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SPLATTER

THIS BULLETIN IS PRINTED FROM TIME TO TIME AND DISTRIBUTED TO THE MEMBERS OF THE
TAMAQUA WIRELESS ASSOCIATION
TAMAQUA, PA. 18252

February March April | GROUNDHOG ISSUE | 1996



By WY3K

I can't think of a more appropriate term to describe the winter of 1996 than "In like a Lion" but let's cross our fingers and hope it goes "Out like a Lamb". This is quite a contrast in comparison to the winter of 1995 which ended as one of the mildest on record. With a blizzard and flood behind us what can be next, only time will tell.

One thing is for sure, we were very fortunate in Schuylkill County area there was minimal flood damage. Unfortunately, our neighboring counties didn't fair out as well. Saturday and Sunday following the storm I listened to several of our local area repeaters. I heard a flurry of activity as local Hams assisted with emergency communications. It is good to know the communications services the Amateur Community provides is being utilized by local government in our immediate area.

There is a lot being said these days about the effectiveness and even the greater need for Amateur Radio emergency communications. Today most local government agencies have reliable communications networks and seldom find themselves in a situation where their communications systems failed. With the rapid growth of the cellular phone industry, even the average citizen has access to a reliable source of wireless communications.

Continued next page

The Party Line



FROM WHERE WE SIT

Sitting in a nice warm shack while the wind is blowing the snow around and the temperature is down around 25, we seem to have plenty of time on our hands to listen to the activity on the Ham bands. Normally, day time activity on 75 meters is almost nil but to our surprise it was quite active during the blizzard of '96.

That however is not our concern. What really snapped us out of this day dream and caught our attention that there was little or no two meter repeater activity. I doubt whether all the two meter mobiles as well as the fixed home stations were all shut down and every one spent the time watching the snow come down. Or was I listening to the wrong repeater frequencies. I could see this happening during the 1960's and early 70's when the majority of mobile operating was carried on 75 and 40 meters because there were no 2 meter repeaters during that time period.

Digging right into the meat and potatoes of this editorial, Just where were all those two meter emergency traffic nets ? The Governor had declared a state of emergency and the Mayors of practically every community in the area did likewise. And as we all know there are Two meter traffic nets on Sunday, Tuesday, and Wednesday evenings. Was this not reason enough to have each of those nets called up on a stand-by basis just in case someone was in need of assistance. True, no one but emergency personal were to be roaming around during the storm but there is always that one percent that had not heard the Governor's statement on radio or TV.

Did you ever wonder just how many were tuned into their favorite repeater frequency ? How many would know what to do in case someone did call for assistance ? How many have ever handled a piece of emergency traffic (message) or any message for that matter ?

Our two meter repeaters today remind me of the old time rural telephone systems, they were called "Party Lines". It was normal to have as high as 25 or 30 telephones on a single line and when one phone rang they all rang. When one household got a telephone call everyone on the line would lift up the receiver and listen in.

Remind you of something ? Yes ! The Two meter Reparty line. Everybody loves to listen in but no one is interested enough to get involved. Why do you check into these Sunday, Tuesday, and Wednesday evening Reparty lines ? Why not put that half hour to some good use and pass some messages. Make up a message and send it to the net control or someone else in the net. This learning and training time will not have been spent in vain. The experience and education won't hurt a bit. Perhaps if one or two make a start the rest of the Party line will be inquisitive enough to join in.

To put the lid on the pot, it will take a few volunteers to work up such a training program. Instructional materials and training aids are available for the price of a postage stamp and a letter from the club secretary to acquire the necessary paper work. Think about it. Would you like to see your two meter repeater function as a part of the National Emergency Communications system or leave it as is, a "Party Line".

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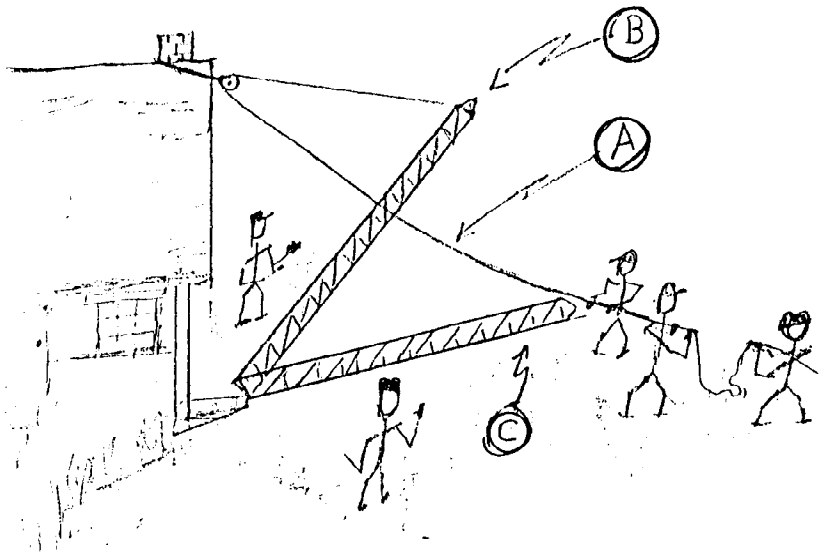
Our T. W. A. Antenna Crew

By W3TI

Those who attended the September meeting recall we were asked if we would remove two towers for the widow of K3KGO. It was agreed by the antenna crew to drop the towers and use them for Field Day exercises. October was fast approaching and the Mall show, Tamaqua Halloween parade and the Dig '95 road rally chewed that month up. So the decision was made to drop the towers on Saturdaty Novemebr 25.

The towers were originally installed by Lou Fagan K3KGO. Lou was licensed on November 25, 1959. The T.W.A. antenna crew removed his towers on November 25, 1995. Please notice the month and date are the same and the year is reversed. La Moin was his birth name but he went by Lou. He and ye editor were close friends from the time he was licensed right up till he became a silent key in August.

Betty, Lou's widow was very grateful for our service and donated the 55 ft. crank-up and a 40 TV tower to the club. The crew consisting of Chief Grunt K3NYX followed by Grunts; WY3K, AA3CU, KB3ATA, KB3AYY, W3TI, KA3WGG and W3ZHW. A job well done and another Public Service by the members of T.W.A.



While the crew was lowering the crank-up ye editor took a few photos. Mistakenly he had put X-ray film in his camera and all he got was the outline of the house, the steel tower and the skeleton structure of the members in the process of lowering the tower. Chief Grunt K3NYX (the one closest to the building - see photo) notified Head rigger Grunt, W3TI, a compound pulley system would not be needed and a single one-on-one system would do the job. When it had been lowered it was estimated to weigh about 200 lbs.

Now let us back-track. When the tower stood on the cement base the 200 lb. was exerted on the cement. But when it began its decent, how much pound-pull was felt by the three grunts at the end of the rope "A" ?

1. What was the pound-pull exerted when the tower was at point "B" or 45^0 angle ?
   (a) 200 Lbs. (b) 100 lbs. (c) 75 Lbs (d) 50 lbs.
2. When the top of the tower was at point "C" or about two feet off the ground. What was the pound-pull felt by the three men on the rope ?
   (a) 200 lb (b) 100 lb (c) 75 lb (d) 50 lbs..

Figure it out, or find the answers on nexc page.

After taking a closer look at the photo it was noticed only two grunts lowered the tower. Grunt number 3 just held the end of the rope.

WE'VE GONE COMPUTOR

HoPefully by the time this issue is ready for distribution ye editor will have had enough Practice on our new (Dinosaur) compUtor. It is not a 2000 buck unit but will do all that we need to compUtorize at Present.

The SPLATTER mailing lables were rapped by compUtor and all your membership information was taken from each individual aPPlication and filed.

It took us a few years to get into the compUtor age and for that we owe a sPecial thanks to George Zimmerman N3TVW for his donation of the compUtor and 2 disk drives. The Printer and video are loaners from activity manager K3NYX. I did notice won thing, it sPeeels Just as badly as the tyPwriter.

Why Build - When I can Buy

You hear that comment on the air more and more every day and with equipment manufacturers sending free catalougues plus all the magazine adds it's no wonder the newer breed of Ham Operator trend to follow that route to get on the air.

On the other hand about 80 percent of those who have been licensed 20 or more years usually try to build a project before laying out the greenbacks for store bought items. While the newcomer has the usual excuses, for example; I don't have the parts, or I don't have a junk box like you do. Or, I don't have the necessary tools or I don't know how.

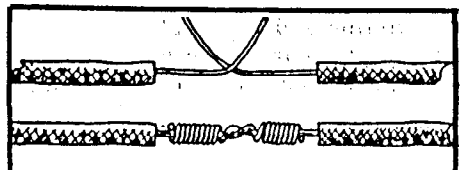
That last one always gets me. Have you ever thought at one time the home brewer didn't know how either until they actually applied themselves. Regarding the parts situation, Hamfest tail gaters always seem to have a bonanza of parts and bargains. Always carry a list of parts you're looking for. That old adage, "What someone considers junk, is someone else's treasure.

So what shall I build you ask. How about a simple SWR bridge for $ 25 ($ 75 to 90 store bought). A low pass filter for $ 20 ($ 85 store bought). A dual, triple or more coaxial cable antenna tap and grounding switch for $ 30 ($ 150 store bought). These are just a few that can be home made.

As a clincher, why buy a coax fed doublet antenna for 80 meters (store bought $ 150) when you can put one together yourself for less than 15 greenbacks. Better yet, build it as an all-band doublet by eliminating the price of the coax and make your own open wire ladder feed line. The whole antenna for less than five dollars.

The old timer seems to be a bit more prudent and tends to spend his money more wisely. I'm sure we have many of our TWA club members are also interested in saving a few dollars. How many of our club members would really, I mean really, be interested enough in starting a home brew project as a Club Program ? There are many useful items for the shack that can be homemade for very little cash layout. You will gain the experience and in the long run say "I made it myself".

If sufficient interest is shown it would be no problem to work up such a program. Parts can be purchased in quantity and our Wednesday Teck sessions could be put to some practical use. There is only one way to start. Inform the Activities Mgr. K3NYX as soon as possible and we could start as early as mid-March. If there is enough interest.



THE WESTERN UNION SPLICE

1927 *ARRL Handbook*

All about electricity

By JOE STROLIN, K1REC

I have been fiddlin' with electricity for 50 years! While I'm still able, I'd like to pass along some of my vast knowledge about this stuff.

1. Electricity is manufactured in power plants where it is fed into wires and wrapped around large drums that hang on poles.

2. Some electricity does not need to go through wires, like that used for lightning, for example, and portable radios. This kind of electricity is not manufactured, but just hangs around in the air, loose.

3. Electricity makes a low humming noise. This noise may be pitched differently for use in telephones, doorbells and electronic organs.

4. Electricity must be grounded before it can function — except in airplanes, which have their own arrangements.

5. Although electricity does not leak out of an empty socket, if you put your finger in the socket you can tell it's there. So if it is not leaking out, what else is it doing?

6. Electricity is made of two ingredients, negative and positive. One ingredient travels along a wire covered with white plastic, the other ingredient along a wire covered with black plastic. These two wires connect to a device called a plug. There the two ingredients are mixed to form electricity.

7. Electricity may be stored in boxes, called batteries. Big batteries do not necessarily hold more electricity than small ones. In big batteries, the electricity is shoveled in, while in small batteries, it is packed in flat.

8. The electric switch contains a sort of vise grip that squeezes the wire very hard so the electricity can't get through. Opening (turning 'on') the switch releases the vise grip and the electricity can flow.

9. Electricity goes into a light bulb where for the first time we can see it! It is enlarged many times by the curvature of the bulb, which is made of magnifying glass.

10. Why does the light bulb blow out? 'Cause as any schoolboy knows, heat converts oxygen into moisture. When all the oxygen in the bulb becomes moisture, then the water quenches the spark.

11. Colored electricity lights red and green bulbs and stoplights.

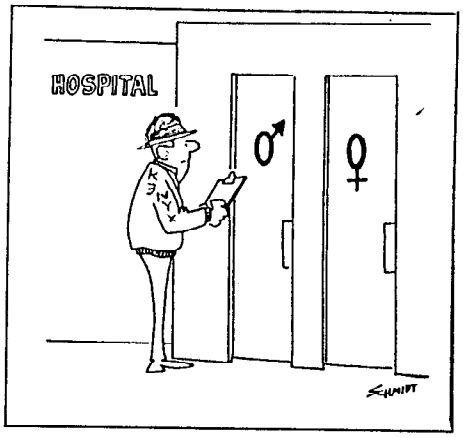
12. Negative electricity runs refrigerators.

13. Some people who don't understand electricity wire their fuse boxes to hold little glass things with fuse wire in them. I find chicken wire better, and it won't blow out, even if the dryer goes up in flames.

Despite all this vast knowledge, I still don't understand a few things about electricity, like how a computer that speaks English can be programmed to speak French, which is a different voltage? Also neon signs are a mystery. How is the electricity trained to spell out things? How does the electricity know when the toast is ready?

THE Layman's Glossary of Medical Terms

ARTERY - - - - - - Study of paintings
BACTERIA - - Back door of a Cafeteria
BARIUM - - - - - When treatment fails
CONGENITAL - - - - - - - - - Friendly
DILATE - - - - - - - - - -To live long
ENEMA - - - - - - - - - - Not a Friend
FESTER - - - - - - - - - - - Quicker
FIBULA - - - - - - - - Small Lie
GENITAL - - - - - - - - - - Non-Jewish
G. I. SERIES - - - - - - Army Baseball
HANGNAIL - - - - - - - - - Coat Hook
IMPOTENT - Distinguished, Well known
LABOR PAIN - Getting hurt at Work
MEDICAL STAFF- - - - Doctors Cane
NITRATE Cheaper than the Day Rate



Tower Answers

At the 45^0 degree angle you would assume that half the weight was exerted (pull) on the rope. On the contrary, 75% or 150 lb. is pushed down onto the cement block and 25% is felt by the rope people. Answer is 50 lb.

With the tower at point "C" just 2 feet off the ground the rope people will feel the greatest pull - NO, not 200 lb.

100 lb. is exerted on the cement block, the other 100 lb is felt by the rope people. They feel the greatest pull at point "C". True there is nothing in Ohm's law about this. However there are times when we must rely upon the laws of kinetic forces and above all,"The Law of Gravity".

UR Membership Status

As this edition of Splatter is being printed and distributed we are well into the New Year. This is the second year our organization has gone to a dues collecting club in order to defray its financial obligations. We ask you to take a look at the mailing address sticker on this bulletin. If your call letters are colored pink you paid your '96 dues. If your call letters are colored Blue you could be in arrears and the Secy-Treas. will be glad to hear from you. This will be the only dues notice sent you for 1996.

Amateur Volunteer Exams

By WY3K

The Tamaqua Volunteer examining team will be giving Amateur Radio licensing exams on the dates listed below. All exams are held Saturday morning starting at 9 a.m. in the Tamaqua Municipal building 320 East Broad Street, Tamaqua. The exam fee is now $ 6.05 per exam. Only the Novice elements 1a and 2 have no charge. Those planning to take an examination are reminded to come prepared with (1) a pen and pencil, (2) some means of personal identification such as drivers license or birth certificate, Social Security card etc., (3) also a photo copy of your present license and (4) the original license issued by the FCC.

Additional information is available by calling WY3K or W3TI.

Exam Dates
March 2nd. June 1.
August 3rd. November 2nd.

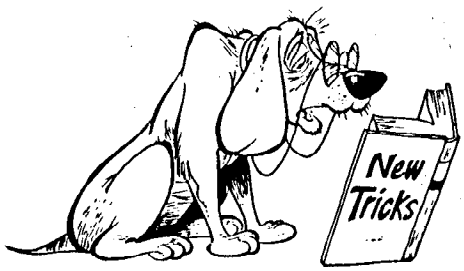
Prez' Corner Cont'd.

Another issue discussed regularly in magazine and newsletter articles is the lack of organization and training on the part of the Amateur Radio community. As a result, local emergency agencies in many cases don't even know the Amateur exists. And if they did know of our existence they would be unfamiliar and not knowledgeable of our capabilities and often do not know how to incorporate our services into their local emergency situation.

Fortunately, some of the Amateurs in our area made their presence known and developed a good working relationship with public officials many years ago. We still continue to participate in drills and provide communications for public service events on a regular basis. Even before the weather events of 1996 took place, plans were underway to include training topics on communications and traffic handling at our monthly club meetings.

It is also important to look for opportunities and note where the services of Amateur Radio operators could have been of value when reviewing the events of these recent emergency situations. Examples such as these could be presented to our emergency agencies. This is one way of demonstrating how the Amateur Radio community can be of service and provide examples how our service can be incorporated into their emergence plan. Also remember, remain flexible while demonstrating to these agencies that we serve, and show that the abilities of the Amateur Radio Operator can go beyond the role of strictly that of providing Radio Communications.

"Folks, this is perfect weather for today's game. Not a breath of Air"
By a network sports announcer.



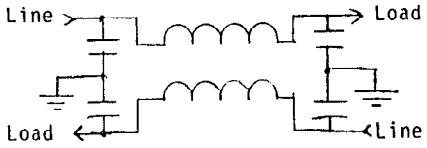
A C Line R F I

By W3TI

When Television signals were first received up here in the hills of Eastern Pennsylvania TVI was quite prevalent due to its weak signal strength. Any free R F floating around would molligate the picture because of front end overload and some times it made its way into the set via the AC line cord.

The cure was an AC line filter, one was wired into the high voltage power supply of the transmitter and for double sure you put another in the AC line cord of the TV set.

Construction was quite simple. An old broom stick handle cut about 10 inches long and wound with Nr. 12 or 14 enamel wire. Both sides of the AC line was wound side by side and connected as shown in figure 1. The theoretic principle used is the cancellation of electric fields as depicted in figure 2.



Capacitors - .01 to .05 uf.

Figure 1.

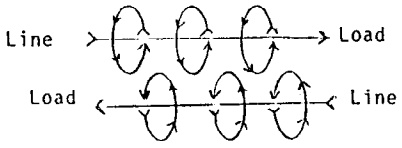


Figure 2.

Today in our so-called modern age, RF signals are being emitted from all kinds of accessories and appliances that you find in every household. Your computer, electric typewriter, Bear Cat scanner are just a few examples. A few days after we got our Micro-wave oven I noticed wavy horizontal lines in our TV picture and a white noise could be heard on the Yaesu HF transceiver. But it only appeared when the Micro-wave unit was operating. The cure ! Bend the line cord back and forth about 5 or 6 times as shown in figure 3.

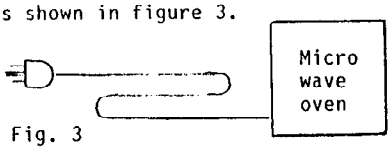


Fig. 3

Squeeze the cord together and clamp it with plastic wire ties or hook-up wire. Do the same thing with the computer, typewriter and scanner cords, and any other device you might have around the house that could have a self contained RF oscillator. It works for me.

Do you know why steel ground rods are copper plated?

If you answered to increase conductuivity, you better read on. The base metal, steel, is more conductive than the best soil or even salt water. The real reason is for corrosion resistance. Copper, silver, mercury and gold have high resistance to corrosion, while those metals never found free in nature, like aluminum and magnesium, are easily corroded. Noble metals like copper become the cathode when joined together with less noble metals in the presence of an electrolyte (water). Less noble metals become the sacrificial anode and corrode away.

Graphite is even more noble than silver and certainly much nobler than copper. Therefore, if a graphite backfill material is used as a ground enhancer to surround copper, the copper will be sacrificial to the graphite and will dissolve away into the underground.

The following effect the amount of corrosion both above and below the soil.

1. WATER. The presence of water mixed with contaminants is the basis of galvanic corrosion. Pure rain water is slightly acidic. It picks up carbon dioxide as it falls which creates carbonic acid. As this rain water drips on galvanized tower sections, it will cause the zinc to combine and wash off. This leaves the bare steel to oxide (rust) away.
2. OXYGEN. This is the main corrosion accelerator. Rain water also picks up oxygen as it falls through the atmosphere. Water provides an excellent carrier of oxygen.
3. TEMPERATURE. Generally the higher the temperature the faster the chemical reaction.
4. HYDROGEN SULFIDE. A gaseous product of exhaust emissions. It combines with rain water creating acid rain.
5. SALTS. Sodium chloride found every where, increases the soil conductivity and also increases the corrosion process in nearly the same proportion to its concentration. Only Sodium carbonate or phosphate form a protective film that protects further corrosion.

A FEW HELPFUL HINTS.

A. Mother Nature will see that nothing we put in the ground will last forever. But we can do our part to design a grounding system that lasts.
B. Use all similar metals in the grounding system. If copper is used don't mix it with tin plated copper wire.
C. Use an anti-corrosion compound on all joints.
D. Check the grounding system annually for its resistance and corrosion.
E. Know your grounds pH. If you forgot how, the procedure was explained in the Summer Vacation issue of Splatter.

(Editors Note) The above is another in a series of grounding which was transcribed from the bulletin received from PolyPhaser, a company who designs and manufactures grounding and lightning protection equipment. Don't forget, Your shacks ground system is just as important as the antenna you use.

TAMAQUA WIRELESS ASSOCIATION

Officers Elect for 1996

President WY3K
Vice Pres. KB3ABY
Secy.-Treas. W3TI
Activities Mgr. K3NYX

The Association holds regular business meetings on the 3rd. Friday of each month at the American Hose Fire Company in Tamaqua, Pa. All correspondence for the Association should be sent to the secretary via 212 Race Street, Tamaqua, Pa.

T W A Membership January 19, 1996

KB3ABY	G	Anthony Sfarra Sr	RD 2, Box 225	New Ringgold	17960
KA3WGG	A	Albert Larichiuta	RD 1, Box 100	New Ringgold	17960
K3NB	X	Dave Evans	18 N. Balliet St	Frackville	17931
K3KNL	A	Mike Cuttic	750 West Pine St	Frackville	17931
W3TI	X	Allen R. Breiner	212 Race Street	Tamaqua	18252
K3NYX	T+	Allen R. Breiner Jr	127 Market Street	Tamaqua	18252
NI3H	X	Dave Christ	406 Pine Street	Tamaqua	18252
KB3ACB	T+	Jeffrey Kunkel	402 Arlington St	Tamaqua	18252
WY3K	X	William Dale Jr	RD 3, Box 56	Tamaqua	18252
N3FXG	T+	Evelyn A. Breiner	212 Race Street	Tamaqua	18252
KB3AYY	T+	Ed Boerner	210 Penn Street	Tamaqua	18252
W3ZHW	G	Ed Russell	913 Mt. Hope Ave.	Pottsville	17901
KA3FUL	G	Gary Fleichut	803 Norwegian St	Pottsville	17901
N3LBM	T	Andy Catchmark	RD 2, Box 2725	Pottsville	17901
N3HHH	G	Andy Hitzel	R D 4, Box 4025	Pottsville	17901
KA3WGF	X	Jim Graver	327 Thirwell Ave.	Hazleton	18201
KB3ATA	G	Dave Olsen	P.O. Box 2156	Hazleton	18201
AA3CU	X	William Petrey	130 Park Place	Mahanoy City	17948
KB3ACD	T+	Ed Sheganoski	P O Box 93	Maizeville	17949
WB2YVW	G	Russ Stevenson	RD 1,1275 Bahundy Rd	Orwigsburg	17461