SPLATTER

This bulletin is printed from time to time and issued to the members of the Tamaqua Wireless Association a Public Service non-profit organization

June—July | FIELD DAY ISSUE | 2003

World Wide Beacon Stations

By W3ZRQ

With all those new rigs out there all I hear from some club members is "I can't work anyone" or "I don't hear anybody!" This maybe so, the bands could be out or in a poor to weak condition. Did you ever think there might be an easier way to find out how the bands are? Chip, NI3H and I had a discussion the other week on this subject that led me to do some homework on beacon stations and here is what I found.



NCDXF/IARU has 18 beacon stations throughout the world, which make up the International Beacon Network. They operate on 14.100, 18.110, 21.150, 24.930, and 28.200 MHz. and are transmitting continuously. The purpose of these beacons is to allow one to know how propagation is in different parts of the world, and at what frequency it is best.

The beacons' transmit sequence starts on the hour and runs continuously in three-minute cycles. A transmission consist of the callsign of the beacon, sent at 22 words per minute, followed by four one-second dashes. The callsign and first dash are sent at 100 watts, the remaining dashes are sent at 10 watts, 1 watt and 0.1 watts, respectively. Each of the 18 beacons has a specific time and frequency at which they transmit allowing the user to know which beacon is being heard.

Confused yet? You can follow along using Chart "A" as I explain. The first beacon to transmit on the hour is the United Nations beacon, 4U1UN on 14.100 MHz. Once its transmission is complete, the Canada beacon, VE8AT transmits on the same frequency. This sequence continues throughout all the beacons and then repeats itself. Once a beacon has transmitted on the 14.100 MHz frequency, it steps up to the next frequency and repeats the transmission on the same beacon. This process continues until the beacon has transmitted throughout all 5 frequencies. It then pauses for 130 seconds and starts over again at 14.100 MHz. each transmission is 10 seconds long on each band.

You can follow a particular beacon throughout all of its frequencies by simply changing the frequency of your radio up to the next frequency after the beacon has transmitted. If you have a radio with preset buttons on it, this is easy. Simply program all five frequencies into the preset buttons on your radio and change the frequency immediately after the beacon has transmitted. Listen to the four power level dashes, the more you hear, the better that frequency is.

Continued on inside page

The Language of Morse

By Editor W3TI

What ever language it might be, Italian, Russian, Greek, Chinese, even English and when you were first born the only language you knew was "Babble". Yes ! Recall the story of the "Tower of Babble", everybody could speak but each had a different language and no one could understand the other persons language, it was just "Babble, babble, babble".

So how did you learn how not to speak "Babble"? Unless you were born deaf you learned by listening to your parents. You learned by the sound, you learned by listening how the word " I, you, Dad, Mom, eat, good, bad, sounded in the language spoken by your parents. Then you would repeat those sounds and your parents corrected you if you didn't make the sound like it should be made.



FROM WHERE WE SIT

Later on you were sent to school where you were (supposedly) taught how to write those sounds or words on paper. What happened in that time period of your life was learning to translate the spoken word to the written word and put it on paper.

Would you believe after 12 years of teaching there are still people walking the streets today who can't read nor write. They even have a problem in speaking.

Then there's that language of "Morse". Yes, Morse code is another language made up of short and long sounds or tones in the form of dits and dahs. (***Not Dots and Dashes)*** Recall, you learned how to speak by listening to sounds and tones. Numbers and letters of the alphabet are made up of combinations of dit and dah sounds.

As definition: (1) a dah is three times as long as a dit. (2) Spacing between the dits and dahs in a character is one dit. (3) the Spacing between each letter is 2 dits. (4) Spacing between words is 3 dits. For example: " TWA Splatter " would not be sent as

DahDidahdahDidahDididitDidahdahditDidahdiditDidah DahDahDitDidahdit

That is Babble and makes no sense what so ever.

T W A S P L

Dah Didahdah Didah Dididit Didahdahdit Didahdidit

A T T E R

Didah Dah Dah Dit Didahdit

With the proper spacing we can use the Morse code to translate into any language in the world.

Dahdidahdit Dididah Didah Didahdidit Didahdidit Didah Dah Dididahdit Dahdidit

TWA Officers for 2003

President Al W3ZRQ
Vice Pres. Darryl N2DIY
Sect-Treas. Al W3TI
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Activities Mgr. Ed KB3DYJ
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Bulletin Al W3TI
TWA Web site Joe N3LBB

Just Read the Signs

A lady about eight months pregnant got on a bus. She noticed the man opposite her was smiling at her. She immediately moved to another seat. This time the smile turned into a grin, so she moved again. The man seemed more amused. When on the fourth move, the man burst out laughing. So she complained to the bus driver and he had the man arrested.

When the case came up in court the judge asked the man what he had to say for himself and the man replied.

" Well your Honor, it was like this; when the lady got on the bus, I couldn't help notice her condition." She sat under a sign that read " The Double Mint twins are coming" and I grinned. Then she moved and sat under a sign that said, Slogan's Liniment will reduce the swelling" and I had to smile.

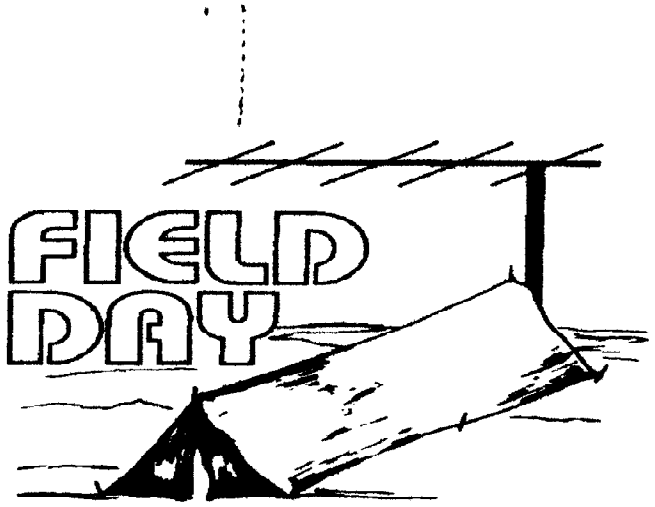
Then she placed herself under a sign that said, "Williams Big Stick Did the Trick" and I could hardly contain myself. But your Honor, when she moved the fourth time and sat under the sign that read, " Goodyear Rubber could have prevented this accident.... I just lost it !
"Case Dismissed "

Just a Peck in the Neck

An older couple were lying in bed one night. The husband was falling asleep but the wife was in a romantic mood and wanted to talk. She said; " You used to hold my hand when we were courting."

Wearily he reached across, held her hand for a second and tried to get back to sleep. A few moments later she said: "Then you use to kiss me." Mildly irritated, he reached across and gave her a peck on the cheek and settled down to sleep.

Thirty seconds later she said: "The you used to bite my neck" Angrily, he threw back the bed covers and got out of bed. "Where are you going ? " she asked
" To get my teeth ! ! ! "



JUNE 27-28-29

Why three days for Field Day, you ask ? Well to answer that, some people have a birth date that week end and need all three days to celebrate. Some like to have extra days to camp out and for the balance, they just have to go with the flow.

Yes, for the past couple years our Field Day exercise has been extended from two to three days. **WHAT !** You never attended Field Day - - All I can say to that is, Tst, tst , and let it go at that.

Providing the elements give us a break we should have a pretty good time again this year. Every one is all hyped up and raring to go. Some may say we only use that week end for an elongated picnic but when I get the log sheets to check and complete our score sheet, some one , or two, had to have been operating because of the large tally of QSO that were made.

As in prior years, Liquid refreshment will be available to keep the key bearings cooled down and Saturday evening supper and Sunday morning breakfast is supplied by the club. Supper consists of Bar-B-Qued turkey a' La Andy along with 239 Beans by Edwardo. Breakfast is the usual Well done– Burnt– or Charred Bacon and eggs with home fries. Washed down with W3ZRQ's Coffe'e "45". *Please bring your own Alka Selcer.*

All this and more are a few of the benefits of being a club member and made available thru your annual membership donation.

Nonmembers or friends of a member are always welcome to attend our annual event. However, nonmembers will be asked for a ten dollar ($10.00) donation to cover the additional. This ruling was made at the April 2002 meeting and will be adhered too this year.

It is the policy of your Splatter editorial staff not to reproduce nor duplicate any items previously printed in QST, CQ or any other Amateur Radio publication. The following information was located in an MFJ commercial on the internet and transcribed by W3ZRQ into 25 cent words for SPLATTER: *Ediror W3TI*

Continued from front page

Chart "A" gives the exact minute and second of the start of the first transmission within the hour for each beacon on each frequency. If a beacon is not heard it usually means that the propagation in that area is very poor. To view the latest beacon schedule and availability, go online to http://www.ncdxf.org/beacon and check out the most recent postings.

Finally, the 18 beacons are strategically located to give even coverage around the world. The current locations of the beacons are shown in Chart "B". These locations are subject to change and you can get the most updated locations on the above mentioned website.

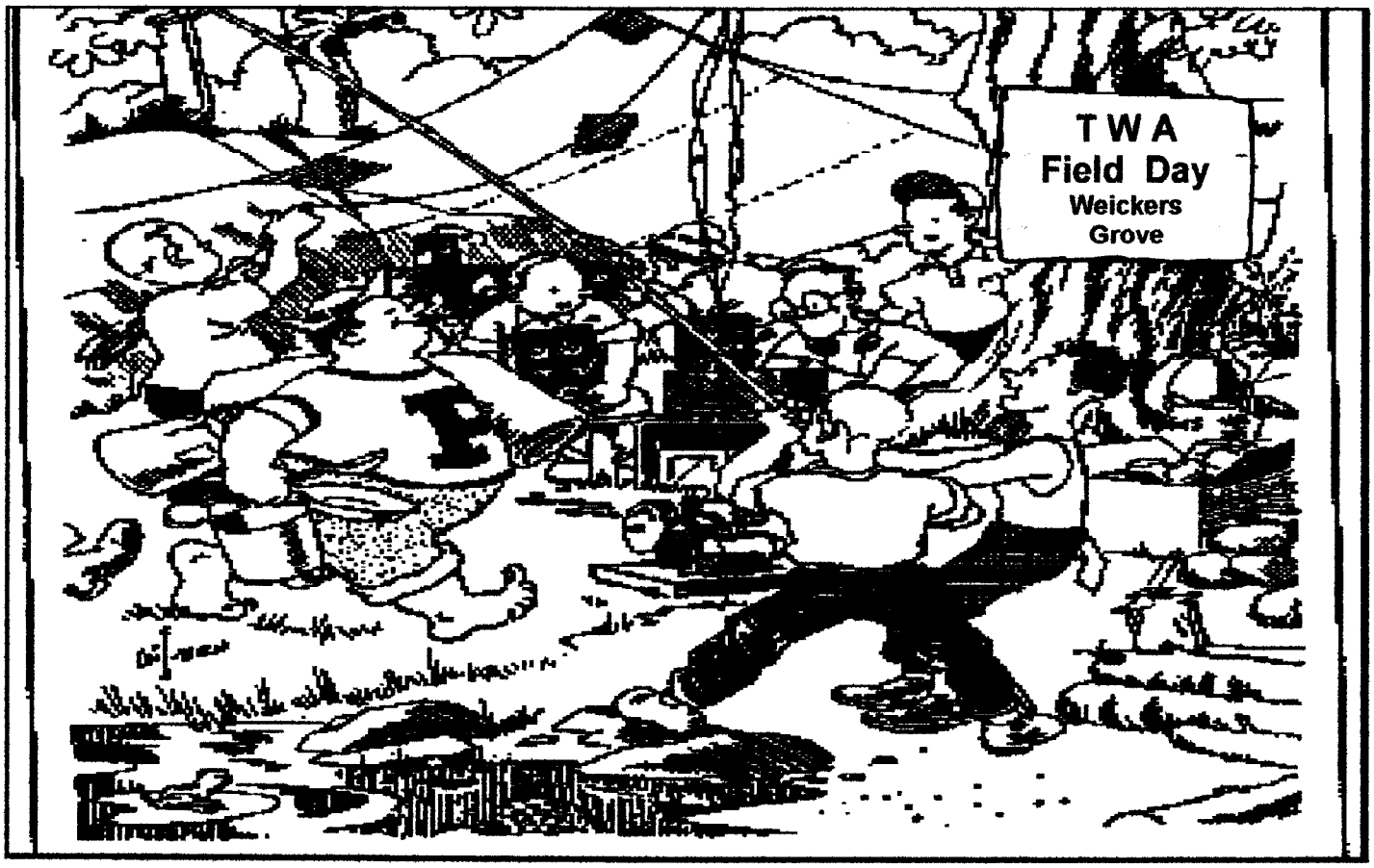
I hope this info is of some help but for those hams that have bucks to burn there is an easier way. MFJ has a DX Beacon Monitor, MFJ-980 does everything for you by lighting up a red LED on a map showing the exact location of the beacon. Any way you choose to operate, manually or store-bought equipment, have fun DXing.

Chart "A"

Callsign	Location	14.100	18.110	21.150	24.930	28.200
4U1UN	United States	00:00	00:10	00:20	00:30	00:40
VE8AT	Canada	00:10	00:20	00:30	00:40	00:50
W6WX	United States	00:20	00:30	00:40	00:50	01:00
KH6WO	Hawaii	00:30	00:40	00:50	01:00	01:10
ZL6B	New Zealand	00:40	00:50	01:00	01:10	01:20
VK6RBP	Australia	00:50	01:00	01:10	01:20	01:30
JA2IGY	Japan	01:00	01:10	01:20	01:30	01:40
RR9O	Russia	01:10	01:20	01:30	01:40	01:50
VR2B	Hong Kong	01:20	01:30	01:40	01:50	02:00
4S7B	Sri Lanka	01:30	01:40	01:50	02:00	02:10
ZS6DN	South Africa	01:40	01:50	02:00	02:10	02:20
5Z4B	Kenya	01:50	02:00	02:10	02:20	02:30
4X6TU	Israel	02:00	02:10	02:20	02:30	02:40
OH2B	Finland	02:10	02:20	02:30	02:40	02:50
CS3B	Madeira	02:20	02:30	02:40	02:50	00:00
LU4AA	Argentina	02:30	02:40	02:50	00:00	00:10
OA4B	Peru	02:40	02:50	00:00	00:10	00:20
YV5B	Venezuela	02:50	00:00	00:10	00:20	00:30

Chart "B"

Slot	Entity	Callsign	Location	Latitude	Longitude
1	United States	4U1UN	New York City	40 45' N	73 58' W
2	Canada	VE8AT	Eureka, Nunavut	79 59' N	85 57' W
3	United States	W6WX	Mt. Umunhum	37 09' N	121 54' W
4	Hawaii	KH6WO	Laie	21 38' N	157 55' W
5	New Zealand	ZL6B	Masterton	41 03' S	175 36' E
6	Australia	VK6RBP	Rolystone	32 06' S	116 03' E
7	Japan	JA2IGY	Mt. Asama	34 27' N	136 47' E
8	Russia	RR9O	Novosibirsk	54 59' N	82 54' E
9	Hong Kong	VR2B	Hong Kong	22 16' N	114 09' E
10	Sri Lanka	4S7B	Colombo	6 54' N	79 52' E
11	South Africa	ZS6DN	Pretoria	25 54' S	28 16' E
12	Kenya	5Z4B	Kiambu	1 1' S	37 3' E
13	Israel	4X6TU	Tel Aviv	32 02' N	34 46' E
14	Finland	OH2B	Karkkila	60 32' N	24 06' E
15	Madeira	CS3B	Santo da Serra	32 43' N	16 48' W
16	Argentina	LU4AA	Buenos Aires	34 37' s	58 21' W
17	Peru	OA4B	Lima	12 04' S	76 57' W
18	Venezuela	YV5B	Caracas	10 25' N	66 51' W



Another TWA Award

It has come to the attention of our TWA Awards Committee that our DXL (Worked 50 Countries) and WAD (Worked All USA Call Districts) awards are achieved mainly by General and Extra class members only, and have been working extra hard this past winter to come up with an award that would be available for all license classifications.



The new award is almost coincident to our present "Atta Boy" certificate presented each year at the annual Christmas party but with a different list of requisites.

1. Anyone can be nominated, you do not have to be a member of the association. If you were a member and quit the club, you can still be nominated for this prestigious award
2. The person making the nomination must be a member for at least five years before being qualified to make a nomination.
3. Attributes a member should look for before making the nomination are (these are examples, however there can be hundreds or thousands of others):
4. Any demonstration or multiple indications that an individual possesses less knowledge than his license class indicates, i.e. a General class who tries to operate 20 meters through an 80 meter dipole, or does not know how to make said dipole or uses a Bernz gas torch to put a PL259 on the end of the coax.
5. A member who does not participate in any club activities and is great at inventing excuses.
6. Someone who is or is not a member who does no good for Amateur Radio - Examples of this include jamming a repeater, playing music, Citizen Band language and behavior.
7. Stacking 5 element Tri-banders on a Radio Shack TV mast and TV rotor is a sure way to get nominated.
8. Calling a beacon stations on 15 meter C.W. or having a QSO with a Nudist colony.
9. Excessive audio or speech processing is a sure bet to be nominated.

There are hundreds of ways one can get nominated. The awards committee has no special nominating form but will accept written formal nominations only. Please be brief, two or three hundred words will do. Verbal nominations will not be accepted nor considered.

The Awards committee decision is to make this an annual award, therefore if 2 or more nominations are presented, the committee will review each and pick out the best one.

If there are six or more entries the committee might decide to make it a quarterly, or four different presentations throughout the year.

VHF QSO Party



Saturday, June 14 our club will be active in the annual VHF QSO party at Weickers Grove. Like all TWA activities, everyone in invited to attend and operate. Set-up starts early Saturday morning and operation will be on 2 and 6 meters.

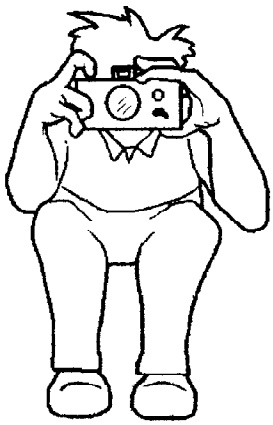
Unlike Field Day, each attendee supplies their own food and liquid refreshment to their own liking. However, for Saturday supper, NI3H has volunteered as Chef Chip and will purchase and prepare steaks for anyone who gives advance notice and places his/her name on the list no later than June 7. Cost of the steaks will be defrayed equally with those who sign up. Only those who sign the list will get a Steak a' La Chippo.

Information regarding Field Day activities are given on another part of this special F.D. issue

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TWA I. D. Badges

During this past winter the club president was photographing members at club meetings and having them made into special Radio Emergency Service photo I. D. badges, signed and issued by the Tamaqua Borough manager.



The purpose for these badges are to identify you as an Emergency Radio operator with other local emergency agencies, e.g., Red Cross, Ambulance, Fire departments etc. It is not a T W A membership card.

This I.D. badge should be worn at all club functions in order so the public and various agencies take notice of our availability in the event of an emergency. Badges have been issued to every member that attended the winter meetings. However, not all are qualified to operate during an emergency. Only those who have had previous experience and/or attended club emergency instruction classes can be classed as being qualified Emergency operators.

That is almost like a job advertisement for an Electronic Engineer not older than 25 and must have ten years experience. Not so, experience is acquired through activity in emergency drills and other club events. One does not give a stick of dynamite to a 3 year old, nor a hand grenade to a chimpanzee.

The man who never makes mistakes loses a great many chances to learn something.

A. C. Line R. F. I

Teck Article by W3TI

Back in time when television first hit the hills of Eastern Pennsylvania the reception was very bad and one of the main culprits was interference from stray A.C. hum that came in through the 115 volt line. Power lines are well noted for carrying unwanted RF signals along with the 60 hertz. Those unwanted signals were eliminated when TV signals got stronger. However, the AC hum is still with us in some of our ham gear, today it's called "Line noise" but still comes from the 115 volt line cord.

The cure was easy by making a filter to cut out the "Hum". While you're at it make two, one for the receiver and one for the transmitter power supply and don't forget that computer.

CONSTRUCTION

Cut about 8 inches off the end of an old broom stick handle to use as a coil form and drill a hole in each end large enough to pass two Nr. 14 wires as shown in Figure 2.

Measure and cut a piece of # 14 insulated copper wire (enameled or TW plastic covered) 20 feet long and fold the wire in half so you have two wires in parallel 10 feet long . Wrap a short piece of scotch tape around each end of one of the parallel wires as shown in Figure 1. This is done in order to identify each winding at the final assembly.

Push the folded end thru the hole so it extends about two inches and bend them over as shown in order to secure while winding the balance of wire around the core. Keeping the wires parallel, wind about 45 to 50 turns and secure by passing them through the other hole. Cut the wire loop at the other end and the choke coil should look like Figure 2.

The hard part of this project is completed, all that remains is to solder a few components as shown in the schematic Figure 3 and its ready to install. Both sides of the AC line are wound together. The theoretic principle used is the cancellation of electric fields thereby eliminating any stray RF signals and by-passing them to ground..

When this idea was first designed we used ordinary ceramic capacitors. Since then we added another feature by catching any high voltage glitches in the line. The use of the MOV, Metal Oxide Varistor, extreme high voltage suppressor acts like a ceramic capacitor and suppresses any high voltage spikes to ground. The choke coil should be mounted on a piece of plywood or sheet plastic with small bolts used at both ends for terminals and the center ground terminal should go to the main ground connection in the shack.

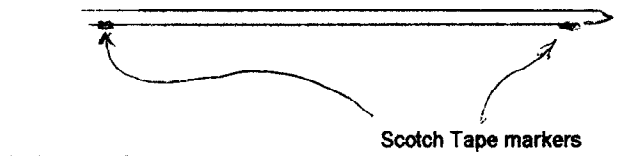


Figure 1

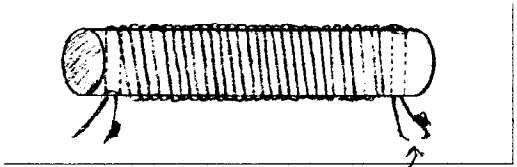


Figure 2.

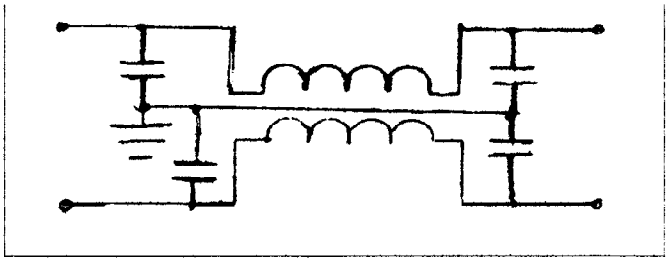


Figure 3. Wiring Schematic

The scotch tape tabs are used in order that you don't get the coil connections reversed when wired to the MOV's. If you don't use tape markers you could end up with a dead short. Or you can eliminate the tape by using different colored wire.

Parts list

1– 3/4 "diameter X 8" wooden dowel
20 feet # 14 insulated copper wire
4— MOV's 1000 Peak Voltage (or higher)
Mounting plate and hardware

Additions to our ByLaws



In the early Spring issue of Splatter it was announced changes and additions to be made to our bylaws. On a majority vote, the following additions were made at the April 18 meeting.

Article V DUES.

ADDITION ITEM 4: A member attending public or private school up to age 18 and/or continue with a college education up to age 22 shall come under the category of "Student member" and pay an annual token fee of one/half the Regular membership dues. Upon graduation (High School or College) they shall attain the category of a Regular member.

ADDITION : Add Item 5. Members entering the United States Military on active duty shall be dues free and listed as inactive until they are discharged .

ADDITION. *" Specific Objectives", Add item 3.* The Tamaqua Wireless Association shall have three categories of membership; Regular, Family, and Student.