The VHF Transmitter

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

VOL 58 No 1 **CIRCULATION 150** **January, 2013**

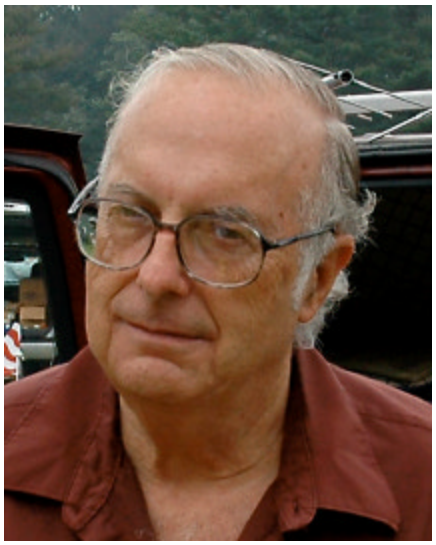
Happenings at the Club House

By Tim Beck, KB3OFE & Dick Goodman, WA3USG

In the last 6 weeks, an incredible amount of progress has been made up at the club! The weather features added to the 2 meter machine were mentioned in last months newsletter but they are now functional.

1. The TH7-DX Tri-band beam refurbishment is complete. It needs a final inspection before it is put up. Jack, K8UYC and Paul, N3APD have volunteered to do this.
2. Tim, KB3OFE has made up a replacement cable for the clubs new Ham IV rotor which will be used to turn the TH7 and 6 meter antenna atop our 60 foot tower. The cable, rotor, and rotor control box have all been tested and are ready for installation.
3. The M Squared Model 2M12 2 meter SSB/contest antenna has been assembled, tested, and is hanging up in the club house. It is ready for installation on top of our 100 foot tower.
4. The Pre-Amp enclosure for the 2 meter & 70 CM antennas is almost complete. Tim, KB3OFE has modified a weatherproof utility enclosure to allow for quick replacement of the preamps while working at the top of the tower. The Advanced Receiver Research (ARR) preamps were supposed to be waterproof but flooded. They were sent back to ARR, repaired, and will be put back into service inside this additional weather protection.
5. Our Kenwood TS-711A has been repaired & tested. It now has full output and meets all of its specifications.
6. The HyGain Hy-Tower model HT-18 160m Wire has been replaced and the antenna is fully operational.
7. Bob Poff, WB3AWJ has replaced the crystals in the exciter of the 6 meter repeater. It is now right on frequency and fully operational.
8. Bob Poff, WB3AWJ has replaced the problematic PC used to control the 10 meter repeater with a new Linux PC. The 10 meter repeater is up and operational.
9. We thought that the output of the 10 meter repeater was down to, about 2 watts. It turns out that the Bird wattmeter we were using to test it has problems. The 10 meter repeater is running at its rated output.
10. Tim, KB3OFE has added several new Weather functions to our 2 meter repeater. Whenever NOAA issues a weather warning or watch, the repeater announces a weather alert. It is announced upon initial receipt of the alert and continues with a short announcement about every 30 minutes while the alert is in effect. We are looking for suggestions from club members & YARS. Right now by sending a DTMF 400, the repeater will send the Date, time, and weather status. The system still needs a few tweaks but we think it will ultimately do everything we want it to.
11. Tim, KB3OFE has configured our 2 meter repeater to announce when we go on generator power, and when normal power is restored.
12. WiFi link to Gregs – Bullets reconfigured & ready for installation. Need $200 for 1,000ft of Shielded Tower Grade CAT5e & Shielded Plugs for both Gregs & W3HZU towers, plus rewire with shielded cable/conns at Club.
13. Wireless Router – we've reached its limit of capability. Need to replace with newer, modern router. Will enable us to prioritize traffic (eg: Video, Allstar). This will also enable us to add Firewall protection for all club devices/PCs. Request approval $230 (hoping $200 spend with sales).
14. SVAT Security DVR - HD failure, limited recording capability, couldn't fix (WA3USG & KB3JSV). Need approval for $70 for replacement 1TB SATA drive, but Tim Barefoot kindly offered to donate a Hard Drive to the club

Charlie Byers, K3IWK
A Silent Key



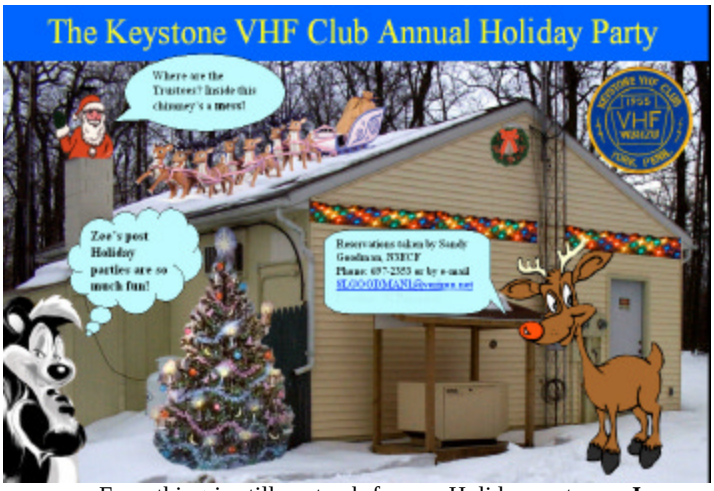
I was really surprised when I looked at the club database and found that I did not have a date when Charlie joined the club. I made a few phone calls to some of our old timers and got quite a bit of information. Both Bob Riese, K3DJC and Ray Shaub, W3AXC remember Charlie attending club meetings as a High School kid right after he was licensed in 1959. He was quite an experimenter and started his own business called "Byers Chassis Kits." He also designed and built VHF & UHF antennas which he offered for sale. Mike Sullivan, WS3C told me that his 10 element 2 meter beam placed as good as a 12 element K1FO design during antenna gain competitions.

As well as building antennas, Charlie designed & sold EME arrays using his antennas. Charlie also offered a wide variety of custom chassis kits and equipment enclosures. I had the privilege of seeing one of these at the QTH of John Jaminet, W3HMS. Charlie constructed a outdoor enclosure for John's EME system on 1296 Mhz.

Bob Riese related several stories of Charlies operations on the 6 meter band during the early days of the club. Ray Shaub, W3AXC and Charlie also taught a Novice class at York VocTech back in 1973. At the end of the class, they gave the Novice test to the attendees. Jim Strauss, K3JFL (of JRS Distributors) was an instructor at the Voctech back then and remembers it. The 222 MHz antenna that we have at the club was built by Charlie. He was a true pioneer in our hobby and many of us have fond memories from knowing him. 73 SK

Charles William Byers, 72, died Saturday, December 22, 2012, at the York hospital. He was the husband of Pam Byers. The couple observed their 39th wedding anniversary on September 22nd of this year. Charles retired in 2005 from Istech Inc. He was owner of Byers Chassis Kits. Born in York, on June 6, 1940, he was the son of the late Carl and Helen) Byers. He was a graduate of Central High School Class of 1959 and attended Penn State. Charles was a member of Grace Lutheran Church. He was a ham radio operator since 1959 K3IWK and a member of the Keystone VHF Club. In addition to his wife, he leaves a daughter, Holly Patterson and her husband, Wade; two grandchildren; two sisters, Gloria Boll and her husband, Sonny, and Beverly Freeman; and six nieces. The family requests that in lieu of flowers, memorial contributions me made to the American Cancer Society , 924-N Colonial Ave., York, PA 17403 or the Keystone VHF Club, P.O. Box 20143

NEXT MEETING
Thursday, January 3rd, at the York County EOC
On Davies Road



Everything is still on track for our Holiday party on **January 26th** at the Fairview Township Firehall. Chris, KB3TWW took both Sandy & I on a tour of the facility a couple of weeks ago. It just so happened that there was an event going on involving about 70 people. Even with that many folks, there was plenty of room. There is a large screen up on the front wall that is used with a ceiling mounted video projector. It's been a long time since we have organized a nice video presentation and I think that everyone will enjoy it.

We have quite a few volunteers who are helping with the organization of the party … Sandy will be getting out an e-mail in the next few days in reference to us getting together to make final arrangements. If you would like to volunteer, I'm sure that we could use a few more. We will be having a cocktail/social hour before the dinner. We will provide soft drinks, beer, and wine. We will also have a cheese and relish tray and maybe a few extra Hors d'oeuvre's.

While the dinner menu has not yet been absolutely firmed up, it will most likely be served buffet style and consist of a Salad, Ham, Scalloped Potatoes, a couple of vegetables (TBD), dinner rolls, and a beverage. After dinner we will serve coffee, a desert and then have our presentations. Since we will be able to set up the tables anyway we want to, we will do our best to ensure that this is just as much of a social event as it is a dinner.

The Keystone VHF Club is footing the bill for the hall rental so we will be able to keep the costs down to just $10 per person.

For reservations please E-Mail Sandy Goodman, N3ECF at: SLGOODMAN1@VERIZON.NET or call 717-697-2353

Scheduled Club P.S. Events for 2013

* **April 21, 2013 - MS Walk at Rudy Park (Chip, W3FJD)**
* **April 28, 2013 - Iron Masters Challenge Superhike at Pine Grove Furnace State Park (Jack, KC3JD)**
* **April 28, 2013 - March of Dimes Walk-a-thon at Rudy Park (Dick, WA3USG)**
* **May 26, 2013 - Bob Potts Marathon on NCR Trail (Jack, KC3JD)**
* **June 8 - Diabetes Tour de Cure Mountain Bike, Grantville (Marty, KB3BAA)**
* **July 4-7 - Gettysburg 150th Re-Enactment**
* **July 13, 2013 - MS Bike Tour in Gettysburg (Sandy, N3ECF)**
* **July 27-28 - Horse Trail Ride Camp Weiser (Marty, KB3BAA)**
* **Sept 7 - KTA Superhike (Ken Wiggens, N2DYK)**
* **Oct 20 - Hershey Half Marathon (Marty, KB3BAA)**
* **Oct 27 - Michaux Team Challenge (Dan, KB3MUN)**
* **Dec 24-25 Glen Rock Carolers (Stan, AB3EM)**

Local area nets:

Capitol Area Traffic Net starts **Monday at 8 PM** on the South Mountain Radio Amateurs (SMRA) repeater on 145.46 (67.0 tone), 1 MHz offset. All properly licensed radio amateurs are invited to check in, with or without traffic or experience

The Combined Club ARES/RACES Net meets **Monday at 8:30 PM** on the Keystone 147.97 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. ***After the normal FM net, a group moves off to 144.210 MHz and operates SSB.***

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

The Keystone VHF Club Digital Familiarization Net on **Wednesday at 8 PM** on the York 146.97 Repeater.

The Keystone 75 meter net on **Tuesday at 9 PM** on a frequency to 3820 to 3840 KHz (+ or – the QRM). In the Summer, the net is suspended.

The Quarter Century Wireless Association (QCWA) net meets on **Wednesday at 9 PM** on the York 146.97 repeater.

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

The Digital Roundup Net **Friday at 8 PM** on the 146.610 (Tone: 131.8 Hz) repeater in the Lancaster/Lebanon area.

WLO Marine Radio in Mobile AL has begun broadcasting a RTTY news service on 8473 kHz. It appears to run continuously. They alternate between 45 Baud Baudot and SITOR Mode-B FEC ("AMTOR" to we hams). Its kind of fun to copy, and a good way to test out your RTTY setup.

**** Listed below are some local 10 meter nets ****

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

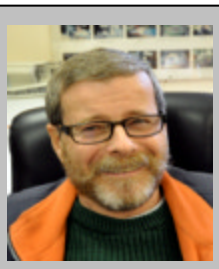
South Central PA SSB Net - Friday 8:30 PM: 28.495 MHZ.

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 - Tue. 8:30 PM: 28.495 MHZ.

Larry, N3LED



Thierry, KB3TPX

Jeff, KB3RCT

Trustees Report - December, 2012

Quite a bit of activity has been going on up at the club. Our Thursday evening Tech sessions are still going on strong. We also had some work done on our generator that hopefully will make it more reliable.

NCS SCHEDULE FOR YORK COUNTY NET FOR 2013

NCS	CALL	2013 DATES			
Ralph	K3HQI	Jan 07	Apr 08	Jul 08	Sep 30
Tom G.	KB3ETG	Jan 14	Apr 15	Jul 15	Oct 07
Rich	KR3EE	Jan 21	Apr 22	Jul 22	Oct 14
Jack	KC3JD	Jan 28	Apr 29	Jul 29	Oct 21
Dick	WA3USG	Feb 04	May 06	Jul 30	Oct 28
Jon	KB3IGH	Feb 11	May 13	Aug 05	Nov 04
**		Feb 18	May 20	Aug 12	Nov 11
Chris	WY6Z	Feb 25	May 27	Aug 19	Nov 18
Sandy	N3ECF	Mar 04	Jun 03	Aug 26	Nov 25
Dick	WA3USG	Mar 11	Jun 10	Sep 02	Dec 02
Nate	N6PHW	Mar 18	Jun 17	Sep 09	Dec 09
Stan	AB3EM	Mar 25	Jun 24	Sep 16	Dec 16
Lorna	KB3SST	Apr 01	Jul 01	Sep 23	Dec 23
					Dec 30

** open for new NCS

The VHF Transmitter

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YARS

ARES RACES

KY3ARS

Amateur Radio York, PA

Ralph Brandt, K3HQI sent me this article in September. I thought that it would be appropriate material for a YARS column.

Mayday radio Channel

I recently was contacted by a fire officer asking whether their mayday procedure should include a provision for a dedicated mayday channel for the distressed crew to transmit their post-mayday traffic on. This is a question I've been asked often enough that I want to dedicate an article to the topic of mayday communications procedures.

The mayday environment

When training firefighters on mayday procedures you should create conditions that resemble the real-life environment they will face during a mayday event. However, it will be near impossible to evoke the kind of stress response a firefighter will experience when they are in fear for their life. The stress will be intense and under such conditions the brain will be in survival mode. Under these conditions the responder may struggle to remain composed. It may not be reasonable to expect the responder will remember to change the radio channel.

Why change channels

On the surface, it makes sense to give a distressed crew dedicated access to airtime. A distressed crew may not have time to wait to transmit critical messages. During a mayday it is likely the amount of radio communications is going to increase as command attempts to gather information and coordinate rescue efforts. Overwhelming the radio channel a distressed crew needs to communicate on does not seem prudent. The reasonable solution is to segregate the radio traffic of operational personnel from the distressed personnel.

How to segregate radio traffic

Coordinating the change of radio channels in the middle of an incident can be extremely challenging. Inevitably, some personnel will hear the message to change channels and some will not. Some will change to the proper channel, some will not. You're even at risk that the distressed personnel, in confusion, will change to the newly assigned operational channel. The entire concept of changing radio channels in a high-stress situation is fraught with challenge. The challenge can be made greater depending on the complexity of your radios.

Who should move?

If you decide to change radio channels, it is the non-distressed personnel who should change channels, not the distressed personnel. This is not to suggest the non-distressed personnel are not going to be feeling stress. They will be. One or more of their comrades are in peril. That is going to be stressful. Stress notwithstanding, the non-mayday personnel are in the better position to make the change.

"AllStar" and it's Application to our Repeaters

By Bob Poff, WB3AWJ

Over the last year you may have heard strange words like "Allstar", "Asterisk", "Acid", and the ever popular "Zipper" bandied about on the repeater, and at club meetings. You may have asked, "What the blazes are they talking about?". They all refer to a new way of operating and linking repeaters. The system that has come to be known as the "Allstar Link" system. The Allstar Link system is a Linux based software repeater controller package. As I write this there are four Allstar based repeaters and two simplex bases operating in York County on six, and two meters in addition to 440 MHz. So, what is this beast, and how does it work? I'm assuming that most of you reading this are somewhat acquainted with Echolink, and how to use it. The Allstar system is similar in concept. But, very different in execution, and miles ahead in performance, and capability.

I need to lay a little ground work first....

Much of the telephone world has switched to full digital operation. In many cases, in house business telephone systems transport calls via an IP network. Historically one form of business telephone system has been referred to as a "Private Branch Exchange" (PBX). Think of places you've been where there's only a single line phone on the desk, and you need to dial "9" or something to make an outside call. And of course you've probably heard of Vonage, and Magic Jack. Both are "Voice Over IP" (VOIP) telephone services. A few years ago a group developed a software based VOIP PBX. They called the system "Asterisk". Asterisk is a fully open-source code, full featured, free, Linux (also free) based PBX system (www.asterisk.org). **OK.... so what does this have to do with Amateur Radio?**

Some of the group who developed Asterisk are Hams. They wrote into the system the ability to run sideline applications, which are able to communicate with Asterisk. The one of concern to us is technically called APP_RPT. But commonly it's known as the Allstar system.

With the Allstar software, an inexpensive PC, a simple USB interface (like one of those $12 USB sound fobs), and a radio(s), it's very easy to build a repeater, or if you like a simplex base station. The Allstar software does all the work. Receiver audio de-emphasis, PL encode/decode, COR, audio processing, station ID (voice or Morse), time out timer, transmitter control, control operator functions..... and so on. A more than complete repeater controller.

But now comes the cool part. If the Allstar controller PC has access to a network common to other Allstar boxes, they can be linked together. The users in fact are able to, at will, "dial into" any other Allstar system their local "node" knows about. Here is where the Allstar Link Network comes into play. In the background each Allstar box notifies the Allstar "portal" of it's presence, node number, and IP address. Periodically it downloads a list of other nodes the portal knows about. In addition, at the local level you are able to "hard code" the information for specific nodes into the Allstar configuration files, so that a node isn't dependent upon the public portal to find the repeaters in your own network. Or if you wish, you can make an entire network of nodes private.

So let's say you want to talk to Joe, KA3NAM in Olathe, Kansas. You would get on one of our local Allstar repeaters, dial an access code and his node number (*3 28073) and we're connected to Joe's node. When you're finished dial a different access code and his node number to disconnect from him (*1 28073). Sounds a lot like Echolink or IRLP.

Except an Allstar node has better audio quality than Echolink or IRLP. Each node is it's own "conference". It's configuration and functionality is flexible beyond belief. You didn't have to pay someone for the software and their proprietary interface board, and the privilege of using it as in IRLP. Oh, and it's inter-operable with Echolink.

As a side benefit, having the "controller" run under Linux allows us to build programs that run externally, but interact with Allstar. On the Red Lion 444.250 and the KVHF 6m repeaters there are multiple examples of this. Such as : (a) Severe weather alert watch system which checks every ten minutes for alerts. Then depending on the priority of a event takes different actions. Like putting a short message on the squelch tail for a low priority event which plays periodically ("High Wind warning in effect. Dial *86 for details" for example). Or reading the actual alert message for something dire (a tornado). (b) Hourly weather observations from area airports. Each lly which selectively can be played from a DTMF command (dial *9900 to hear the list) (c) Solar and geomagnetic status and values (updated every four hours dial *838 for the report). (d) A message of the day (dial *839) (e) Amateur Radio Newsline automatically plays each Monday and Friday night at 9 PM (on 444.250 only). (f) Automagically move from one network to another at scheduled times. With a voice warning before doing so. We're essentially only limited by our imagination.

How does this benefit us here in York county? We all know that because of it's topography, in York county it's difficult (no, impossible) to provide hand held coverage with a single repeater. But let's say we had a network of repeaters spaced around the county. Linked together all the time, or on demand as needed. Then it's plausible to provide that coverage. For example, if you're traveling west on route 30 while talking to a group of other stations, and begin to run out of the coverage of the "east" repeater. Jump over to the "west" repeater and keep talking. Or during an ECOMM event a station is assigned to a location where they can't get into the "primary repeater". But they are able to work the "south" repeater. Link the two together. You now can serve that area and net control doesn't need to be "hopping channels" to keep the net coordinated. The same could be done with multiple remote voted receivers and a single transmitter (which Allstar supports by the way). But by relying on that single transmitter, you create a "single point failure" possibility. If the transmitter quits, you're done. In an Allstar network of independent linked repeaters, even if ALL the networking failed you still have a number of fully functioning individual repeaters still available for use.

Which brings up the common objection that I always hear - "What if the internet fails? Then your repeater system is dead!" Again, each individual node remains fully functional as a repeater even without ANY network attached. But..... there's a way around this too! Over time, a private microwave IP network could be constructed. Each path would be on the order of a few hundred dollars (www.ubnt.com). Once that is in place the public internet can go away and you still have your local repeater network.

How can we implement this? Where is are all the repeaters coming from? How much does it cost? A couple years ago we were lucky to have been given a handful of UHF repeater/base stations that York County was discarding. Quality stuff. Motorola MSR-2000, and General Electric MASTR II stations. Thus far we have made use of three of these. The KVHF 6M repeater (53.970) is one of the MASTR II stations, as is the Red Lion UHF (444.250) repeater. And we have an Allstar repeater in Delta, operated by W3FJD, which is an MSR-2000 formerly in Medical Command channel service. At this time I still have one MASTR II and three MSR-2000 UHF stations on hand. The cost? For the Red Lion repeater, in addition to the MASTR II and duplexer that came from York county, I spent $75 for a computer (P4 at 3.2 GHz) on EBAY and $70 for a USB interface (the URI from www.dmkeng.com). And of course, a set of crystals for the MASTR II.

A group of us have put on a 444.500 repeater in Hellam, this will eventually become an Allstar node. We are also investigating the possibility of a UHF repeater near Hanover. Another station we're working on is a two meter "frequency agile remote base". This radio will be located at a hilltop tower site, available on the Allstar network. Once a node connects to it, it may be put onto any of a hundred pre-programmed two meter channels by DTMF command. This could be used to "link into" another area not served by an Allstar node (a Harrisburg repeater for example).

Continued on Page 5

Or combined with a receiver node at the club site, provide an alternate transmitter for 146.970 during the times we turn off the repeater for VHF contest weekends.

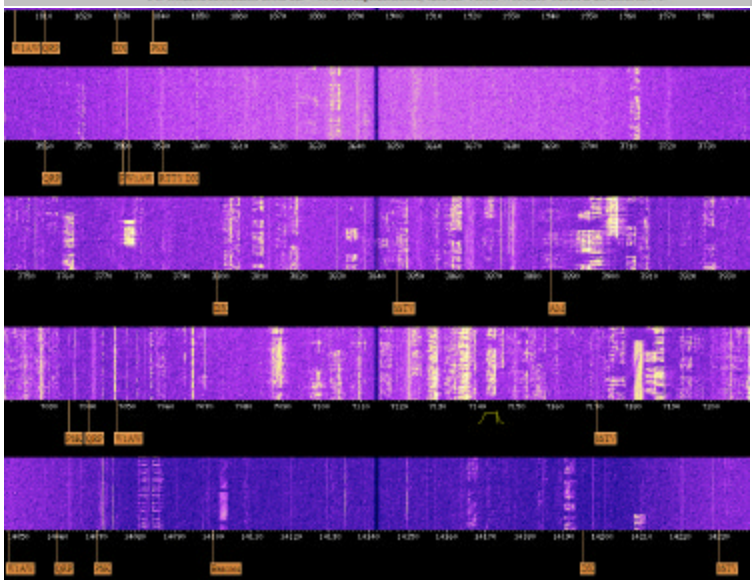
So far the idea of a "YorkStar Network", is for the most part conceptual, part reality. We do have several Allstar repeaters that you can use now. First are the KVHF six (53.970) and ten (29.680) meter repeaters (actually the ten meter "repeater" consists of two separate permanently linked Allstar nodes at different locations). Normally they are sitting "stand alone" not linked to any other nodes. These are fully command-able on the air using DTMF codes. A list of commands was previously published. They are able to connect to any of the nodes worldwide on the Allstar Link network (a full list is available at www.allstarlink.org). The W3SBA Red Lion repeater (444.250) spends most of it's time attached to the Wide Area Network Repeater System (www.wanrepeater.com). A group of nominally thirty to fifty repeaters throughout Pennsylvania, Maryland, West Virginia (including the Target System), Ohio, Texas, Florida, Ontario, and whoever else decides to connect. Like the handful of English, and Scottish stations who frequent the WAN-RS. The WAN-RS group also has a repeater in Hellam on 146.925 which is permanently linked to the system. (Please do not confuse the WAN-RS with Allstar on the whole. WAN-RS is built on Allstar technology but is only one part of the network). Weekdays from 1 PM to 3:30 PM the Red Lion repeater leaves the WAN-RS and connects to the Alaska Reflector (www.alaskareflector.org) for the "Morning Net". To our north is the "State Line System", with it's Mount Holly repeater on 444.300. This system extends from Carlisle north at least as far as Wellsville, NY.

How to get on the air? Well... there are several ways. First of course, is by radio on one of the above mentioned repeaters. Second. On your PC. Go to www.allstarlink.org and register as a user. Once that's done you're able to use the "Web Transceiver". A browser based application that lets you connect to and talk on most of the Allstar nodes (my Loganville base for example). Another PC based option is to use the Asterisk client – IAXRpt. Available for free at www.xelatec.com/xipar/iaxrpt .However you need "login credentials" on each node you wish to operate with IAXRpt. Third, there actually is access via several cell phone VOIP clients.

Lately I've been experimenting with the telephony aspect of the Asterisk software. As we stand now a ham with Internet or Smartphone data access can dial into and operate any of the local Allstar repeaters or bases. Play any of the weather and propagation information. And play a recording stating the repeaters link status. Once they're set up with their own extension that is. This would be useful to organize our own backup telephone system using the repeater networking infrastructure.

Each of us with our own extension. Voicemail, and conference bridge included. Autopatch, or other connection to the "outside world" is also possible.

I see the potential utility of such a repeater network (YorkStar) serving York county being very high. Essentially county wide handheld coverage. With the ability to form subnets of repeaters on the fly. And maybe if the areas surrounding us take notice and follow suit, lead the way to building a highly inter-operable regional Amateur Radio communications system.

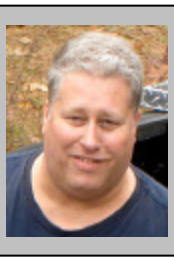


Jack Dellinger, KC3JD turned me on to this site just a couple of days ago. It is a remotely tunable Software Defined Receiver (SDR). If you have Microsoft's Internet Explorer with Java installed, you can go to the site below and tune all around 160M/80M/40M and 20M. There's no setup programs to run or anything, just go to the site and scroll down the page. You will see the waterfall display as shown above. Click on the frequency below the waterfall that you want to tune to. The vertical white bars are QSO's in progress. You can even tune to a spot and get on your rig and transmit there … you will hear yourself come back.

This is the easiest to use remote SDR I have ever experienced. There is a picture of the thing below: Simply amazing!

When I was listening to it, there were 42 other users using it at the same time. Everyone tuned to a different frequency. Oh yes … the web site:

http://www.w4ax.com



A Tiny SSTV Camera for your H.T.

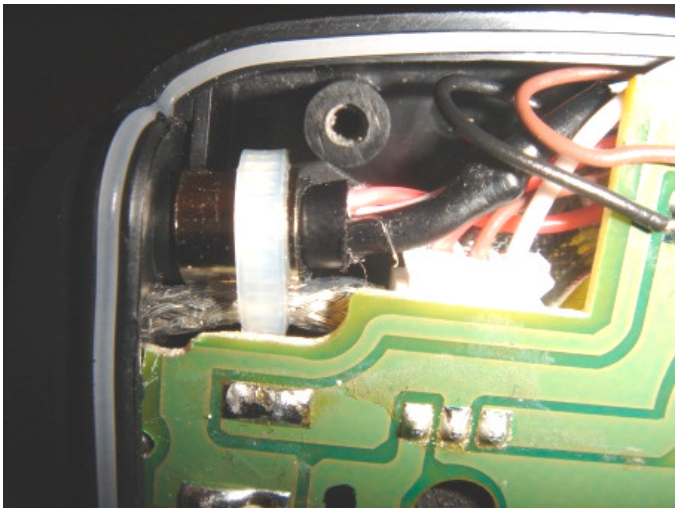
By Tim Beck, KB3OFE

You may have heard of the little tiny camera module from Argent Data Systems that can turn anything it sees into a Slow Scan TV audio stream, just hook up that audio to radio and you can send SSTV pictures.

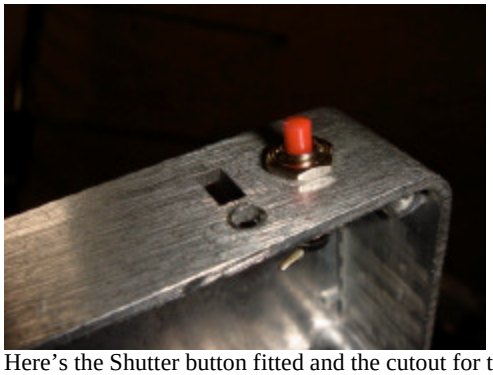
The SSTV Camera module is a bit pricey at $80, but it does add such a unique feature to any radio you connect it to. Just imagine building a camera into you HT or Mobile rig microphone, so, that at the push of a button you could send a picture over the air …. Fun, but possible a much more serious capability for EmCom too - Imagine being able to relay pictures of the recent Hurricane situation to County on your HT

In the planning for the Flat Rock Adventure, we thought it would be fun to send live SSTV pictures on our stations 2m simplex frequency, which meant I had to package the SSTV camera module for portable use and devise a way to quickly connect it to my HT when needed.

It was important for me to maintain easy voice operation with the camera connected to my HT so I poked around inside my MH-57 speaker mic for a way to add another connector for the camera module. I'd concluded that it's almost impossible to add a connector inside the mic enclosure itself, so I worked on adding a free hanging four pin connector that basically replicates the Yaesu mic connector. The internal mic/HT circuitry actually allows me to parallel both the SSTV module and the mic together with no compromise. ***The pictures below show the MH-57 mic with the added pigtail and connector for the SSTV module.*** Of course it's also possible to plug the SSTV module directly in the HT too.

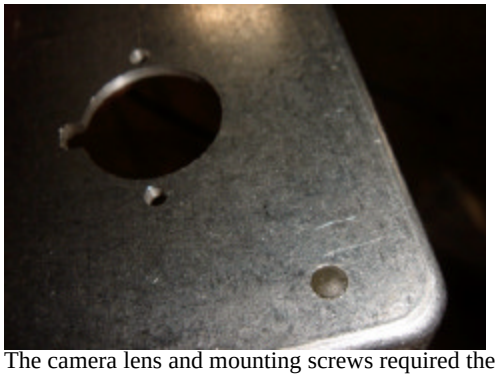


I'd chosen a die-cast metal enclosure for the module and a Lithium 9V battery power source to give me many hours of operation in a relatively robust package. While the camera module can handle a few different SSTV modes, Store and Recall up to eight images, I didn't have time to implement all the controls before the Flat Rock adventure so left room for upgrades to the basic functions at a later date.

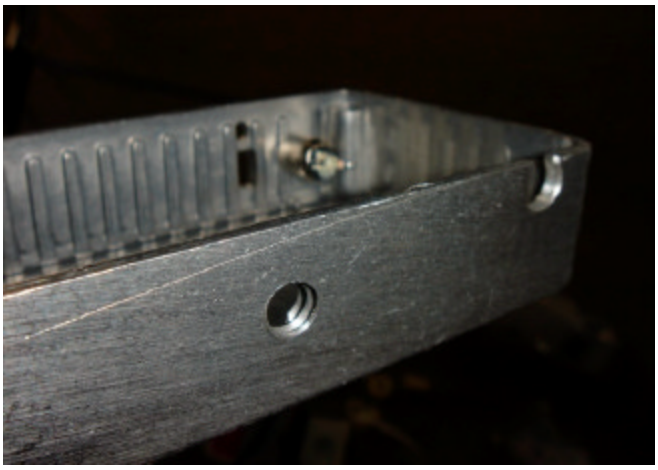


Even with the simplified controls, there's a fair amount of hole cutting to do to prepare the metal enclosure, here's a quick look at some of the key steps.

Here's the Shutter button fitted and the cutout for the On/Off switch and its mounting hole.



The camera lens and mounting screws required the most attention to accuracy; also visible is the 3mm light pipe which allows the on board LED to be visible from the outside of the enclosure. **Continued on Page 7**



For maximum flexibility I also added a universal Threaded Tripod mounting hole. To save time re-soldering the audio connections already made for testing, I simply cut an open hole and split the grommet to allow the cable to be inserted as the grommet is fed, then rotated into place.

Rear view of camera assembled into enclosure, wired up and mounted on a pocket tripod.

Completed unit ready for action.

At this point, the camera was mounted inside the metal enclosure and ready for its first real test. Up to now, I could key my Yaesu FT-817 with the camera. I could hear the tones being transmitted on the simplex FM frequency. Everything sounded good. I could detect no distortion on the tones and the deviation seemed right.

It was time to attempt an image transmission. I contacted Dick, WA3USG at his QTH in Mechanicsburg. Here was the nmoment of truth! Using the Slow Scan Television software, "MMSSTV" Dick caught my first SSTV transmission from my picnic table outside:

Test transmission from my backyard as received by WA3USG in Mechanicsburg on 2m FM simplex.

This camera was used by Tim to send Slow Scan images from Flat Rock during the Keystone VHF Club's "Adventure Days". All of Tim's images were received by WA3USG in Mechanicsburg. I left my 2 meter FM receiver tuned to a frequency of 144.34 MHz with the antenna pointed at Flat Rock, a distance of about 20 miles. I also left MMSSTV running on the computer. Every single image that Tim sent was captured. unattended. A complete collage of all these images appear in the November issue of this newsletter on page 7.

Procedure – Training – Practice

If you're going to expect personnel to change channels during a mayday event, it must be set-up properly. This includes the development of a coherent mayday procedure that stipulates when and how radio channels are to change. Then, personnel need to be trained on when and how to change channels. Finally, personnel need to practice changing radio channels under conditions similar to a mayday environment. I cannot stress enough how important it is to ensure the training and practice is realistic and repetitive.

Watch for human behavior traits

As you put personnel under stress you will witness human behavior traits that will be displayed during real incidents. Attempting to fix these nuances with policies is going to prove frustrating, if not catastrophic. Rather, watch how people behave and make sure the policies and training support expected human behavior. Otherwise, you're at risk of having policies that people will not… cannot comply with. They won't be doing it on purpose. But the behavior will, nonetheless, be predictable.

Chief Gasaway's Advice

The best way to prepare for a mayday incident is to develop a sound procedure, train personnel on the procedure and practice in realistic and repetitive ways. If those procedures involve changing radio channels, personnel need to practice this maneuver on the toughest of conditions. If, during your practice, it doesn't work. Consider changing the procedure or intensifying the practice.

Once you get your procedure set and personnel become good at it, the practice must then become part of on-going training for personnel. Muscles learn from muscle memory and the muscle memory needs to be refreshed periodically. This applies whether you're doing hose lays, ladder throws or changing radio channels.

Strive to keep radio traffic short and simple

Action Items

1. Discuss how radio communications should be managed during a mayday event.
2. Develop and implement a mayday communications management procedure.
3. Train personnel on the procedure.
4. Practice the procedure in realistic and repetitive ways.
5. Adjust the procedure if it's not working as expected.
6. Repeat steps 3-5 until you find a procedure that works in a high stress environment.

High Speed FLDIGI Testing Results

Performed by Dave, KB3FXI

Conducted two sets of Simplex FM tests using the experimental version of FLDIGI. The below results were obtained on Saturday 11-3-12.

Eight (8) stations took part in this test and was conducted on FM simplex.

Four (4) stations deliberately using very low power (so weak, they barely held the squelch)

Two (2) stations were using 25W and had good signal strengths

Two (2) stations were using 100W and had extremely strong signals

** Note: This was the best FM simplex test session we have had to date.

We tried mitigation techniques to increase resource availability of slower computers. We also had everyone re-calibrate their cards. This appears to have been successful.

We attempted 78 messages and had a 99.4% success rate, astounding!

We were quite surprised to see how well the exp high speed modes worked. Even with signals that were poor, we successfully used **4xPSK500R** and **4xPSK500** with dramatic success. In fact, 4xPSK500R had a zero failure rate.

We also had no failures with RSID. **2xPSK800R** and **2xPSK1000R** had very good performance, despite the weak signals. We did try 10 Flamp file transfers using flamp-1.0.01AA. Again NO failures even using **4xPSK500R** with ultra weak signals.

Conclusions:

High speed modes work very well on VHF. This is the second test session with success rates over 95%. I must retract my earlier statements that the high speed modes work well as long as the paths are excellent. Our testing by Cape Cod ARES indicates that this supposition is FALSE. We have proven that they work well even in a very weak signal environment. ***We will be dropping MT-63 2000 from our VHF primary modes list***. It's a great mode on HF, but on VHF, it's like a fat man running up a hill to catch a trolley compared to the new modes.

What have been the best of the new modes for us on VHF/UHF? In each category?

PSK63R - 10xPSK63R

PSK125R - 10xPSK125R and 16xPSK125R

PSK250R - 5xPSK250R

PSK500R - 4xPSK500R (awesome performer! A must keep!)

2xPSK800R (surprisingly good)

2xPSK100R .(another good one!)

Non Robust modes……..4xPSK500 and 2xPSK1000 (we call them the Greyhound modes). They actually work amazingly well in medium signal environments. Their speed makes them valuable to us in such an environment. We would use the robust modes, if in a weak signal environment.

Last, but not least……PSK1000R non multi……super mode for a lower common denominator use.seems to work well all the time.

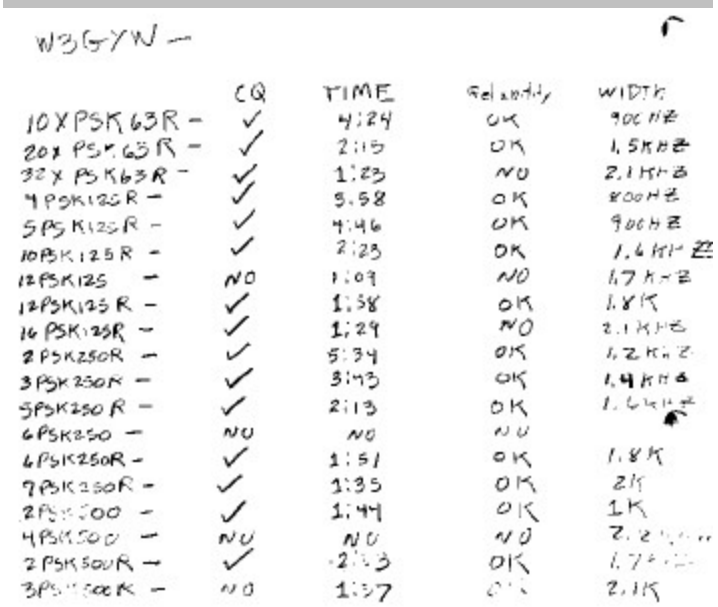
Well that's about it from here. I'm not sure how valuable this report is, but here it is.

BTW, we did use 4xPSK500R during Sandy……..6 messages passed in medium signal strength environment with electrical wires arcing ½ mile away. 100% success rate. Nice!

Thanks Dave for all your tireless efforts

73' Frank WQ1O
Cape Cod and Islands ARES DEC

I (WA3USG) ran the experiment below transmitting on 144.34 MHz simplex between two computers/stations in the shack. Signal levels were very good.



I transmitted the file above using FLAMP. It is a graphic BMP file with a size of 61K. I used the file compression option in FLAMP when I sent it, this reduced the data I sent to only 11K (lots of blank space).

Below are the results of my experiment. The columns are defined as follows:

Mode - Transmission/reception mode I used
CQ - Was I able to send a simple CQ string reliably?
Time - The time it took to send the above BMP file (mm:ss)
Reliability - "OK" if the BMP file received reliably (3 times)
Width - Bandwidth of this mode on the waterfall

Mode	CQ	Time	Reliability	Width
10XPSK63R	**Yes**	**4:24**	**OK**	**900 Hz**
20XPSK63R	**Yes**	**2:15**	**OK**	**1.5 KHz**
32XPSK63R	**Yes**	**1:23**	**NO**	**2.1 KHz**
4XPSK125R	**Yes**	**5:58**	**OK**	**800 Hz**
5XPSK125R	**Yes**	**4:46**	**OK**	**900 Hz**
10XPSK125R	**Yes**	**2:23**	**OK**	**1.6 KHz**
12XPSK125R	**Yes**	**1:58**	**OK**	**1.8 KHz**
16XPSK125R	**Yes**	**1:29**	**NO**	**2.1 KHz**
2XPSK250R	**Yes**	**5:34**	**OK**	**1.2 KHz**
3XPSK250R	**Yes**	**3.43**	**OK**	**1.4 KHz**
5XPSK250R	**Yes**	**2:13**	**OK**	**1.6 KHz**
6XPSK250R	**Yes**	**1:51**	**OK**	**1.8 Khz**
7XPSK250R	**Yes**	**1:35**	**OK**	**2.0 KHz**
2XPSK500R	**Yes**	**2:53**	**OK**	**1.0 KHz**
3XPSK500R	**NO**	**1:57**	**OK**	**2.1 KHz**

How did my experiments jive with Dave's? We both agree that 10XPSK63R works well. 10XPSK125R also is a winner. I found that 16XPSK125R has some reliability issues. I found that the best mode in relation to throughput vs reliability seemed to be 6XPSK250R. In this area another problem that we have to face is when using the 146.97 machine, we have the hole in the audio passband starting at 2.1 KHz and running to approximately 2.2 KHz. 16XPSK125R has data extending all the way up through 2.7 KHz. Even 12XPSK125R extends right up to 2 KHz, repeating through the 146.97 will certainly be an issue for 16XPSK125R. We also have to be careful about being "good neighbors" on HF. One of our "bragging rights" on digital is the narrow band nature of the modes. A bandwidth of 2 KHz isn't so narrow banded anymore.

73 de WA3USG

A Tale of Two Towers - Part 1
"The Denver Incident"

Erecting towers, putting up antennas, braving the elements in order to obtain "that big signal." If there could ever be "Macho" components in Amateur Radio, all of the above would be them!

This is the story of two of our fairly new members and their quest to overcome the laws of physics (and possible objections from their XYL's) to acquire what all real Hams dream of … tower ownership!

Now this all begins innocently enough with club member Dan Melato, KB3JSV wanting that proverbial "Tower of his own." Dan made some inquiries on the repeater and it wasn't long before someone steered him to the possible acquisition of 40 feet of used Rohn 25G. It was located in Denver, Pa. Best of all, it was FREE! However, it was installed on the side of an apartment building and had to be taken down. Now when you're thinking about taking down towers (or other vertical structures … **Who you Gonna call!**

Was there ever any doubt? Tim Barefoot, W3TWB volunteered to take a good hard look at the structure and if possible … bring it down to earth!

He did have some help in this endeavor.
Dan Shortencarrier, N3EEI
Dan Melato, KB3JSV
Tim Beck, KB3OFE
Rick Goodman, WA3USG

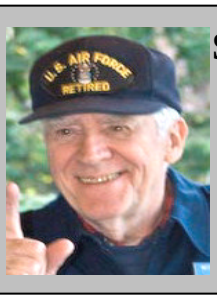
When we arrived at the tower location in Denver, we were a bit concerned. The tower while in fairly good condition, had been up for over 30 years. It was up against the side of an apartment building and had a large TV antenna on a slightly bent mast mounted right at the top. We also noticed that at its base, the concrete was cracked. One of the legs was in the middle of the crack, another leg seemed not to be in the concrete at all, it was just down in the soil. The last leg seemed to be in the concrete proper (we hoped). The first thing to be done was to remove the TV antenna. Tim climber to the top with a Saw-Zall to cut through the mast to remove the antenna. The tower really swayed! We tied a rope to the tower and the other end to one of our cars … this helped … a little! Tim got himself belted in at the 40 foot level and started to cut through the mast. The Saw-Zall had one hell of a time … turned out that there were two pieces of pipe (one inside the other) holding the antenna up! To make matter worse, the Saw-Zall kicked back and cut Tim's finger … now blood was flowing!

Above left - The tower with the TV antenna on the bent mast. To the right - the building the tower was mounted next to. The tower was not bracketed to the building and did it ever SWAY!

Tim managed to bandage his finger and finished cutting through the mast. He freed the antenna and with a mighty shove, it came earthward at a rate of 33 feet per second squared! He would need help to unattach & lower the top section however and this is where Dan, N3EEI came in.

Shown above is Tim working on the antenna mast with the Saw-Zall. After the antenna was down, Dan, N3EEI climbed up and belted himself in to assist Tim in unattaching & lowering the top section. They ran into some minor problems. At one point, they could not free the top section … it simply just wouldn't come loose. After considerable pondering & gnashing of teeth, they realized that they had not removed one of the bolts holding the top section on.

If you notice, both gentlemen are securely belted to the tower. As Tim was swinging the top section down, he looked at Dan and exclaimed "Get back!" I think that Dan's eye's got a little large at that point! Get back? Get back where?? You & I are belted in belly button to belly button … I ain't going anywhere! **Continued on Page 10**



Stories From One of Our Most Lively Members!

--- This Month ---

The Wagon

(Last days In the Orphanage)

By Lee Lindsay, WB3HNA

Kids and farming really go hand-in-hand, I think. It seems when I sit back and dream about my youth, it's always the farm that first comes to mind, and the haunting and still such vivid memories are so real. Times that I remember don't even have to be relevant to what I may be doing or thinking about today, but simply that thought bending intrusion on fleeting yesterdays that creep into mind.

At 12 years of age, being quite new in the town my brothers and I were taken to by the foster parents, I was looking for some kind of companionship among boys my own age. Most of them seemed quite aloof when we crossed paths in the school hallway or sat cramped together in the small community church. Conversations were short to say the least, and consisted mainly of "Yeh, Hi - 'scuse me - see ya", totally non friendly and void of any recognition. A boy had to have an available caption like maybe a football quarterback, baseball pitcher, hockey goalie, basketball center ---- any one of these, and he would be an immediate hit with the guys. I was a skinny - hit you if you looked at me wrong - don't mess with me kind of an outcast.

Until it came to the farm ---- there I knew what I was doing and not many my age would give me an argument about how things worked, and who ran the pecking order. My guardian, a scruffy, gangly German of very few words, almost immediately handed the reins over to me when the wagon was ready for market or when the hay was being forked to the wagon bay, and without comment, I simply took over as though I had been there for years - no questions asked. Even Dick, the barn stallion seemed to accept me as a friend and comfortable partner. He even knew that when our tasks were complete, I had enough sense to grab one of the apples in the front barrel and deliver it to him as soon as the gate to the stall closed. It didn't take much to see that Dick liked my company, because when only he and I were in the barn, I would lean on the gate and he would saunter over and place that great, big head on my shoulder. Then he would give such a friendly BBBBLLLLLBBBBB and a low sigh, as if to say "Don't worry buddy, we'll make it just fine".

At school, listening to the other boys who worked the farms around, I heard of this one rough, old farm owner who had a few impressions of those of us who worked the fields and barns that were not at all complimentary. At harvest time, the kids who were assigned to the field tasks never had any humorous anecdotes to relate, and were always glad when the field was clean and ready for the blade to trim empty stalks or stems.

When the harvest finally ended, the young crowd began their Halloween plans of wonderful tricks or treats, and realizing this, I set a plan in motion to attract and gain the favor of the others through a little stint of my own design. The evening before Halloween, I set up a lookout post at the side fence of this "Old Geezer's" land, and waited for activities to cease and normal family curfew to take over. Doors closed and lights dimmed with the increasing quietness. I jumped on the bike and peddled into town where I found several boys still lounging around the Pool Hall. "Wanna have some fun?, I toted. "What's up?". they asked. "Can't tell ya", I responded - "Ya gotta follow me and see".

It's very confusing what happened next, but took only a few short minutes to bike out to the Geezer's farm and get ready for Halloween. Now he left his wagon sitting out to the side of the barn, ready to get hitched when needed, I showed this to the guys. "So what?", they taunted. "Get that ladder over at the side of the barn", I ordered, "and set it up right here from the wagon to the roof." That seemed to spark some kind of devilish impulse in them, so as they were setting up, I brought out the tools, and methodically dismantled the entire wagon, laying each piece strategically in order on the ground. When complete, it really looked like a wooden skeleton, and I could hardly hold back the chuckle it brought to my psyche . "Now", I continued, "let's all station ourselves equally on the ground and ladder and just pass the parts up to me, starting with the bay and the wheels and axles." Piece by piece we got the pieces up to the roof and with lots of now frantic, fun help, actually got that old wagon all back together and sitting on the roof as though it was intended to be there. We stood back and patted each other on the backs just bordering on happy hysteria. "O.K. now let's get the heck out of here before somebody comes down the road, sees this and squeals on us." We quickly gathered our personal stuff and tools and started down that ladder.

It was awfully quiet by the time I stepped onto the last rail and pulled my toolbag from the carefully directed ladder sidebar slide. Turning to greet my accompanying scalliwags, I ran into him and almost lost it.

The town Sheriff was standing with his hands holding his hips, looking up to the roof and slightly nodding. "Now I've seen a lot of things boys, but I don't believe I have ever seen one of those sitting like that up there." "Tell me - How long ya think it'll take ya to get that thing down and put it back tagather again?"

Almost 4 hours later, and after the others had returned to their respective homes, I crawled into my upstairs bedroom window and collapsed on the bed. No, that wasn't the end of the story. It made village gossip headlines, and after I was finally compelled to admission before my guardians, and properly punished with a few extra hours of drudge labor, I got with the other guys and compared notes. You guessed it -- I was no longer that skinny little kid from the Home. I had planted my mark and I became one of the gang. Whew!

A Tale of two Towers - Continued from Page 9

Tim managed to tie the top tower section to a rope and we lowered it to the ground without much further incident. At this point it was decided that we were going to lower the last 3 sections together. We had enough folks there to manhandle it down. This we did and after a sigh of relief, the tower was down on terra firma!

In summary, the entire job took us about 3 hours. Let me tell you, 40 feet of Rohn 25G does sway … A LOT. Tim & Dan were up there for a good 2 hours and lived to tell about it! Dan, KB3JSV now has a nice 40 foot Rohn 25G tower, Tim has a cut finger but all in all, it was a great day. This is a classical part of what Amateur radio is all about.

In next months newsletter, we will present the story of Chris Shover, KB3TWW and his tower erection!

STAND BY FOR "A TALE OF TWO TOWERS - PART II."

The History of the Car Radio

Seems like cars have always had radios, but they didn't. Here's the true story:

One evening, in 1929, two young men named William Lear and Elmer Wavering Drove their girlfriends to a lookout point high above the Mississippi River town of Quincy , Illinois to watch the sunset. It was a romantic night to be sure, but one of the women observed that it would be even nicer if they could listen to music in the car.

Lear and Wavering liked the idea. Both men had tinkered with radios (Lear had served as a radio operator in the U.S. Navy during World War I) and it wasn't long before they were taking apart a home radio and trying to get it to work in a car.

But it wasn't as easy as it sounds. Automobiles have ignition switches, generators, spark plugs, and other electrical equipment that generate noisy static interference, making it nearly impossible to listen to the radio when the engine was running. One by one, Lear and Wavering identified and eliminated each source of electrical interference. When they finally got their radio to work, they took it to a radio convention in Chicago. There they met Paul Galvin, owner of Galvin Manufacturing Corporation.

He made a product called a "battery eliminator" a device that allowed battery-powered radios to run on household AC current.

But as more homes were wired for electricity more radio manufacturers made AC-powered radios. Galvin needed a new product to manufacture. When he met Lear and Wavering at the radio convention, he found it. He believed that mass-produced, affordable car radios had the potential to become a huge business.

Lear and Wavering set up shop in Galvin's factory, and when they perfected their first radio, they installed it in his Studebaker. Then Galvin went to a local banker to apply for a loan. Thinking it might sweeten the deal, he had his men install a radio in the banker's Packard. Good idea, but it didn't work -- Half an hour after the installation, the banker's Packard caught on fire. (They didn't get the loan.) Galvin didn't give up.

He drove his Studebaker nearly 800 miles to Atlantic City to show off the radio at the 1930 Radio Manufacturers Association convention. Too broke to afford a booth, he parked the car outside the convention hall and cranked up the radio so that passing conventioneers could hear it. That idea worked -- He got enough orders to put the radio into production.

That first production model was called the 5T71. Galvin decided he needed to come up with something a little catchier.

In those days many companies in the phonograph and radio businesses used the suffix "ola" for their names - Radiola, Columbiola, and Victrola were three of the biggest. Galvin decided to do the same thing, and since his radio was intended for use in a motor vehicle, he decided to call it the Motorola. But even with the name change, the radio still had problems:

When Motorola went on sale in 1930, it cost about $110 uninstalled, at a time when you could buy a brand-new car for $650, and the country was sliding into the Great Depression. (By that measure, a radio for a new car would cost about $3,000 today.)

In 1930 it took two men several days to put in a car radio -- The dashboard had to be taken apart so that the receiver and a single speaker could be installed, and the ceiling had to be cut open to install the antenna. These early radios ran on their own batteries, not on the car battery, so holes had to be cut into the floorboard to accommodate them. The installation manual had eight complete diagrams and 28 pages of instructions. Selling complicated car radios that cost 20 percent of the price of a brand-new car wouldn't have been easy in the best of times, let alone during the Great Depression.

Galvin lost money in 1930 and struggled for a couple of years after that. But things picked up in 1933 when Ford began offering Motorola's pre-installed at the factory. In 1934 they got another boost when Galvin struck a deal with B.F. Goodrich tire company to sell and install them in its chain of tire stores. By then the price of the radio, installation included, had dropped to $55. The Motorola car radio was off and running. (The name of the company would be officially changed from Galvin Manufacturing to "Motorola" in 1947.)

In the meantime, Galvin continued to develop new uses for car radios. In 1936, the same year that it introduced push-button tuning, it also introduced the Motorola Police Cruiser, a standard car radio that was factory preset to a single frequency to pick up police broadcasts. In 1940 he developed with the first handheld two-way radio -- The Handie-Talkie -- for the U. S. Army. A lot of the communications technologies that we take for granted today were born in Motorola labs in the years that followed World War II.

In 1947 they came out with the first television to sell under $200. In 1956 the company introduced the world's first pager; in 1969 it supplied the radio and television equipment that was used to televise Neil Armstrong's first steps on the Moon.

In 1973 it invented the world's first handheld cellular phone. Today Motorola is one of the largest cell phone manufacturer in the world -- And it all started with the car radio.

What ever happened to the two men who installed the first radio in Paul Galvin's car? Elmer Wavering and William Lear, ended up taking very different paths in life. Wavering stayed with Motorola. In the 1950's he helped change the automobile experience again when he developed the first automotive alternator, replacing inefficient and unreliable generators.

The invention lead to such luxuries as power windows, power seats, and,eventually, air-conditioning.

Lear also continued inventing. He holds more than 150 patents. Remember eight-track tape players? Lear invented that.

But what he's really famous for are his contributions to the field of aviation.He invented radio direction finders for planes, aided in the invention of the autopilot, designed the first fully automatic aircraft landing system, and in 1963 introduced his most famous invention of all, the Lear Jet, the world's first mass-produced, affordable business jet. (Not bad for a guy who dropped out of school after the eighth grade.)

Sometimes it is fun to find out how some of the many things that we take for granted actually came into being!

****** Note: Dan, N3EEI forwarded this to me as an article of interest. I'm not absolutely sure where he got it, but it does make for interesting reading … Thanks Dan***.

Schedule of Keystone VHF Club Sponsored VE Testing for 2013

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

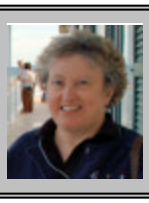
Locations are York EMA Office at 120 Davies Road, York, or Keystone VHF Club on Deininger Road, York, near the Rocky Ridge Park

Testing dates:

Jan 12 at York EMA Office
March 9 at York EMA office
*** maybe at York Hamfest in April
May 11 at York EMA Office
July no test cancelled due to MS Bike Tour
Sept 14 at York EMA Office
November 9 at York EMA Office.

Gang,

Please think about writing a monthly column for the newsletter! I need articles. What interests you? What could you contribute that you think everyone would enjoy? This is your chance to become a top notch Arthor! Weather it be a controversial "soapbox" article or a technical masterpiece, we will print it! This is your club and <u>YOUR</u> newsletter. There are a lot of new members that I'm sure have varying interests, please make yours known! Drop me an e-mail at wa3usg@verizon.net. 73, Dick, WA3USG



Keystone VHF Club General Meeting Minutes of December 6th, 2012

By Sandy Goodman – Secretary

The General Club Meeting held at Keystone VHF Club was called to order by Pres. Dick WA3USG at 19:05. There were 31 members present and 3 guests.

INTRODUCTIONS: Three guests (potential new members) introduced themselves: Anne Zarlenga, KB3ZLJ, Micah Neff, KB3TGY, and Jim Irish, N6CAZ, (who has previously attended). We welcomed back Brad, KO3T, among our attendees. We also congratulate Lori Shover, KB3ZLO, on getting her Tech License.

HOLIDAY PARTY PLANS: Dick talked about hour Holiday Party plans. We decided on January 26th, with a social hour/cocktails at 4 PM and dinner to be served at 5:30 PM.

SECRETARY REPORT: Sandy, N3ECF. Jeff, KB3RCT, moved to accept the November minutes as published. Larry, N3LED, seconded the motion. Motion carried.

TREASURER REPORT: Linda, KB3EBV, reported for November: Income: $610.16; Expenses: $646.79; NET Total -$36.63. Balances: Club CD $7,607.41; Bill Hurst CD $2,516.36; Checking Acct $3,180.36; Trustee Acct $265.54; Total $13,469.67. Steve, WB3EFA, moved to accept the report; 2nd by Jack, KC3JD. Motion carried.

COMMITTEE REPORTS:

TRUSTEE REPORT – Jeff, KB3RCT, thanked everyone for their help on the grounds this past year.

TECHNICAL COMMITTEE REPORT - Tim, KB3OFE, reported: TH7-DX is completed, will be inspected by K8UYC and N3APD, then needs the rotator installed. The 2M12 is complete. The pre-amp enclosure is a work in progress. The TS-711A was repaired and tested. The HT-18 160m wire was repaired. Bob Poff replaced the 6m machine crystals and installed a new linux pc for the 10m machine. Weather functions have been added to the 2m repeater. This is a preliminary configuration using the same codes and alerts from YARS. We saved the club about $450 using the approach we did. The WiFi bullets to link to Greg's site have been reconfigured and are ready to install. We do need 1,000 ft of shielded tower grade CAT5e & shielded plugs. Rich, KR3EE, moved to spend $200 for that cable. Jack, KC3JD, seconded the motion. Motion carried. We've reached the capability limits of our wireless router. It needs to be replaced with a more modern router to enable us to prioritize traffic (i.e. Allstar, video, etc), plus add firewall protection for all the club devices/computers. Steve, WB3EFA, moved to spend $230 for a new wireless router. Kip, WB3AFL, seconded the motion. Motion carried. Our Security System has a hard drive problem that couldn't be fixed. It has a corrupt storage area. Tim Barefoot, W3TWB, kindly offered to donate a hard drive to the club.

EMCOMM/PUBLIC SERVICE NEWS – Chip, W3FJD, reported the Sandy Goodman, N3ECF, will be the new Emergency Coordinator/Races Officer for York County beginning January 1st. The TMI Drill is rumored to be April 16th, with 4 sites rumored to be evaluated. Public Service events for 2013 were listed in the newsletter and are posted on the W3HZU website.

VE/ED REPORT - Ralph, K3HQI, has taken over the VE/ED chair. Testing for January is up in the air, but test dates should still be the 2nd Saturday of odd months.

CONTEST REPORT - Brad, KO3T, advised that the ARRL changed the VHF contest rules for January to add a 3 band VHF category and an FM only category. Mike, WS3C, advised that the 10 meter contest is this weekend, Dec 8-9. For the 160 meter contest, we had 192 contacts, for over 17,000 points.

NEWSLETTER/WEBSITE – Dick, WA3USG, got the newsletter out on time.

OLD BUSINESS:
Jeff, KB3RCT, contacted Winter Engine Generator Service, Inc. to review the problems with our generator. The recommendations listed in the newsletter were discussed. Steve, WB3EFA, moved to approve funds not to exceed $350 to have Winters work on their proposal, including replacement of the battery. Jack, KC3JD, seconded the motion. Motion carried.

NEW BUSINESS:
Tim, W3TWB, made a request to buy a Keurig coffee pot. Tim, KB3OFE, moved to approve $150 to buy the coffee pot, with a 2nd from Dan, KB3JSV. The Trustee fund can be used to purchase the coffee and creamer.

In addition to the 2013 Officer Nominations that were listed in the newsletter, Dan Melato, KB3JSV, volunteered to run for 2nd Vice President. A paper vote was used to elect the 2nd Vice President. Steve, WB3EFA, moved to have the Secretary cast a vote for the remaining officer positions. Craig, WA1HEW, seconded the motion. Motion carried. The following is the slate of officers for 2013:

President	Dick Goodman, WA3USG
1st Vice President	Tim Beck, KB3OFE
nd Vice President	Jack Dellinger, KC3JD
Secretary	Sandy Goodman, N3ECF
Asst. Secretary	Joe Imgrund, KB3TCM
Treasurer	Linda Warner, KB3EBV
Asst. Treasurer	Brad Kline, NO3T
2015 Trustee	Jeff Patterson, KB3RCT

** note: Larry Frey, N3LED, 2013, and Thierry Mathieu, KB3TPX, 2014, remain as Trustees.

A first reading was done for Anne Zalenga, KB3ZLJ.

GOOD OF THE CLUB – Brad, NO3T, thanked every one for their support and visits during his recovery.

50-50 : Dick, WA3USG, won $20 and donated the money to the club.

Adjourned at 20:07.

Ralph Brandt, K3HQI looking for Equipment for New Hams

I am working on a project to have some rigs available that we can hand to a new ham who cannot at the time get started. At this time I have five GE MVS commercial rigs that I got for less than $50 total. I am working now to 1) get them programmed, 2) get DC power cables on the with power poles and a -DC accessory plug (non-politically correct - Cigarette lighter plug), 3) Put a TNC to SO238 adapter on them, 4) Get an antenna for each – possibly a mobile and a base, 5) if possible find AC power supplies.

Right now I have one unit with the programming done, the TNC's, and the DC cabling done and I have laminated cards with the programming information for them. I have one mobile antenna I need to check and possibly repair the cable and it can go out as a mobile. I may have a power supply for it.

So what is next? I am looking for a couple of mag mounts that I can repair and replace the whip if necessary. I have a couple mounts and whips to get together but need a couple more. If you have such around, I will work to repair them and get them on line. I have enough 300 ohm twinlead and some RG-58 I am retiring to make up some twinlead j-poles or maybe some ladder line ones. That is just some time.

The last item is to see if I can find a couple power supplies. I think they are less than 15 amps, I need to check the actual drain on them. If anyone is tripping over some antennas or power supplies and wants to either contribute them or maybe sell for a few bucks, contact K3HQI.

Ralph Brandt

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
$20.00 annually & one time $5.00 Application fee

Family → Sponsoring members call: _____
Privileges same as Full membership
$5.00 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

QCWA 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: _____