



The VHF Transmitter



Keystone VHF Club, Inc. W3HZU Founded 1955 – York, PA

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JUNE 2000 CALENDAR

Edited by Bob Gundlach, N3NBT
n3nbt@aol.com

- Apr. 1 April Fools' Day
- Apr. 3 V E Exam-Myerstown, PA.
717-933-5301
- Apr. 6 Keystone VHF Club
meeting - CYBER Center
- Apr. 8 V E Exam- Shrewsbury, PA.
717-235-0273
- Apr. 10 144 MHz Spring Sprint 7-11
PM
- Apr. 11 York Amateur Radio Club
meeting - Red Cross
- Apr. 13 Keystone E Board meeting
- Apr. 15 V E Exam-Shrewsbury, PA.
717-235-0273

**NOTE: This is your opportunity to file
your paperwork for upgrades.**

- Apr. 18 222 MHz Spring Sprint 7-11
PM
- Apr. 22 V E Exam- Port Deposit,
MD 410-378-2771
- Apr. 22-24 Six Club six meter Sprint
- Apr. 22-24 Low Power Spring Sprint –
160 thru 10 meters
- Apr. 26 432 MHz Spring Sprint 7-11
PM
- Apr. 29 V E Exam - Mechanicsburg,
PA-717-938-3576
- Apr. 29 V E Exam-Reading, PA.
610-678-8976
- Apr. 29-30 County Hunters Contest – 80
thru 10-Phone
- Apr. 30 Walk America
- Apr. 30 Hamfest - New Castle, DE

The Club Extends a
Hearty Welcome to new
member
James Walsh, K3JIM

NEXT MEETING
June 1st
at the Cyber Center

PIG ROAST DATE CHANGED TO 22 JULY 2000

(and other interesting information)

By Dick, WA3USG

Attention Attention the Keystone VHF Club's Pig Roast has been moved to July 22nd. Please mark your calendars and do your best to attend this Gala event. Naturally there will be as much succulent Pork and other goodies as you care to eat. It will all be prepared on the club site the night before by our Pig Roast committee. Barbecued Chicken halves will also be available to those who purchase tickets for these in advance. A limited number of Chicken tickets may be available on the day of the roast but depending on the number of advance tickets sold, there may not be many! In addition, if everyone would bring a desert to share, it would be a true feast! If you've never been to a Keystone Pig Roast, you don't know what you're missing! Last year, we had our first Pig Roast in the new Club Pavilion there was plenty of covered seating for everyone. If you would like to sit & chat afterwards, it is recommended that you bring a lawn chair or two.

The Pig Roast starts at 2 PM and runs until everyone is stuffed with Pork! The Menu includes the Pig, various salads and side dishes, Lemonade, Iced Tea, and water. Depending on interest, there might also be a Silent Auction and other activities! This is also an excellent time to check out the club site if you haven't been there for awhile. Please especially notice our fine green lawn. I can't remember it ever looking so nice. While you're socializing, find Chuck, N3KVE and compliment him on his beautiful mowing job. A couple of weeks ago, while visiting the club site myself, I came upon Chuck swearing at our lawn mower. Seems that he was mowing and one of the wheels fell off. He took about 30 minutes to repair it, mowed for awhile, and another wheel fell off. At this point he put the danged thing away. I do believe however that a couple of days later, I heard him on the radio telling someone a third wheel came off and the motor quit! If anyone has an operational lawn mower that they'd like to donate to the club, please let me or one of the trustees know.... Please note the keyword "**OPERATIONAL**" we have lots of broken ones !

After the Pig Roast, the Foundation of Amateur Astronomers in the York area will be sponsoring a free Observing session at Sam Lewis State Park. Several telescopes will be set up and depending on the night, many deep space objects may be viewed. The state-of-the-art in Amateur Astronomy has progressed in the last 10 years as much as it has in Amateur Radio! This is also another way to be exposed to a different (and very wonderful) hobby. The Observing session will begin when it starts to get dark and will include a slide show created by the Astronomical Foundation on the subject of Light Pollution, deep space showcase objects, and lot's of information on telescope operation. There will also be Astronomy Club members present to speak about Astrophotography, CCD Imaging, and many other interesting subjects. If some of you recall, years ago, we used to have observing sessions after our Pig Roasts at Rudy Park. Those who attended them, greatly enjoyed themselves.

Tickets for the Pig Roast may be purchased at the next club meeting on June 1st. Please purchase your tickets early so we can plan for the proper amount of food. Additionally, tickets may be obtained from our Way's & Mean's Chairman, Ray Shaub, W3AXC. This promises to be a beautiful, lush, green Summer. Come on down! Check out your club site and let's make this the Best Pig Roast ever !!



From the President

By *Ernie Mellinger, N3ZCW*
emellinger@aol.com

In the process of getting my paperwork together for my upgrade to General last week, I came across my original license dated April of 1997. I stopped what I was doing and caught myself smiling as I reflected on my short journey with Amateur Radio. I was introduced to Amateur Radio by my close and dear friend Mark Ness, N3JZK. It didn't take Mark too long to get me interested in the hobby. I remember telling my wife Lonna, after passing my No Code Tech exam, that after careful consideration I had selected a dual band hand held which was all the radio I would ever need. Well that was three years and NINE radios ago.

I have heard a lot of discussions over these three short years that debated if Amateur Radio was on the decline. As I stood in line down at Shewsbury this past week end, I pondered that question again as I looked over a room full of people that numbered at what I estimated to be about at least seventy people who where there to upgrade their license. The articles I read after the restructuring was announced where hopeful that this move would create renewed interest in our hobby and first indication is that it may have.

Every month the AARL sends me a list of the folks who have upgraded or become new ham's. Over the next several weeks I will be sending a brief letter and Club application to the folks who tested but do not belong to the Keystone VHF Club. The keystone Club has a lot to offer those interested in this hobby. Not only do we have a wonderful facility but we have members knowledgeable in almost every facet of the hobby.

Speaking of the Club, we are did hold the May meeting at the Cub site.... the Weather was great. Please listen to our 146.970 repeater for the finial decision a day or two prior to the meeting when we will have a better feel for the weather conditions. During the Summer, meetings will be at the club site if possible *Until then 73's from N3ZCW*

The VHF Transmitter

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From the Editor
By *Dick Goodman, WA3USG*
wa3usg@compuserve.com

Well it's been over two months since we were supposed to have the Springfest and the Keystone Club still survives! We've done some belt tightening ... the first of which is to cut our newsletter from monthly to bi-monthly. The Postage & printing costs for each month was over \$80. If we could get more people getting the newsletter via the internet (which doesn't cost the club ANYTHING) then we could go back to a monthly newsletter again. Right now the Internet/Postal ratio is just about 50/50.... Come on, you guy's & gal's with computers Get on the internet bandwagon & save your organization some bucks. I understand that many of you want a hardcopy version but that's what computer printers are for. And when you print it yourself, it's in beautiful C-O-L-O-R !! I was going to continue the Internet Newsletter on a monthly basis but that would not have been fair to those who receive only the printed version. I have been working with Ray, W3AXC to get important news out that would otherwise be disseminated by the newsletter. Bulletins will be sent to those club members who have e-mail addresses on file in our club roster.

So what else has been happening? Lot's of work up at the club site. The Tech Committee is preparing to repair or replace our 440 MHz repeater antenna. That machine has been on the air, but only as a low profile repeater. The ATV group has placed two security cameras up at Greg's (KE3CW) mountain top repeater site. When the ATV repeater is kerchunked, the scenes on your TV rotate from an outside camera, to an inside camera, to the video Ider. So far, we haven't seen any deer on the outside camera but it's just a matter of time! Speaking of KE3CW congrats are in order to Greg He is our newest Life member Just voted in last meeting! See the article elsewhere in this issue. I also hope that everyone who attended Adam Barefoot's Eagle Scout Ceremony enjoyed themselves. This is something that not many people get to see! Our heartiest congratulations to Adam Barefoot on this superb achievement!! Three years from Tenderfoot to Eagle Scout not bad !!!!!

The E-Board and Way's & Mean's Committee is in the process of planning a club banquet. This would tentatively be scheduled for sometime in October. Some real neat surprises are in store for this one! We should have everything firmed up by next month. It would include a nice meal, super entertainment (that WE will provide as a club), and some other very nice incentives to attend. Keep your eyes & ears open ! That's about it for this month.



ADAM BAREFOOT AWARDED EAGLE SCOUT

By Dick Goodman, WA3USG

On May 13th, many members of the club attended a very special ceremony. Adam Barefoot, N3SUI, fellow Keystone member and the son of member Tim Barefoot, AA3BJ was made an Eagle Scout.

If you may recall, one of Adam's major Eagle projects was installing a series of benches along the York Heritage Rail Trail. Adam requested the clubs assistance in this endeavour (see Adam's article in our March 2000 newsletter).

The day was absolutely perfect for this ceremony which was held at the York Water Company's Employee Center at Lake Redman. Attendees included about 30 members from the Keystone Club, friends, family, other Scouts, representatives from the Army, Marines, State, and the Federal government. Adam also received letters of congratulations from such notables as Jimmy Carter, Ronald Ragen, Bob Hope, and a host of others too voluminous to list here.

The very traditional ceremony lasted for about an hour and was complete with an Indian Chief in full regalia riding up on horseback, ceremonial Indian representatives paddling across the lake in canoes, and a ceremonial fire. Adam started his quest for Eagle just barely 3 years ago in 1997 as a Tenderfoot Boy Scout. With his fathers guidance and a remarkably active scout troop, his advancement was rapid. It should be further noted that his dad, Tim Barefoot is also an Eagle Scout. We wish Adam a hearty congratulations from all of us! Well Done!



Adam is called front and center by the Indian Council



Adam and his family await the presentation of the Eagle Award



The arrival of the Indian Chief in full head dress marked the beginning of Adam's Eagle ceremony.



Tim has the honor of pinning the Eagle Scout Award to his Son's uniform

TRUSTEE'S
REPORT

*By Bob Secrist,
N3LSN*



Enjoy Breakfast Out ?
*Join club members every
Saturday morning at 7
AM at the ROUND-THE-
CLOCK DINER*



How's DX ?
By
Ruthanna Pearson
wb3cqn@aol.com



**BOB'S TECH
TALK**

ELF
LF
HF
ATV
ANTENNAS
SSB
SECRET
STUFF!

By Bob Riese, K3DJC
riese-k3djc@juno.com

and can be driven with the divide chip. The next project will be to get some of these and build a 30 watt transmitter , To use it would be illegal for now but when we get the allocation for LF will have me ready to put out perhaps a 10 Mw. ERP signal. Also give enough drive to run a power tube to a KW or so. We will probably end up with 160 to 190 Khz and 136 Khz and a max ERP of 1 watt. and depending on the antenna it can take a KW to produce that ERP HI

Bob K3DKC

First I have to apologize missing the meeting last month I guess I have become used to the newsletter reminder. I guess the interesting thing to report this month is a 30 mile DX one way on 188 Khz , That is almost in the band of frequencies that you can hear, well only if you are a dog Hi. The deal is there is a part 15 Lofer band that runs between 160 and 190 Khz. Anywhere in this band you can put a non licensed rig on the air. The only requirement is a 1 watt input power limit and a 50 Ft antenna and that includes the feed line. I cheated, well kinda. The rig consisted of a divide by and oscillator chip . This chip uses crystals in the 6 to 8 Mhz range and will divide the output from a divide by 8 to a divide by 32. The output is a square wave and that drives a couple of low power transistors to ! watt input. The place I cheated was in using the existing 160 meter inverted L and fed the signal from the Shack so I had way too much antenna, What folks do to get around the antenna restrictions is to place the transmitter at the antenna base and therefore no feed line. In actually there is not much if any difference in using a longer antenna as a quarter wave antenna at 188 Khz is 1400 Ft long . You can compare that to a 19 inch whip as a quarter wave at 2 meters. The difference in antenna efficiency between a 50 Ft radiator and a 130 Ft radiator like my L antenna is non existent. Over the years you pick things up and one of them was the antenna matcher from the old York airport direction finder beacon that operated on 260 Khz. I was able to load my L antenna using this Variometer and was able to hear the signal all around the York area. This is not a loud signal. I used a poor all band receiver that covers the LF band and using a 30 inch whip out the car window was what made up my mobile 188 Khz receiver. The signal acts funny down there and in close out to perhaps 100 Yards the signal was loud. This is the near field part of the transmission. As I went out a half mile or so the signal faded into the background noise and stayed there. It was weak but copyable and didn't change strength much at all. I went from the west end of town out to the east end and could still copy the carrier. Now what. I called WA3USG who fiddled around a bit and said he thought he was hearing a signal so I sent a B in Slow CW and sure enough Dick was able to See the signal on one of the spectran programs we run. That isn't bad considering the antenna I used probably had a -35 Db gain which put my one watt signal somewhere around 3 to 7 Millwatt ERP. Once you get the atmosphere excited at LF signals just keep going and going and going kinda like that rabbit. If anyone is interested in some of the hard to get parts I have the Divide by Osc. chip and the 2 transistors and can make them available for 5 bux. A good investment as you get to build something that will work, probably and get on a new band and if enough of us get on this winter we can start a net. There are audio amp chips the LM1875 which will run as a higher power transmitter

Keystone VHF Club
E-Board Minutes of 15 March, 2000
By Charlotte Markley, N3URR
Secretary



Keystone VHF Club
General meeting Minutes of
2 March, 2000
By Charlotte Markley,
N3URR

Any newsletter articles will be very
cheerfully accepted by Dick Goodman,
WA3USG at E-Mail:
wa3usg@compuserve.com



DATED MATERIAL

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TONE 123.0**

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ATV
426.25 IN
439.25 OUT
923.25 OUT**

**PACKET 145.090
PBBS W3HZU-1
KA-NODE W3HZU-7
W3HZU-8
(Digi, Alias YORK)**

**Keystone VHF Club, Inc. W3HZU
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CLUB WEB SITE: <http://yourpage.blazenet.net/stack>

CLUB SPONSORED NETS

All Nets: 146.97 (-)

**MON 8:30PM York ARES/RACES Committee
MON 9PM York County 2-Meter Net
TUES 8PM ATV Net (146.970 for audio)
WED 9PM Quarter Century Wireless Assoc.
THUR 8PM York County YL Net**

Club meetings are held on the 1st Thursday of each month
at the Cyber Center, York, PA