



CHEESE BITS

W3CCX
CLUB MEMORIAL CALL

ARRL
Affiliated
Club



Volume LVI

November 2015

Number 11

PREZ SEZ:

Now that we're coming into November and we have some above normal temperatures to look forward to, how can we take advantage of this gift? I have several projects to

complete, and plan to take advantage of this anomaly. At the same time we need to prepare for the cold weather. Who knows when the first snow and freezing will take place?

The Mid Atlantic VHF Conference was one for the memory books. It was a friendly and cozy event that went by all too quickly. We even had a fun time on Sunday morning with the tailgate event which was better than the year before. A good trend.

The speakers all gave us a lot to think about and plan for our next adventure in radio. Ironically, I have a member friend who doesn't come to the conference for that very reason. He already has so many projects lined up that he doesn't want to gather new ideas until he's caught up with the ones already in the oven! Somehow I understand, only to the extent that I too have a lifetime of projects stacked up, but I still want to keep up on what other possibilities are on the horizon.

The latest technology always piques my interest, and so, in keeping with that theme, the week following our conference I was off to Chicago for the annual ARRL/TAPR Digital Communications Conference. There I found an exciting array of presentations on the latest in Software Defined technologies. The proceedings are available from the ARRL.

While I was at the DCC in Chicago I missed the final Fall Sprint, the uW sprint. But I did manage to put almost a full four hours into the 432 sprint that took place on the seventh of October. During that Sprint there were some new grids floating around that sure made it interesting. Using the spotting network I was calling someone who was spotted and while calling in their direction, worked a new grid beyond in EM78. Not bad for 432. And while at it I found a station in EN74 and FM02, both over 500 miles away. **Sprints are fun. Stay tuned for the Spring Sprint schedule.**

Our October meeting was a particularly casual and intense one at the same time. While some folks were seeking out the last few 1/10 db of noise reduction in their preamp and tuning antennas, or mapping a filter; others were enjoying the time to catch up on what's been happening. It was a fun meeting.

In the Prez Sez of the September issue I alluded to work that needed to be completed on my indoor shed situated at the foot of the rotating tower; that work is nearing completion, but not only has it taken a lot of energy to complete, it also has kept me off the air on quite a few bands as I move gear to get construction work access. I will be so glad when it's all done and the RF once again is flowing freely from the station.

The low bands were not affected by this construction and I managed to break a million points on the recent CQ WW DX competition. That is important only in the fact that it was the SSB edition of the WW DX contests this year; **you still have the**

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PACKRAT BEACONS - W3CCX/B

FM29jw Philadelphia, PA
50.080 144.284 222.064 432.286 903.072 1296.245 MHz
2304.043 3456.207 5763.196 10,368.062 MHz (as of 1/08)

MONDAY / TUESDAY NIGHT NETS

VHF/UHF Monday:

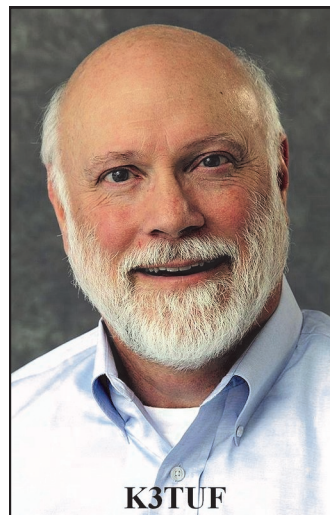
<u>TIME</u>	<u>FREQUENCY</u>	<u>NET CONTROL</u>
7:30 PM	50.145 MHz	N3RG FM29ki, WA3QPX FM29di
8:00 PM	144.150 MHz	N3ITT FN20kl
8:30 PM	222.125 MHz	KB1JEY FN20je
8:30 PM	224.58R MHz	W3GXB FN20jm
9:00 PM	432.110 MHz	WB2RVX FM29mt

Microwave Tuesday:

7:30—8:30PM Coordinate QSO's on 144.260 with net controllers, for all Microwave bands you'd like to work. Also setup Q's at w4dex.com/uhfqso

Visit the Mt Airy VHF Radio Club at: www.packratvhf.com or www.w3ccx.com

opportunity to brush up on your CW skills in preparation for our big January event by getting on the air with your long wire or other low band antenna and participate during the weekend after Thanksgiving. Get on and get ready to listen for the weak (cw) ones in January. Make sure you have a key or keyer attached to your IF rigs for the contest. I don't want to hear: "I don't have a key" this year in the contest.



I am looking forward to hearing about the latest in broadband delivery technologies at our regular November meeting on the 19th when WA3NUF will be presenting. Come prepared to be impressed and come early to join the crowd at Giuseppe's before every meeting just across the parking lot from the meeting place.

Keep your calendar clear for mid April when we will all be traveling to the DC area for the **years largest and only VHF and above Conference**; see vhfsuperconference.com for more information.

I want to wish you and your family a Happy Thanksgiving this month. We are all extremely thankful for the spectrum that we've been granted an for the opportunity to utilize it and have fun communicating. Lets work on lots of those bands,

Happy Thanksgiving!

Phil, K3TUF

2015 Mid-Atlantic States VHF Conference

With presentations as diverse as VHF and microwave roving in rare grids to updates on WSJT-X VHF features and enhance computerization functions of your station, the conference was a learning experience for every attendee. The conference, technology testing and hospitality rooms were busy on the weekend of October 2nd and 3rd for this annual VHF conference, sponsored by the Mt. Airy VHF Radio Club. The weekend started off with an evening of hospitality and camaraderie, with lots of interesting radio parts, amplifiers, power supplies and antennas for sale. Travelers from a dozen states attended, including regulars such as W5XY from Alabama. The Holiday Inn- Bensalem-Philadelphia has been the site for this conference for several years and accommodates the attendees needs well.



Saturday morning presentations started with a welcome from the ARRL Atlantic Division Director, Tom Abernathy, W3TOM and Packrat president Phil Theis K3TUF. Morning presentations from club members and guest speakers included topics on VHF roving, receiving TV signals from microwave satellites, building and using a scalar network analyzer, Doppler issues in EME communication, and the use of Open HPSDR for operating a multiband VHF-UHF-microwave station. Greg Bonaguide, WA1VUG, ran the technology testing room all day with a table full of his Rohde & Schwarz gear. Attendees got to test all sorts of parameters of their gear with this

excellent equipment.

Attendees were treated to a mid-morning coffee break and a pizza lunch, along with auctions that punctuated the presentations. These auctions are a regular feature of the conference and bring many interesting, unique and useful items to the attendees. Auctioneer K3JJZ makes the bidding fast and fun.

The afternoon program highlighted newer features of the WSJT-X VHF communications programs, presented by Joe Taylor K1JT. We also heard about one of the largest amateur 6m stations, the design and build of 10MHz frequency standards, the use of SDR for noise reduction, station computer controls, and RF safety. At 5:30PM the group adjourned and prepared for the banquet dinner and door prizes.

The buffet banquet was well attended with Packrat stylus pens given to each attendee. Following the dinner, KD3RF showed pictures and video of the well prepared ARISS activity contact between hams and students at Council Rock High School and the astronauts in the International Space Station. The door prize drawings got started and many of the donated top prizes included a Yaesu FTM-400DR, gift certificates from VHF antenna and radio manufacturers and useful parts, tools and logo items from electronics manufacturers.

Thanks to all the club members who had a role in making this conference a success. There was planning and publicity, website and advance registration, purchase and set-up of hospitality, speakers and papers for the proceedings, buyers and sellers, audio-visual technicians, auctioneer and donors of auction and door-prize items.

Sunday morning had us outdoors for a bit of tailgating, and despite the few sellers, there was a lot of buying and horse-trading. **The Packrats will be joining with the Northeast Weak Signal Radio Club and the Southeastern VHF Radio Club to co-host a VHF Super conference in the Holiday Inn Washington-Dulles-International Airport on April 15-17, 2016 for the entire VHF amateur radio community.** Check out the conference website at <http://vhfsuperconference.com/>

Submitted by **Rick Rosen**, K1DS, Conference chairperson rick1ds@hotmail.com pix by K1DS



Pictures & Comments on the Packrats 2015 VHF Conference



"Thanks to Rick and Phil for organizing such a great conference. Everything ran as smooth as a clock. I enjoyed the papers and seeing friends that some go back about 50 years. Great job to all the helpers as well. --Walt K3BPP"

"A great opportunity to meet others with similar interests, have eyeball QSOs with old friends, and keep up to date with the newest techniques for UHF and weak signal work. The conference team made everything run smoothly, and we reaped the rewards of their hard work. -- Bert K3IUW"





Michael with some new friends from Drexel



“Thanks to all who worked in this years conference. Neil and I enjoyed it very much. We learned a lot and met some very nice people. Got great advice on improving my shack. Always looking to improve my signals. See you all soon. Hear you all sooner. 73, Michelle KB3MTW”



“Thanks and Kudos to Rick, Phil, Paul, Elliott and everyone who helped to give us such a great conference! It was a wonderful weekend, and I really enjoyed it very much. And it didn't rain Sunday for the flea market! --Roger W3SZ”

Vendor tables were FULL!



Plenty of Pizza for lunch





Some auctioned items went for remarkably low prices. Congrats to the winners & many thanks for EI, K3JJZ for providing the auction services & the comedy



"As a Packrat and someone who has been involved in many conferences, I want to congratulate and thank you on a job very well done! You should feel very proud. You produced a really great conference!
Thank you, AI - K2UYH"



Thanks to Greg WA1VUG and to Rohde & Schwarz for the testing services at the conference. The equipment was used long and well.

Tnx to K3JJZ / K1DS for ~ 100 pix to chose these examples
--W2BVH

SARAH KB3BBR WEDDING

Here are some snaps from the wedding of Packrat Sarah, KB3BBR to Leo Simkin on October 11 at Wayne Art Centre, Wayne PA. Sarah's comment to WA3EHD on the pictures : "Gee we look like quite a civilized bunch".

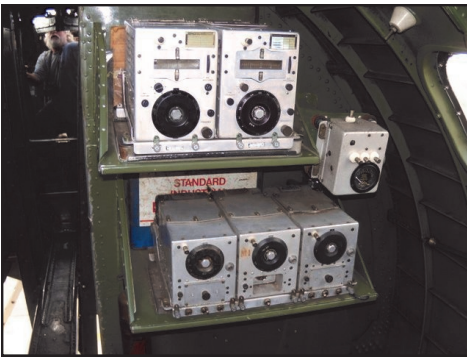


W.W.II Radios In Their Original Setting

Following the October VHF Conference, three warbirds flew into the Chester Airport and were on display and also available for flights. I headed down there on a bright Thursday and spent a few hours taking pictures, checking out the planes and chatting with other visitors, including some WWII veterans who had flown similar models during the war. They came with their scrapbooks and pictures and some of the artifacts from their service.

As a retired USAF Medical Corps Captain, and son of a WWII Army veteran, I have always been interested in WWII history and especially a fan of aviation related events and activity.

The Collings Foundation is a non-profit, Educational Foundation (501c-3), founded in 1979. The purpose of the Foundation is to organize and support "living history" events and the preservation, exhibition and interaction of historical artifacts that enable Americans to learn more about their heritage through direct participation. Since 1989, a major focus of the Foundation has been the "Wings of Freedom Tour" of WWII aircraft. This tour showcases two fully restored bomber aircraft: a B-24 Liberator and B-17 Flying Fortress. The newest addition to the Wings of Freedom Tour is a WWII P-51C Mustang dual-control fighter aircraft.



I paid my \$12 admission to the field where the planes were parked. The P51 was roped off and one could only take pictures of it and not climb into the cockpit. Thirty minute rides were available, but real pricey as you can imagine. The B25J had its belly hatches open, but the ladders were covered, so the most you could do was stick your head up in the hatches to get a look around. The B17 was fully open for walking through, except for the nose gunner and cockpit pilot and copilot seats. You could start up the ladder that led to the cockpit and stand in the top gunners bubble. Then you could traverse the rail through the bomb bay area to the radio "room" where several vintage ARC-5 transmitters and receivers

with their dynamotors were placed. I remember buying these as a novice licensee back in the late '50's for \$3 per transmitter and \$5 per receiver on Radio Row in lower Manhattan. Tubes for the

transmitter were a quarter each for the 1625's. The high power transmitter and tuning units were also on display. The radio operator had a sparse setting, but adequate for his responsibilities. The gunner positions were certainly more cramped. Those positions have had plywood and cushion seats placed for passengers willing to pay the fee for a 30 minute flight in this flying antique. The wire antennas were in place for show, as I think that flights today are managed on more modern radio gear. It was a pleasant visit and a reminder to me that we live in a great country and enjoy our freedoms www.collingsfoundation.org/ 73, Rick, K1DS



Note: Add'l hi res pix available from the editor. lennyw@comcast.net

Installing and Using WSJT-x On A Flex 6000

By John A Jaminet, W3HMS

Background

I have often used WSJT-x by K1JT on HF and especially on 14.076 MHz using conventional radios like the IC 756P3, FT 857, FT 817, etc., each with a Signal Link USB interface unit and a PC running Windows 8.1 or prior versions.

It seemed desirable to install it on my Flex 6300 using DAX as FLEX suggests thus negating the need for a SL-USB or similar with the attendant cost, space need, and more wires!

To augment, the Flex Users Manual information, I used the fine article by Steve, N5AC on getting a Flex 6000 on WSJT-X. I also used the YouTube video on setting up the Flex 6000 to use FLDIGI by N4LQ as well as conversations and emails with Tim and Dudley at Flex.

My PC, Flex and software Environment

Let's assume your FLEX 6000 (my case 6300) is ready to go on the air in SSB on Slice A (top) receive. We also assume Slice A has TX on and the Yellow line is on and the 6000 is connected to an antenna, using 0 watts, or a dummy load is connected.

We assume as well that you have WSJT-x installed and have made some QSOs on conventional rigs with it and know how to use it.

My FLEX software is version 1.14.11 as are the Tech Manuals. The WSJT-x version is 1.3.

The steps:

1. Put Slice receivers A (Main) on top and B, second from top, both on 14.076 MHz in mode DIGU which is on the tab with other modes. Set the IF bandwidth at 5 KHz in slice receiver A and in B. Then click DAX on slice receiver A then DAX channel 1 just below the slice window. We all use USB with other radios but DIGU works better with the Flex 6000. The DAX tab on the band select screen can be ignored.

2. Bring up the DAX Control Panel by clicking at

the bottom right of the screen close to the Date and Time. You will see a screen with a top left box labeled 1 which should be blue. If its not blue, press to make it blue. Right beside the blue box is a TX box which should be Red, if not, left click to make it red. When working, there will be a Red audio line at the left side of the screen that shows audio is going into the 6000. At the right is the TX window, and when ready, you will see a Red line there which indicates that tones are flowing to the XMT side of the 6000.

3. Open the Audio Panel on the right side of the 6300 and click on DAX till it is Blue.

4. Shrink the 6300 screen at the top right small window control then slide it to the right.

5. Activate WSJT-x as normal. You should hear the WSJT-X sounds on the frequency and soon see decodes as you would expect on a regular rig with an interface unit like the SL-USB or other.

6. In WSJT-x, open the CONFIGURATION window. Put in your call sign and 6 digit grid square. Then set other data blocks as follows:
PTT Method=CAT
CW ID interval=0
Enable CAT...check it
Rig...click yours if listed otherwise use "Kenwood TS-480"
CAT PORT=COM 5
Serial rate=4800 ;Handshake=None;
MIC=checked ;Data bits=8; Stop bits=2
Test PTT= highlight it.
Polling Interval=0
Audio In=DAX Audio RX 1 (DAX RX Audio) Mono
Audio Out=DAX Audio TX 1 (DAX TX Audio) Mono

Save Directory...as cited.... or as you may use.

For items not noted, leave blank except make your choice as desired on "Enable PSK Reporter" and "CW ID after 73"

Then click OK and **hope you do NOT see a pop-up panel that says "Open Rig Failed"**. If you do see this panel, recheck everything before and after this point and retry.

When correct, it will work!!

7. Set the FLEX 6000 filter to 5 KHz bandwidth to preclude blocking of JT-9 signals. This was noted above.

8. You will find the Smart SDR Cat panel by other icons below the main screen on the Task Bar. You will see it in paragraph 3.2.1 of the Smart SDR Cat manual.

9. Click on "MAIN" panel and see a line with your radio cited by model number, serial number and IP address. I changed the COMPORT to 5. Next, click on the next panel called "Serial Ports" and use the ports shown. **After discussion with Flex Engineer Dudley**, I added the following pairs in the right hand panel: 4 -14 dedicated, 6-16 PTT and 7-17 shared. The paired ports concept is discussed in the Smart SDR CAT TM paragraph near 3.2.2. The above ports work for me.

10. Go to the next panel called "Port Map" with a green border. Make no changes now. Click HIDE (only) to leave these panels.

11. Bring up JT- again and **check the PC time** with a cell phone, WWV or a time program like Dimensions to ensure a time accuracy for JT-x of 1 -2 seconds or better.

12. In the DAX Control Panel, set the transmit audio with the TX Gain Slider to just below the 0 dB point which is on the far right side of the right – hand TRANSMIT meter.

13. If you have decodes in receive, then you are ready to select EVEN or ODD time period then click "Transmit On" and call CQ . The timing should work with a signal-out starting at the top of the minute and stopping at 47 seconds. If that works well, then set the power level to a few watts but no more than 40 watts thus 40% of maximum power since WSJT is a 100% duty cycle mode. Now call CQ "for real" watching the SWR/Power meter to ensure power is actually being transmitted.

14. When it all works, record each panel by CNTL/ PRTSC, photographing the screen, or recording the data by PC or pen for the day when the software switches, (unlike AC wall switches) will fail!!

Screen Photos. The screen photos show the Flex 6300 on the right and the WSJT-X program on the left. The red lines in the WSJT-X side show a call to me from EA4DKJ in Spain and then the other text lines of the QSO on 14.076 on 8 Sep 15. It is easy to reduce the FLEX screen to half size then activate and use the JTX program to make QSOs. The photos are not as clear as I would like but the dual functions of radio and data program are quite evident.



Using your Flex 6000 and WSJT-X after initial installation.

To preclude it being only a short-lived victory when doing the above, I checked the radio and programs after about two days to see how easy it would be to get on the air from a cold start. The following steps were taken.

Flex fully activated and ready for on the air QSOs in JT-x.

Reduced Flex screen and activated WSJT-X.

Noted Slice A still showing DIGU. Clicked DAX till blue.

Saw multi -line decodes.

Made QSOs with HA5, OK3, LY, DL, PA ,SP3 and many others.

Concluded it was working!!!

73, John, W3HMS

Dish Aiming: The Inexpensive Solution

During my first attempt to make EME CW QSOs on 2304MHz last month, I found that tracking the moon was far more difficult with my manual set-up. The Yaesu 800 rotor controller has a wide needle on the display and there are only markings every 5 degrees. I asked several of my favorite Elmers for suggestions, many of them pointing to various software programs and digital encoders. Considering my limited EME activities and the portable set-up, plus the relative complexities of resetting positioning with each dish erection, I took the more cost effective solution: a camera focused on a compass rose wheel. This was used by many EME ops prior to the availability of computerized auto-tracking programs and reasonably priced digital encoders (in the few hundred dollar range).

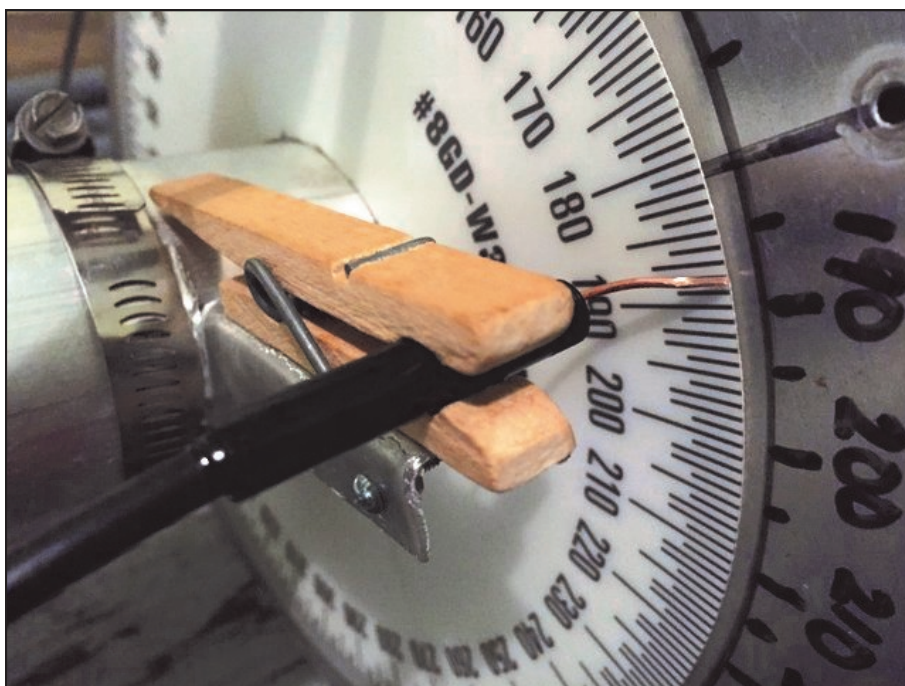
Heading to eBay, there are dozens of sellers of endoscopic cameras with USB output and a nice long USB cable. Prices were less than \$10 for shorter cables--I took the 7 meter cable, and with free shipping it was less than \$13. It has 6 intensity adjustable LED lights in front of the camera to illuminate the target and it focuses down nicely to within a few inches. A CD program is supplied also to make it compatible with Windows 7.

As I waited for the camera to arrive, I located a compass rose wheel that was 8" in diameter and marked in 1 degree increments. I can use this if it is placed inverted on the mast shaft with the camera aimed upward. I downloaded a reverse compass rose wheel from the web that had 10 degree markings and I interpolated the 5 degree and then the 1 degree markings and printed a copy on cardboard stock to be laminated. I may use that in the upright configuration with the camera pointing down.

It took a week for the item to arrive. I put the disc in the drive, loaded the program and plugged in the USB camera and I took my first picture of the compass rose wheel. In operation, the video will remain on and I'll have a pointer to indicate azimuth. It looks like I can get almost 0.5 degree accuracy.

The camera itself is only 0.7cm in diameter and 4 cm long. It comes with a detachable hood and also a 45 degree mirror for true endoscopic activity and looking in various places that you'd otherwise be unable to see. It's not medical quality, but perfect for my dish aiming needs. I already have a digital readout for elevation, having mounted the sensor of a digital level remote from the dish. John W3HMS reminds me that he uses a small camera and a mechanical pointer level for his elevation readouts with his dish.

This small improvement will hopefully yield greater results in the next ARRL EME Contest weekends. 73, Rick, K1DS



I made a small bracket out of scrap aluminum and attached a spring clothespin to it with a small screw and nut. A piece of copper wire was filed to a fairly flat point and this was added to the bracket as the pointer for the azimuth dial. The "endoscopic" USB mini-camera from eBay is then clipped into the clothespin and plugged into the computer for a picture of the azimuth reading. When I set this up outdoors, I align the dish and feed to the sun and adjust the compass rose to the correct position, using the astronomical data from the WSJT program. It was a cheap and easy solution to improved dish aiming, especially on 2304 MHz.

LEAVING THE EASTERN SHORE OF MARYLAND

There is this joke, that a pastor goes to a pay phone in California and wants to call the Lord. The operator says, "that will be \$50,000 for a 5 minute call". The pastor moves east to Ohio and does the same thing. The operator says, "\$10,000 for a five minute call". Then the pastor moves to the eastern shore of Maryland and does the same thing, The operator says, "\$1.00 for a 5 minute call". The pastor is shocked and asks the operator, "why so low", and the operator says, "because it is a local call!!".

George Fazio, WB3IGR, first became a Packrat in Abington Pennsylvania, but then realized there might be a better places to live, so 16 years ago, he moved to Easton Maryland. George's son lives in the Lebanon area of Pennsylvania, FN10. Of course grandparents want to be close to grand children, so back they go to Pennsylvania.

George generously donated lots of items to the club. George had a 45 foot tower populated with 432, 222,144 and 50 MHz beams as well as a multi-band vertical for 146 and 440. George is 68 years old and not interested in tower climbing so he put out the call to the Pack Rats to get support to take down the antennas and tower. Rick K1DS put together a plan and a schedule.

At 9:30am, Wednesday, October 14, 2015, Phil, K3TUF, Rick, K1DS and Walt K3BPP showed up, and found Wayde, K3MF already there working away. Wayde started the operation by putting up the gin pole to take down the antennas. All that went smooth. Then on to the top tower section where I anticipated this to be a real challenge, never having seen a gin



pole in operation. Usually the tower legs want to stick together. With some wiggling and Phil pulling on the gin pole rope the top section came loose. The next step was to lower the guy wires below the joint of the next section. Since this section was a little more cranky, we stopped for lunch **before we all became cranky!!!** Thanks to George and his wife Kathy, we had perfectly grilled burgers, delicious potato and macaroni salad. The lunch time discussion came up with ways to free up the tower sections. Since we did not have the new high quality tower jack from the conference, a bottle jack and various pieces of 2X4's created an effective tower jack that separated the tower sections effectively. Wayde took a break and Phil took over the tower work. Work on the tower resulted in a idea for a new product. That would be a ¼" thick aluminum plate that has the outline of a Dr. Scholls insert. Wayde said that his feet felt like he was a bird hanging onto a branch after being up on the tower for considerably longer than an hour. The bottom section of the tower, was a 5 foot section cemented into



the ground. Doctor Phil to the rescue with his cordless water cooled blade "Saws All" to cut off the legs 2 inches below the ground level. A few of the other antennas on the house were rearranged. Everything got loaded up and the operation was completed about 2:30 pm.

Best Regards, Walt K3BPP

Tnx K3BPP & K1DS for pix

EME Weekend

Spent several days getting the 1296 equipment "up to snuff" including adding another W6PQL amplifier to the mix for 230 watts output. It paid off with 21 JT contacts. Some worked countries included Bulgaria, Russia, Czech, Switzerland, and Japan. Still tired from staying up all night. Will write more for Cheese Bits in the future. Congrats to other participants. What fun.

Paul WA3GFZ

Hi Paul, Rick, and all,

Congratulations on your excellent EME successes on 1296 over the weekend! On the 2-meter side: I was able to get on for only about three hours, on Saturday morning. Had fun working 22 stations.

Joe, K1JT

I was only able to get on Friday night. The moon was spotted around 11 pm from here in Bear Creek and the fun began. This is the first time I had everything fired up, working well, and ready to go. That's the good news. I started on 144 MHz and had some nice steady contacts. During the first few hours I worked around 15 stations. I figured I would switch over to 432 MHz and see what was going on. Immediately, I saw some birdies that could not be explained. On my JT waterfall it was very difficult to find a decent frequency to call CQ. I was rewarded with a few nice contacts, but the birdies were brutal. Onward to 1296. I got the 12 foot dish aimed at the moon and called CQ. My first call was from RA3AUB and then the run continued. I even had the PJ7/PE1L station give me a call. I worked about 8 stations and started noticing my transmissions were not jiving with other stations. It turns out, my battery was going bad in the computer. Not only did I have clock trouble but the JT65 program was doing some weird jumps.

Being a bit disgusted, I went back to two meters and made a few more nice contacts, until Europe lost site of the moon. It continues to amaze me how dead things go, when EU's lose moon. I again tried 432 but the birdies were horrible.

My totals were as follows. 144 MHz was 22 contacts, 432 MHz was only 2 contacts. 1296 MHz gave me 11 Q's. Moral of the story, equipment wise, is this: I replaced the computer for 1296, that I should have done before the contest with a faster version. (I had no idea before the contest that the battery was going bad). The other thing was my new 432 MHz video driver. We have a camera on the azimuth compass and a small monitor. On Sunday I found out **the monitor was throwing out enough energy, that I could have drove my 8938 with it.** That sucker is getting smashed to bits.

So a total of 35 contacts. I operated only one evening, but should have had tons more Q's. I will play catch-up the next leg of the contest. That's it from Bear Creek.

Herb at WA2FGK

I had a great weekend result using 1296MHz CW with 28 QSO's in the log. We were away for the week prior to the contest and I had some time to get the trailer out and the dish and feed set up during the day. I set up the radio and amplifier in the evening and was ready a few hours before I could effectively point my 10' dish at the moon as the local trees were still covered with leaves until the moon was at about 30° elevation. I was able to work F5SE/P while the moon was visible through the trees. His big **10.5 meter dish and KW signal is fantastic.** As the temperature dropped steadily through the night, I managed to make another 7 contacts, logging OK1CS, SP6JLW, OK2DL, K2UYH, I5MPK, W6YX and OZ4MM. Things got quiet by 3AM and I caught a few hours of sleep, waking to see if I could try to work anyone on moonset, but again, the trees were blocking my intention.

Saturday night was Halloween, and the trailer stayed illuminated in my cul-de-sac. We only had a few trick-or-treaters come by, but all of them asked what was going on with the trailer, tower and dish. I was happy to give them a short description of using it to aim and send microwave signals to the moon to communicate with other amateur operators around the world. It was great to see the expressions on their faces and their response, "Cool!" If I can find them again, perhaps we'll have some new young ham prospects. Moon rise was an hour later on Saturday and my first contact as the moon cleared the trees was almost at 1AM with OK1CA. Over the next 6 hours, I added another 19 contacts on CW, all random—with me answering some CQ calls and others responding to my CQs or tail-ending another contact. I worked SP7DCS, OK2DL (dupe), I1NDP, SM4IVE, DL3EBJ, OE5JFL, SM7FWZ, RA3EC, LZ2US, WB2BYP, ON5RR, G4CCH, PI9CAM, S53MM, HB9Q, G3LTF, WA6PY, W6YX (dupe) and WA9FWD. Seven of the stations were new initials, bringing me up to a total of 33 initial CW contacts on 1296. I found that **I was able to hear and work several other stations with a 10' dish and 200W, a set-up similar to mine.** It was a lot easier sitting out beside the trailer to operate as the night temperatures dipped only into the 40's. I got three hours of sleep and awoke to try my luck again at moon set for some JA contacts, but the band was quiet. I had the rigs and gear stowed, the dish petals taken down and stored, and the trailer back up in garage by noon.

... cont'd p.15

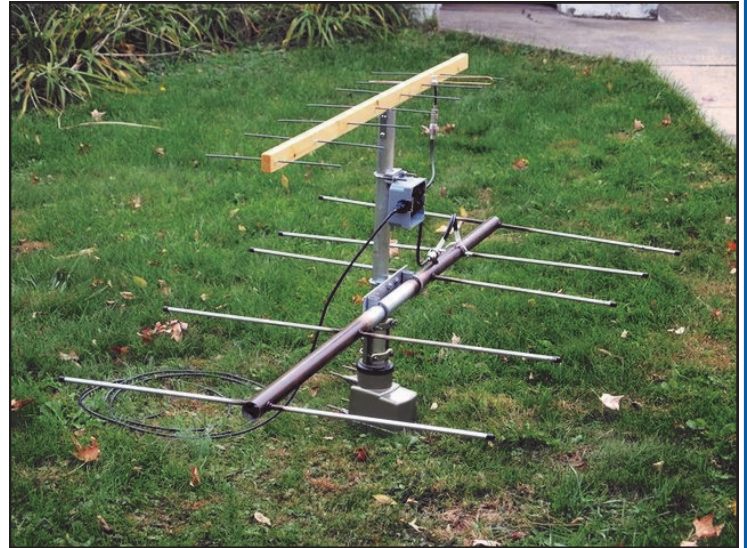
WA3QPX Dish

Hi Lenny, Working on my 12 foot dish being configured for 1296 EME. Had problem with Alpha-Spid Big Ras2 and Rot2Prog controller. Controller would indicate 90 degrees but dish was only pointing 45 degrees in both Elevation and Azimuth. Problem was in controller. I changed the pointing accuracy from 1 degree to .5 degrees. Works fine now. Maybe this should be passed along.
73, Paul, WA3QPX



Antenna Progress At K3HUW

Here is a photo of my home built beams. I finally managed to get something up for 2m / 70 cm. The 432 antenna is a WA5VJB design "Cheap Yagi", and the 2m beam is built from DK7ZB dimensions.



After putting the antennas up on the side of my house, I tuned around and listened for beacons. I could hear the Packrats 432 beacon and it peaked up very nicely with the beam pointed south, so it seems that the 70cm antenna has a decent pattern, and some gain. However, I expected to hear the Packrats 2m beacon with the same beam heading, but couldn't hear anything. I did hear very faint CW slightly off frequency, and at beam heading of SW. I assumed that the antenna was not properly built, and I was getting a very distorted pattern with little or no gain. Not even sufficient to pick up the packrats beacon. However, the next day I heard the CW again, but slightly stronger this time. I could copy "FM07" and "AMSL" which didn't make sense. That grid square is down in Virginia? Finally, the third day I copied the beacons call of WA1ZMS and confirmed that I was copying the 7 kW ERP beacon at 4200 AMSL pointed towards Europe from Bedford, VA! So maybe the antenna works after all, but what is up with the packrats 2m beacon?

73, Marten K3HUW

PS - as an update, the 2m antenna does at least get RF out. I contacted WV2H in FM29 on 144.200 CW tonight (11/1/2015), 63.1 miles.

...EME Weekend cont'd from p.14

I am hoping to be able to operate the last EME contest weekend on 432MHz if the weather holds out. I want to try to do some WSJT contacts also. Considering my circumstances in a CCR restricted community, I have this portable set-up to contend with, and the best efficiency is to have the rigs on the trailer, close to the antennas, which has me sitting outside to operate. If anyone wants to volunteer to allow me to set up a more permanent antenna at your QTH, let me know. The rigs and amps and power supplies are very portable. I'll just need to make longer control cables.

73, Rick, K1DS

The Wayback Machine **In CHEESE BITS, 50** **Years Ago**

(Nibbles from November 1965. Vol. VIII
8)

de Bert, K3IUUV (*author's comments in italics*)

- **“Our Prez Sez”**. Prez K3GAS, Doc reported: 1. He just returned from the Penn-Jersey Club auction. Many Rats in attendance. Proceeds swelled their club treasury. (*Remember when we used to do that?*). 2. Plans in the making for code training sessions, run by W3CL, Harry. 3. November meeting speaker will be K3MAW. His topic: Moonbounce (*50 years ago!*). 4. Listen to the nets for the latest dope on the upcoming January contest.
- **Helen's typewriter**. Helen reported her typewriter had been repaired, and she included articles missing from last month in this month's edition (*8-sheets, 8-½ x 14, double-sided, 4-cents postage*).
- **Superconductivity**. Extracts from an article in the Philadelphia Inquirer described experiments by University of Pennsylvania physicists, based on the (*then*) 3-year old theory of Superconductivity. They assembled a so-called Tin-Sandwich (two layers of Tin (a Superconductor), separated by a layer of Tin Oxide (a non-conductor). Subjected to temperatures near absolute zero, they were able to validate a previous theory, and produce extremely short wave radiation.
- **Guidance, Simplified**. Member K3PXT, Carmen provided an

abbreviated description of how a missile guidance system functions (*while technically correct, the description reads like gobbledy gook, in my opinion!*).

- **The Amateur, and Arithmetic**. Carmen submitted another interesting article with the subject caption. He drew analogies between arithmetic terms, and the many aspects of Amateur Radio Operations. (*Although tongue-in-cheek, it makes for an interesting read. See it at W3CCX.com*).
- **Wavelength**. A nicely written technical article by W3EIF, Joe, explained the definitions and calculations involved in wavelength measurements. He also described velocity factor, and its use in coax cable applications. Still applicable today. (*Joe was our resident expert in antenna design matching harnesses and related details.*).
- **Technical**. A Regulated power supply design by W0IKQ detailed construction of a nominal 200-volt power supply. Intended for high-stability oscillators or similar applications. It used any of several common dual triodes, in a cathode follower configuration (*Back when men were men, tubes were tubes, and a transistor was a tantalizing new development.*).
- **Free Dues**. K3HWZ, “Grandpop” Bill, announced a new contest in which members could win free dues. The gist of it was to request member articles for Cheese Bits. At the end of each year, a vote to select the best article would give 1 year's free dues to the author. (***Good idea for Lenny to push?!!***)

- **ARRL Bulletin Nr. 28.** 10/7/65. Two new countries (St Peter, and St Paul Rocks) were added to the ARRL countries list. *(Small Islands belonging to Brazil, I admit I never heard of them. Google shows they are between Brazil and Africa, and are one of the few underwater mountain peaks to extend above the sea surface [non-volcanic]).*
- **ARRL Bulletin Nr. 29.** 10/15/65. Warned of the dangers of electrocution, by failure of bypass capacitors in the primary circuit of power supplies. It noted that a number of people died from this cause in recent years. An easy protection technique is to ensure all equipment chassis are tied to a common ground point.
- **Accident.** Club member W3OR, Alan *(the original, not the recent)* **fell from his tower** last week and was in critical condition in the hospital. *(Remember, Safety First.)*
- **Laser Rays Sold in Kits For Students.** Also from the Philadelphia Inquirer. Electro-Optical Systems of Pasadena, CA is selling laser kits to high school and college students. The company reported "Laser technology is still in its infancy, and is still too expensive for use in industry." The spokesman also said "The \$500 laser kits may help the Laser to achieve a breakthrough by their use in High School and College Laboratories." *(\$500. Now we buy them as Laser pointers for a buck!).*
- **Silent Keys.** The club lost two valued members in the last month. W3IBH, Charlie, and W3CFS, Ed. *(We regarded Charlie as Mr. Two Meters, for his proficiency on that band. He consistently bested all others on the band in the*

contests, and also operated a nice homebrew mobile 2-meter station. Ed was another good friend, affectionately referred to as "the old culvert stuffer", for his job in the Post Office!).

- **Code Class Announcement.** W3CL will conduct Morse Code Training classes, every Thursday evening, 7:00pm – 7:30pm on 50.2 (The "Club Frequency").
- **Swap & Shoppe.** The monthly column by W3ZRR, Ray included a full page of items from the estate of W3UMI. *(Willie was an early club member, joining in September 1956, four months after the club started.)* The list included one of the ubiquitous ARC-5 VFOs. Other listings included a TS-174 Frequency Meter *(same as the one I sold at the recent club auction)*, from W3ISN.
- **New Members.** W3CJU, Don, and K3VEQ, Joe.

As in previous editions, many "folksy" comments about members, their families, and activities were included in this edition of Cheese Bits. If interested, or for more detail on the above items, visit www.W3CCX.COM and read the full issue posted there by our Webmaster, Ron, W3RJW).



thirty, de K3IUU

Events

For inclusion, please direct event notices to the editor.

ARRL EME 50MHz - 1296 MHz Contest Round 2
November 28 - 29, 2015. Details at <http://www.arrl.org/eme-contest>

January VHF SS - Contest - January 30-February 1, 2016. Details to follow.

ARRL UHF Contest - August 5-6 2016. Details to follow

Mid-Atlantic States VHF Conference Proceedings Available

The Mid-Atlantic States VHF Conference Proceedings discs are still available for 2013, 2014 and 2015.

They are \$5 each, and can be picked up at the November club meeting at the Ben Wilson Center, or mailed to you for \$2 shipping for 1 disc, or \$3 shipping for 2-3 discs.

Please send order of what discs you want and send PayPal payment to club treasurer, W3KM@verizon.net

Discs will be shipped once payment is received.
TNX, Rick, K1DS

MANY MOON 'RATS

I recognize that EME has really caught on with the club members--aside from the stuff that was done with putting South America on 432MHz with HK1TL and the K1DY stuff, and some who have made an occasional EME contact (like WA3NUF working the Arecibo station on 432) we now have the following 'Rats on the moon, (although some may be temporarily off due to equipment and antenna issues): K2UYH (Al) K2LNS (Herb at WA2FGK) K1JT (Joe) K1DS (Rick) WA3GFZ (Paul) WA3QPX (Paul) WB2RVX (Mike) K3MF (Wayde) K3HMS (John) N3RG (Ray) W3SZ (Roger) K2TXB (Russ) N2UO (Marc) K3IB (Phil) and K3GNC (Jerome) **Did I miss anyone?** For those of you who operated and didn't report the ARRL EME contest, please send activity results to Lenny W2BVH (lennyw@comcast.net) for additional write-up in Cheese Bits. 73, Rick, K1DS

2016 East Coast Super VHF Conference Plans / Status

Will be on April 15th and 16th 2016. It looks to be a large one! More and more people are talking about attending.

There will be an Indoor vendor area.

Rooms will be \$79 plus tax for King and \$89 plus tax for Double.

The conference needs 230 room-nights – looks good.

So far the Conference fee looks to be just under \$100 per person. Many meals are included in this.

The cost of the Saturday night Banquet dinner is still to be decided.

The Packrats will not hold a Conference during 2016. Any profits made from the East Coast Super VHF Conference will be split amongst the 3 clubs involved. The Packrats have a hand in planning and manning the Super Conference.

2016 EME Conf Web Page

August 19-21, 2016. Venice Italy. Additional info will be added here as it becomes available.

<http://www.eme2016.org/>

--Info from Rick, K1DS

Reflow Oven Controller

As a follow-up to my recent article, here is another oven controller:

<http://www.reflowcontroller.com/index.php> Prices \$24.99 & up

I have no experience with this one, just passing it along.

73, Roger W3SZ

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Front Page News: W1SMS

Packrat Steve Simons made the front page of the "Danbury News-Times". See a great article and picture at <http://www.newstimes.com/news/article/New-technology-keys-ham-radio-revival-6589559.php#photo-8849050>



Rover Equipment Offer

I will be out of the country during the Jan 2016 contest weekend. I will be unable to operate my usual Rover station in the contest. First contest I will miss in over 50-years. The equipment is available, and advice can be given.

Bert, K3IUUV. (_ _)

Bsoltoff@comcast.net

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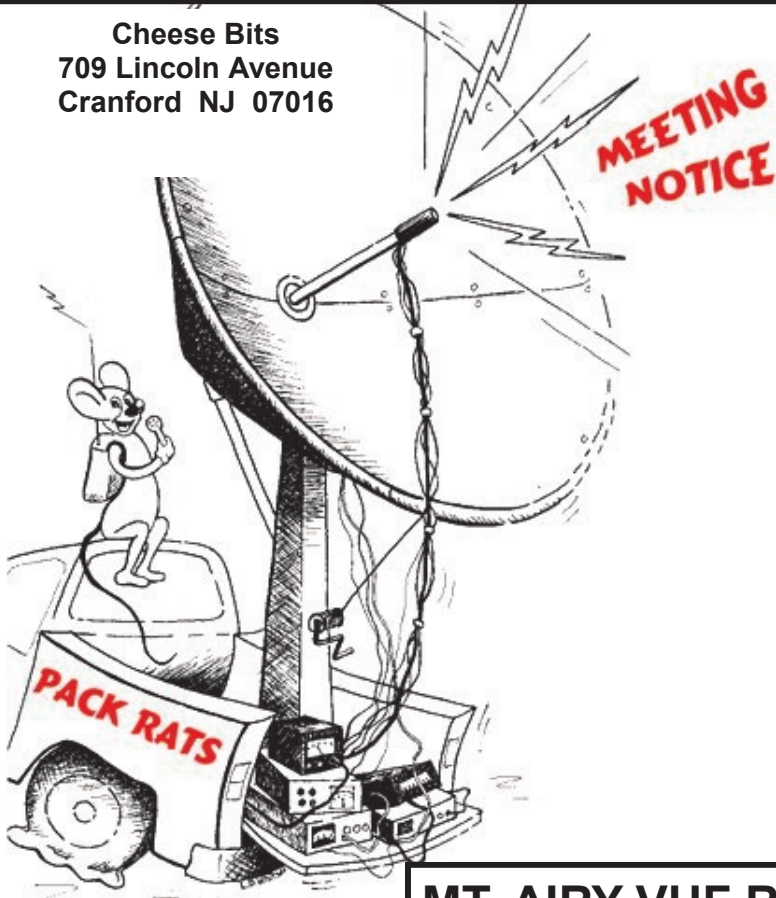
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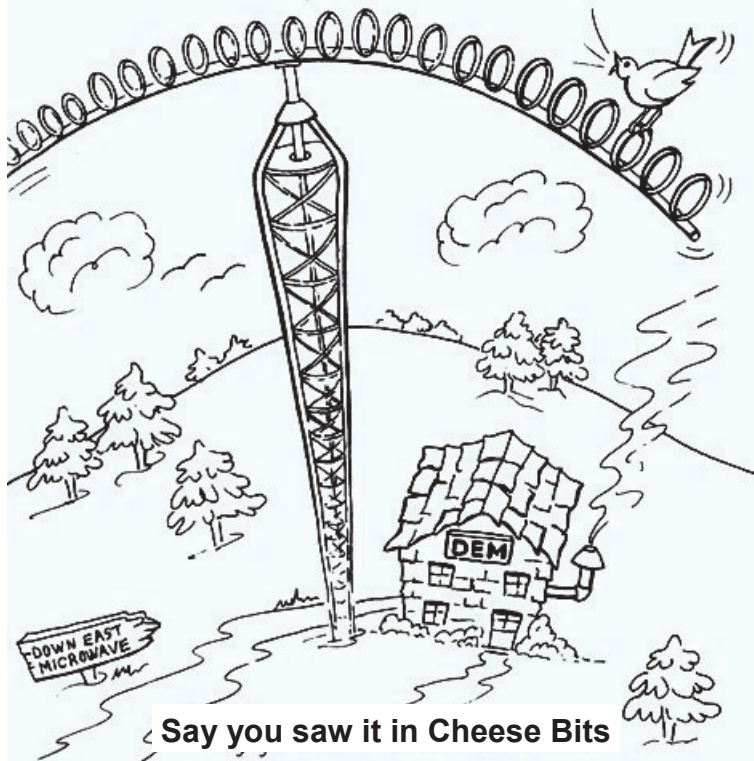
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