Mt. AIRY V.H.F. RADIO CLUB, INC.

CHEESE BITS

W3CCX
CLUB MEMORIAL CALL

ARRL Affiliated Club

Volume LIII | April 2012 | Number 4

PREZ SEZ:

It seems like it was just yesterday that I penned the last Prez Sez. Here it is time for another missive.

While the PACKRATS are primarily a VHF-and-up club, we do follow, and many of us participate, in HF activities. The latest happenings are changes in the rules for the use of the 60 meter band. With the 60 meter band being relatively low in usage it has become the focus of some VHF Rovers as a calling frequency to alert stations, like W3CCX on Camelback, that the rover has arrived at a new location or to coordinate activity running the bands. There'll be more about that usage as we get closer to June Contest.

Also of interest are proposals to rearrange the band plans for 2.3 GHz and 902/903 MHz. If the PACKRATS do not voice their opinions on the proposals they will be changed to the liking of interests of other than the weak signal enthusiasts.

If you have an interest in EMERGENCY COMMUNICATIONS there is an inquiry from the ARRL in response to a query from the FCC. Once again make your opinions known.

The nominating committee is still looking for a few good men or women to fill the open positions on the Board of Directors and the Executive Committee. If you are willing to commit to two evenings a month to the PACKRATS rather the just one evening at the monthly meeting, let K1DS, KB1JEY or W3GAD know of your willingness to serve in one of the many positions available. We have a slate but it would be something different to have an actual election in June rather than just an endorsement of those listed by the nominating committee.

April is also the swing into the spring operating season with the Spring Sprints which start on April 9th. The schedule and the rules have been circulated by K3EGE and some of the information has been published in Cheese Bits. The sprints use a distance based scoring system. The use of 6 digit grid squares is encouraged. I am planning to do the first three evenings but the microwave and 6 meter events will be lost to travel plans. I hope to work many of you in those brief-but-exciting evening contests.

April is also the month for our **ANNUAL AWARDS NIGHT**. We not only recognize your **CONTEST EFFORTS** and **HOMEBREW** accomplishments we also take time to honor some PACKRATS who have shown extraordinary efforts in helping the growth of the club and its members. We also have a special guest, **Sean Kutkzo**, KX9X.

Pack Rats **CHEESE BITS** is a monthly publication of the **Mt. AIRY VHF RADIO CLUB, INC. -**Southampton, PA.

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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 NIGHT NETS

TIME	FREQUENCY	NET CONTROL
7:30 PM	50.145 MHz	K3EOD FM29ll
		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
9:30 PM	1296.100 MHz	K3TUF FN10we
10:00 PM	903.125 MHz	OPEN

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

Sean is the Contest Branch Manager for the ARRL. This is a great time learn more about the operations in Newington and also to seek answers to some of your contesting questions. Remember the only stupid questions are the ones you don't ask.

For those who have been following the saga of my adventures in the City of Brotherly Love, I am mostly healed with a few residual issues that may never be completely resolved. The "Kind Gentlemen" are still on the streets continuing to present their special welcome to all unwary with too little interference from the authorities. Fortunately I am able to function and continue to participate in my various activities, including amateur radio.

This is a season for thanks giving with Easter and Passover at hand. So give thanks for the sacrifices both these events represent, enjoy your families and amateur radio and …

73, DE DOC W3GAD AR K

Editors Column

For April we have a fine lead article by John, W3HMS on how he pieced together a very functional 1296 EME station. Also, at the risk of overwhelming your email client with a monster size document (in bytes) we have half a zillion pix from March's Packrat Ladies Night.

With no room to spare, coverage of the March meeting's Hombrew Night is being deferred to the next issue.

Also, the transverter / amplifier sequencer I entered in homebrew night generated multiple requests to document it in Cheese Bits. I hope to have a brief article later this year (if I can find the hand drawn schematics down in the dungeon (err basement)).

Enjoy this issue! 73, Lenny W2BVH

Planning and Implementing Your 23 cm EME Station

By John Jaminet W3HMS

THANKS to John for doing this interesting, practical write-up of 1296 EME. He sent the text of this article to Cheese Bits back in December 2011, but articles with time-value pushed its publication out to this issue, April 2012. In the interim it was published in the March 2012 issue of Scatterpoint. —W2BVH

Background.
This is an elaboration of a Power Point Presentation on my 23 cm, 3 meter dish station. It was presented at the Microwave Update (MUD) in Enfield, CT on 14 October 2011. The .PPT file will be attached to any EMAIL request for it. The informal title was: "How a senior citizen business major built a 23 cm EME station on a standard city lot."

Operator Resume
John Jaminet, W3HMS, licensed 1951, Advanced Class since 1967, worked 1.8-47,000 Mhz. VHF,UHF microwave Rover since 1999, VUCC 10 Ghz in 2002, VUCC 1296 MHz in 2010, EME QSO #1 in August 2008, EME QSOs as of Dec 2011 are 265 with 82 initials and 23 DX.

Overview
The first question any would-be EMEer has is no doubt "What band"? My own views centered on the two most popular bands, 2 meters and 1296 MHz. Two meters has the advantage of having so much gear readily available commercially at popular prices but a size disadvantage in the sense of requiring large Yagis and power if one wants to work CW. If one is happy with only WSJT, then power and a very large array are nice but not needed. Some hams make QSOs with the big stations with a single Yagi and 100 watts or so. 1296 MHz offers high gain relative to 2 meters even with a small dish of 3 meters (10 ft.) and 120 watts, or even less, for CW with the big stations and WSJT QSOs with stations of 2.3 meters and 80 watts.
My personal choice was 1296 MHz because I had a 10 ft dish in place since 1992 for C Band satellite reception. After the C band was replaced by a KU band Dishnet setup, the 10 ft dish just cried out to be used. Mine is a standard city lot, so a most-desired larger dish was just not feasible. Thus, I started planning in 2006 for 1296 MHz EME . I simultaneously placed an order for an LNA, transverter , and linear of about 120 watts and commenced work to change my 3m/10 ft dish to Azimuth (AZ) and Elevation (EL) rotation. One of the drawbacks of dish based EME is the need to convert a dish like mine from a polar to an AZ/EL mount. Some EME stations now use a polar mount per an excellent article by Dale, W4OP available from EME Web sites.

EME QSO Types
Like other bands and modes, EME QSOs can be random, resulting from a CQ by one of the stations

or prearranged by letter, EMAIL, phone, or logger. The logger is a vehicle not often used by earth mode stations as it uses the Internet to let all stations signed on to the logger see what is written by others. Thus some QSOs are scheduled for immediate action literally within seconds as the operator may ask for example, that PA1ABC meet him on 1296.065 in JT65C and that he, PA1ABC, would please transmit first. Now it must be stated that some operators dislike WSJT data modes and prefer only CW. Sometimes their comments could be termed “suboptimal” in terms of winning friends (HI!!).

For myself, I take the view that I will be happy to try and work a station in CW or JT65C in the manner the other station prefers, i.e. with or without being prescheduled. As a small dish user, I do prefer JT65C myself simply because it is much easier than CW. Among my QSOs are about 37 in CW; all were enjoyable and virtually all were difficult. As to moon schedules, programs like **NOVA** and **GM4JJJ Moonsked** give predictions for a given path, eg. W3HMS to JA1XYZ. Programs like F1EHN’s and WSJT give tracking info. One key schedule concern is not too technical: is the other guy at work, asleep or able to be on the air! It is nice to see the moon but it is not necessary.

Planning the Dish rotation and position indicators.

Working with Charlie, K3VDB and his son Dan, we determined the mechanical dish work necessary for the AZ rotation and Dan used his welding skills for the gear work to permit drive by a Yaesu G-800S. Although the AZ indicator of the G-800S was broken, we did not intend to use it anyway and settled on a large reverse indicating compass rose made by Frank Ulrich of UBR Industries near Mechanicsburg using a TV camera close focused on the compass rose. I say reverse indicating for the pointer is stationary thus requiring the compass rose to move under the pointer. The TV camera is an all-weather unit with LED night lighting obtained from ATV Research in Dakota City, Nebraska. We asked Mason to focus the camera on a standard ruler at 2 inches to ensure the value could easily be read on a TV monitor in the station. As we planned for other TV cameras for EL, on the moon and power out, we purchased a quad video display also from ATV Research at about $100 using but one RG-6 cable to the station. It has worked quite well. Indeed, each picture is clear enough to read the AZ, EL or watts quite easily.

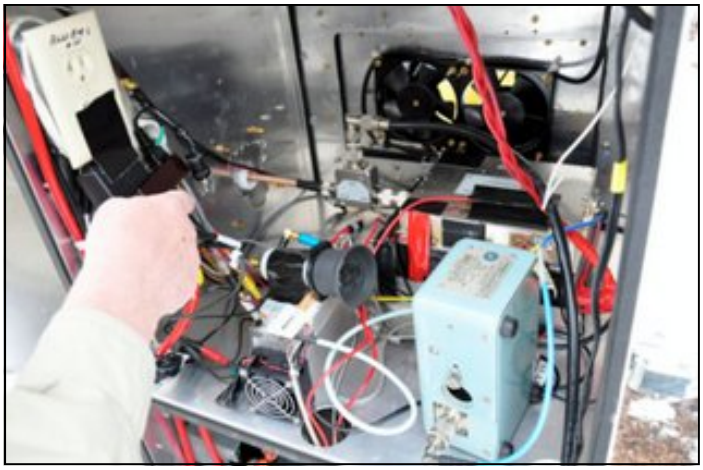
For EL, we chose to use a 2-3 foot satellite TV jack/positioner as we had a suitable motor and control unit from my C band TVRO setup. For the EL position indicator, we saw a $10 carpenter’s inclinometer in the local hardware store with a red pointer. I mounted this on the dish support ring. This works very well if two weep holes are installed before the indicator is placed in service and if the camera has **Red LEDs** to highlight the Red pointer which is easily washed-out with white light. Without the weep holes, permanent condensation is always apparent. The latter two points were learned the hard way. A new inclinometer was purchased and weep holes were added before installation. The camera with white LEDs continues to plague us as it is often difficult to read the EL at night. There are automatic tracking programs and hardware available and there are different views on ease of installation. One approach is that taken by W2DRZ and

K2TXB as documented on the W2DRZ Web site. Tracking of the moon can be done effectively using my method with video cameras on AZ and EL indicators, by using remote reading AZ and EL indicators, by various other mechanical means and most assuredly by auto-tracking...

Inclinometer in use

RF Deck Location

Reducing losses is an ambitious and highly desirable goal, since power is expensive. I chose to mount all RF equipment in lockable, watertight metal cabinets under the dish. This meant that AC, control leads, TV cable and IF cables at 28 MHz would be buried in twin PVC pipes between the station and the dish. The best practice here is to calculate the PVC size for your planned cables then double it and lay out the PVC run with mason's line as a means to keep the runs straight. Although I left a pull-rope in each PVC pipe, it is apparent that pulling additional cables through a PVC is not practical as the pull ropes are no doubt already wound around the existing cables. Mounting the RF gear in outside boxes means much more monitoring is required so you know what is operating and how well it is operating. I monitor (with digital metering), the temperature on the linear, the temperature on the circulator, the 13 VDC power supply, the 500 watt amplifier 27.6 VDC power supply, the RF monitoring diode from the transverter, the intermediate power amp (IPA), and the 500 watt 1296 MHz power amp. I have a dedicated Bird wattmeter on the RF drive from the IPA to the SSPA and I view this on the 4th TV screen quadrant. I have another Bird wattmeter destined for SSPA output monitoring just as soon as good installation weather is again with us. A word of caution, also learned the hard way: equipment boxes are ideally installed on the north side of the dish where the moon does not go so they will not hit the dish when the moon is at moonrise or moon set.



Selecting the feed, LNA, and protective relay.

The choice of feed came rather easily as the septum feed by OK1DFC and others was just on the horizon and Dick, WA3USG, offered me a VE4MA circularly polarized 23 cm feed from his garage attic for about a third of current market price. A later improvement was a Super VE4MA scalar ring about one inch larger which yielded around .9 dB more sun noise. For the LNA, a friend at a CSVHFC meeting said to get a WD5AGO feed as Tommy was at that instant at the zillion dollar network analyzer checking the noise figure of his and other LNAs. So, I went immediately there and bought a .27 dB NF, 35 dB gain LNA right from his hand after seeing it measured on the network analyzer. From much reading, when in the planning phase, I learned the usual EME practice of activating the LNA and relay with 13 VDC on receive and grounding the LNA input via a 50 ohm load or attenuator in transmit and in park (rig off). I also learned the recommended practice of using a superb low-loss relay for this job and using a male N fitting on the dish probe so the relay will mount directly on the N male thus obviating RF loss, space and money for an adapter/union. Some EMEers prefer SMA relays good to 18 Ghz or so for this protection role but that requires your LNA, probe, and relay all use SMAs which mine does not. The high quality SMA relays with 13 VDC coils are $100 plus and a spare is desirable so a clearly defined and planned approach is best. I

currently use a very low noise, .19dB NF 36 db gain LNA designed by Sam, G4DDK and built by Howard, G4CCH whom I have worked many times on 23 cm EME in JT and in CW. I have two WD5AGO LNAs as described above on the shelf ready for rapid winter…or preferably summer….installation.
The question of how much power the load/attenuator needed to dissipate was confirmed by my microwave roving partner, Joe, W3PTV, at about 5 watts. So a slightly larger model was readily purchased. I also learned of the desirability of quick and easy replacement of an LNA or relay during a snowy winter contest so we bought spare LNAs and relays and fitted each with the necessary phono-jack DC connector so as to minimize very cold time on a ladder and avoid the soldering iron!!!
We also made a LNA/relay cover open to the bottom so as to protect the LNA/relay while eliminating water condensation and/or standing water.

Selection of the 1296 MHz equipment.
Over 3 years plus of use, I have evolved to using the DB6NT 1296 to 28 MHz transverter disciplined with a 10 MHz oscillator, the DB6NT 8-35 watt Intermediate Power Amplifier (IPA) and the DB6NT 500 watt power amplifier. Though clearly on the expensive side, the increase in personal safety over using a six ring 7289 amp with 1600 VDC on the plates and water cooling PA is, in a family way of thinking, a clear winner. Though it can be done, the more I worked with water pumps and switches the more I knew I did not wish to mix high-voltage and water. I also learned that high power solid state amplifiers need to be protected against high SWR and/or cable connector failure thus we bought and installed a DB6NT- supplied 500 W. circulator at about $420. This proved to be a smart move for in November 2010, we had a coax fitting failure and the circulator, though damaged itself, had saved the day. The general consensus among EME/MW reflector members is that by the time you know you have had a failure it is too late as the damage has already been done. In EME, a **sequencer is really mandatory** to ensure switching of the IF radio, transverter, LNA/relay, and final amplifier is done in the proper order to avoid burning out LNAs and relays. We found the DEMI sequencer ideal for this task and also built a kit as a spare fitted for immediate winter…or any season….exchange. One point of advice to share is to start as young as you can to build your system. Ladder work on a dish feed and in optimizing your system is hard work needing ideally both the skills of an intelligent ham and a monkey!!! Also, please do yourself a favor and use the best parts you can remembering that winter replacement though not desirable nor easy may well have to be done.

Mounted Feed

Cables
For RF, IF, video and control cables, I came to rely more and more on Joel at "**The RF Connection**" for responding to my needs and supplying the best cable that my ham pocket book could afford, all fitted with the connectors. In my book, EME, particularly for RF cables, requires very low loss and often high power capacity cables to operate in a hostile environment of heat, cold, water, wind, snow and ice so economy is best practiced elsewhere. I use 17 ft of RG 393 as recommended by Joel of RFC for my 400-500 watt run to the dish probe.

Sun Noise Measurement
To EMErs, sun noise is the only reliable measure of their system to answer the age old query of "How am I doing?" Many EME hams use the standard General Radio instrument but I had none so

I used my SDR IQ receiver which works just fine. I use mine in the Continuous Mode with demodulation mode OFF. Next, I put a very dark filter over the TV camera to protect it. One can also do this on an overcast day to protect the TV camera. Then I move my dish exactly on the sun and record the reading which jumps around quite a lot. I take an average value. Then I go to cold sky where there is as close to nothing in the view as possible, e.g. avoid, trees, houses, other galaxies…any noise emitters. Next, I record the difference between the two readings which is the sun noise in a log for just that purpose noting also the Solar Flux (SF) for future reference.

The IF Radio and Radio-PC Interface

For most I suspect, the IF radio will be the best one in the shack at the time of becoming QRV on the moon. In my case, it was the IC 756P3 and I chose a SL USB PC- to-radio interface as recommended by Dick, WA3USG. This was a great decision as it has performed flawlessly; the second one was purchased to be used on my K3/P3 when I put them into EME service before the next EME contest and a 3rd for non-EME VHF and/or portable use.

CW and JT65C Operations

I also use my JT65C program on a laptop on the operating table even if working CW as it gives me AZ and EL values for pointing the dish plus Doppler for the RIT control. If not a contest, I use the HB9Q Logger to set both immediate skeds or announce I am calling CQ in CW or JT with the frequency and who is first or second. In CW, one can use the timed sequences for calling/listening where a program like MOONSKED or the F1EHN program provides the timer.

What Results Can You Expect?

I have found that with only a 3m dish and 80 watts, I could work the 10 m dish/500 watt guys in CW and with even less power in JT65C. I can work many stations even those with a 2.3 meter dish and 50 watts in JT as experience can aid each station in getting decodes down to about -27 to -30 dB. I have found with about 400 + watts and my 3 m. dish I can work virtually all in JT65C and most in CW. 3m dish to 3m dish QSOs at the same power levels are **VERY** difficult.

Why Do EME in the first Place?

This is much like climbing a mountain….."Because it is there", is a common answer! It is perhaps the greatest ham radio challenge in terms of technical skills, planning skills, time and finances to do it right. There is a tremendous satisfaction in doing it right in making QSOs via the moon. **Hearing or seeing your call come down from the moon is indeed priceless!!!**

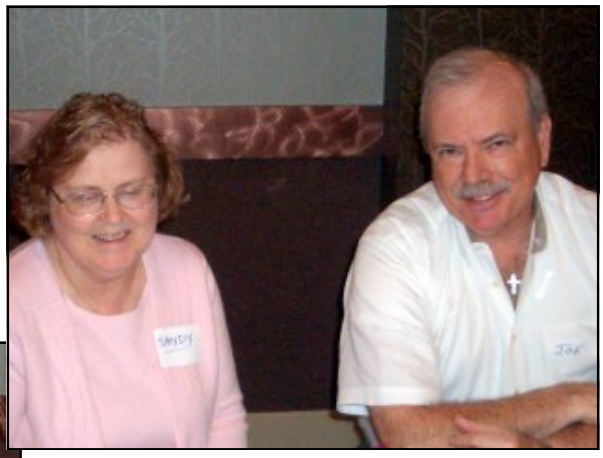
What are my future plans?

I intend to use my K-3 and P-3 with a SL USB interface in lieu of my IC 756P3 as I believe it will perform much better than the latter particularly in CW but also in JT-65-C.

Conclusions

EME offers tremendous challenges but also tremendous rewards for many but we know it Is not for everyone for a host of reasons. For more info, please write W3HMS@aol.com or call 717 697 3633. 73, John Jaminet, W3HMS, CAPT SC USNR RET.

Ladies Night 2012



Phil said it all except for one thing... To those of you who didn't attend...you missed a great time! Angela and I really enjoyed the food, the music, and the company of our friends. We hope you're there next year. 73,
N3RG - Ray (and Angela)

Michael, Rick,

Thanks for a great night out !

Jen & I had a super time, danced off some calories and caught up with good friends.

73, Steve & Jen W1SMS & KB1LIJ

Claire and I had a wonderful time. Once again Michael McGeehan provided outstanding entertainment with his singing and music. The best was getting to enjoy the company of like minded radio builders and operators in a comfortable environment with our spouses. I say we do it again next year.
73, Phil K3TUF

Ladies Night (cont'd)

Great thanks to George, Michael, Rick and everyone that helped put together Ladies Night and made it a great success! The food, music and everything else was terrific and the turnout was excellent!
Mom and I had a great time, she is looking forward to the picnic.
73 Al N3ITT

Hi Pack Rats,

Just wanted to say a big thank you to everyone who helped to organize & setup a very successful Ladies Night 2012. Marie & I thoroughly enjoyed the entire evening. The food was great & the DJ as usual was great.
73's Joe & Marie Seibel WA3SRU

Thoroughly enjoyed the evening. Great job, guys!
Paul w2ped

There are more pictures than there's room in Cheese Bits (as an email attachment). If interested, send a request to the editor (lennyw@comcast.net) and I'll be happy to mail you a CD of all pix in high resolution.

Some Traffic from Smel-A-Rhat

- Smel-a-Rhat reports that the recent solar mass ejection created problems on the wrong bands. Rather than creating magic on the 6m band, it created havoc on 2m for the 'Rat focused on EME. The rat who listened for action all day on 50.125 was "skunked."
- Whoa--did we hear that an SDR was referred to as a Panadapter? Well, to some senior rats, what's the big difference?
- And if a certain rat's CW signal was 10db out of the noise on the microwaves, why couldn't he be heard with SSB? It took a series of careful tests to find the elusive aging culprit.
- Speaking of CW, which rats are still lacking that skill? Do I "smell a rat"??
- And congrats to the rat with the heavy metal 6m solid state KW amplifier, using the steel of an old bed frame for a chassis. Hope he doesn't get a hernia lifting it--or did he?

Mid-Atlantic / N.E. VHF Conference

Great presentations, hospitality, buy and sell, buffet banquet and door prizes

*****SIGN up now at early bird rates*****

Friday Eve, Oct 12, Saturday October 13, 2012 at the Marriott Courtyard, Bensalem, PA

Papers and presentations wanted for the Joint Mid-Atlantic & NE VHF Conference

WE WANT YOUR CONTRIBUTION

Please forward electronic formatted material to info@packratvhf.com

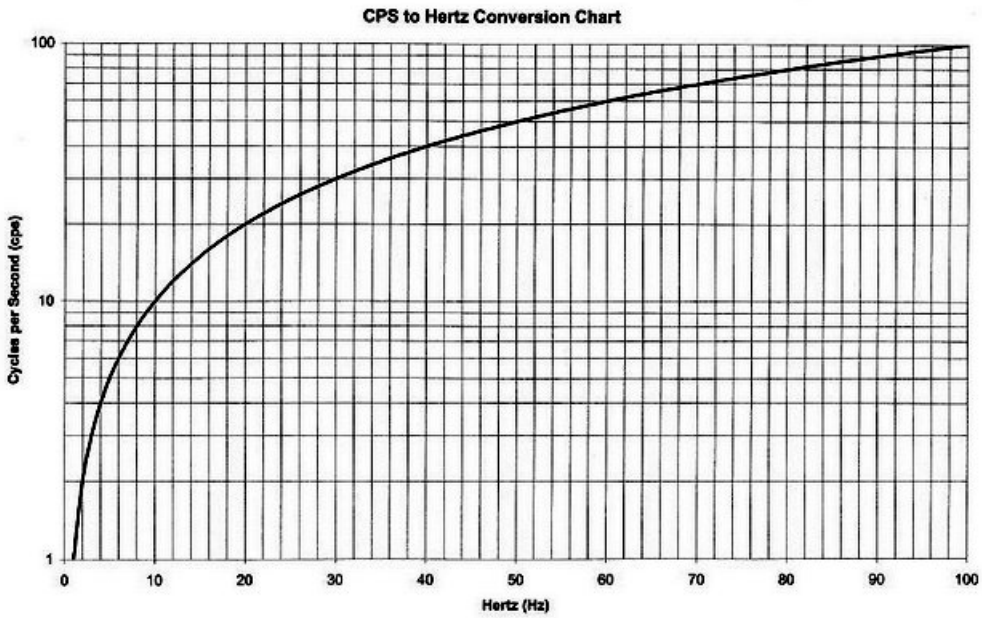
Information and Registration site now on-line at www.packratvhf.com

Ham Radio URL of the Month

For **April** we ask you to check out the video presentation by Rockwell Corp on the "Retro-Encabulator" at http://www.youtube.com/watch?v=RXJKdh1KZ0w

The use of magneto-reluctance never really caught on, but with photovoltaic panels becoming more prevalent, perhaps the Retro-Encabulator will again find some use in providing reliable power delivery.

Additional details can be found at Wikipedia's coverage of the similar Turbo-Encablulator. See http://en.wikipedia.org/wiki/Turboencabulator for details. ENJOY! —Lenny W2BVH



Based upon the earlier work of James Barry, Baxter, MN, where $(\log_{CPS}(Hz))^2=1$ for values of CPS >0. To date, the Hz equivalent for negative values of CPS has yet to be defined but research is continuing.

CPS - To - Hz Conversion

Thanks to http://emmittsfixitshop.com/Techniques_CPS_Hertz_chart.html for the nomograph shown at left.

It should prove handy to those of us with older test equipment that is calibrated in CPS (cycles per second).

Just find the frequency in Hz on the x-axis and use it to look up the equivalent in cycles per second on the y-axis

The Wayback Machine

Gleaned from the pages of
Cheese Bits, April, 1962
(Vol. V Nr. 1)
(Authors comments in *italics)*

- This issue, 18 pages, mailed for a 4-½ cent stamp (*remember them*)!
- Interesting article by club member W3NSI, Lyn (SK), on the Northeast High School radio club. His research showed the club was formed in late 1912, using the call sign 3GN, from the original location at 8th and Lehigh. At that time, they used a ½ kW Spark Transmitter! Currently active hams (*1962*) W3QV and W3WW) operated the original station. The call was changed to 3YC in 1920, and after several iterations became the current call, W3YC. At the present time (*1962*) the club had 22 members, and Lyn's research indicated it was the oldest licensed Amateur Radio Station in a US High School!
- Another nice article on Ham Radio Public Service. As reported in the Sunday Bulletin Magazine (SK), on 2/11/62, the article describes on-going medical information and help being provided to Dr. Wallace, a Missionary Doctor in Nicaragua (licensed as Ham Radio operator WN4WD), In 1961, Dr Peters, a Ham in Hilltown (K3KLL), heard Wallace's radio appeal for help, and was able to provide the needed information. Their radio contacts continued, with a number of critical procedures relayed to Nicaragua. Dr. Peters has since developed similar support contacts in Panama, West Indies, Peru and other locations. (*Unfortunately, the Bulletin article did not cite the calls of the hams involved; although, Helen managed to track them down. Remember, 1962. No Internet, no cell-phones, etc. Ham Radio came through*!)
- Smel-A-Rhat notes that The ARRL is making plans to move to bigger and better quarters. He reminds the members of the service that ARRL has provided over the years to all Amateurs. He then encourages contributions to the building fund, either as individuals or as a club effort. (*If you're not familiar with the club fund effort, stay tuned to later issues. Preview: The club sold "bricks" engraved with the donor's call sign. These bricks were then used to construct a model of the new building. Remember to look for it, next time you visit the League Headquarters*).
- In his K.U.I. (Keeping you informed) column, W3HKZ, Ed reports on the details (announced by AT&T), of an experimental communications satellite, scheduled for launch on May 22. It will have a transponder, receiving on 6390 Mc (*MHz*) and a 2-¼ watt down-link on 4170 Mc (*MHz*). It also includes a ¼ watt telemetry transmitter at 136 Mc for NASA's tracking stations. Elliptical 156 minute orbit, apogee 3000 miles, perigee 500 miles. 3600 solar cells cover the outside of the 34.5" diameter satellite. (*An early test of the communication satellite systems we consider routine today*).

- In his inimitable fashion, El, K3JJZ describes the efforts by Stan, K3IPM, and Al, K3EOD to set up January operations on the 110' tower at Bowman's Hill. This was the first year, of what would become a frequent operating spot for Stan. (*Details will be included in the special "Humor" edition, soon to be published by Lenny*). Suffice it to say that the report includes an NC300 falling from the 110' level!
- ARRL Bulletin NR. 62 reports an FCC notice of proposed rule making that would impose a $5 fee for any modification to an Amateur license (new, renewal, modification, etc). Helen reprints a lengthy letter addressed to Newton Minow, Head Commissioner of the FCC. The author's name is withheld; however, he makes a very convincing argument against this proposed fee.
- K3MSV, Jules Bernoff (SK) is the new author of the six-meter report. He berates the absence of club members on six, and blames it partially on the extensive use of the club "Intercom" frequency (*This was the 221.4 activity using modified R-48 receivers and Radiosonde Transmitters*). He pleads for renewed activity on 6 (*Nothing changes?).* March band conditions "stinko, no openings, very little activity.
- Two meters: W3LHF reports some good ground wave contacts, and indicates a number of North Jersey hams are busy building high-level SSB mixers for the 2-meter band.
- 220 and 432: Hal, W3HFY (SK) was appointed as the reporter, and will have more to say in the coming months.
- The storm of March 5 and 6 affected, and damaged the antennas of many club members. Examples: W3CLQ, no power; K3BHK, mast down; K3HWZ, 50' tower, 40' bent over; K3HJA, 5-element 6-mtr beam now 3-elements; W3KKN, HF beam all elements bent, half his 2-meter beam landed on Welsh Rd; W2EIF, 220 beam down, propane tanks at his Avalon home torn loose and washed away, storm water entered the house to just below the mattresses, W2KFC, parents lost two cars under water, had a house fire in Avalon; W3SAO mast bent to 45-degrees; and more!
- Harry, W3CL reported on the "Big Wheel" antenna recently announced by Cush-Craft. Bert, K3IUV is now testing one. (*It worked pretty well*).
- Club meeting speaker, Lee Aurick (K3EQX) gave an interesting talk on the "History of Amateur Communication and Regulations". A summary of his event details, covering 1896 to 1914 was included in this issue.

***Thirty*, de K3IUV**

Events

For inclusion, please direct event notices to the editor.

Spring Sprints - Contests April 9 - May 13, 2012. 2M, 222, 432, 902 & up and 6M. A sprint a week. See http://sites.google.com/site/springvhfupsprints/2012-announcement-rules for details.

SVHFS Annual Conference - **Meeting** April 20 - 21 2012, Charlotte NC. Speakers include Kay Cragie, N3KN, ARRL President and Joe Taylor K1JT (distinguished Packrat). Details at http://www.svhfs.org/conference.html. Registration form at http://www.svhfs.org/2012SVHFSregistration.pdf

Warminster Amateur Radio Club - Hamfest May 6, 2012. Middletown Grange Fair Grounds, 576 Penns Park Rd., Wrightstown (Bucks Co.) PA. $5 per person (unlicensed spouses & kids under 13 free). Huge indoor facilities with electric available at all tables. VE testing / WAS field checking / Equipment check out table. See www.k3dn.org/hamfest.htm for additional details

Dayton Hamvention - **Hamfest (etc)** May 18 - 20, 2012 Dayton OH. See www.hamvention.org/ for details. For info on the VHF Weak Signal Group Banquet: email WA8RJF@ARRL.net

ARRL June VHF QSO Party - Contest June 9-10, 2012. The annual Camelback trek. Details to follow

CQWW VHF Contest - Contest July 21, 2012 1800Z to July 22, 2012 2100Z. See http://www.cqww-vhf.com/ for details.

ARRL August UHF Contest - August 4-5, 2012. Details to follow

15th International EME Conference Meeting August 17 - 18, 2012, Churchill College, Cambridge UK. See http://eme2012.com/ for details.

10 GHz and Up (round 1) Contest - August 18-19, 2012. Details to follow

Cheese Bits
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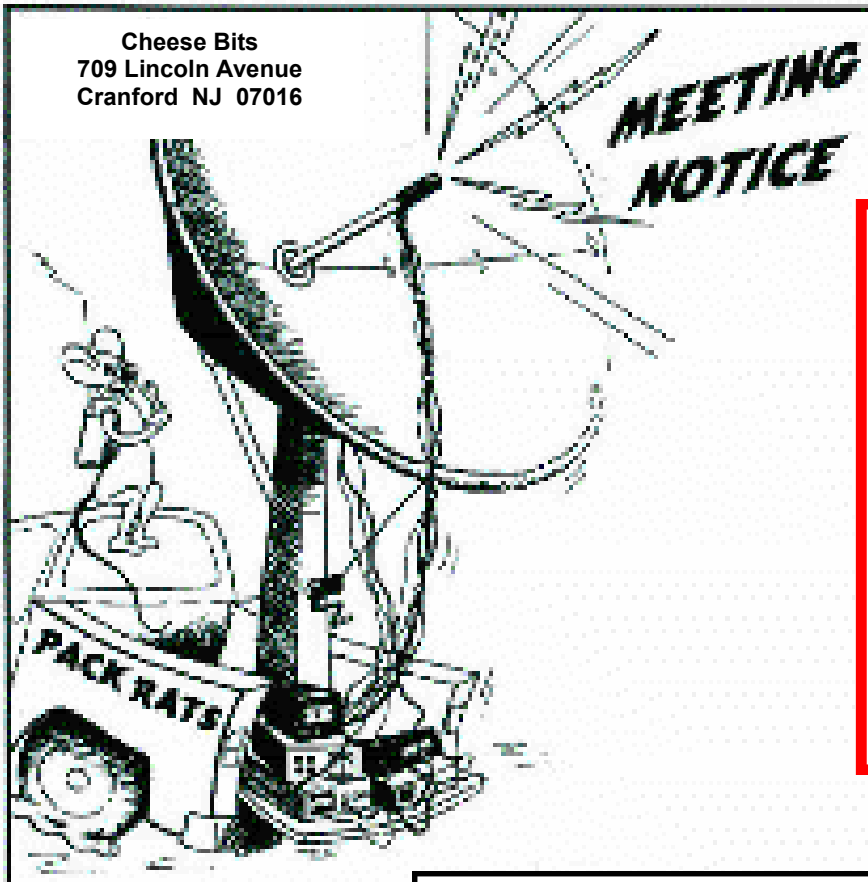

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