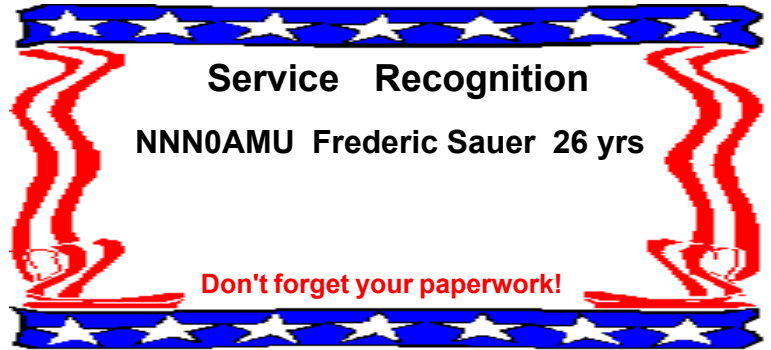
6:30PM 4007 kHz USB

Day	NECOS	Tfc Rep
Sun.	XYA	XEE
Mon.	XEE	XEE
Tue.	BQH	BQH
Wed.	KZC	KZC
Thu.	SXU	SXU
Fri.	???	???
Sat.	Rotating Duty (see below)	

Don't be bashful, if the net has not been called by the net control station within 2 minutes, jump in and start things rolling.



NNN0SXU Bob King 10/7
 NNN0FCJ Robert Bohrer 10/9



Saturday NECOS / TREP Schedule

	NECOS	TREP
Oct 1	BQH	BQH
Oct 8	XEE	XEE
Oct 15	SXU	SXU
Oct 22	XYA	XEE
Oct 29	KZC	KZC
Nov 5	BQH	BQH
Nov 12	XEE	XEE

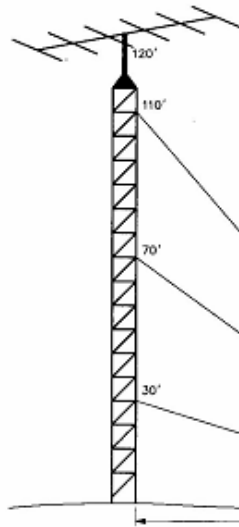


The use of SSB in HF communication. AM and CW were standard modes for HF.

Stability and reliability were needed for SSB. In the early 50's, Collins was able to demonstrate this with top of the line Ham gear.

Test Your Analytical Skills

More Tower Questions



After much deliberation and penny-pinching, you have decided that no less than 120 feet of steel rising above your domain will do the job. After reviewing your wind loading and antenna requirements, the manufacturer's table dictates that the tower is to be guyed on three sides at heights of 110 feet, 70 feet, and 30 feet above the ground. The guy points are to be at a distance of 100 feet from the tower.

Up to this point you have determined that you need the following supplies:

- 1200 feet of guy wire

- and
- 36 insulators.
- minimum width of land must be 156 feet.
- you can side mount a rotating Yagi, with a 30 foot boom between the 75 – 80 foot height on the tower to avoid any electrical interactions and it will rotate without catching a guy wire.
- You can mount your 160 meter dipole, at the top – the opposite end will be 222.7 feet from the tower base and you will need almost 172 feet of feet of cable to reach the feed point.

So you are finally going to put up the tower and associated antennas. You've gathered all the necessary supplies and your ground crew. In the interest of safety, you are reviewing safety precautions - how long does a member of the ground crew have to get out of the way when you drop one of the nuts from the top of the tower? – keep in mind the distance traveled in free fall is

$$\text{Distance} = \frac{1}{2}gt^2 \quad (\text{For the value of } g \text{ use } 32 \text{ ft/sec}^2)$$

Answer in the next issue of the Minnesota MARSGRAM



Rescue Drill
 GULF OF ADEN Sailors and Marines load personnel with simulated injuries into an MH-60B Sea Hawk helicopter during a search and rescue drill aboard the multipurpose amphibious assault ship USS Bataan (LHD 5). Bataan is the command ship of the Bataan Amphibious Ready Group conducting maritime security operations and theater security cooperation efforts in the U.S. 5th Fleet area of responsibility. USN photo.