

The VHF Transmitter



Keystone VHF Club, Inc.

W3HZU

Founded 1955 – York, PA

VOL 61 No 10 CIRCULATION 185 December 2016

Come on! Work the ARRL VHF Contest at the club!



January 21-23, 2017

Begins: 1900 UTC Saturday, ends 0359 UTC Monday.

Objective: To work as many amateur stations in as many different 2 degrees x 1 degree grid squares as possible using authorized frequencies above 50 MHz

Our Class: Limited Multioperator:

Stations submit logs with a maximum of four bands used.

Exchange: Maidenhead grid-square & call

QSO points:

De Tim MHz QSO. W3TWB!

Count one point for each complete 50- or 144-MHz QSO. Count two points for each 222- or 432-MHz QSO..

Count four points for each 902- or 1296-MHz QSO.

Multiplier:

The total number of different grid squares worked per band. Each grid square counts as one multiplier on each band it is worked Final score:

Multiply the total number of QSO points from all bands operated by the total number of multipliers for final score. Stations may be worked for credit only once per band from any given grid square, regardless of mode.

There will be homemade Sloppy Joes & Chile & if you want, you can make it into a Sleepover! Let's really rack in the points on this year ... we can run 1200 watts on 6 meters!

Kudo's to Our Latest Amateur Extra Class OP!



On Saturday, November 6th, Tim Snook, KB3WZX took and passed his examination for his Extra ticket. Tim joined the club in December of 2011. Tim attends just about all meetings, helps out with club service projects, and when time allows, takes part in Public Service events. Tim is also an active member of York ARES-RACES-SKYWARN (YARS) and participates in drills and other events sponsored by the county.

At the same testing session, we also had 2 Technician and 2 general class candidates that passed their tests. Kudo's go out to:

John Pinkas Jr (N3LED) - General
Jeff Elliott (KC3IBR) - Tech
Rosemarie Wittig (KC3IBW) - Tech

Dean Poff, KC3EAW A Silent Key



Stan Walters, AB3EM notified me that R. Dean Poff (KC3EAW) of Dover, PA. passed away on Wednesday, November 2nd. Dean joined the Keystone VHF Club in January of 2015 and paid his dues through 2017.

I regret that I did not know Dean during the short time he was a member. In recent years, he took Nate Kirschman's (WN3I) Technician & then General classes, which he

passed. Dean was reportedly interested in 2 way radio early in life. We are not sure what other clubs Dean had joined.

Dean was born February 16, 1946 in York, a son of Betty J. (Sterner) Poff of York and the late Richard D. Poff. He was a graduate of William Penn Senior High School and was employed in the printing industry with York Graphic Services for 31 years, and with ITP of USA, Inc. for 18 years. Dean is survived by his wife; children, Karen L. Markle and husband, Tim, and James D. Poff and wife, Stephanie; grandchildren, Lauren and Nick Miller, Noah Markle, Ashley Markle, Eva Poff, R. Dean Poff, III, Charity Poff, James D. Poff, II; a brother, Michael J. Poff and wife, Donna L.; and nieces and nephews.

Dean's funeral service was held Monday, November 7th at the Church of Jesus Christ of Latter Day Saints in York Haven, PA. He was a good man, a fellow Amateur, and I'm sure will be missed by Family & friends alike ... SK

Happenings at the Club



In 2014 during the January VHF contest, there was an ice storm that caused high SWR on both our 2 meter & 70 cm beams. These beams are on the top of our 100 foot tower. We tried rocking the antenna to dislodge the ice, but with the extra loading

from the ice & the wind, the 70 cm antenna slipped about 20 degrees out of alignment on the mast. On Thursday, November 18th, club member **Eric Smyder, KB3CNH** did a solo climb and realigned the antennas. It took Eric well less than an hour from start to finish. It's getting hard to find folks to climb to that height. We called a commercial tower climbing company and for them to do it would have cost us about \$1500. *Eric ... thanks for a job extremely well done!*

Dues are now due for 2017

NEXT MEETINGS

Thursday, December 1 and Thursday January 5 at the York County EOC

Attention YARS Operators

York County EOC will be participating in the PEMA Weather Exercise on December 14 from about 9 am to about 1 pm.

Bill James at York County wants to exercise amateur radio for phones lines being DOWN. They will want to have amateur operators at some EOCs, maybe a hospital and/or shelters. We do know from Anne Zarlenga, that she will activate Dover Township EOC, where Tim, KB3WZX, will operate.

To determine what activities will get an amateur operator, we need to know how many are available.

If you are available and willing to help out on Wednesday December 14 from 9 am to 1 pm, please let me know ASAP so I can advise Bill & Tom Graybill.

Thank You., Sandy, N3ECF

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

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 <u>Monday at 9 PM</u> on the 145.43 (Tone: 67 Hz) repeater located in Mt. Holly Springs.

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

The Keystone VJF Club ELMER Net on <u>Tuesday at 9 PM</u> 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, W3TWE

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

Glen Rock Carolers - Date Saturday, Dec 24, 2016 11:15 pm until ??

We use HAM simplex (146.58) so bring an HT and dress for the weather and for walking. We gather at the Glen Rock Fire Hall at 11:15pm Dec 24, 2016. This will be the 169th consecutive year for the carolers. We have been helping the fire police with crowd control now for 6 years. With the passing of KB3IGH we will need to provide a shadow to the fire police captain. I have several people already interested so we may rotate that duty among a couple of folks.

When the carolers come out of their annual concert/warmup and walk toward the square (traffic light) along Hanover St we deploy crowd control "chutes" using cones, PVC pipe and caution tape. We maintain this clear zone for the carolers to enter and exit the square. This is when we need the most people, 6 or more. They sing a few hymns under the traffic light and then start walking the streets of Glen Rock stopping and singing as they go. Once they leave the square we can reduce our force down to 4 (although anyone who wishes to walk along for any amount of time is always welcome).

This year the carolers will head up Church St as the 1st leg, then out Baltimore before returning to the fire hall for a 3am "dinner". All YARS volunteers who have stuck it out to the halfway mark are invited to enjoy the hot meal. After that we only need 2 or 3 the rest of the night. They finish up at the community Christmas tree across from the Glen Rock Mill Inn about 6am. We help clear the street once they finish and that's it, Merry Christmas!

Contact Stan at 717-577-7874 or email at ab3emqsl@gmail.com

Status of Mini Split Heat Pump

We are still waiting for an estimate from Strines Heating and Cooling in reference to the installation of a Mini Split Heat Pump. This should provide less expensive utility bills during the heating season. Right now, we are maintaining the club temperature in the 50's using two small electric space heaters ... and it's not cheap! In the Winter, our electric bill runs over \$200 a month.

We received an estimate from H.B. Mclure of \$3800 last month. We had Strines come out on November 17th but have not received their estimate yet. I just spoke to them 10 minutes ago and they promised an estimate by this afternoon. We will also be getting an additional estimate within the next week or two.

The VHF Transmitter

published monthly by the Keystone VHF Club, INC Editor: Dick Goodman, WA3USG

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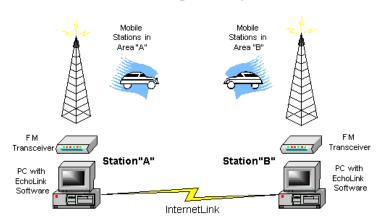
address for the 199 Maple Lane Newsletter. contact: Mechanicsburg. Pa.

EchoLink

By Eric Smyder, KB3CNH

So what's all this "Echolink" stuff anyhow? We've been talking about Echolink on and off for the past year and now that its finally installed permanently at the KVHF Club repeater site, we should probably explain a little more about it, since the old Echolink node died in a lightning strike a few years ago. Echolink is one way of connecting RF radios together over the Internet. An Echolink node is both hardware and software that provides a Voice Over Internet Protocol (VOIP) path to other connected "nodes". Is it Ham Radio? Yes, it is and all stations should observe the same practices they would over RF.

Linking Example



So what does that mean for us? Two Echolink nodes can be connected anywhere in the world and communicate. Yes, anywhere in the world. Nodes can take many forms. Your home PC, iPhone, Android smartphone, an RF repeater, or an RF simplex link node can all be connected to Echolink. Say I want to talk to someone in another country and HF communications is lousy. I can pick a random node, or a specific node if I know the callsign or unique node number. You don't even need an Echolink account if you are using it over RF. The club repeater handles the account, you just need to be a licensed amateur. If you want to use Echolink directly over a network you'll need an Echolink account. Its easy and free http://www.echolink.org/authentication.htm

The 146.970 repeater is equipped with a Raspberry Pi (a tiny credit-card sized computer) running SVXLINK software. That combined with an Internet connection, sound card, and PTT I/O pin from the Raspberry Pi allows connection to the Echolink servers around the world. SVXLINK is a little different that the old system, so it's best to learn its DTMF commands.

<u>Here's a quick operating guide for SVXLINK Echolink over RF using a DTMF keypad.</u>

- Each Echolink Node has a unique number. These can be found here: http://www.echolink.org/logins.jsp
- Next activate the Echolink program on the SVXLINK server by dialing 2#
- To dial another node enter its node number and press #
- It is always considered good operating procedure to announce yourself when connecting to another node. So just say your callsign.
- When you are done with your QSO press # to disconnect.
- Other useful codes are:
- * = Plays the present Node Status

0# = Enters the Help system that tells you the meaning of each command

= Disconnect from a Node

= Disconnect all stations

2# = Activate Echolink program module in SVXLINK

1# = list all connected stations

2# = play echolink node id

22# = play echolink node id even if Echolink program module is not running in SVXLINK

31# = connect to random repeater

32# = connect to random conference

4# = connect to last disconnected station

6* = connect by callsign

A complete guide to SVXLINK is here:

https://github.com/sm0svx/svxlink/wiki

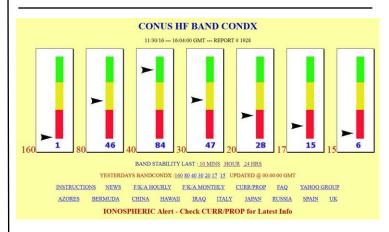
You can even operate your own Echolink node. The PC software is at http://www.echolink.org and some alternative software is https://www.hamvoip.org which is running on our 447.275 repeater care

of KC3EED Tony.

Popular TV Show HamRadioNow Adds "EmComm Extra"

The popular TV show/YouTube show/Podcast <u>HamRadioNow</u> is adding presentations on emergency and disaster response communications subjects. <u>HamRadioNow</u> is an online television show, webcast, podcast, and a <u>YouTube show</u> for and about Amateur Radio. The host is Gary Pearce, KN4AQ, a radio amateur and broadcaster for 50 years. The show is recorded, not live, and there's no set schedule. Viewers can watch the show at any time on the <u>Episode Pages</u> on its website, or on its YouTube Channel. Or listeners can download just the audio and listen on their phones with the <u>RSS feed</u>. The format is primarily a talk show with a pair of hosts and a series of guests. Co-host is David Goldenberg, W0DHG, an Emergency Coordinator. (Pearce has an ARES/PIO background).

Goldenberg and Pearce have announced that they are planning to produce a show whenever an incident occurs that warrants discussion of lessons learned. "The goal is to provide an interesting, entertaining and useful look at emergency/disaster response activity in the context of Amateur Radio," said Pearce. "We do in-depth shows (usually an hour or more), and can go way beyond a cursory summary of an event or drill," he said. Spurring this new aspect of the show was Hurricane Matthew. "We did an off-the-cuff show as HamRadioNow Episode 270, then a more formal show (Episode 274) featuring Emergency Coordinators from Florida and South Carolina in the storm's aftermath," Pearce said. There have been emergency/disaster response themed shows before, collected and published on an "EmComm Playlist" on the YouTube Channel. -- Gary Pearce, KN4AQ, Cary, North Carolina, HamRadioNow



Ray Shaub, W3AXC sent me a link to this really neat looking band condition indicator. It tells you at a glance the current conditions on HF. Check it out ... there are many propagation calculators on the Internet but this one seems to be very easy to use. You can look at conditions for the last 10 minutes, the last hour, or the last day. Click on some of the other stuff ... lots of very useful information:

http://www.bandconditions.com/



Hello to everyone. We just had another new check-in on the Magician's Net last night. His name is John, and his call is W3KFT (Kentucky Fried Turkey). For all you VHF fans John also runs a **6 meter net on 50.550 MHz (usb) at 9pm on Sunday evenings** under the club call of W3AWA. It's called the **Mobile Sixers Club**. As Magician's we are always striving for new and better ways to explore the band. To the beginning 6 meter op it appears at first that the band is dead, but we're here to show you that you just have to know where the action is. We've shared our discoveries with other clubs notably the Keystone VHF Club, the Packrats club, and now the Mobile Sixers Club. Everyone's invited to the nets!! Being inclusive is one of our strengths!

Propagation Alerts: As we wind things down heading towards the Winter months that doesn't mean we have to hibernate, at least not radio wise. There's still a little life left in the 6 meter band, but again, you have to turn it on to find out. At this time of the year up until the month of January we can sometimes experience some great Es openings. Keep checking http://www.dxmaps.com/spots/map.php for updates. For a closer look at what Old Sol (the sun) is up to please check out http://www.solarham.net/ for the latest happenings in the current Solar Cycle. I know I hound you guys to death with this stuff, but if you've never worked Aurora you're in for a treat! Look for elevated levels in the A & K indexes. The more uses you find for those radios, the more fun you'll have. Speaking of fun I just started preparing my station to work some meteor scatter using a relatively new digital mode called MSK-144. It's included with the newest WSJT-X software that's been released. It's an Alpha version which means it could be buggy, but so far I haven't had any problems that I can point to, or at least none that were caused by this program. Time will tell. Turn on those rigs during the week, and please use those two links I gave in the last paragraph. I've found them to be indispensable when it comes to 6 meter propagation.

Past Weeks Net: Conversations were had about fixing older rigs, and whether or not that's worthwhile. A lively discussion between Steve/K3ALV (Of Mini Boat Anchor fame), and Rob/N3KAL determined if the parts weren't un-obtanium the older Icom could be revived. This is what we do folks. Somebody always has the answer, or will find it for you. General band conditions were noted to be "Generally Crappy"! While we acknowledge that to be generally true at least we were having a bit of fun on 50.130! The net is for "YOU", but it doesn't stop there.

Mini Boat Anchor Net: Sure we know it's Ancient Modulation, but to underscore something that was said to me many years ago when I was quite a bit younger, "Without a past, you can have no future". I never forgot that. That's proof that I actually do remember sometimes! The future is all about keeping the bands active no matter the mode. Besides, how many of you came from... dare I say it.....CB? Remember the beautiful AM sound? Well, if you remember it, or you just want to experience the AM mode in all its wide band glory, please come join Steve/K3ALV as he fires up some of his carefully restored Gooney Boxes. Tubes baby!! Believe me, if you've never heard AM on 6 meters you just haven't lived! You'll think the guy you're talking to is sitting right beside you, and yes, it really does sound that good. 50.400 is the calling frequency on 6 meters, and Steve will be in the driver's seat every Wednesday night starting at 9pm.

Newbie Corner: We especially want to roll out the welcome mat for our newest members of the club. Especially since you guys are the future of the hobby. When you get that newly minted technicians license we want

you to know that you have "FULL PRIVILEDGES" on the VHF bands. Since it is 6 meters that we are most interested in at this time I want you to know that 6 meters offers propagation much like the HF, but wait.... There's a twist. It does even more! Propagation like Tropospheric ducting, Aurora, EME, Meteor Scatter, Ground wave, Es, and occasionally F2. Yep, this band does it all. In fact it's the only band that does! The catch is, that it doesn't do it as regularly as some of the HF bands. You're going to really work for the contacts sometimes, but that just makes it all the sweeter when someone answers your call. When the band is booming you can work 6 meters with a wet noodle. Check out those links I gave earlier in the newsletter. Some of the guys are doing digital modes like JT-65 up around 50.276, and one fortunate guy Joel/KB3OZC actually worked Japan a few months back. JAPAN!!! Now that's one for the books. Congratulations Joel. One last note... please check out the ARRL VHF/UHF contests. For the beginner there's no better way to become acquainted with VHF then a contest. Questions on how to do it? Email me: leonard236@comcast.net I'd be glad to help get you started. It's actually pretty simple, and FUN! The nets meet every Wednesday night starting with the Magician's Net at 8:30 on 50.130 followed by the Mini Boat Anchor Net on 50.400 at 9 pm.

See you guys on the band...... Leonard/WV3P

FOR SALE/WANTED

I have the following for sale, Prices are negotiable contact me at <w3axc@yahoo.com> Ray Shaub - W3AXC

MFJ-989C Versa tuner (3KW antenna tuner)

MFJ- 269 HF/VHF SWR analyzer with Ni.cad Batteries

1 KW linear amplifer 40 through 10 meters home built with a pair of 7094 tubes. approx 15 watts in for 1 KW out.

HTACHI V320 30 Mhz. dual trace scope.

TS700S Kenwood all mode 2 M transceiver

SP-70 Kenwood Speaker

HD-20 Heath 100Kc crystal calibrator

Heath Kit Signal Tracer

MPA-20 Realistic mobile / fixed public address amplifier 12 VDC/ 115VAC

HTX-10 Radio Shack 10 meter transceiver

several coax switches and assorted Ham related junk.tools Etc.

FOR SALE

I have approximately 350' of Times Microwave Systems LMR 400

Will cut to any length \$0.90 per foot

Possible discounts for lengths of 100' or more This is brand new LMR 400 on factory spool NOTE: This is not an Ultra Flex or Direct Bury product.

> Tigertronics SignaLink USB SignaLink to computer USB cable Jumper header for ICOM IC-756PROIII Jumper header for Kenwood TM-G707 Interface cable for IC-756PROIII Interface cable for Kenwood TM-G707

Asking \$60.00

Bob Gundlach N3NBT 2829 Glen Hollow Dr. York, PA 17406-9706 N3nbt@comcast.net





Keystone VHF Club General Meeting Minutes of November 3, 2016

By Kathy Dellinger, KA3THC Acting Secretary

The General Club Meeting held at York County Emergency Management Center was called to order by Pres. Mike, N3VQH, at 7:03 PM. There were 34 members present and 2 guests, Roy Kroner-KB3ZIF and Lee Brown-No Call

TECHNICAL HAPPENINGS

None

SECRETARY REPORT: Steve Steffan-WB3EFA moved to accept the October minutes as corrected in the newsletter, 2nd by Bryan Klimes-W3BEK. Motion carried.

TREASURER REPORT: Anne, KB3ZLJ, reported for October: Income: \$789.06; Expenses: \$426.52 (of which electric was \$236.85); Balances: Club CD \$7657.34; Checking Acct \$3839,61; Trustee Acct \$540.83; Total \$12,037.78

Dave Smith-KC3GMQ moved to accept the report; 2nd by Rich Reese-KR3EE. Motion carried.

COMMITTEE REPORTS

TRUSTEE REPORT

Tim Barefoot – Purchase of AC unit is on hold. Dick Goodman is getting prices. It will be about \$3500.00.

TECHNICAL COMMITTEE REPORT

Repeater room has been cleaned. Dick Goodman and Tim Barefoot worked on Backup repeater. Club may need to pay for climbers to do antenna work and/or get a lift.

EMCOMM/PUBLIC SERVICE NEWS

Jack Dellinger-KC3JD read the report from Sandy Goodman-N3ECF: "We had a successful Simplex test on Oct 17. We had 34 operators who participated. As expected those in the North/Northwest areas could not hear many in the South/Southeast areas due to the ridge. I was surprised by an excellent connection between KB3CHT in Elizabethtown and KB3SSV in Paradise Township. But looking at the map there is a clear valley between ridges that is open between those 2 locations. We will repeat the Simplex test sometime next spring, probably including some rovers out in the field. The only Public Service left for our group is the Christmas Eve Caroling event in Glen Rock. Contact Stan Walters, AB3EM, if you can help out with that. Operators are needed over the Midnight hour Saturday into Sunday. Dick, Ralph, and Sandy did assist the Chambersburg Cumberland Valley Amateur Radio Club with the Michaux Team Challenge last Sunday. It was a beautiful warm day in the lower half of Michaux Forest and part of Mont Alto State Park, which was a new location for them. No emergencies, just one team took a wrong turn, and a search was done for another team who was late due to mechanical difficulties. That "lost" team eventually turned up.

VE/ED REPORT

Steve Steffan - Technician Amateur Radio Licensing Class sponsored by York Township EMA had 7 students and 4 passed the exam. Those that passed had their call signs within 24 hours. Kathy Dellinger-KA3THC announces that York Township EMA will sponsor another class in February.

CONTEST REPORT

This weekend (Nov 5) will be the CW sweeps and Nov 19-20 will be the November sweepstakes.

NEWSLETTER/WEBSITE

Website up to date and newsletter went out prior to meeting.

OLD BUSINESS:

Nominating Committee - No additions nominations from the floor so next month vote will take place.

NEW BUSINESS:

Christmas Party will be January 14, 2017 with a bad weather date of January 28, 2017. It will be at the Viking Club.

Anne Zarlenga, Club Treasurer, requested permission to purchase paper and printer cartridge. Since this is an under \$100.00 expense, she may purchase without club approval.

First Reading for KC1EAR.

GOOD OF THE CLUB

Bryan Klimes-W3BEK talked about a Make a Wish Fundraiser that was a Search and Rescue event in MD. He said his role was EmComm only.

There were 36 Scouts (4 Girl Scouts) at the JOTA event at the Club Site. The York County 911 Communications Van was there. EchoLink was used.

SPCG Club had two radios go bad. TS950 can be repaired but need original box to return it for repair. If anyone has an original box for this radio, please let Nate Kirchman-WN3I know.

Did not have tickets for 50-50.

Adjourned at 7:36 PM by motion of Steve Steffan-WB3EFA and second by Tim Snook-KB3WZX

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 Preregistration 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.

NEYSTONE WHF CLUB OF YORK, PA







Membership Application

Name:		Phone:		
Address:		Callsign:	Expires:	8
City:	State:	Zip:	Lic Class:	
Occupation:		E-Mail:		
	Members	ship Desired		•
Full Club Privileges \$25.00 annually & one time		18 Sept. 18 Sept. 19 / 19 / 19 / 19 / 19 / 19 / 19 / 19	Are you a member of:	
Family-	Sponsoring members call:	Market Control of the	ARRL	Y-N
Privileges same as Full membership \$6.25 annually & a one time \$5.00 Application			ARES	Y-N
Associate	Repeater Support		RACES	Y-N
	\$20.00 annually & a one time	me \$5.00 Application	n fee OCWA	Y-N
	Special Areas of	Interest (circle	e all that apply)	
DX FM HF	building ATV Contesting QRP Satellites SSB wes VHF Astronomy Ph	SSTV SWL Tow	er climbing LF	DSP
Aj	pplication & Due	es Mailing A	ddress:	
Make chee	cks payable to: Keystone VH	HF Club Inc. Mail t		- Tananaran I
Date voted IN-	FOR CLUB USE ONL Date: Second Res OUT: Date Dues nsored by:	ading Date:	York, Pa. 17402	2-0140