



The VHF Transmitter



Keystone VHF Club, Inc.

W3HZU

Founded 1955 – York, PA

VOL 46 No 3

“Circulation 186”

MARCH, 2000



MAR 2000 CALENDAR

*Edited by Bob Gundlach, N3NBT
n3nbt@aol.com*

- Mar. 1 VE Exam- State College, PA
(814) 238-7857
- Mar. 2 Keystone VHF Club Mtg
CYBER Center
- Mar. 3 VE Exam- Nazareth, PA
(610) 266-0176
- Mar. 4 VE Exam- Tamaqua, PA
(570) 668-3098
- Mar. 4-5 ARRL International DX
Contest, Phone
- Mar. 5 VE Exam- Palmer Park, MD
202-543-7011
- Mar. 9 E-Board Meeting- Water Co
- Mar. 11 VE Exam- Shrewsbury, PA
(717) 235-0273
- Mar. 11-12 QCWA QSO Party
- Mar. 11-12 Special event-Beaver Co,
PA bicentennial- W3A
- Mar. 12 YORK SPRINGFEST
CANCELLED**
- Mar. 14 York Amateur Radio Club
meeting- Red Cross
- Mar. 18 VE Exam- Laurel, MD.
(301) 572-5124
- Mar. 18-20 Alaska QSO Party
- Mar. 25 VE Exam- Port Deposit, MD
(410) 378-2711
- Mar. 25-26 Hamfest - Timonium, MD**
- Mar. 25-26 CQ WW WPX Contest,
Phone

*** Note:

If you plan to test or submit paper work for anything other than replacing a lost license, you MUST have the original plus a copy of your current license.

NEXT MEETING
March 2nd
at the Cyber Center

SPRINGFEST CANCELLED !

By Dick Goodman, WA3USG

I'm sure by now most of you have heard the news about the Springfest. The decision to cancel was not an easy one to make. It was based on several factors, but the final decision to cancel was the result of two primary concerns. The first and foremost was the fact that we only had three (3) vendors committed. We sent 150 mailings out to vendors who attended in the past. We also sent special vendor packages to those who we thought might attend this year. As we approached 3 weeks to the Springfest, I started calling our vendors who had attended before. Some were going to be out of town on that weekend, others no longer attend any shows, a couple were out of business, and several didn't feel that our event drew enough people. I also called several vendors who we sent mailings to but had not attended in the past. Unfortunately the results of these queries were all negative.

The second reason for the cancellation is the fact that the York County VoTech has effectively raised their fee. The first year we held the Springfest at York VoTech, it cost us \$350 per day. We were permitted to set up tables and get everything ready the day before for no charge (about 3 hours work). This year, if we needed to be in the school other than the day of the Springfest, we would be charged an additional \$350. There were also additional charges for the school's security and janitorial services. When this was totaled up, the facility alone would have cost us about \$1000 for a single day event. This didn't include table rentals for our indoor vendors... that was an additional \$600+. We had to make over \$1600 just to break even!

There was no way that we could charge attendees \$5 (or even \$4 with the coupon) to get in without having an adequate number of vendors. This just wouldn't be fair to anyone attending. We also considered lowering the price but unless we would experience record breaking attendance, we wouldn't break even. In addition, none of us relished the idea of a poor Springfest.

On the morning of February 19th, the club Executive Board, with the President, Trustee's, and most of the Springfest Committee met and made this painful decision. We haven't yet decided on what our next steps will be. Tightening our belts will certainly be the first ... the Springfest was our biggest fund raiser. Perhaps the handwriting was already on the wall. Attendance has fallen at all Hamfests in the last several years. Attendance was down at our Springfest last year, partly because of snow in the area, but none the less, a sign of changing times. An especially sad time for the Keystone VHF Club but we will prevail !

The Club Executive Board will be pursuing additional avenues for raising funds ... we would welcome your input.



From the President

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

During my past fourteen months as your club president I've taken the opportunity in this column to try and share with you both the exciting moments as well as address some issues that I felt we needed to take a look at as an established but growing club. This month I need to challenge you to join me and the other club officers as we face some less prosperous times.

Many of you have heard by now that we are not having a Springfest this year. It isn't a secret that this event is what funds much of the projects around the club. The reason this event was canceled was simply because we were unable to draw a reasonable number of vendors for this event. The Club has discussed the declining vendors and attendance at hamfests, at several meetings in the past two years and the E-Board has looked at it several times as well. Our concern was supported by speaking to the folks who run the Timonium show who are seeing their vendor base slipping away also.

During a visit to Denver Radio in December, Tom told me that he was only attending two or three Hamfests this year. These would be the one or MAYBE two shows in Timonium and one in upstate New York. As we spoke to other past vendors we either found them to be doing less hamfests, or in some cases they have gone out of business.

By now I'm sure your asking yourself what all of this means. Well it means several things but the most important issue is the need to prioritize our spending until we come up with another fund raiser. I will welcome suggestions from the floor at our next club meeting and will make this the E-Boards priority on the coming months. I hope none of you will fall prey to the Chicken Little syndrome, The sky is not falling.

One of my favorite movies is "The Sound of Music." A quote from this movie has taken me through some difficult moments of my life and I would like to share it with you. In the movie, Mother Superior is

speaking to Mary who is at a low point in her life and shares with her this jewel for all time....." Whenever God closes a door he always opens a window. " I hope you like me spend the next few weeks not looking at the ground in despair but upward looking for the open window which leads us to opportunity. **73's from N3ZCW**



From the Editor

By *Dick Goodman, WA3USG*
wa3usg@compuserve.com

For the last several months we've had several articles in the newsletter in reference to HF/LF techniques. Some of you may be asking "What are we doing.... has some one changed the clubs name to the **Keystone VLF Club?**

In the past, our club has always had an active group who enjoyed home brewing and experimenting. It seems that somehow we've gotten away from this. We still have our Technical Committee, but they're busy maintaining our repeater systems. While interesting in their own light, these systems don't lend themselves well for tinkering & experimentation. Do the wrong thing and you have 180+ members talking to dead air! We also have a lot of new members who haven't yet experienced the satisfaction of building a piece of equipment (and having it actually work!).

We'd like to have a Technical session up at the club on LF techniques and operations. Check out my article elsewhere in this newsletter on that subject. No one yet has made it across the Pond on these frequencies. Could we be the first? This is the stuff that "Hams" are made of. It isn't "Press a mic button & hear a kerchunk".... **and PLEASE don't let anyone think that I have anything against repeaters & FM in any manner... I love em!** this is just a different aspect of Amateur Radio. It's about listening for weak signals. So weak that you can't hear most of em' ... you need to use your computer to see them. Finally !!! A good use for a computer !

This last paragraph is for the purists who want to keep the "VHF" in the Keystone VHF Club. All of these techniques work great on all frequencies not just LF. Being able to detect signals buried in the noise has some very interesting applications on the 2 meter band and higher. Several years ago, using software much more primitive than what is available now, I was able to see signals on 432 MHz coming off the moon. I was using a single 11 element Yagi. I can foresee in the next year or two, being able to work moon bounce with a single Yagi antenna and about 100 watts of transmit power.

I will have copies of the latest Digital Signal Processing (DSP) software available for free at this tech session. All that is required is a PC with a soundcard (a 75 MHz Pentium works great) and to run your receiver audio output to the sound card's line level input. See what's out there on the air that you can't hear with your ears! We will announce the date at the club meeting.

The VHF Transmitter

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e-mail address can receive binary files

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address for the
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4725 Horn Rd., York, PA 17406
Fax (717) 755-7522 or
e-mail: K3UVJ@AOL.COM



Eagle Scout Project

By Adam Barefoot
N3SUI

At this time I would like to take this opportunity to thank the people who helped me complete my Eagle Scout Project along the York County Rail Trail. My Eagle project, was to install six park benches, which were cemented to the ground, and then fill stone around the benches to make the ground even with the trail. My Eagle Project took me a total of 231 man hours. The benches will be enjoyed by many walkers, hikers, and bikers, that use the Rail Trail. I couldn't have completed the project without a crew from the Keystone VHF Club. The crew consisted of:

Sterling Tate	Bob Gundlach
Bob Secrest	Ernie Mellinger
Bill Barefoot	Tim Barefoot
Dick Goodman	Sandi Barefoot
Dorothy Barefoot	

They spent approximately eight hours on the Rail Trail mixing and pouring cement. Thanks again for your hard work and helping me to be closer to my goal of Eagle Scout.

Thanks,
Adam Barefoot



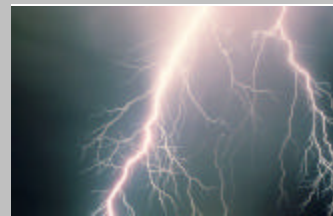
Keystone Club members Bill Barefoot, Sterling Tate, and Bob Gundlach mix a batch of concrete



Adam & Ernie level up the forms prior to pouring the concrete for bench footers.

TRUSTEE'S REPORT

By Bob Gundlach,
N3NBT



Activities have been rather slow around the club site recently. Between the weather and personal commitments the trustees have not had the opportunity to accomplish much the past month or two.

Some upcoming projects would be the removal of several dead trees which will help provide us next winters heat, and also the continuation of erecting support structures from the towers to the building to take the weight of many feed lines off the tower and building.

Do you have any old American or ROHN 25 tower sections laying around that you would like to get rid of? We will be in need of several to build the above mentioned support structures.

When the snow leaves and the frost comes out of the ground we will be digging a hole and erecting a 4" x 4" treated post in front of the club building to post our recently acquired door numbers. Posting the door numbers is part of setting up with County Control to handle any emergency situations that may arise at the club site.

As good weather approaches we will again have numerous projects to undertake, and as usual we will again looking for your help.

Advice From Kids

- ? Never trust a dog to watch your food. - Patrick, age 10
- ? When your dad is mad and asks you, "Do I look stupid?" don't answer him. - Michael, 14
- ? Never tell mom her diet's not working. - Michael, 14
- ? Stay away from prunes. - Randy, 9
- ? Never pee on an electric fence. - Robert, 13
- ? Don't squat with your spurs on. - Noronha, 13
- ? Don't pull dad's finger when he tells you to. - Emily, 10
- ? When your mom is mad at your dad, don't let her brush your hair. - Taylia, 11
- ? Never allow your three-year old brother in the same room as your school assignment. - Traci, 14
- ? Never hold a dust buster & a cat at the same time. Kyoyo, 9
- ? You can't hide a piece of broccoli in a glass of milk. - Armir, 9
- ? Felt markers are not good to use as lipstick. - Lauren, 9
- ? Don't pick on your sister when she's holding a baseball bat. - Joel, 10
- ? When you get a bad grade in school, show it to your mom when she's on the phone. - Alyesha, 13



**Ways & Means &
VE & Public Education
Committee Reports**
By Ray Shaub, W3AXC
w3axc@juno.com

EASTER HAM RAFFLE

The raffle tickets will be available at the March meeting for all those in attendance. They will be mailed to those that are not at the meeting as in previous years. This year time is really short we will only have about one month to sell the tickets and get them sent in. We are sending 12 tickets this time instead of the customary 10. You are still not obligated to buy all of the tickets, tickets can be returned with the stubs and a check for those sold. The letter that you will receive in the packet of tickets says that the stubs and money must be returned by March 31. This is true if you will not be attending the meeting. If you will be attending the meeting for sure bring the "return envelope" to the meeting please don't write on it so it can be used again. This raffle is especially important this year, so do your best to sell the tickets.

VE AND PUBLIC EDUCATION

The question pool for all licenses will be changing as of April 15, 2000. I have the question pool for the New Technician License (all 55 pages), but I'm sure the study guide will not be available by the time we are ready to teach the course, if we have enough students interested. I am proposing to hold off to begin the class until March 20. This would allow us to hold a testing session on Saturday May 13 following an 8 week course. This should be early enough to finish before the vacation season starts.

Quote of the Week

"You stop to think and you forget to get your brain started again..."

**Bob Riese, K3DJC in QSO with Sterling Tate,
N03C on the 97 repeater**

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

THIS SPACE INTENTIONALLY LEFT BLANK

These are the top 25, all real headlines from newspapers

- ? Include Your Children When Baking Cookies
- ? Something Went Wrong In Jet Crash, Experts Say
- ? Police Begin Campaign To Run Down Jaywalkers
- ? Drunks Get Nine Months In Violin Case
- ? Iraqi Head Seeks Arms
- ? Is There A Ring Of Debris Around Uranus?
- ? Prostitutes Appeal To Pope
- ? Panda Mating Fails, Veterinarian Takes Over
- ? British Left Waffles On Falkland Islands
- ? Teacher Strikes Idle Kids
- ? Clinton Wins Budget, More Lies Ahead
- ? Plane Too Close To Ground, Crash Probe Told
- ? Miners Refuse To Work After Death
- ? Juvenile Court To Try Shooting Defendant
- ? Stolen Painting Found By Tree
- ? Two Sisters Reunited After 18 Years In Checkout Counter
- ? War Dims Hope For Peace
- ? If Strike Isn't Settled Quickly, It May Last a While
- ? Couple Slain, Police Suspect Homicide
- ? Man Struck By Lightning Faces Battery Charge
- ? New Study Of Obesity Looks For Larger Test Group
- ? Astronaut Takes Blame For Gas In Space
- ? Kids Make Nutritious Snacks
- ? Local High school Dropouts Cut In Half
and the number 1 headline.....
- ? Typhoon Rips Through Cemetery; Hundreds Dead.



By Dick Goodman. WA3USG

“LF” The Amateur’s New Frontier

Over the last 8 months, several keystone members have become heavily involved in Low Frequency (LF) operations. At this time no current Amateur LF allocation exists in the U.S but several other countries are permitted to operate Within a year, we will probably be assigned spectrum in the area of 136 to 190 KHz .

Do you find the applications of computers together with Amateur Radio interesting? Would you like to use your PC with free software that would give you capabilities that you never thought possible? Would you like to take part in a little piece of history? No Amateur has crossed the pond on LF yet. When it’s done, it’s going to be with radio’s, PC’s, and patience.

Do you enjoy homebrewing? Building and modifying equipment for LF is fun and easy. You can use cheap coax Feedline losses are low, you don’t have to be quite so precise in your soldering, and the lead length for electronic components isn’t critical. Even commercial equipment is inexpensive. The TenTec RX320 Receiver as reviewed in this and last months newsletter is a superb LF receiver. Best of all it’s less than \$300.... Even LF transmitters are more well behaved and far less critical then their HF cousins.

Most of us are used to thinking about bandwidth in terms of KHz. For example, on 2 meters FM, the channel spacing is every 5 KHz. Theoretically, you could have a QSO on 146.520 MHz, one on 146.525 MHz, and one on 146.530.... and so forth. In actuality, having QSO’s this close together in frequency would result in lots of co-channel interference. On LF however, by using computers and slow speed CW, in the space on 5 KHz the space required for a single FM transmission.... You can get in hundreds of slow speed CW QSO’s.

Signal strength plays an important factor during any 2 way exchange of information. For phone communications, the signals have to be strong enough for the receiving party to actually hear the voice of the sender. CW is more efficient, all you have to do is to be able to hear the carrier. It forms the dit’s & dah’s that make up the medium that’s carrying the intelligence. This is much more sensitive then phone. It’s why someone running 5 or 10 watts with CW on a small antenna can routinely work around the world.... While Amateurs running phone must use large antennas or hundreds of watts of power.

Slow speed CW (or QRS) with computers is an order of magnitude better then regular CW. On the receiving side, the signal may be so weak that it’s not audible from the speaker at all, yet the computer will display it. Using these techniques, you can receive through QRM, QRN, and all manner of interference. As the computer software that makes this possible continues to evolve, Amateurs will be able to reach down even further into the noise.

Traditional LF operations conjures up images of sitting up late at night... ones head poised over a receiver, the room dimly illuminated. Making an effort to pull that distant, barely audible, signal from the noise, that in itself, can be coming from thousands of miles away. That tradition lives on... only the room is now illuminated by the ghostly images on the computer screen. You not only hear these distant signals, you see all the nuances of their interaction with the background noise. ... or do I dare say the ether ! The actual appearance of a signal being propagated over hundreds of miles is quite striking. Symmetrical aberrations appear that almost defy description until you realize that modulation affects both the lower & upper sidebands geometrically For years you’ve read in electronics theory about the characteristics of the RF carrier and how it is altered by various modulation schemes.... Now you actually see it ! “Mysterious” would almost be an apt description.

These images along with the barely perceptible signal echoing from the speaker, and the quiet of the late evening hours is why many of us chose this hobby. If anyone would be interested in a technical session up at the club on the subject of LF, please e-mail Bob Riese or myself, or speak to us at the club meeting.

FREE FREE FREE

The club membership owns a 5 Ft equipment cabinet with some 150 Mhz equipment in it. This cabinet resides in my garage and will go to the first member that has a use for it. When the Spring Big Item pick up occurs, and if no member wants it, it will be set out for trash. It came from GTE and should be used for ham radio and not commercial purposes, but in either event, it needs to be moved.

*Thanks Bob, K3DJC
854-8624*

FOR SALE

- SCP Amateur Amplifier 10-meter: 500 + watts out. All new tubes and in mint condition\$210.00
- Power Plus HL-35V: 2-meter Amplifier for hand held's, 35 watts out \$25.00
- Outbacker JR. Mobile HF Antenna: Covers 10 - 75/80 meters with three pad mag mount\$150.00
- Icom AT-160 Mobile HF Automatic antenna tuner: \$275.00

Many thanks and if you have any questions please feel free to contact me:

Joe McLaughlin, KE3YR
e-mail Ke3yr@aol.com
phone (717) 932-9575



BOB'S TECH TALK

ELF
LF
HF
ATV
ANTENNAS
SSB
SECRET
STUFF!



By Bob Riese, K3DJC
riese-k3dj@juno.com

Grumps and things that go Bonk in the dark

Looks like there may be several LF beacons on in the York area for testing and probably running full time next winter. I have ordered the parts to put a 1 watt xmitter on 188.7 Kc and hope to do testing at WA3USG's location.

One good idea will be to have a beacon on from the club site. This will be the first time in some time that a group within the club will be asking to use the club property for their own use and not ask the club for funds to do it.

We will be asking to use the site and borrow a little power and set up the beacon in a separate spot from the building. The one limit for non licensed operation is a 50 ft antenna which includes the feed line .

Therefore the need to place the beacon xmitter under the antenna and have no feed line. We can place the thing either in the Shed or in a separate box, the idea will be to have a T antenna stretching between the 2 towers from the 50 Ft level. The bottom of the T would terminate directly to the transmitter. I have several xtals that can be used that will fall within the 160 to 190 Kc part 15 band. Part 15 means for a 1 watt power level and the limit on the antenna there is no need to license the transmitter. What great Fun!

We are regularly hearing both of the Amrad Beacons and another from Berlin Md. The Amrad folks are running 175 watts with a special license and the one in Berlin, Md, is a Lofer Beacon at 1 watt. Now when I say hearing I really mean we are seeing the signals on Spectran .

Placing a LF beacon at the club site without any club involvement other than its permission will be a new use for the site. This used to be a regular occurrence. If a member wanted to do some testing and couldn't do it from the home QTH they would get permission to operate from the club site. The one hope is that this will generate some interest in construction projects and doing this at LF frequencies is a snap. If you wire it correct, it will work as there is little need to be concerned with lay out and lead length. In other words ITS EASY and you can get instant results.

At this point we don't know what kind of range we will get just running 1 watt. The best guess I can come up with is perhaps 30 miles. That is being able to hear a signal. Using one of the spectrum analysis programs to look at the signal. It may be visible out 200 miles or better. Who Knows , that's what we want to find out. As simple as the transmitter is to build and the low cost of the parts, I have ordered enough parts to build perhaps 8 or 9 transmitters. Total price will be under 5 bux for the parts.

So we may be finding a new use for the club site, having fun on the LF bands and getting first hand experience on these new frequencies. If we have good coverage and 4 or 5 folks interested building some HB equipment we could start a SSB net by adding a few more parts and generating DSB from our transmitters . Wouldn't you want to join us on the Secret Bands?

The Ten Tec RX-320 PC Controlled Receiver on Frequencies below 500 KHz

By Dick Goodman, WA3USG

This is the conclusion of the RX-320 review from our last issue. For a receiver costing only \$295 (less shipping), the performance is extremely good. Selectivity on the HF bands is better then my Yaesu FT-767's receiver. Where the 320' really shines however is down below 500 KHz.

Now right out of the box, the Ten Tec isn't a great performer down there. It must be modified, but the mod is easy to make. It requires removing one circuit board, unsoldering and removing an inductor, and then winding another inductor on a different kind of coil form, and replacing the one you removed. Sounds terrible doesn't it? It took me no more then 30 minutes from the time I decided to rip open the rig until I was finished. And oh what a difference this made!

Initially, the unit seemed almost deaf below 500 KHz. Now that I've completed the mod, it vastly outperforms any other receiver I have in the shack on LF. This includes the FT-767, a Kenwood 2000, and an Icom IC-PCR1000. While I was inside the little box performing the mod, I was greatly impressed with the quality control that Ten Tec apparently takes great care to ensure. In order to remove the circuit board to perform the mod, I had only to unplug 3 connectors & remove 2 screws. The board came right out.

On LF and below (this receiver goes down to 10 KHZ), there's a lot of man made & natural noise. The DSP filters in the RX-320 do a superb job of making this stuff manageable. There are over 30 software selectable filters... all accessible by the click of a mouse. Oh and speaking of mice, and software... the Ten Tec control software supplied with the receiver is nice but doesn't access all the features of the radio.

There's a program written by Clifton Turner Jr., KF5OJ that is much better.... and it's FREE ! It can be downloaded off of the internet and will allow full use of all the radio's impressive features. It also includes a mode that permits a very small control panel to be displayed on the screen... yet from this panel, all aspects of the receiver may be controlled... **and it's stable.... it doesn't crash!** This is ideal for running other applications such as Spectrum Analysis software at the same time your controlling the receiver... it works slick!

Finally, if you like to listen to AM radio... with the selection of filters that can be implemented, the danged thing sounds as good as broadcast FM. If someone would ask me to estimate the cost, I would say it was a \$800-\$1000 radio ! I Like it !!

Keystone VHF Club
E-Board Minutes of 10 February, 2000
By Charlotte Markley, N3URR
Secretary

Meeting called to order at 19:45 by Ernie N3ZCW. 7 officers and 2 committee persons were present.

SECRETARY'S REPORT:

Charlotte N3URR, minutes read and approved.

TREASURER'S REPORT:

Sandi N3NCF, same as Feb. 3, report.

NEWSLETTER REPORT:

Dick WA3USG, half of membership is receiving newsletter by E-Mail.

RACES/ARES REPORT:

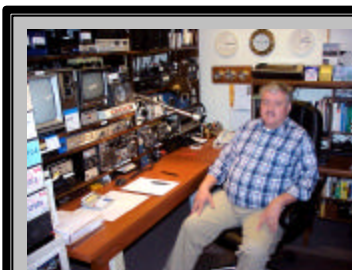
Ed KA3LJL, report same as Feb. 3, report. List of events will be in newsletter.

OLD BUSINESS:

Received new club membership applications.

Good of order, final announcements

Meeting adjourned



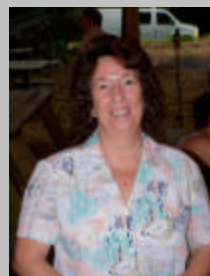
A Keystone Profile
John Jaminet,
W3HMS

By Dick, WA3USG



I've known John since August of 1978. I met him up in the Harrisburg area while getting active on Amateur television. John has been active in just about every mode known to Amateur radio in the last 20+ years. I can remember sitting up late many nights sending TV signals to each other. He is also active on RTTY, Packet, and recently Slow Scan TV. John lately has become heavily involved in microwave operations.

His latest project as shown directly above, is a complete SSB system on 10 GHz. So far John has managed to work other stations on this band at a distance of greater than 45 miles with 30 over S9 signals. John enjoys home brewing and much of his equipment he built himself. John is also getting interested in LF operations. He has procured a Ten Tec RX-320 computer controlled receiver and is building a preamp to allow him to start receiving LF beacons from across the country. John's also been gaining experience with Digital Signal Processing. Who says that you can't teach us old dogs new tricks!



Keystone VHF Club
General meeting Minutes of
3 February, 2000
By Charlotte Markley,
N3URR

Meeting called to order at 19:15 by Ernie N3ZCW. 35 members, 2 guests Bob Klindinst KA3LIK, and MaryAnn Hoke were present.

SECRETARY'S REPORT:

Charlotte N3URR, Motion made by John W3SST to accept minutes as published in newsletter, Carey K3IIB 2nd motion, members agreed.

TREASURER'S REPORT:

Balance in Certificate of Deposit \$2,000.00
Balance in First Capitol Checking \$ 565.01
Balance in Merrill Lynch Acct. \$4,114.38
Springfest Acct. \$1,455.84

Ernie N3ZCW read report. Motion made by Jack N3BQB, to accept report as read, Ernie N3XGF 2nd motion, members agreed.

TRUSTEE'S REPORT:

Bob N3NBT, new door number at club site is 3650 Denninger Road.

SPRINGFEST REPORT:

Tim AA3BJ, needs help for Hamfest, March 12, 2000.

WAYS & MEANS REPORT:

Ray W3AXC, list of events in newsletter.

RACES/ARES REPORT:

Ed KA3LJL, and Jack N3BQB.

May 4, Peach Bottom drill. April 30 Walk America, on the Rail Trail, starts at 9 A.M.

NEW BUSINESS:

Tim AA3BJ, made motion to reinstate membership for James J. Walsh K3JIM, John W3SST 2nd motion, members agreed.

Tim AA3BJ, explained what PL tone is. The main site will not be PL toned at this time. Remote sites will be PL toned.

Pete N3DVO, wanted to go on record that he is opposed to going with PL tone.

John W3SST, gave report on Band Plan meeting on changes of frequencies.

50/50 drawing won by George K3MJN

Good of order, final announcements

Meeting adjourned at 20:35

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



DATED MATERIAL

BULK RATE
U.S. Postage
PAID
York, PA
Permit #413

The VHF Transmitter
P.O. Box 7462
York, PA 17404-0462

**CLUB
REPEATERS
FM
IN/OUT
29.580/29.680
52.97/53.97**

**146.370/146.970
TONE 123.0**

**442.275/447.275
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
P.O. Box 7462
York, PA 17404-0462**

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