



The VHF Transmitter



Keystone VHF Club, Inc.

W3HZU

Founded 1955 – York, PA

VOL 61 No 9

CIRCULATION 185

November 2016

Our Nets A KVHFC Tradition since 1955

On the air nets have been around since the birth of Amateur Radio. Their primary purpose is to pass news, foster comradery, and teach good operating practices. Our club holds three weekly nets. While these are formally highlighted on page 3, I'd like to encourage more of our members to check in ... they each serve a unique purpose.

Our main net, the **Combined Club & ARES/RACES** net meets Monday evenings at 8:30 PM. This net is administered by Rick Reese, KR3EE. The Net Control station that calls the net is based on a rotating schedule which can be found on our Web Site under "Nets." The purpose of this net is to disseminate news & information applicable to our club & York ARES/RACES (YARS). All members of both organizations and anyone else who is interested are encouraged to check in. Upon check in, you are asked if you have any traffic for the net. If you have anything that you feel is applicable to the club or YARS, please announce that you have traffic. After everyone has checked in and a few announcements are made, you will be requested to present your traffic. Please don't feel shy about doing this, you may have information about a topic or event that could be of great interest to us.

A less formal net is the **Keystone VHF Club's ELMER Net**. This net meets Tuesday evenings at 9 PM and is a general "Ham Radio" discussion net. If you have any question about anything related to the club or Amateur Radio we talk about it. This net is usually called by Dick Goodman, WA3USG. After everyone has checked in, and we go around and get initial questions & comments, the net becomes more informal and a lot of roundtable discussion occurs. Having problems with a radio, want to build an antenna, need advice, want to recommend a product? This net is for you! Come on ... we will talk about anything here!

Continued on page 3

Can You Hear me Now? By Skip Falkenhan, N3VTX

A few weeks ago Richard Goodman, WA3USG asked if anybody would be interested in riding bikes on the abandoned section of the Pennsylvania Turnpike near Breezewood. I jumped at the chance as I have not ever been there before and the fall foliage was getting to its peak. This would be a chance for me to get a little exercise and play with some radio.

The ride would be roughly 10 miles one way with 2 tunnels to ride though, a round trip about 18 to 20 miles. As we drove out, we chatted mobile to mobile on are clubs secret frequency, 144.34 MHz. I asked Richard (WA3USG) what he thought about doing a little experiment in the tunnels, There were 8 of us riding this day. We arrived at the Turnpike site and started pedaling.

We made it to the other end, passing through the tunnels and then turned around to head back. When we got to the longest tunnel, approximately 5200 feet long, Richard (WA3USG) went ahead to the other end of the tunnel and I stayed behind.

With our HT's high power we could not make contact on FM simplex. I rode my bike into the tunnel to the midway point and should point out that I could see light at the end of the tunnel, (no pun intended). I tried calling Richard again with no success. Only after exiting the tunnel did we regain communications. Distaught after this failed attempt, I tried to understand why this happened.

As radio operators we are taught, as frequency goes up, RF starts to travel more in straight lines out toward the horizon, with that said, If the transmitter antenna can see the receivers antenna everything should work.

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Boy Scout/Cub Scout J.O.T.A. Jamboree on the air at the KVHFC



The Boy Scouts of America- the Keystone VHF Radio Club [W3HZU] hosted their 59th Annual JOTA /JOTI (**Jamboree-on-the-Air** and **Jamboree-on-the-Internet**) event at the Keystone VHF radio club in York, PA. Scouts from all over York were invited to share ideas and Scouting experiences with their Scouting peers around the world using two-way amateur radio and satellite links as well as the Internet. Youth could also participate in a radio beacon fox hunt onsite. York County citizens were also invited to stop up

to learn about Scouts and HAM Radio. Cub Scouts, Boy Scouts, Girl Scouts or any scouting organization were able to talk on amateur, or HAM radios with other Scouters on the airwaves in the USA and around the world.

The JOTA/JOTI annual event contributed to better understanding and mutual respect between youngsters in different countries. Thousands of amateur radio stations around the world participated

Gang ... I need newsletter articles! I'd like to thank Skip, N3VTX for the article that he wrote about the experiment we did on the bike ride.

Nate, WN3I needs to borrow a Box Set for a Kenwood TS-950. He needs to send the radio in for repair and the repair facility will not accept the radio unless it is packed in the original box. Does anyone have a TS-950 box (with packing) to loan Nate? You will get it back after his radio has been returned.

Dues are now due for 2017. My word ... time flies when you're having fun!! Our Treasurer Anne, KB3ZLJ will collect them from you with a smile at the meeting on Thursday if you wish!

NEXT MEETINGS

Thursday, November 3rd and Thursday December 1st at the York County EOC

Schedule of Keystone VHF Club Sponsored VE Testing for 2016

Laurel VE Group Testing sponsored by the Keystone VHF Club are held the second Saturday of the odd months. All tests are at 10 AM, pre-registration is appreciated except at the Hamfest. Contact, Ralph Brandt at ralph.brandt@comcast.net or phone 717-792-1017.

Location is York EMA Office at 120 Davies Road, York

Testing dates

Nov 12

Keystone VHF Club sponsored testing by the Laurel V.E. Group. These sessions are held in the Training Room at the York County EOC, 120 Davies Rd., York, PA. Testing starts at 10:00 AM. Preregistration is appreciated. *Contact Ralph Brandt at: Ralph.brandt@comcast.net or phone 717-792-1017 to register.*

VE exams will be sponsored by Southern Pennsylvania Communications Group (SPCG). These sessions are held held at the Shrewsbury Borough Building, 35 Railroad Ave., Shrewsbury, PA. Testing starts at 9:30 AM. *The point of contact for these sessions is Nate, WN3I at wn3i@comcast.net.*

Local area nets:

Capitol Area Traffic Net starts **Monday at 8 PM** on the South Mountain Radio Amateurs (SMRA) repeater on 146.46 (67.0 tone), 1 MHz offset.

The Combined Club ARES/RACES Net meets **Monday at 8:30 PM** on the Keystone 146.97 Repeater (Tone: 123 Hz).

South Mountain Radio Amateurs (SMRA) Net on **Monday at 9 PM** on the 145.43 (Tone: 67 Hz) repeater located in Mt. Holly Springs.

The Keystone VHF Club Digital Net on **Tuesday at 8 PM** on the York 146.97 Repeater ... *to restart on September 6.*

The Keystone VJF Club ELMER Net on **Tuesday at 9 PM** on the York 146.97 Repeater right after the Digital net

A local FM Simplex Net runs **Thursday at 8:30 PM** on 146.55 MHz.

South Central PA 10 Meter Net **Friday at 8 PM** 28.495 MHz USB

Ham Shack Talk Net - Monday at 9 PM: 28.335 MHz.

Delaware Lehigh Valley ARC Net - Sunday 4:00 PM: 28.430 MHz

Do Drop In net - Sunday 8:30 PM: 28.450 MHz

Penn- Mar Club net - Friday. 8:30 PM: 28.495 MHz.

10 Meter Ragchew Net - Every evening starting 7:30PM: 28.600 Mhz

6 Meter Magicians Net from Pottstown Wednesdays at 8:30 PM on 50.130 USB. At 9 PM, they switch to 50.400 and run A.M. modulation and call themselves the Mini Boat Anchor Net.

Trustee's Report



Tim, W3TWB



Dick, WA3USG



Jeff, KB3RCT

We are still looking into getting a mini split heat pump installed at the club. We are still going to go through with this but unfortunately I had to cancel out an estimate at the last minute due to unforeseen circumstances. I have it rescheduled for next week. We still have antenna work to get done. Otherwise the club is looking ready to head into Winter.

Scheduled Club P.S. Events for 2016

* Dec 24-25, 2016 - Glen Rock Carolers

POC: Stan Walters, AB3EM abacuspc@comcast.net

Save the date:

HRAC Winterfest

Saturday, January 21, 2017

NEW LOCATION: Vietnam Veterans of America located on Derry St. in Harrisburg across from the E-Z Pass office

Results of the York County Simplex Test

On Monday, October 17th, Chris Palm, WY6Z called a simplex net in lieu of our normal Monday night net via the repeater. The purpose of this was to see what level of simplex coverage we would have in the York County area. The following people checked into the net. Chris was able to copy all but 5 of these.

WY6Z	5	KA3LJL	4
KB3CNH	4	N3AUO	5
KB1EAR	4	N3NBT	5
KC3EWN	5	W3OKU	5
KC3EED	5	N3QZS	5
** KR3EE	4	KB3SSV	3
KC3FAF	5	KB3TCM	5
** KC3FIO	3	KB3TGY	5
KC3GMQ	5	KB3WZX	5
WA3GYW	4	W3VRE	4
WB3HNA	5	KB3ZLJ	5
K3HQI	5	KT3A	5
** KC3HWX	4	AB3EM	5
KC3JD	5	** KB3CHT	3
KB3JSV	5	** N3VQH	3
WB3KVN	4	*** WB3AFL	4

The numeric signal report next to the call is how we copied that station from the club site (0=very weak - 5- Full quieting).

** = WY6Z could not copy

*** = Copied at club site before net but did not check into net

N3ACP (Carlisle) and KC3TIM (York on HT) not readable at club or by WY6Z

Check out the new webpage for Amateur Radio EMCOMM on York OEM's website at

<https://yorkcountypa.gov/emergency-services/emergency-management-office/volunteer-respond/amateur-radio.html>

The VHF Transmitter

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Our Nets - Continued from Page 1

Our last net is the **Keystone VHF Club Data Net**. This net meets on Tuesday evenings at 8 to 9 PM (right before the ELMER Net). If you are interested in any of our digital modes (EG: RTTY, PSK31, JT65, SSTV) you are encouraged to check in. We practice sending & receiving data, text, messages, and images. Usually the first half of the net is dedicated to messaging ... the last 20 minutes are spent with net participants sending images via Slow Scan TV. If you are not yet involved with the digital modes but would like to be, please see below.

Interested in the Digital (Data) Modes?

We can help! It's not expensive to get on digital. The software is all free. You don't need a fast or fancy computer. Any radio will work (HF/VHF/UHF). You do need to know how to connect things up and how to install & configure the software however.

Most problems are with initial equipment setup. This is also the most time consuming problem to resolve over the air. In the past, we have offered "Tech sessions" at the club or at the county EOC where folks have brought in their equipment (Computer, interface, and radio) and we have helped them connect everything together & get on the air. These have been quite successful but unfortunately many people have not been able to attend due to other commitments.

I would like to start having a monthly digital tech session up at the club rotating by month on a Monday & Wednesday evening. One month, the session will be held on a Monday, the next would be on Wednesday (and they won't always be on the same Monday & Wednesday). This way, virtually everyone would be able to find time to attend one of these. These would be open to "digital newbies" or to anyone who wants a refresher course. It would be open to club members and anyone else who would like to attend. Initially, we will concentrate on getting your hardware set up and properly configured. Once this is done, we will delve into the configuration & use of the many software packages. If there is interest, we will hold additional sessions devoted to learning the software.

We would also like to start stressing the importance of digital messaging. This is used for passing traffic during Emergency Communications (EmComm) and public service events. We are in great need of people to become involved with this aspect of digital communications. The free software available to us is absolutely astounding in its ability to pass error free messages in a format compatible with virtually any Emergency Communications protocol. There has never been anything like this until just a few years ago. We need folks to become involved in EmComm! Coupled with this software and some training, we can become truly professional communicators. Please consider this.

Finally, I know that quite a few of you who would like to get on HF but live in developments that limit antenna installation. Some of the digital modes are so efficient that they allow world wide communication with very low power (10 or 20 watts) and very small antennas ... even indoor antennas. The software to do this is also free and not hard to master.

I would like to hold the first of the monthly digital Tech sessions on Wednesday, November 9th at the club. I will be there by 5:30 PM and it will run until 7:30. If you already have some equipment, bring your computer, interface unit, and radio ... we will help you set them up. If you are interested and don't have the equipment yet, we will talk to you about what you need and make some recommendations. If you have digital expertise and would like to come help and ELMER some newbies ... come on down! We did this about a month ago and it was quite successful! See you at the club.

As I mentioned in the beginning of this article, resolving equipment problems over the air on the net can be time consuming and very frustrating. Attending one of these tech sessions can keep that from happening. There will however always be some problems. What do you think about starting the Digital Net at 7:30 PM and having the first 30 minutes devoted to resolving basic hardware/software problems? That way, the remainder of the net can be spent practicing digital communications. If we can't resolve your problem in that first 30 minutes, we can discuss it later or at a tech session.

FOR SALE/WANTED

This needs to find a new home. This National HRO M X has a crystal filter works that well on CW and SSB and has been re-capped. The radio dates to 1937 and was used by the English as a German monitor before WW2. This unit was probably part of the lend lease program. I got it from someone that picked it up in England.



If interested, please make offer
Bob Riese, K3DJC riese-k3dj@juno.com



I am offering for sale the following:
HF-6M transceiver Kenwood TS-690S
Comes with Original manual, Hand microphone, Power cord, Internal AT-450 auto tuner. Asking \$400.00

I have three pieces of 1/2" hard line that I am getting rid of. They are each about +- 45' in length. It had been in use for my satellite efforts. The connectors have been removed. The hard line is available for free, and I may even throw in the connectors. The connectors would need re-install kits to be used.

Bob Gundlach N3NBT
2829 Glen Hollow Dr.
York, PA 17406-9706
n3nbt@comcast.net
(h) 717-757-3133
(c) 717-309-7159



Pyramid PS-36KS fully regulated 35 AMP variable voltage switching PSU new on Amazon they sell for \$135.00, I am listing mine at **\$75.00**. This is in new condition with the original box and manual



Model MFJ-259B, comes with wall wart and a MFJ soft case **\$145.00**

Daniel C. Melato
KB3JSV
kb3j@arrl.net

But in our case it did not, after Googling on line, I really opened up a can of worms. I found many different articles pertaining to passing RF through caves and mines.

It seems at the frequency we were using, 2 meters, the surrounding soil attenuates the RF. Experiments on other frequencies around 500 KHz have been shown to pass RF through rock and soil. This has been used for cave exploration and mine rescues.

One that quickly caught my eye was Bob Bruninga (WB4APR). This is a good read <http://aprs.org/cave-link.html>. As I quickly realized that instead of making this a small article for the clubs newsletter, it was going to turn out as a major white paper.

So with that said, I will leave it up to you all to pursue it further if it interests you. Till next time, 73 ... Skip, N3VIX

It should be noted that I was standing about 10 feet off the side of the tunnel entrance on the opposite side ... I was not directly in line of sight to Skip ... no signal ... nothing! ... WA3USG



Looking for a way to see if that 6 meter rig is working? We've all been there. You get a new rig and find out the Magic Band truly is magic if you can actually hear someone. Well, here's a few things for you guys to check out while you're either waiting for the Wednesday night 6 meter nets to start up, or you can't get hold of your buddy to help you out.

There are magical (yes I said magical) little things on the band called beacons! What are beacons you say? Click here to find out more... <http://www.hamradiosecrets.com/ham-radio-beacons.html> I found two tonight and a third one early this morning on 6 meters. The first one is the Packrats beacon on 50.079.820 . It's in Philadelphia. The call is W3CCX/B, and the Grid square is FN-29. The second one which is pretty weak on my receiver is 50.075.100, and it's located in Easton. The call is NL7XM/B.

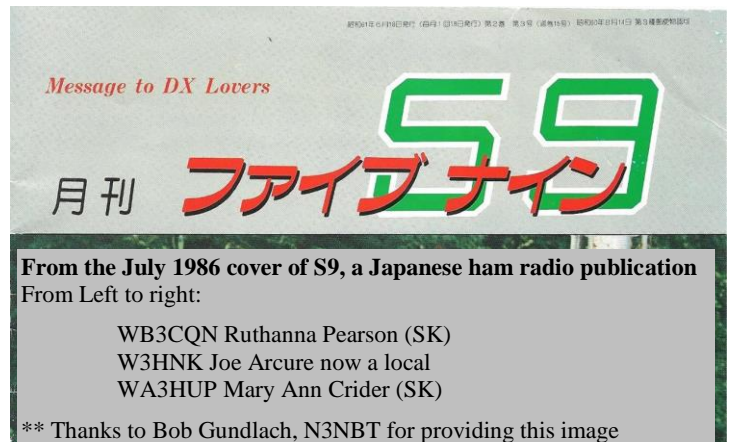
I wasn't even sure I was hearing the third one last night, and so I got up early this morning to see if I could copy it any better. I could hear it on both the beam & the OCF, although the beam did work a little better. The call is WG2Z/B. It's located at approximately 50.060.780. This beacon is located in N.J., in Grid Square FN21 about 70 + miles to the North East. How many of you guys can hear these (3) Beacons? You guys fortunate enough to have a height advantage should have no trouble hearing these stations? I know there's another Beacon down in O.C. Maryland, but so far have been unable to copy it. Anyone?

Nets: F.Y.I. We do have other clubs that run nets. Probably one of the better known ones is run by the Packrats. These guys eat and breath VHF and beyond! The Packrat nets start up on Monday night with 6 meters first and then running up through 220, 2 meters, and finally 432. Please check these guys out. While you're at it please don't forget your own club. Ed/K3BVQ runs a net on .21, 10 meters, and the 440 machine. Check out the P.A.A.R.C. website for dates & times. <http://www.paarc.net/>. There's lots of things going on if you know where to look.

TIME (Local)	Frequency	Net Control Station	Alternate Net Control Station
MONDAY			
7:30 PM	50.145Mhz	N3RG (FM29ki)	WA3QPX
8:00 PM	144.150Mhz	K3GNC (FN20ja)	
8:30 PM	222.125Mhz	KB1JEY (FN20je)	
8:30 PM	224.58R	W3GXB (FN20jm)	KB1JEY
9:00 PM	432.110Mhz	WB2RVX (FM29mt)	WA3GFZ
TUESDAY			
7:30 PM	*902 and Above	K3TUF (FN10we)	

New Magician Summit?: The last 3 years we've run the Net(s) from different locations in the Field. So far we've activated Monocacy Hill and the tried and true French Creek Fire Tower location. Last year's event was an absolute blast with club participation being at an all time high. Some brave souls even manned picnic tables setup outside their house despite questionable weather and comments from their loved ones who were concerned about their mental status J. Members of the **Keystone VHF Club** <http://www.w3hzu.com/> in York Pa. also joined us last year. It was kind of a Multi Club event!! How cool is that? Although I don't have anything nailed down yet I may have another location spotted for next year's event. Wherever we go the goal always remains the same. We just want you to turn on those radios and join us. Times & Dates to be announced at a later date. **Special note to the Keystone VHF Club... feel free to pass this email onto your members. Thanks!!**

The **Magician's Net** meets every Wednesday at 8:30pm on 50.130 ssb. The **Mini Boat Anchor Net** follows at 9pm on 50.400 AM. Don't forget to tune into Ed/K3BVQ's net on the .21 machine (repeater). Ed always comes up with great brain teasers for the net.



A word of warning to everyone. If you have an eBay account and you link your PayPal account to it, if someone hacks your eBay account, they can charge things to your PayPal. This happened to me on Wednesday, 2 Nov. At about 7 AM Wednesday morning I checked my e-mail. I found about 500 SPAM e-mails from the night before. I started deleting them screenfulls at a time. In the middle of these, I fortunately saw an e-mail from eBay notifying me that my password had been changed. Sure enough, I could no longer log on to my eBay account. What was scary is that when I recently purchased a transmitter from a buyer on eBay, I clicked on "Pay Now" ... it went directly to my PayPal account and authorized Payment ... without me having to log into PayPal with my password. So after seeing my eBay account hacked, I logged into PayPal. There I found an unknown charge of \$1400 for a new I-Phone. I immediately challenged the PayPal payment, had my eBay account restored (new password), and called my Credit Card company. I also no longer link PayPal to my eBay account. WA3USG



**Keystone VHF Club
General Meeting Minutes of
October 6, 2016**

By Sandy Goodman, N3ECF – Secretary

The General Club Meeting held at York County Emergency Management Center was called to order by Pres. Mike, N3VQH, at 19:04. There were 34 members present and 1 guest.

TECHNICAL HAPPENINGS:

Anne, KB3ZLJ, mentioned the Family Fun Fest in Dover where she and Tim, KB3ZWX, demonstrated amateur radio, including a contact in California.

Mike, N3VQH, has made hotel reservations for next year's Dayton Hamfest, along with Steve, W3HUC.

SECRETARY REPORT: Sandy, N3ECF. Steve, WB3EFA, moved to accept the September minutes as corrected in the newsletter, 2nd by Tony, KC3EED. Motion carried.

TREASURER REPORT: Anne, KB3ZLJ, reported for September: Income: \$105.37 (note that rent income had not yet been deposited); Expenses: \$283.91 (of which \$273.01 was for electric); Balances: Club CD \$7,656.09; Checking Acct \$3,478.42; Trustee Acct \$540.82; Total \$11,675.34. Steve, WB3EFA, moved to accept the report; 2nd by Joe, KB3TCM. Motion carried.

COMMITTEE REPORTS:

TRUSTEE REPORT –

Saturday Oct 8 will be a full clean-up.
Testing LEDs for new light fixtures to reduce RF interference.
Liberty Mutual Insurance premium will probably change.

TECHNICAL COMMITTEE REPORT –

Getting estimates for a ductless A/C-Heat Pump. See the newsletter for details.

Back-up for the 2 meter repeater is almost ready to be on-line.
Problems with the computers have been fixed.

EMCOMM/PUBLIC SERVICE NEWS –

Jack, KC3JD, mentioned that Sandy, N3ECF, won the Bill Molnar, WA2ORG, Memorial Community Service Award from the SPCG for her work with emergency communications and community service efforts. Also Jon Abbot, KB3IGH, had been given a memorandum of appreciation by Shrewsbury Township.

In September, we worked at the King's Gap Time Trials and the KTA Hike. At the KTA Hike, we again had a "real" emergency to handle. Dick, WA3USG, and Evan, W2EDT, encountered a hiker suffering from heat exhaustion, close to heat stroke. Along with help from Tom, N3PNF, they cooled him off, called 911, and helped the hiker to meet the emergency crew on their way into Kelly's Run.

We will hold a Simplex Test on October 17 in place of the weekly Monday Night NET. Instructions will be mailed to everyone.

A question was posed (phoned in from Evan, W3EDT) about a First Aid Class for Sweep Hikers. Anne, KB3ZLJ, advised that the Wilderness and Remote First Aid class is a 16 hour course and requires CPR certification. It needs to be held outside, possibly in 4 hour increments. Anne needs to bridge something in order to teach it. This is an open task.

VE/ED REPORT -

At the testing on Sept 10, 2 of the 5 attendees passed their exam.

At the York Township Technician License class, 5 out of 7 passed the test. Call Signs were back within 24 hours. Two of the students at that class work for York Township. It was noted that Ralph, K3HQI, teaches the entire class (1 ½ days) and could use help.

CONTEST REPORT -

Mike will be at Red Lion for the PA QSO Party Oct 15-16.
This weekend (Oct 8) will be the NAQP & Arizona QSO contests.

NEWSLETTER/WEBSITE – done.

Nominating Committee reported that everyone except for the Assistant Secretary is willing to return. Brad, KO3T, nominated Eric, KB3CNH, as Assistant Secretary, with second from Rich, W3OKU.

NEW BUSINESS:

Boy Scout's JOTA is scheduled for October 15 from 9 am to 3 pm. The York County Communications Trailer will be at the Keystone Club site. Jeff, KB3RCT, advised that there may be more attendees because JOTA on the internet is a new requirement. Attendees asked to see Jeff if available to help. SPCG will also be hosting the Shrewsbury Boy Scouts.

GOOD OF THE CLUB –

Nate, WN3L, talked about legislation on CC&R. HR1301 has passed the House and is now sitting in the Senat3e. He encourages everyone to contact our Senators to accept the reasonable accommodations for amateur radio antennas.

50-50 was won by Sandy, N3ECF, for \$28.

Note: Ticket sales and Drawing for the Baofang will be delayed until November due to last month's tickets not being available tonight.

Adjourned at 20:09.

HAM RADIO CLASS

Preparation and Test for FCC Amateur Radio Technician License

February 18, 2017 (0800-1600) – February 19, 2017 (0800-1200)

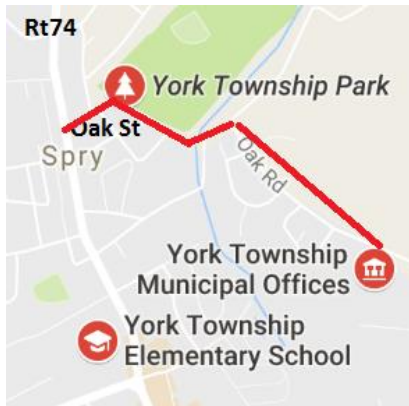
FCC License Testing February 19 (12-3 PM)

Inclement Weather Reschedule – February 25-26, 2017

No Charge for the class

There may be \$15 FCC License Testing Fee*

Come with an open mind, pen and paper. We discourage the use of iPhones, etc. in the class except for emergencies. Please put on vibrate. A simple calculator and a windows PC are useful. Class is held at the York Township Building 190 Oak Road, Dallastown PA 17313



Contact: Ralph Brandt K3HQI 717-885-3063 or ralph.brandt@comcast.net Pre-registration helps planning but payment is at the time of testing on Sunday. Please give a phone number where you can be reached in case bad weather. Upon passing the test an FCC license is usually issued within a week. You will need a government issued photo ID for the testing. If you do not have one, contact Ralph for alternatives. *The license fee I determined by the testing team that is independent of the instructor. Some teams have no fee and I work with them if possible.

Ham Radio is Amateur Radio, FCC Part 97. It is a licensed service. The class is targeted to prepare the student to pass the Technician Class License test which is restricted to frequencies above 28 Mhz. There are many hand held and mobile transceivers available for use in these bands for as low as \$35 for Handheld and \$100 for Mobiles. There are many repeaters in the area that extend the range of these radios. A ham license is a good tool for a family in times of disaster when land lines and cell phones often are not useable.

KEYSTONE VHF CLUB OF YORK, PA



W3HZU



Membership Application

Name: _____ Phone: _____ - _____

Address: _____ Callsign: _____ Expires: _____

City: _____ State: _____ Zip: _____ Lic Class: _____

Occupation: _____ E-Mail: _____

Membership Desired

- Full** → Full Club Privileges
\$25.00 annually & one time \$5.00 Application fee
- Family** → Sponsoring members call: _____
Privileges same as Full membership
\$6.25 annually & a one time \$5.00 Application fee
- Associate** → Repeater Support
\$20.00 annually & a one time \$5.00 Application fee

Are you a member of:

- ARRL Y-N
- ARES Y-N
- RACES Y-N
- OCWA Y-N

Special Areas of Interest (circle all that apply)

AM Antenna building ATV Contesting CW Digital (Packet, RTTY, PSK-31, etc)
 DX FM HF QRP Satellites SSB SSTV SWL Tower climbing LF DSP
 UHF/Microwaves VHF Astronomy Photography Other: _____

Application & Dues Mailing Address:

Make checks payable to: *Keystone VHF Club Inc.* Mail to: *PO Box 20143*
York, Pa. 17402-0140

FOR CLUB USE ONLY	
First Reading Date: _____	Second Reading Date: _____
Date voted IN-OUT: _____	Date Dues Collected: _____
Applicant Sponsored by: _____	