SPLATTER

This Bulletin is printed from time to time and distributed to the Members of the Tamaqua Wireless Association

Oct. – Nov.- Dec. Holliday Issue 1999

The Few



I guess the Lord didn't like "*The Few*" because he didn't make to many of us.
By W3ZRQ

I was undecided as to title this article *"Food for Thought"* or *"Where Do We Go From Here"*. As you read on you will soon discover this is not much of a message from the president, but I hope you do not view it as a message from a sour grape either.

June, July, August, September and October were very busy months for *"The Few"*, and I mean Few. Unless of course you were busy sitting back in your easy chair listening to *"The Few"* trying to provide communications for all of the various events.

One of the reasons I feel so bad about writing this article is, for the most part the people who will read it, are among the ranks of "*The few*" who are always there to help.

Even though we got the job done, it was a tremendous burden on *"The Few"* individuals. So, "Where Do We Go From Here? ". It doesn't take long before "*The few*" become even fewer because of the increased responsibilities.

It seems everywhere we turn, "*The few* " are becoming fewer. Club meeting attendance is down. Attendance at V.E. sessions is down. The Tuesday night ARES net is becoming a ghost town. I'll say it again, participation in public service events is becoming as torturous as a trip to the dentist.

Now comes the "Food for Thought". Are we doing something wrong ? Are we missing the boat ? Do we need to turn to other types of activities to rekindle the interests ? At this point your guess is as good as mine.

In closing, I do want to thank "*The few*" for their continued support, and I guess we will just have to wait to see "Where Do We Go From Here".

The Countdown

1999 has been a year of many many activities for the members of TW. We still have Tamaqua Octoberfest and Halloween parade to fill out the year, closing with our annual Christmas party in December.



FROM WHERE WE SIT

To those who helped with club activities we say thanks. You have the satisfaction of knowing you did your part. You are Amateur Radio Operators, you take pride in being a member.

Tamaqua Volunteer Examiner team has been available for you with one more session in November. We consider our membership drive successful by adding five to the list. The eleven who attended Field Day can vouch for an excellent two day activity. That same group can be complimented for showing off amateur radio during the Tamaqua Springfest. We'll have the same opportunity on October 10th.

As we enter the new year some claim we'll have all kinds of glitches at 12 midnight with all kinds of weird things. ARES units are training in the event they are needed. What will you be doing on January 1st, 2000, are you volunteering ?

2000 and Onward TWA VE team will be doing their thing again. There is "Talk" to activate the Tamaqua Hamfest again. Do you think we can run a Hamfest with eleven members. Think about it. We'll hold Field Day again, *probably with the same eleven.* In closing we leave with this thought in mind.

" *Are you an active member, or do you just belong ?* "

"Teck Topic Answers"

Nr 1. Rt = 259.6 ohms Nr. 2 11,562 ohms
Nr. 3. 15,692 ohms Nr. 4 13,333 ohms

Looking Ahead

By W3TI

For the past three issues comment and items in the TWA bulletin were directed mostly toward those licensed amateurs in the Tamaqua zip code mailing area. The results of our membership drive netted a 30 % increase. The membership drive is over and we can return to the present and future activities of the club.

Getting new blood in our organization is always a challenge. First, most of them are new to amateur radio and eager to learn more about the hobby. Second, it's a tough situation to teach them all the tricks and what we went through and in the meantime try our utmost to keep the older members from becoming bored with repetition of the same old stuff.

I have just been notified that I will be teaching another Advanced class course this fall. Classes will begin around the third of November and continue into January or February in preparation for our VE session on March 4th. Classes are usually held each Wednesday between 7 and 9 p.m. Requisites for class are a large loose leaf note book, a scientific type electronic calculator, and the willingness to learn. You supply the interest and we'll supply the necessary training.

Activities in our club is seasonable, Spring, Summer and early Autumn are the active months while November, December, January, February March and part of April. We are dormant and looking for something to do. Due to the working schedule of our Activities Manager, club activities are managed by the three judiciary and following this issue there is the Tamaqua Octoberfest, Tamaqua Halloween parade and climax the year with our annual Christmas party on December 11.

Looking ahead to fill the void between January and April, a few programs have been lined up. A talk by Walter K3OQF/T5 VQ9TD on Antenna design.

Our group has never held a club auction. Many of us have managed to collect some parts or gear in the attic or junk box that would be a treasure to some member. This also helps to keep that *First Class Junque* in circulation thru the club. How about April 19th for our first club auction !

Once in awhile a *White Elephant* is donated for the 50/50 drawing. How would you like to hold a *White Elephant Sale* for an activity or another lesson in how to *Solder or Tieing Knots ?* How about *You,* What kind of program would you like to have at club meetings. We won't know what your interests are unless you tell us

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The New Teacher

A new teacher trying to make use of her Psychology courses, started her class by saying, *"Everyone who thinks you're stupid, stand up."*

After a few seconds, little Johnny stood up. The teacher said, *"Do you think you're stupid Johnny ? "*

"No Ma'am," he said " But, I hate to see you standing there all by yourself."

TWA FREE Video Library

Our club has always had a number of tapes taken at various club functions. Some ARRL , Field Days, Christmas parties etc. We recently had the good fortune from Walter Schultz, K3OQF making a donation of twenty video tapes from his technical library.

Information like this is of no use when stored away in a drawer. It should be used by the members. Any member of T W A may borrow them with the following provisions.

1. They notify the club secretary a few days prior to the club meeting which tapes they would like to view.
2. The tapes requested will be available for you to pick up at the club meeting
3. Tapes are on loan for one month and must be returned to the club at the following meeting.
4. A minimum of two (2) tapes may be borrowed each time.
5. Permission is granted to make copies for your own use.
6. Tape request forms will be available from the club secretary.

List tape requested by Name

America in Space - The first 25 Years
Antenna Fundamentals, Directivity - Propagation
Antennas (Loaded)
ARPA, introduction to RAYCAS Operation & Functions
ARRL Tapes # 1(assorted)
ARRL Tapes # 2 (assorted)
Component Recognition / Electronic Circuits
Digital Techniques Tape # 1.
Digital Techniques Tape # 2.
Digital Techniques Tape # 3
Digital Techniques Tape # 4
Digital Techniques Tape # 5
Digital Techniques Tape # 6
Digital Troubleshooting Tape # 1
Digital Troubleshooting Tape # 2
Last word from Kuait.
New World of Amateur Radio 30 min.
Radar Alignment
RAYCAS V - Maintenance
Semiconductors Course - Heathkit
Soldering & PCB Repair
Sperry MK-37 & UGP operation & maintenance
Switching Power Supplies.
The Men who made Radio (1992)
TWA Christmas Party # 1
TWA Christmas Party # 2 (1990)
TWA Christmas Party # 3 (1987
TWA Field Day 1989 - Feeder Fabrication July '89.
Voyage to the Planets (90 min)

Behind the Diamond

By W3TI

Say Goodby to FCC form 610, may it rest in peace. If you are about to renew your license or plan to take an exam to upgrade, don't bother to fill out that old 610 form. As of August 16, 1999 say hello to the new replacement form. The FCC has introduced their Universal Licensing System

The former FCC 610 form as I recall had been modified numerous time in order to simplify and make it easier to file. The last or final draft was as simple as you can get. When you get to use the new ULS form you're going to need a college degree or a Philadelphia Lawyer to assist in its completion. It's a dandy.

Aside from entering the routine information, you will be required to show your Social Security number. Failure to do so will have your application returned. We can see some fun-times laying ahead for our VE's.

The National Traffic System is now 50 years old

When ye editor was first licensed 45 years ago he started with the CW traffic nets. The NTS was just 5 years old and still trying to firm up its roots. Today it has grown to the point whereby a message originated in Tamaqua has the potential of being delivered in Florida the next day. The soothsayers or doomsday people tell us CW is finished, but not for the NTS and traffic nets.

WHEREAS, the National Traffic System is celebrating its golden fiftieth anniversary this year; and

WHEREAS, traffic handlers in the National Traffic System have relayed messages across the continent for the benefit of the public and as training for emergency communication operations; and

WHEREAS, the National Traffic System has served as one of the greatest social outlets for its devotees in the history of Amateur Radio, with lifelong friendships having been forged through its nets; and

WHEREAS, the National Traffic System has enjoyed a rich and colorful history, replete with thousands of operators contributing hundreds o thousands of hours to their beloved avocation of traffic handling;

NOW, THEREFORE, BE IT RESOLVED, that the ARRL Board of Directors, assembled in formal session this day, July 17, 1999, in Rocky Hill, Connecticut, does hereby recognize the historic and Benevolent contributions of the National Traffic System and it operators to the ARRL public service program, on the occasion of its fiftieth anniversary.

Friendship

By J. Yogie Bear WB3FQY

In kindergarten, your idea of a good friend wasperson who let you have the crayon when it's the last one left.

In first grade, your idea of a good friend was the person who went to the bathroom with you and held your hand as you walked through the scary halls.

In second grade, your idea of a good friend was the person that helped you stand up to the class bully.

In third grade, your idea of a good friend was the person who shared lunch with you when you left yours on the bus.

In fourth grade, your idea of a good friend was the person who was willing to switch square dancing partners in gym so you wouldn't have to be stuck do-si-do ing with Nasty Nicky or Smelly Susan.

In fifth grade, your idea of a friend was the person who saved a seat in the back of the bus for you.

In sixth grade, your idea of a friend was the person who went up to Nick or Susan, your new crush, and asked them to dance with you, so that if Nick or Susan said no, you wouldn't have to be embarrassed.

In seventh grade, your idea of a friend was the person who let you copy the social studies homework from the night before that you had forgotten.

In eighth grade, your idea of a good friend was the person who helped you pack up your stuffed animals and old baseball cards so that your room would be a "high schooler's" room, but didn't laugh at you when you finished and broke out into tears.

In ninth grade, your idea of a good friend was the person who went to that "cool" party thrown by a senior so you wouldn't wind up being the only freshman there.

In tenth grade, your idea of a good friend was the person who changed their class schedule so you would have someone to sit with at lunch.

In eleventh grade your idea of a good friend was the person who gave you rides in his or her new car, convinced your parents that you shouldn't be grounded, consoled you when you broke up with Nick or Susan, and found you a date to the prom.

In twelfth grade, your idea of a good friend was the person who helped you pick out a college, assured you that you would get into that college, then helped you deal with your parents who were having hard time adjusting to the idea of letting you go.

At graduation, your idea of a good friend was the person who was crying on the inside but managed the biggest smile one could give as they congratulated you.

Now, your idea of a good friend is still the person who gives you the better of the two choices, holds your hand when you're scared, helps you fight off those who try to take advantage of you, thinks of you at times when you are not there, reminds you of what you have forgotten, helps you put the past behind you but understands when you need to hold on to it a little longer, stays with you so that you have confidence.

TWA Calendar of Events

The column nobody bothers to read

September 15, TWA Regular biz meeting
October 10, Tamaqua Octoberfest
October 20, TWA meeting & Nominations of Officers
October 26, Tamaqua Halloween Parade
November 6, VE session Tamaqua Municipal Bldg.
November 17, TWA meeting & election of Officers
December 11, TWA Xmas Party

Please Note - TWA meetings are on the third Wednesday's and held at the Tamaqua Municipal Building starting at 7:30 p.m.

Field Day '99

It was mentioned in another article about those eleven active members who made up the 1999 Field Day crew we have more kudos to add. ARRL announced any Field Day group could receive a pin which represents the 1999 Field Day. It was motioned at the August meeting we purchase Field Day '99 buttons for those who attended and were active at that annual event.

Finances for the buttons were taken from the club 50/50 fund

Just how Old do you think you are ...

Check your score at the bottom.

1. Soda pop machines that dispensed bottles
2. Black Jack Chewing Gum
3. Candy Cigarettes
4. Wax Coke - shaped bottles with colored sugar water
5. Coffee shops with tableside jukeboxes
6. Home milk delivery in glass bottles with cardboard stoppers
7. Party lines
8. Newsreels before the movie
9. P.F. Flyers
10. Butch wax
11. Telephone numbers with a word prefix (Olive - 6933)
12. Peashooters
13. Howdy Doody
14. 45 RPM records
15. S&H Green Stamps
16. Hi-fi's
17. Metal ice trays with levers
18. Mimeograph paper
19. Blue flashbulbs
20. Beanie and Cecil
21. Roller skate keys
22. Cork popguns
23. Drive-ins
24. Studebakers
25. Wash tub wringers

If you remembered 0-5 = You're still young
If you remembered 6-10 = You are getting older
If you remembered 11-15 = Don't tell your age
If you remembered 16-25 = You're older than dirt!

Is To Much – Enough

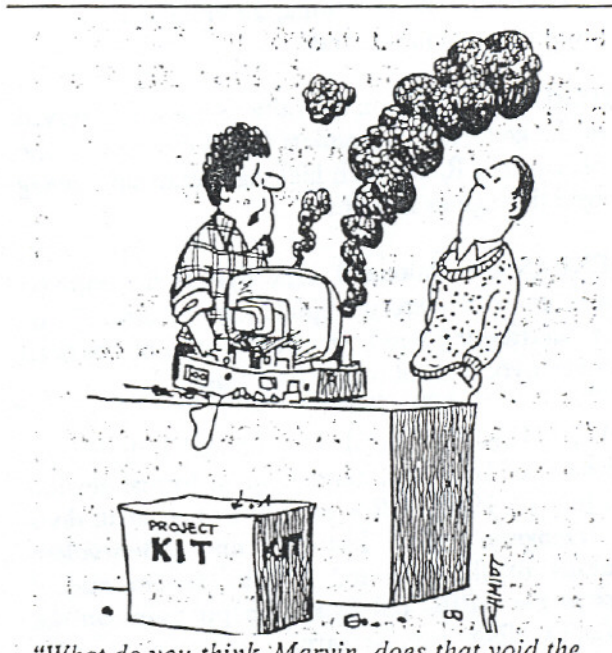
It was just a few months ago that we had nomination of officers and when you picked W3ZRQ as president he made the statement, "Hang on to your seat belts because 1999 was going to be a busy year for TWA ". That statement was intended for those members who forgot to remove the tube of epoxy from their chair and got stuck in a rut. They remind us of 4 members from the Tim-Buck-Tu radio club from Tu Buck , Klepomania.

These four were named *Everybody, Somebody, Nobody,* and *Anybody* and when a club activity was planned *Everybody* was sure that *Somebody* would do it, *Anybody* could have done it but *Nobody* did it.

When *Nobody* did it *Everybody* got angry because it was a job for every club member to do. *Nobody* did what *Anybody* could have done in the first place. We're sorry if this may get some miffed but thimk about it.

Are you an active member, the kind that would be missed
Or are you just contented to have your name upon the list

Now, what can be done about it, you have two alternatives. (1). Get unstuck from that chair and join *Everybody, Somebody, Anybody and Nobody* with those club projects and activities. Or, (2). TWA club officers nomination October 20 and election November 17 is right around the corner. Elect *Nobody* for president, *Anybody* for vice president, *Somebody* for Secy./Treas. and *Everybody* for Activities Manager. With *Everybody* as Activities manager you can be sure nothing will be accomplished. "You" the member must decide. A club group can be compared with the human body. If we decide to discontinue use and exercise of our left hand it will soon shrivel up and die. Discontinue TWA club activities will have the same results. How do you plan to vote come November ?



"What do you think, Marvin, does that void the warranty?"

Teck Topic

By Der Professor Nikel Schdrudel

Its been quite some time since we had put a Teck-Topic in our bulletin I guess because we picked some pretty tuff nuts to crack and our elder members were not interested in up dating their electronic knowledge. If you haven't been to a meeting lately you will be surprised to see a number of new members that are interested in getting out of that No Code Teck rut and on to a higher class. That requires a few more smarts and this is one way to give them a boost.

I found resistors are great to teach basics such as ohms law. A simple parallel circuit can be put to some real trouble shooting technique. For example, A - B represents resistor R-1 = 2200 ohms, and C - D represents resistor R-2 = 47K in a parallel circuit shown in Figure 1.

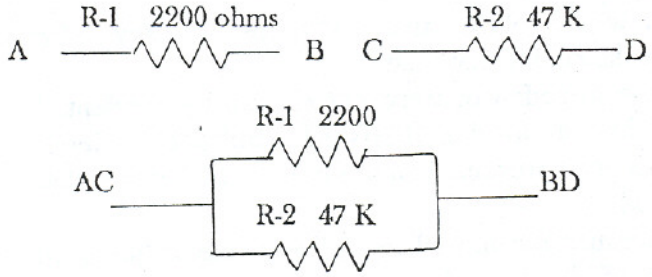


Figure 1.

The resistance between AC and BD is calculated with the famous formula using reciprocals, that everyone loves, see Fig 2.

$$R\text{-}t = \frac{1}{\frac{1}{2.2\,K} + \frac{1}{47\,K}} = \frac{1}{\frac{1}{2.2\times10^{3}} + \frac{1}{4.7\times10^{4}}} =$$

$$\frac{1}{4.54\times10^{-4} + 2.12\times10^{-5}} = \frac{1}{4.7582\times10^{-4}} =$$

2.1016×10^{3}. $Rt = 2101.6$ ohms

Figure 2.

Now, that wasn't hard was it. It is easy to calculate a total when you have two known values but how do you find the value of a resistor when you know the total resistance and the value of only one of the parallel resistors.

For example : In Figure 3 the total resistance Rt is 8400 ohms and the resistance of R 1 is 820 K. What is the resistance of R 2 ?

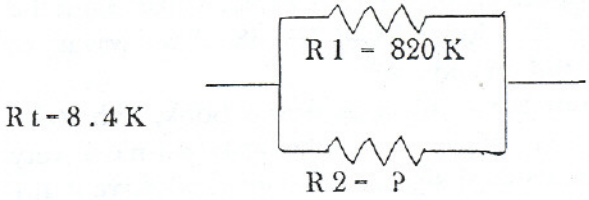


Figure 3.

Solution :

This requires a different formula and much simpler to use. See Figure 4.

$$R2 = \frac{R1 \times Rt}{R1 - Rt} = \frac{(8.2\times10^{5})\,(8.4\times10^{3})}{(8.2\times10^{5}) - (8.4\times10^{3})} =$$

$$= \frac{6.888\times10^{9}}{8.116\times10^{5}} = 8.4869\times10^{3} =$$

$R2 = 8486.9$ ohms

Home work ;

Nr. 1 $Rt = ?$ ohms, $R1 = 270$, $R2 = 6800$

Nr 2 $Rt = 10$ K, $R1 = 74$ K, $R2 = ?$

Nr 3. $Rt = 6.8$ K, $R1 = 12$ K, $R2 = ?$

Nr. 4. $Rt = 12000$, $R2 = ?$, $R3 = 120$ K

As stated in previous Teck Topics, are not intended to indicate ignorance or lack of electronic knowledge within the Association. They are intended to peak up and review those items which will pop up in an exam or later in the workshop. Wednesday Teck Nites usually end up with a black board discussion.

You Got Questions ? We'll dig up the Answers for you.

How ja' do ? Answers to Homework will be found elsewhere in Splatter.

What you didn't know about Coax Cable

By Steve Lampen

We're taking a side trip from cables such as twisted pairs, to another common cable, coax. What is coax, what does RG mean ? Where did it come from ? Why do we have it. ?

RG means "Radio Guide " and was the original military specification for coax cable. What about the numbers , e.g. RG-6, RG-8, RG-58, all the way up to RG-405 and on and on ?

That number is just a page in a book, with RG-1 being the first page and obviously wasn't a very successful cable design because we don't have it any more. RG-6 on page six was wildly successful because most CATV/broadband TV cables use RG-6

RG just being a number in a book means very little and that's why you have RG-58, a 50 ohm design, right before RG-59, a 75 ohm design. Actually, RG-58 is a 53.5 ohm design.

What went wrong ? Well sit back and we'll tell you. All systems you have (Ham Radio) are 50 ohm on the transmit side. So 53.5 ohms would exhibit a fair amount of mismatch. But if you made a cable for 50 ohms, since you couldn't call it RG-58, you'd call it RG-58 Type.

The word "Type" is the key. It means "Sort of " in technical-ese. So our RG-58 is "sort of " like RG-58 spec.

But that's not all : the military itself changes the original spec, it brought out different versions. RG-58/A, RG-58/B, RG-58/C. Some of these could be considerably different from its original. One might have a stranded center conductor instead of a solid one, or it might have a
special jacket compound so the chemicals in the jacket would not contaminate the dielectric underneath, called a "non-contaminating jacket".

Not long after WW II the military decided the RG system was getting unwieldy so they abandoned the entire system and replaced it. In the current Mil Spec, coax falls under a heading of C17. Each time the spec is changed, a new letter is added. We're currently under C17G. This spec supersedes everything written before C17F, but all
RG number as well. To the people who invented the RG system, RG means nothing.

Of course, there were a few million customers, like you and I, who thought the RG numbers were fine. A large number of technicians who entered broadcasting after WW II came with extensive RG knowledge got from their military training, so it was logical for those cables to continue. And, like any ancient religion, these numbers continue to be used and modified long after the High Priests (the military) had moved on.

Why 75 ohm coax

Why 50 ohms and 75 ohms, or any other impedance, for that matter
These impedances were not chosen by accident. It was known in the 1920's'that cables of different impedance worked better for one application than the other.

Because the impedance of any coax cable is the ratio of the size of the center conductor and the distance to the braid and the quality or dielectric constant of the plastic insulator between them.

Customers who wanted low-signal attenuation found the ideal impedance was 77 ohms. But this was an odd number in terms of wire sizes. If you "fudged" just a little bit to 75 ohms, then the standard wire sizes could be used. This is why all those low power, low voltage signal carrying cables such as TV cables/ broadband antenna lead-in were all 75 ohm.

Steve Lampen is a senior audio video specialist for Belden Wire & Cable Co.. His book "Wire, Cable and Fiber Optics" is published by McGraw-Hill

RG #	Impedance	Center (AWG)
6	75	18
8	50	10
8X	50	19
11	75	14
58	50	24
59	75	24
62	93	22
63	125	22
71	93	22
122	50	22
141	50	18
142	50	18
174	50	26
178	50	30
179	75	30
180	95	30
187	75	30
188	50	26
212	50	15.5
213	50	13
214	50	13
216	75	18
223	50	19
303	50	18
316	50	26
402	5	19
405	50	24

SPLATTER

ITEM

Being an editor of your club bulletin not only requires the gift of gab and the know how of putting that gab into the English language but the main item is topic data and information that is not a duplicate entry in each issue.

Published only 4 or 5 times a year requires a lot of information and if we print the wrong thing or not enough bulletin space we are evading the meaning and purpose of a club news sheet. At least once or twice a year ye editor asks for input from the members and 4 or 5 times a year we receive ziltch, nix, zero.

Next time you put a sheet of paper in the typewriter or exercise the computer, why not write something about your station, I'm sure the members would like to hear from you.

ITEM

Have you had chance to listen to the DX bands lately. 15 meters is open regularly and so is ten. All this means is that those stations will be looking for your QSL card. Yes, we know the cost of overseas postage is out of this world. BUT, do you know you can save a bundle by QSL'ing through the ARRL DX QSL Bureau.

By the same token, do you have an envelope in with the third district QSL bureau in case other stations QSL via the bureau.

JOB APPLICATION

The plant manager in Sweden posted a job opening in the engineering department and received two applications. Olie, a Swede, and Yohan, a German were each given a ten question written examination.

Upon completion the manager checked the papers and noticed they both answered 9 questions correctly and informed them the German got the position.

Olie asked "Why he came to that decision. This being Sweden the job should be his and argued they each got nine questions right ".

The manager stated, " Our decision was not on the 9 correct answers, but on the question you missed".

Olie returned, " Just how could one incorrect answer be better than another " ?

Managers answer, "Simple, Yohan put down on question Nr. 7, "I don't know" you put down, "Neither do I ".

^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^

Average is just as close to the Top as it is to the bottom

	First nam	Last name	Call	Address	City	Stat	Zip
1	William	Petrey	AA3CU	130 Park Place	Mahanoy City	Pa	17948
2	Dave	Evans	K3NB	18 N. Balliet Street	Frackville	Pa	17931
3	Evelyn A	Breiner	K3NZD	212 Race Street	Tamaqua	Pa	18252
4	Walter	Schultz	K3OQF	PO Box 4054	Jim Thorpe	Pa	18229
5	Edward	Sheganoski	KA3ACD	P O Box 93	Maizeville	Pa	17949
6	James	Graver	KA3WGF	327 Thirwell Street	Hazleton	Pa	18201
7	Albert	Larichiuta	KA3WGG	RD 1 Box 100	New Ringgold	Pa	17960
8	Jeffrey	Kunkel	KB2ACB	213 Penn Street	Tamaqua	Pa	18252
9	Anthony	Sfarra Sr.	KB3ABY	RD 2, Box 225	New Ringgold	Pa	17960
10	Dave	Olsen	KB3ATA	PO Box 2156	Hazleton	Pa	18201
11	Edward	Boerner	KB3AYY	210 Penn Street	Tamaqua,	Pa	18252
12	Kevin	Kasprzak	KB3CFU	10 West White Bear	Summit Hill	Pa	18250
14	Tony	Pavlock	KB3DYH	503 W. High Street	Frackville	Pa	17931
15	Donald	Schlier	KB3DYI	75 East Mill Street	Nesquehoning	Pa	18240
16	Edward	Weicker	KB3DYJ	237 N. Lehigh St	Tamaqua	Pa	18252
17	Andy	Hitzel	N3HHH	1407 Chestnut St.	Pottsville	Pa	17901
18	Robert	Beck	N3KPN	RFD 3 B-152-A	Tamaqua	Pa	18252
19	Joe	Chakan	N3LBB	152 Penn Street	Tamaqua	Pa	18252
20	Andy	Catchmark	N3LBM	83 North Maple Ave.	Pottsville	Pa	17901
21	Dave	Christ	NI3H	406 Pine Street	Tamaqua	Pa	18252
22	Allen	Breiner	W3TI	212 Race Street	Tamaqua	PA	18252
23	Edward	Russell	W3ZHW	913 Mt. Hope Ave	Pottsville	Pa	17901
24	Allen	Breiner	W3ZRQ	127 Market Street	Tamaqua	PA	18252
25	Charles	Major	WA3LMP	539 Arlington St	Tamaqua	Pa	18252
26	Jim	Moyer	WA3WIJ	421 E. Elm Street	Tamaqua	Pa	18252
27	Russell	Stevenson	WB2YVW	RD 1, Bahundy	Orwigsburg	Pa	17961
28	William	Dale Jr	WY3K	RD 3, Box 56	Tamaqua	Pa	18252

Sept. 15, TWA meeting, Tamaqua Municipal Bldg. 7:30 p.m.
Sept. 18. Del-Lehi Hamfest, Schnecksville, Pa.
Sept. 19, York Hamfest
October 2, Susquehanna Valley Hamfest
October 10, Tamaqua Octoberfest
October 17, RF Hill Hamfest,
Wednesday, October 20, TWA Meeting & Nomination of Officers
October 26, Tamaqua Halloween Parade
November 6, VE Session Tamaqua Municipal Building
November 17,Wednesday TWA meeting & Election of Officers
December 11, TWA annual Xmas party. Marthas Place.

Tamaqua Wireless Association
212 Race Street
Tamaqua, Pa. 18252

STAMP HERE

TIME VALUE
MEETING NOTICE