



CHEESE BITS

W3CCX
CLUB MEMORIAL CALL

ARRL
Affiliated
Club



Volume LIX

June 2018

Number 6

PREZ

SEZ:

Es has been good this May. We've had multiple reports of band openings. Dayton was again fun. I traveled out with 4 other guys. We met up with not only other Packrats but many others from local Philly clubs. We stayed about 25 miles to the east of the Greene Country Fair grounds and found many places to eat and enjoy the evenings. It's the second year for the new location and many of the issues from the first year were addressed, most successfully. Yes, it rained again this year, but it wouldn't be Dayton without some rain. HI

One thing I noticed this year is some of the Boat Anchors, many in decent condition showed up in the flea market at a decent price. The internet craziness seems to have subsided. Some of the sellers gave me the impression they were trying to find good homes for some of their much loved early equipment.

I also saw a number of K3 radios for sale. One came home with me. Now it's time to change over some transverters and increase shack automation. The K3 has many built in options that can make the job easier.

The June VHF contest and our annual trip to Camelback is just a few days away. We are asking as many Packrats as possible come to the mountain and help make it a success. If you cannot make it up for the entire weekend

consider coming up for a few hours. There are many opportunities to operate from one of the best locations with some great equipment. Also, extra help is always welcome Friday afternoon and Monday morning with the setup and tear down. Many of the Band Captains have been preparing and testing the equipment the past few months. Our tower specialists have been looking at ways to decrease setup time. We will have two operating trailers with Air Conditioning so don't let hot or muggy weather stop you from coming. Coordination and assistance will be used as much as possible so don't be surprised if you get a phone call asking you to give W3CCX some additional points if you haven't worked us by Sunday. Did I mention N3NGE is doing the food again this year!

Like other years, for the last few months there's lots of work going on behind the scenes. I'm continually amazed by how Packrats will take on a task and contribute to the success of the group. Sometimes a member is asked to take on a task. Other times a member likes to do a particular thing that needs to be done and takes ownership of that task. The willingness to contribute and the quality of the effort, I think, sets the Packrats apart from many clubs I've been part of. Maybe that's one reason why we are one of best VHF clubs around.

Don't forget the White Elephant Sale at Bruce's, WA3YUE QTH on July 19th. This is the normal Thursday meeting night.

Pack Rats **CHEESE BITS** is a monthly publication of the
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PACKRAT 222 MHz REPEATER - W3CCX/R

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PACKRAT BEACONS - W3CCX/B

FM29jw Philadelphia, PA
50.080 144.300 222.062 432.290 903.072 1296.264 **2304.043**
3456.200 **5760.195** 10,368.034 MHz (as of 1/17, red = off the air)

MONDAY / TUESDAY NIGHT NETS

VHF/UHF Monday:

<u>TIME</u>	<u>FREQUENCY</u>	<u>NET CONTROL</u>
7:00 PM	224.58R MHz	WR3P FN20kb Ralph
7:30 PM	50.145 MHz	N3RG FM29ki Ray
8:00 PM	144.150 MHz	K3GNC FN20ja Jerome
8:30 PM	222.125 MHz	KB1JEY FN20je Michael
9:00 PM	432.110 MHz	WB2RVX FM29mt Mike

Microwave Tuesday:

7:30 Coordinate QSO's on 144.260 for all Microwave bands you'd like to work. Also setup Q's at w4dex.com/uhfqso or **Packrat Chat Page W3SZ.COM**
Visit the Mt Airy VHF Radio Club at: www.packratvhf.com or www.w3ccx.com

The Packrat Picnic is August 11th at Michael's, KB1JEY QTH. Rain date is August 12th. Bring a covered dish and your swim suit.



The Packrats are hosting the Mid Atlantic States VHF Conference on September 28, 29 and 30th. The location is at the Holiday Inn near the Parx Casino, same as last year. You can register on the Packrat web site. Special room rates are available now. The Conference starts Friday afternoon with some special seminars. You can find many more details on the Packrat web site. Rick K1DS is looking for additional speakers, and from what I have seen, there are many successful Packrat projects that need to be shared with the VHF community. Consider being a presenter.

Bottom line, have some fun, learn more
Build something

73, George KA3WXV

APRIL MEETING PICTURES

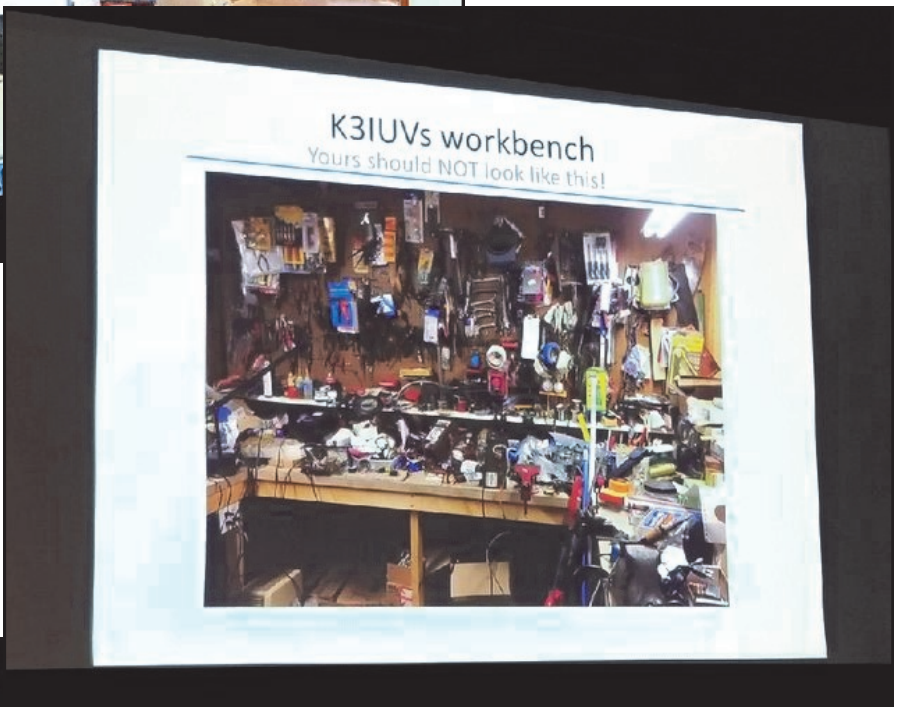


Shack Tour Presenters

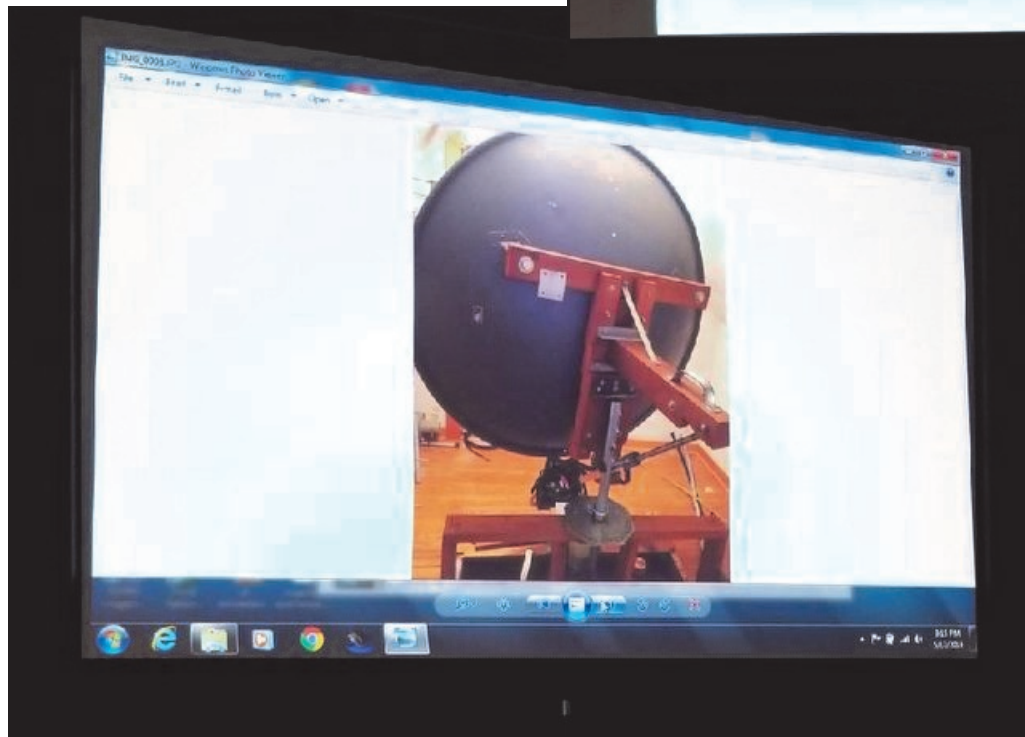




Collect!



K3IU's workbench
Yours should NOT look like this!



Tnx K3JJZ
for Pix

SOUTHEASTERN VHF SOCIETY CONFERENCE 2018

Pete Kobak, K0BAK

Summary

I attended the Southeastern VHF Society Conference in Valdosta, Georgia, April 26-29, 2018. This was my first SEVHF conference, and the second weekend in a row at a conference, having attended the NEWS conference the previous weekend. It was fun to meet a bunch of new VHF nut jobs, and the talks were impressive and interesting, even when a bit went over my head. Steve Kostro N2CEI (of DEMI fame) was an entertaining master of ceremonies, making the whole conference more fun and loose than typical technical conferences. With my awkward social skills, I did my best to mix it up with the locals, but it's hard for me. I didn't notice any other Packrats (ahem, Florida Rats), though I wore my Rat shirt proudly.

During the banquet, I was the only one attending who had won Fall sprint certificates, so it was nice to be called up to receive my 3 certs (thanks again 'Rats). Plus I picked up a few door prizes.

Unlike NEWS and Packrat conferences, presenters gave both a talk and a written paper submission. The papers were in a Proceedings book given to the attendees; there was no CD given out. These Proceedings are, or will be available from ARRL. The printed Proceedings gave the conference more gravitas, though I assume it's harder on both the organizers and presenters, compared to slide decks on CDs. I'm sure there are good reasons for either choice. I also purchased the 2017 Proceedings; both are available to borrow. One theme I noticed in several of the presentations (see below) was exploiting programmable frequency synthesizers, in particular the recently-released \$100 device from local vendor Q5.

Talk Impressions:

Switch Box for 6m Stacked Yagis

Jim W5KXV described a box built for a portable multiop station. It is a mast-mounted box with remote control that allows either antenna to be selected, or both together either in-phase or out-of-phase. The switch box included delay lines that are switched in and out as needed for phase control. The motivation was a previous contest operation where the band captain was convinced they were consistently missing contacts within a range of distances about 150 miles out, and they hoped to be able fill-in that distance with higher take-off angle on demand. Although the system worked well, they did not have evidence of contact improvement at the previously observed distance range. Their contest/test was shortened by the arrival of hurricane Irma and they needed to evacuate their mountaintop location.

FT8 Band Plan

Tony K8ZR from CQ magazine's VHF column gave the same talk I heard at NEWS regarding the need to agree on FT8 VHF band plans. As at NEWS, there was no good conclusion despite good participation from the audience. There definitely was no clarity about *how* this issue would be resolved, never mind reaching any consensus at either conference.

Activating Zone 2

Bill N5YA gave an entertaining talk about a DXpedition from Texas to Canadian grid FO10 in CQ Zone 2. Activity was limited to a low 5el 6M beam without elevation, and a 2M 2x2 array for EME. Very unusual (to me anyway) was the use of loop Yagi antennas for 2m. Marshall K5QE authored the presentation but at the last minute was unable to attend due to health issues. As with every major portable operation, the details and stories of failures and victories were very interesting to me as a rover/portable op.

432 Band Visitor

Bruce NT4RT gave the most unusual talk of the 7 or so VHF conferences I've been to. Bruce had to swallow a camera to record his food pathway. After getting results at his doctor's office, he "recovered" (yuck) the camera when it was done its job. Bruce examined the device and its RF output.

Impedance Matching 101

Ben K4QF gave a practical talk (i.e. one that I could follow) on tips for calculating component values for impedance match circuits he used in the **slide rule days**. Applications of his shortcuts included power dividers for antennas and power amplifiers, multistage matching, and generation of quadrature signals. These calculation techniques are good for any frequency range including HF, not just VHF.

Designing with YIG Filters

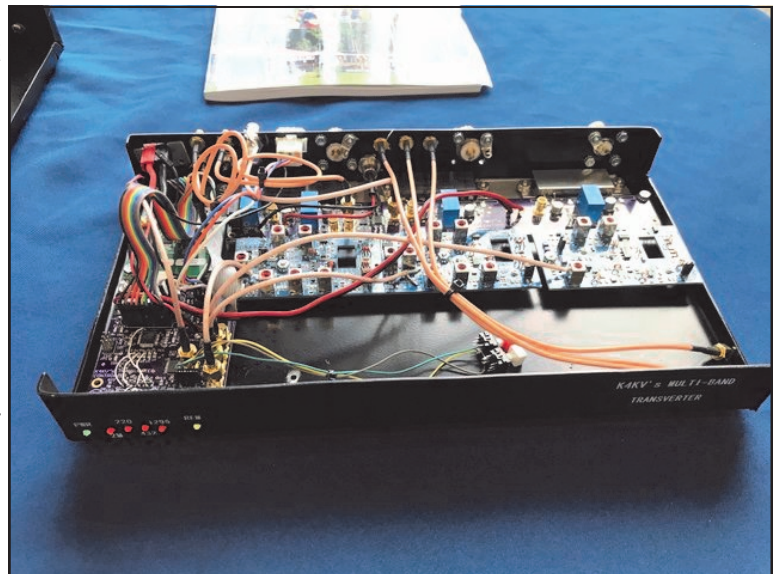
Michael KC4RI talked about a filtering component I never heard of (not that that means much): a YIG filter. In another talk on the general theme of programmable synthesizers, Michael was searching for way to filter the output of the synthesizers over their very wide potential range of frequencies. A YIG (Yttrium Iron Garnet) sphere can be used as a wide range variable filter which is tuned by applying the appropriate magnetic field. Surplus YIG filters can be found separately or as a removable part from otherwise low value equipment. Michael developed a driver system to tune the YIG filter he found. The coil built into the device to generate the controlling magnetic field required a fairly wide range of voltage control and current. Michael was able to build and test a practical system to drive the YIG, and showed his filtering results. He passed around his homebrew controller and the YIG device itself; the YIG filter was surprisingly heavy for its size.

Phase Noise and Effects on ... Communications

Bruce NT4RT gave a primer on phase noise definitions and effects, since phase noise is a hot topic especially with regard to programmable frequency generators. I understood a fairly large proportion of the material, which means it was a good primer to understand better when the VHF community discusses the hot topic of phase noise.

Multiband Transverter

Glen K4KV brought a multiband transverter box he built only days before. He started with 3 different inexpensive Ukrainian transverters being sold on eBay, which he said (and others agreed) have good functionality generally, but significant frequency drift. Glen replaced the on-board LO source with a more stable source from a frequency generator, added MMIC amplifiers (around 15w class) for each, and band switching. Basically you supply 28MHz IF input, a band switch signal, and common PTT, and you get 2m – 70cm out. Very impressive to get a compact 3-band transverter with reasonable driver power in such a small package. He does not do output filtering, so the dirty output of the Ukranian transverters remain; he said "those of you in



populated areas like the northeast should consider filtering". Glen recommended OSHPark for hobby PCB production.

47 GHz Test (bonus talk)

Al W5LUA said he only has 3 grids on 47G, but includes one to Moscow. He also tried a periscope reflector consisting of a stop sign at 55' on a rotating tower, with a 9-inch dish at the base illuminating it, whose diameter was based on a rule-of-thumb for illumination at that distance. Successful test with partner 18 miles away, saw signal 50db out of the noise with 400mw power.

Digi LO Phase Noise Test

Q5 (www.q5signal.com), who is now building the DEMI **VHF** transverters, is selling a \$100 programmable LO generator from high HF to 6GHz. This continues a theme this year here and at NEWS for using programmable LOs instead of crystals (+ multipliers). Problem is phase noise and spurious signals; this talk described tests of the signal from the Q5 unit. The details of the testing technique presented by Al W5LUA went far over my head. Conclusion was the Q5 device is a nice solution for a programmable LO between 2m and 6cm. Slides are supposed to be at www.ntms.org.

Multiband VHF and Microwave Transverters

Steve N2CEI gave a talk on developing a multiband transverter. He first presented on a theoretical system in 2009 and what is required to develop one. Steve contrasted that limitation list with what is available today, and said the technology available today makes it more practical to develop. One issue is a mixer part available for purchase, and a requirement that the part be hand-solderable. Next Steve went into a lot of detail on many MMIC amplifiers he considered to cover VHF to low microwave, and separately higher microwaves (to 10G). In general, microwave parts are becoming more capable and lower cost due to demand from automotive self-driving technology and the roll-out of cellular 5th-generation equipment. Steve said based on his parts selection he was planning to offer a multi-band transverter, but with 0.1W power out.

Conference Comparison

This conference was different from the 2 NEWS conferences and 4+ Packrat conferences I've attended. FWIW, in comparison to others, the SEVHF conference had ('+' = better; '-' = worse):

- + Written Proceedings
- No CD or other electronic version of slides
- + Much bigger more comfortable room for talks and banquet (much better than the overcrowded rooms at the other two, really makes a difference)
- + Good lunch Saturday
- + Higher quality banquet food than NEWS (never went to the 'Rats banquet), and nicer table layout
- + Much more recognition of YL / Spouses
- Much fewer vendors
- + Better hotel
- More expensive hotel

DEMI visit

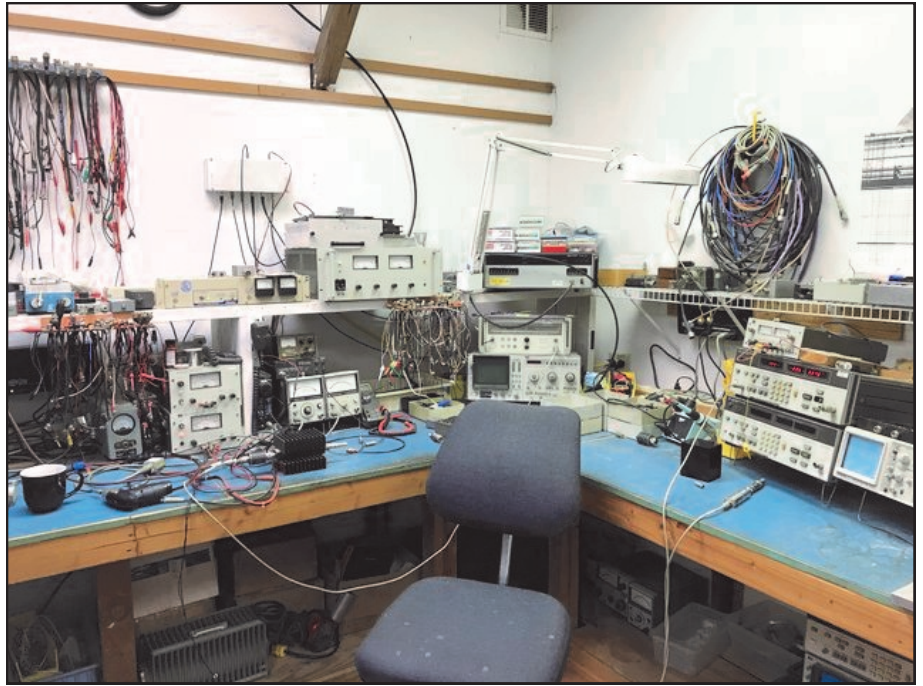
Steve and Sandra invited attendees to a Downeast Microwave open house on Sunday morning, the day after the conference. My flight was late enough to be able to go down there on the way to the Jacksonville airport, just a little out of the way. I took pictures, and had a short discussions with Steve and Sandra about their roving operations and the trailer they use. **SEE next page for pictures from the DEMI visit.**

SE VHF Conference - DEMI Visit Pictures

For more pics, see the April 2015 issue of Cheese Bits



Sandra



Testing Area



Machining Area

On The Bands

By Jerome Byrd – K3GNC

Tropo Scatterings:

Hopefully all Packrats will be participating in the June VHF contest, if only to give out contacts to the club station on Camelback. It would also be nice to give out some contacts to 'Rats operating from home. It would be wonderful if you gave a serious effort to help the Club's score.

One of things you hear from hams after a contest is the shock at some of the grid totals achieved by large to super stations. Crazy large grid counts are not possible for most of us. I feel, however, we all can do better than we do. The "I never heard that grid on" is a common lament, but we must begin to ask why? It is usually not just because our station is too small, although on the more distant grids that is often the case. It is often pilot error in that "he who fails to plan, plans to fail". If you want to work more grids make a list of all the grids you think are within your station's capability under average conditions. Then write down the station(s) most likely to be active from that grid along with their beam heading (Beam headings available from QRZ.com lookup). Who is active in various grids is best determined by on-the-air activity, but, we know that is not practical if one is not that active. The W3KM database and sheets-files given out for the January Contest have fairly current information about grid activity. Following rover activity is the second leg of a one-two grid hunting punch. One can significantly improve one's grid count by staying with the rovers going through grids you don't normally get. Although, the June Contest tends to be dominated by 50 MHz activity, it offers a great chance to rack up grids on the other bands with all the mountain tops stations added to the mix. My station is not ready for next January yet. I will, however, be operating for a large portion of the contest either remotely (limited to 144, 432 and 1296) or at the remote site with all seven bands active. I definitely will be trying to work more grids than ever on 144 and above. Will I be able to walk-the-walk? We shall see.

**** Please edit your QRZ.COM page to at least list your station rundown (see AA2UK, K3TUF, WB2RVX, etc.)**

Nets and Schedules: The following is a rundown of the nets and group meetings in the 'local area' (<= 250 miles, only nets that don't conflict with the Packrats nets are shown).

Mondays: 2130 local – 1296.110 (group schedule with WA2LTM, K1PXE, WZ1V, N2SLO, WA2ONK, WB2SIH, K3GNC, W2BVH and others. All are welcomed.

Tuesday: 2000 local – "Mud-Toads Net", KD8UD fm17uv net control. 144.175, all are welcomed.

Wednesday: 2030 local - 432,150 – group schedule, WA2LTM, K1PXE, WZ1V, N2SLO, WA2ONK, WB2SIH, K3GNC and others. All are welcomed.

Thursday: 2030 local - 144.250 – N.E.W.S club net, W1COT FN31st net control. All are welcomed

Saturday: 144.205 – 2130 local - Chesapeake Net, W3BFC net control. All are welcomed

Sunday: 1030 local – 144.250, Sunday Morning Memorial Net, Bill AA2TT FN30br net control, all are welcomed, 2030 -- 432.150 – group schedule, WA2LTM, K1PXE, WZ1V, N2SLO, WA2ONK, WB2SIH, K3GNC and others.

All are welcomed.

The Luna-tic Fringe:

EME is on hold for me. My 144 MHz, 432 MHz and 1296 MHz antennas are now working, but I haven't figured how to get WSJT working amidst all the remote software and sound card demands. I hope to have it solved by next month's column. QRX.

... On the Bands cont'd

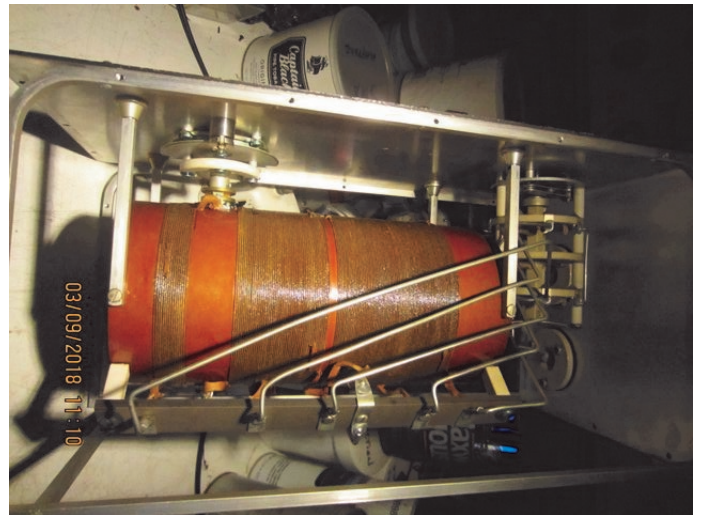
EME Tidbits – For the first 6 hours of a moon-pass Europeans stations are available. The next 3 hours are limited to NA and SA. The final 3 hours feature the Pacific islands, AU, ZL, Japan and the far east at the very tail end of moonset.

Until next time please stay/get radioactive!

73, Jerome K3GNC

Lowfer Tuner ?

Here are some pix of the BC-306A WWII antenna tuner I got at the New Providence (NJ) ARC auction in March. As best as I can determine this unit was used with the BC-610 system to tune an end fed long wire on 200-800 kHz. It has a variometer for fine tuning. I think this might work as-is to tune my 160 vertical on 630 meters. Everything silver plated and heavy duty, nothing but the best for our boys at the front. CUL **Dave W2KV**



KOBAK DOES A POTA ROVE DURING THE N.E.W.S. CONFERENCE

Pete, K0BAK decided to fill in a few spare hours during his trip to the N.E.W.S. Conference by activating some sites for the ARRL "Parks On The Air" (POTA) program. Here is an abridged version of his report. The full report can be found at :

<https://www.facebook.com/groups/parksontheair/permalink/1867750453515813/>

My main purpose in traveling to Manchester CT was to attend the annual VHF ham conference sponsored by the New England VHF club. Seeing there were parks along the route and a couple nearby the venue, I outfitted the TV van temporarily with my minivan rack and hitch mounted screwdriver. By driving the TV van a significant distance, I hoped to gain some more driving experience and test the reversible passenger seat and removable "reporter's table" for a second operator. FWIW, note that I prefer small light cars, like the Suby WRX that is my daily driver, so I am not comfortable (yet?) with long trips in the TV van.

After reaching Manchester I navigated to the Bolton Notch State Park dirt/mud parking lot about 15 minutes away. After getting absolutely nothing on 20m, Chuck Herring suggested I move to 40m, where I got a mini pileup and 35 contacts. Finishing up on 80m and running out of daylight, I packed up for the hotel for a well-earned sleep, looking forward to the conference the next day.

The VHF conference on Saturday had a long lunch break, and I thought I could sneak away to activate a semi-urban park on the other side of the Connecticut River just north of Hartford. Under extreme time constraints, made worse because of an initial wrong turn, I was only able to make contacts for 6(!) minutes yielding 11 contacts to meet POTA minimum +1. During that narrow window, Kerri KB3WAV managed to call me for my first of two P2P contacts with her, this one from K2727. It was important to me to get back to the next talk about VHF contest roving, so I left just after taking a photo of "my van down by the river". I was thrilled to arrive back in time to meet legendary history-making rover op Wayne Overbeck N6NB as he was leaving. We had a short discussion about my van, and I expressed my appreciation of all he's done for roving and VHF operations in general.

Sunday I hoped to activate 2 to 3 parks on the drive back home, all of which would be first-time activations. My first stop was Dinosaur SP. The location was surprisingly RF quiet, continuing a general and welcomed trend throughout this entire rove. I was happy to get 40 QSOs, a good number before 11AM Sunday. Next up about an hour away on the Connecticut Shoreline was McKinney NWR. This stop was pretty conventional, but featured a fairly high percentage of 20m contacts with EU stations; and a contact with winning NPOTA chaser and good-guy Larry K5RK.

Although it was harrowing and frustrating at times for me to drive the TV van on this trip, I think having experienced a number of situations will give me more confidence to continue to drive it. The RF and DC power of the station performed very well, getting a better match with the screwdriver than I've had in the minivan for a couple of years, and no evidence of significant reflected power or common mode bites.

For more details, see the complete article.

MUD 2018 Call for Papers

Microwave Update 2018
Dayton, Ohio, October 11 – 14, 2018
Holiday Inn, Fairborn, Ohio
www.microwaveupdate.org

Microwave Update (MUD) is an international conference dedicated to microwave equipment design, construction, and operation. It is focused on, but not limited to, amateur radio on the microwave bands. The Midwest VHF/UHF Society is pleased to host this year's event. The conference will be held at the Holiday Inn, 2800 Presidential Drive, Fairborn, Ohio 45324.

Call for Presentations and Papers: The program committee is calling for papers and presentations on the technical and operational aspects of microwave amateur radio communications. Tell us about your latest project, design or operating adventures. Please e-mail your proposals, questions, and submissions to John Ackermann, N8UR, at jra@febo.com. Don't wait until the beginning of September to let us know what you're planning!

Presentations selected for the technical program may be given in person or by proxy. Please send an abstract and expected duration no later than August 25, 2018 so that we can determine and announce the program agenda the following week. Ideally, send your draft presentation by the same date. We encourage presenters to submit a companion paper for publication in the proceedings book. This paper would ideally be text based and expand on the presentation slides, but a simple copy of the slides is also okay. Either way, this material must be received no later than September 1, 2018 to be included in the book. Additional material (presentation slides, schematics, source code, more text, background info, etc.) to be included on the proceedings CD must arrive no later than September 25, 2018. All conference attendees will receive a copy of the book and CD.

Full details, including suggested topics, paper guidelines, schedule, and hotel information can be found on the MUD website:
www.microwaveupdate.org.

Registration is now open at the web site

Mid-Atlantic States VHF Conference Call for Papers

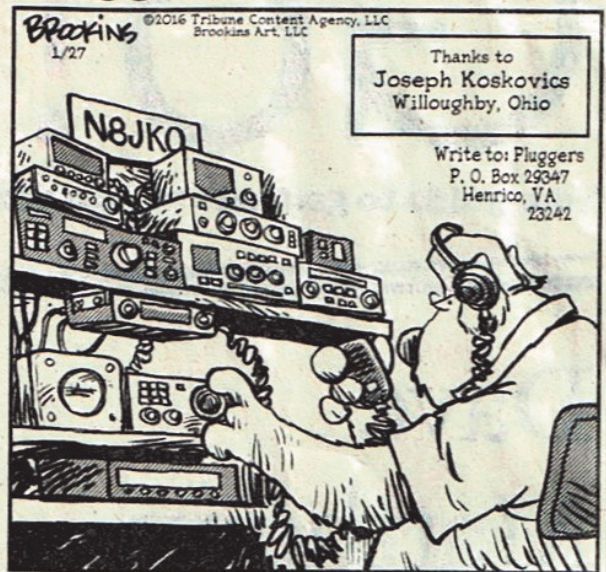
The 2018 Mid-Atlantic States VHF Conference Sept 28-30 sponsored by the Packrats will again be held at the Holiday Inn Bensalem-Philadelphia.

We are accepting papers and presentations on any topics related to VHF and above. Please contact rick1ds@hotmail.com with your topic or title.

Conference features Hospitality, Table-top selling, Papers and Presentations, Technical testing room, Banquet, Door Prizes, Outdoor mini-tailgate -fleamarket.

Holiday Inn Bensalem-Philadelphia conference rate is \$105 +tax mention "VHF Conference." Rate includes buffet breakfast for 2 room occupants.

Pluggers



Back in the day, for a plugger to be involved in "social media," he first had to pass the ham radio license exam.

Sent to Cheese Bits by Rick, K1DS, as seen in the South Florida Sun-Sentinel newspaper

2018 SPRING SPRINTS: RESULTS AND COMMENTS

Microwaves:

Another Microwave Sprint in the record. Conditions were normal to fair. A cold front passed over my QTH just before the sprint started leaving unstable conditions to the north. There was often deep QSB on distant stations, so it took some concentration and patience to wait for a signal to come up out of the noise. Of course it was a fun event. There were a lot of home stations on and a number of Rovers to include N2RJ/R (with K2EZ) in two grids, KD3PD/R in two grids, VA3ELE/R in two grids, W2RMA/R in two grids and KF2MR/R in two grids. A good Rover showing indeed. Thanks to all who waited sometimes on me and to Central States for sponsoring this event. My results were 52 QSOs and 14,358 points (kilometers). Oh-by-the-Way: The W3SZ Web Portal got some plans for the DATE-TIMES of this event. <http://w3sz.x10.mx/k1rz/getUpdateForm.htm> This is the source of who is planning to be on, and how to liaison with them as individual stations. Liaison is especially critical on this sprint since our Microwave antennas are so very sharp. 32 of my 52 contacts were from stations who entered their plans on the W3SZ Web Portal. This portal is useful for all VHF+ contests. --**Dave, K1RZ**

Enjoyed the Microwave Sprint on Saturday. I miss it each year as I usually work on Saturdays. I had 26 Q's and the longest distance was 343 KM to WA3EOQ in FM09. Conditions NE seemed poor only working K1TEO and K1PXE. Good to hear Ria, N2RJ/R with Andrea, (K2EZ/R driving). Worked them on 903 & 1296 in FN21. Final score was 4143 points (KM). -- **Bob W2SJ**

Results: 12 Q's & 8 Grids about 2 Hrs operating. Conditions seemed about average though I was not able to complete a 2.3 GHz Q with K1RZ this time (we usually do make it over the 180 mile path). Trees are very close to my antennas and leaves opened just this week so that may explain part of the problem. Had a good time and all participants I worked were skillful and patient. You can actually call CQ on 1296 in this contest and expect a reply. If you've got the equipment and weren't on, I believe its well worth a couple hours of your time next time. --**Lenny W2BVH**

6 Meters:

Well I spent two hours on the air and for the last half hour I was dodging lightning strikes!! So I called it quits, ran down stairs and disconnected everything. There wasn't a lot of activity on phone and CW. My plan was to go digital for the last hour or so but that never happened. I did work four guys on FT-8 because they were on 50.313mhz and no where else on the band. So, I ended up with: 24 QSOs in 9 Grids = 216 pts. For the most part, I had fun! --**Ray N3RG**

Got home from work late and found that a package from John, K3MD had arrived: His really neat IC-7300 for us to use at Camelback on 6M for the contest. Anxious to play with a new radio, I got it hooked up in time to get on the 6M Sprint by 7:36 PM. Read some of the quick set up & Icom manual pictures, realized it had a touch screen and some new menus to learn and made my first contact with Ray, N3RG. Three more contacts all in FM29 and then the band seemed dead. On a hunch I tuned to 50.313, FT8 mode and heard plenty of stations to work. Unfortunately, I had not had time to hook up the 7300 to the computer for digital! Went back to SSB & CW and heard no one else. Then I heard a large thunder crash that shook the house! Time to disconnect antennas!! So that's my 6M Sprint report. Guess I should have started on FT8 for more contacts & grids... --**Bob W2SJ**

...Continued at the bottom of page 19



For Packrats Lightning Strikes Twice



From George NE2U

Will let the video below speak for itself.

<https://www.independent.co.uk/news/world/americas/us-weather-latest-updates-lightning-america-satellite-noaa-a8366836.html>

Thought I was done posting about the GOES-16 satellite however.... Ground currents from a nearby lightning strike Sunday morning (5/27/18) took out three televisions and one FT-736r, tripping the mains to the house. Notable survivors include an SDR-1000 and the Residential Gateway. I went back once again to take a look at the activity on GOES-16. The following URL from Colorado State captures it pretty well. <http://col.st/j374c> --George NE2U

From Dave W2KV

I just suffered a MAJOR lightning strike last Sunday (5/27/18) during the thunderstorms. Circuit breaker parts scattered over the floor in the basement, and many outlets vaporized. I don't see any physical damage to the tower or associated ground so I don't think it was a direct hit. My best guess is a nearby strike caused ground currents and the ground rods at the tower, house service entrance and garage service entrance all found themselves at different voltages. Most of the damage seems associated with ground wires. The big MOVs on both the house and garage panels were carbonized. It's lucky there wasn't a fire. All the wiring in the garage is exposed and I can't find any burn spots so I think the wiring is OK. The cable tv line to the house was smoked and all cable connected devices shot. Just now got cable service back. Lots of damage to the ham station. So far: FT-847 dead (no 6 or 432), QRO HF amp smoked, tribander infinite SWR and rotor not turning, both shack computers shot with covers blown off and smoked connecting devices. Fortunately both FT-1000s were disconnected and seem to have survived. The 2 meter amp on the same 220 circuit as the QRO Amp also seems OK. The 2 meter transverter survived with only a blown 12V supply. The VHF stack rotor box was smoked but the rotor seems OK with the spare box installed, so 2 meters is operational. Lots of peripheral stuff like power supplies and antenna switches burned. I won't know about the 6 and 432 antennas until I bring the spare 847 up from the shore. I called the insurance company and they said it should be covered but I can see a fight coming once they realize the extent of the damage. The fun never stops. CUL --Dave W2KV

Some Archived Material of Interest to the Packrats

Archive home address:

<https://archive.org/index.php>

The above link takes you to the Internet Archive home page. You can follow links to the various collections or enter queries for information you are seeking. For example, if you enter a query for “Eimac & EME” you find the entire set of Eimac **moonbounce notes**. The EME notes were collected by Floyd Jury, W3OLV, and digitized and uploaded by me.

If you enter a query for the Pearl Harbor SCR270 radar that detected the incoming Japanese bombers on Dec. 7, 1941, you will see the SCR270 training film file and other associated documents about that fateful day. The paper documents were first published in the **Southern Pennsylvania Amateur Radio Club newsletter “QRZ News”**.

The primary source of query information is the title of the work and metadata entered by the data manager who uploaded the files to the Internet Archive. It is a guess at what users might want to find. I don’t know if the web crawlers like Google look inside the Archive for content, but they probably do. I do know that takes a long time to update. For new uploads, go to the Archive directly.

Now, in April 2018, I am uploading a collection of training films on radar and bombers of WWII collected by Floyd Jury. This is a learning experience for me because the file sizes are huge compared to the documents mentioned above. In the documents, I credit Floyd for his work, but I can’t put that in a film. My solution is to put “W3OLV collection” in the metadata. If you don’t know it’s there, no one will see it. Query on “W3OLV collection” to use the reference.

George S. Gadbois

W3FEY

W3feygsg@gmail.com

The Wayback Machine In CHEESE BITS, 50 Years Ago

Nibbles from June 1968. Vol. XI Nr. 6
de Bert, K3IUV
(*author's comments in italics*)

- **“Our Prez Sez”.** Dave, W3LHF (later W3ZD) commented: 1) Ladies night (chairman, John, K3KTY) was a great affair, showing our appreciation to the XYLs and YLs for putting up with our hobby all year long. (*again “Maybe we should do it again.” Current Directors please take note.*); 2) June 8th and 9th QSO party is on schedule for our Hilltown site operation. “We are serious this year about winning;” 3) Election time again. If you don't get involved, you will be left out of the club operations.
- **Constitution and By-Laws.** W3SAO, Frankie, continued his informative column, discussing sections of the Packrat Constitution and Bylaws. This month he listed the 5 “Objectives of the Club.” (*Do you know them? If you do not have a copy, request one from the Board (or me.) Each member received (or should have) a copy of the current version.*) .
- **Picnic Flyer.** An insert announced the “13th Annual Family Day and Picnic.” August 11, Fort Washington State Park, \$2 per family. Directions to the Park were included. W3CCX talk-in frequencies would be 50.2 and 145.2 (our club Monday night net frequencies.) The Park featured a large pavilion in case of rain. The picnic always had games for the kids and free peanuts for all (*courtesy of W3KKN, Ernie.*) (*We usually had several hundred people show*

up, from New England down to MD. Can it be resurrected?)

- **Two Meter Activity Report.** W3LHF, Dave (later W3ZD) reported improving summer band conditions. A number of “old-timers and DX men” are found running schedules in the morning. They keep schedules during the meteor showers and always stick around and work the bands. On April 27, “I worked W1JSN in Mass., and was immediately called by W1YTW and K1MTJ, both in Maine. Heard a VE1 and a VE2 in QSO.” He added “I am getting my drill jigs ready for the special antennas I make. Anyone interested, let me know.” (*Dave had a several hundred watt rig on two, and we used his rig at Hilltown every year. Then there was the year the FCC inspector tracked us down because his second harmonic was blocking out some airport signals!*)
- **Automatic Electronic Keyer.** W3LHF, Dave presented a detailed discussion of the electronic keyer he was using. The attached schematic showed a pair of OA2 voltage regulator tubes (*who else remembers them?*) which provided regulated +150 vdc. The circuitry used four dual triode tubes (*I know you remember them.*) Controls included balance, speed, weight (for dot to space ratio), and sidetone level. He suggested 15 minutes a day of practice for a couple of weeks “will get you in the expert class.” Dave claimed no originality, pointing out that the circuit was substantially the same as the Hallicrafters HA-1 keyer (*another name that “isn't there anymore.”*) A number of the gang proceeded to make copies.
- **Meeting Notice.** The June guest speaker would be W2OQN, Wally

Brown who will talk on sideband heterodyne units. Also: Elections! Be sure to attend and vote. The slate was listed. It included K3JJZ, EI as one of three nominees for VP. (*Read this column next month to see if he won.*)

- **Swap Shoppe.** (*Always nostalgia.*) For sale by WA3IHV, Bob: Hammarlund HQ110AC, 160 – 6M, with clock and speaker. \$140 or make offer. Globe Chief Deluxe, 80-10M, \$25. From K3JJZ, EI, an 8" RCA portable TV, \$25 or make offer. A National NC-125, broadcast to 30 Mc, \$50 or swap. And lastly a 24" RCA TV with stand, "VHF only" (*remember that?*) \$50 or swap for what have you.
- **From Where I Sit.** The new Cheese Bits Editor, K3JJZ, EI berated the members for insufficient contributions to the club paper. He provided statistics for the number of club members (*regular, retired and student*) together with the quantity of articles contributed by members in the past 10 months. His tirade included an admonition to the membership to become authors, even if only for "tidbits". (*It sounded like something Lenny could say is still true today. When have YOU last written an article for Cheese Bits?*)
- **Membership.** New applications received from WA3JSR, Ben Ginsburg, and WA3HVL, Donald Derosa. Recent Silent Keys, K3NCN, George Kelley and W3DRC, Tom Tomlinson.
- **Miscellany.** *Postage for this copy (from W3KKN,) was 12 cents (two nice Roosevelt stamps.) 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 our website (www.W3CCX.COM) and read the full issue scanned by K3IUUV (me), and posted on the site. Remember, I have also posted the **club Officers history, club Membership history, and Packrat Inventory** on the W3CCX website. These files are password protected, and only accessible to registered members. Have you registered? And, a repeat from last month's article. "Sorry to report that **no one spied** (or no one cared enough to comment on) my "real" April Fools article in the April edition, (A pair of "N" connectors will go to the first person to email me about it - Lenny not eligible!) Does that mean no one is reading it, or that no one needs "N" connectors???*



Thirty, de K3IUUV

CARL MATTIACE, WB2RXM SK

Gentlemen,

I am the son of Carl Mattiace. His current call sign in NJ is WB2RXM. His prior call sign in PA (many years ago) was WA3DJF. It is with great sadness I inform you of his passing.

Please notify your membership as necessary.

Information is available at: <http://www.gardnerfuneralhome.com/obituary/carl-mattiace>

Last year at age 87 he passed his Extra Class exam! It was a very proud moment for him. I just wanted to make sure you guys knew.

Best regards (73), Jeff Mattiace

- Carl joined the club June 15, 1970. So he almost made "50-year membership." --Bert, K3IUUV

Newest Packrat

Welcome new Packrat Jim Huebotter KC3BVL to the club! He was voted in at the May meeting. We all look forward to your fellowship and contributions to the club.



The last of Jerome's old antenna farm packed up on my cargo bicycle and ready to pedal home: 144 MHz 7 element yagi and 2.3 GHz 45 element looper.

...Sprints cont'd

I found the 6 meter SPRINT conditions and activity to be very poor. The strong weather front and nearby lightning hits didn't help any. About 2 hours before the SPRINT I decided it was time to swap out the 2 x 3-400's for a Harris Platinum Amp. The amp was given to me a few days prior to the day Jim WA3LBI passed away. Paul N2EME delivered it the day before the funeral. Well all went well and the amplifier is putting out 750-800 watts with the 10-12 watts of drive that I had available from my FT-736R. I worked 32 stations and 11 grids. I worked through the entire event, but it was a dud! Between the rain static and almost constant static crashes it made all modes very difficult to work. I managed 4 contacts on SSB the balance were FT8 with a single MSK contact with N2NT. The MSK144 decoder couldn't handle the nearby lightning discharges or the barrage of static crashes I experienced. --Bill AA2UK

Events

For inclusion, please direct event notices to the editor.

ARRL June VHF - Contest - June 9-11, 2018, Join us at Camelback or operate the contest from home. Let's turn in a great score in the spring classic. See <http://www.arrl.org/june-vhf> for details.

HRAC Firecracker Hamfest - Hamfest - June 30, 2018. Harrisburg Area Community College, Harrisburg PA. See <http://www.w3uu.org/> for details.

Murgas ARC Hamfest & Computerfest - Hamfest - July 1, 2018. Polish American Veterans Club, Plains PA. See <http://hamfest.murgasarc.org/> for details.

Sussex (NJ) Hamfest - Hamfest - July 15, 2018. Sussex County Fairgrounds, Augusta NJ. See <http://scarcnj.org/> for details.

CQ Worldwide VHF - Contest - July 21-22, 2018. See <https://www.cqww-vhf.com/> for details.

222 and UP - Contest - August 4-5, 2018. See www.arrl.org/222-mhz-and-up-distance-contest for details.

10 GHz and Up (Round 1) - Contest - August 18-19, 2018. See <http://www.arrl.org/10-ghz-up> for details.

September VHF - Contest - September 8-10, 2018. See <http://www.arrl.org/september-vhf> for details.

10 GHz and Up (Round 2) - Contest - September 15-16, 2018. See <http://www.arrl.org/10-ghz-up> for details.

EME 2.3 GHz and Up - Contest - September 29-30, 2018. See <http://www.arrl.org/eme-contest> for details.

EME 50 to 1296 (Round 1) - Contest - October 27-28, 2018. See <http://www.arrl.org/eme-contest> for details.

Congrats Pete K0BAK!



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Trevor Baylis Inventor of a Radio Powered By Muscle Dies At 80

Trevor Baylis, a tinkerer who turned to old-school technology in an effort to disseminate accurate information about AIDS through Africa, inventing a portable radio powered by hand cranking, died recently. An article about this interesting fellow can be found at :

<https://www.nytimes.com/2018/03/07/obituaries/trevor-baylis-inventor-of-a-radio-powered-by-muscle-dies-at-80.html>

W3CCX 2304 MHz Beacon Reports Solicited

May 5th the W3CCX beacon 2304.300 MHz was installed and is now operating from the PAARC tower site on Fancy Hill in Berks County. The Grid square is FN20dh. Coordinates are 40.3258924, -75.7041386

For perspective this is 3.7 miles West of Boyertown, 4.5 miles North of Douglasville. From our meeting place in Warminster the bearing is 284 degrees, range 32 miles.

The installation is not permanent. The antenna is on a 3' standoff mount ~25 feet above ground so it will be screened by trees which will become worse as the leaves come out .

Reports please.

73, Len N3NGE

Joel Knoblock W3RFC

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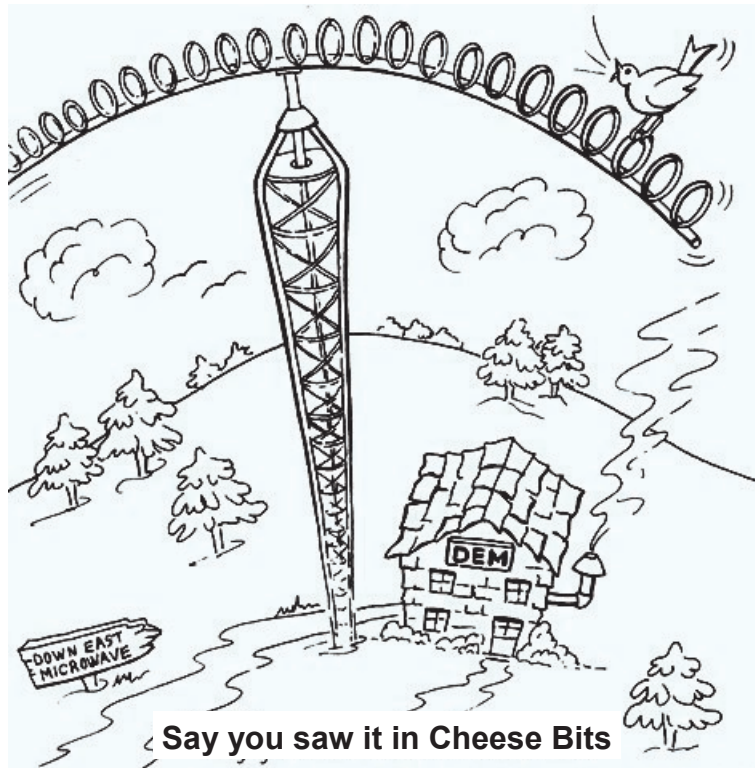
Brand new Packrat Lee K3SFX got 2nd place nationally in the SO3B category in the January contest. Although Lee's score couldn't count for the club score because he wasn't a member at the time, it's an excellent start.

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