



CHEESE BITS

W3CCX
CLUB MEMORIAL CALL

ARRL
Affiliated
Club



Volume LVIII

April 2017

Number 4

PREZ SEZ:

It was a good weather day, the sun was shining bright, the air was dry and the racetrack was quiet without the usual sound of NASCAR machines racing at 200 MPH. But the work shed in center track was populated with 6 packrat team members working diligently to bring wonderful improvements to what has become a marvelous way to run a bunch of bands (222 through 24192) while on Camelback Mountain during the ARRL June VHF Contest. We now have a dedicated seven foot operating table up front for the microwave station, right next to a new (to us), open rack to house all of the equipment. There are also two tables totaling fourteen feet to hold the lower bands and the Liaison station. The excitement is high among the engineers and operators for the upper bands that will occupy this trailer. At the last meeting I also spoke with the team of engineers and operators who build, equip and man the vital six and two meter trailer brought to us by K2WB and the South Jersey team. This will prove to be a momentous June event, and I will tell you more about that later. The six team members in DE were: WA3JZN, KA3WXV, WA3GFZ, N3EXA, N3YMS and K3TUF.

Are you ready for some Sprint fun? April 17th is the first Sprint (144MHz). Four hours of seeing how you get out on a single band. Take time to check out your 'bread and butter band' equipment. And follow up on April 25th in the 222MHz Sprint. Make sure these are on your calendar.

This year we have a spectacular ARRL night planned. It was at the last Dayton conference when I first spoke to Dan Henderson, N1ND about how long it had been since he was to a Packrat meeting.

He has been fully engaged in anticipation of this visit. Dan has recently been named Assistant Secretary of the ARRL Board of Directors, along with his full time day job as the Leagues' Regulatory Information Manager. Back when I joined the club, he was the Leagues' Contest Manager. I've asked Dan to fill us in on the corporate makeup of the League as well as tell us about his role as Regulatory Information Manager. Regulatory handles FCC issues, and it's our 'hobby' so come and find out about the inner workings of everything related to the agency that authorizes our 'hobby' activities. It will be a great night.

Also you need to come and assist in taking away the awards that WA3SRU has prepared for those who have earned them!

April also hosts two conferences. The first one in Manchester CT is hosted by the NorthEast Weak Signal Group. It happens the weekend of the 21st through the 23rd. The following weekend is another VHF conference held in Charlotte and is hosted by the SouthEast VHF Society. These are great events that keep you in the loop on what is going on with our northern and southern neighbors in the VHF world.

Did you save a little time to go to Dayton this year. The club will have four spaces. If you want to go, let me know.

Now there is something new about this years' June Contest. There are a whole group of folks who are planning a bunch of bands to work off the Moon, as the schedule permits. There will be a nice window over night that will not greatly conflict with the normal terrestrial operation.

Not only do you need to come to Camelback Mountain like we do every June to operate from a

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

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Pack Rat Web Site: <http://www.packratvhf.com>

SUBSCRIPTION/ADVERTISING MANAGER:

Bob Fischer, W2SJ 23 Morning Glory Circle, Mullica Hill, NJ 08062
(609) 440-2916 bobw2sj@gmail.com

EDITOR:

Lenny Wintfeld W2BVH 709 Lincoln Av., Cranford NJ 07016
(908)-272-0559 lennyw@comcast.net

CLUB TREASURER:

Dave Mascaro, W3KM 1603 Mink Road Ottsville, PA 18942
(215)-795-2648 w3km@verizon.net

TRUSTEE OF CLUB CALL - W3CCX

Mike Gullo WB2RVX
(609)-743-6643 MGullo3@comcast.net

PACKRAT 222 MHz REPEATER - W3CCX/R

222.98/224.58 MHz (PL 136.5) Hilltown, PA

OFFICERS 2016-2017

PRESIDENT K3TUF, Phil Theis phil@k3tuf.com
VICE PRES: KA3WXV George Altemus ka3wxv@yahoo.com
CORR. SEC: WA3EHD Jim Antonacci jjantonacci@verizon.net
SEC: KB1JEY Michael Davis kb1jey@arrl.net
TREAS: W3KM Dave Mascaro w3km@verizon.net

DIRECTORS:

KB3MTW Michelle London mal61@comcast.net
W3SZ Roger Rehr w3sz73@gmail.com
W2SJ Bob Fisher bobw2sj@gmail.com
WA3DRC Ed Finn edfinn11@gmail.com
Honorary Director W3GAD Doc Whitticar w3gad@arrl.net

COMMITTEE CHAIRMEN

January Contest Bill K3EGE billk3ege@gmail.com
Bob W2SJ bobw2sj@gmail.com
June Contest: Phil K3TUF phil@k3tuf.com
VHF Conference: Rick K1DS rick1ds@hotmail.com
CoChairs
George ka3wxv@yahoo.com
Michael kb1jey@arrl.net
Awards Chairman Joe WA3SRU wa3sru@verizon.net
Quartermaster: Bert K3IUV bsoltoff@comcast.net
Membership Chairmen: Rick K1DS rick1ds@hotmail.com
Griff NE3I signalnaut@aol.com
Jim WA3EHD jjantonacci@verizon.net

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:

TIME	FREQUENCY	NET CONTROL
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
8:30 PM	224.58R MHz	W3GXB FN20jm Bob
9:00 PM	432.110 MHz	WB2RVX FM29mt Mike

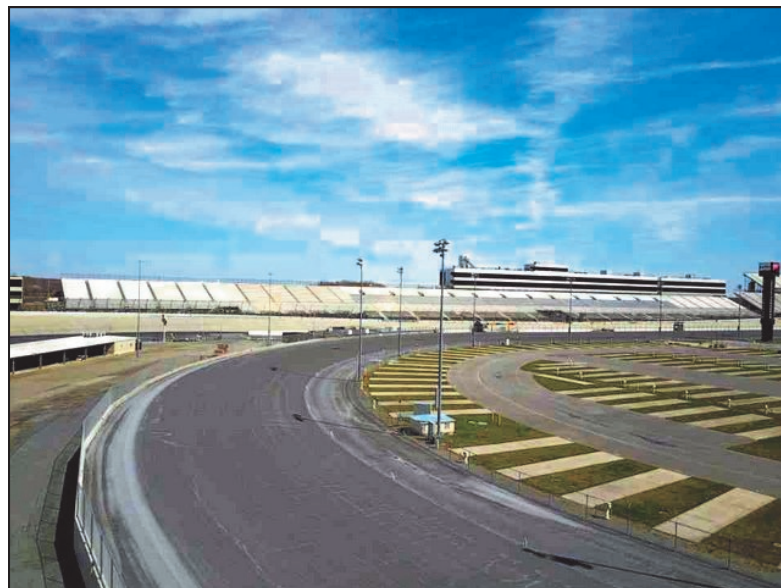
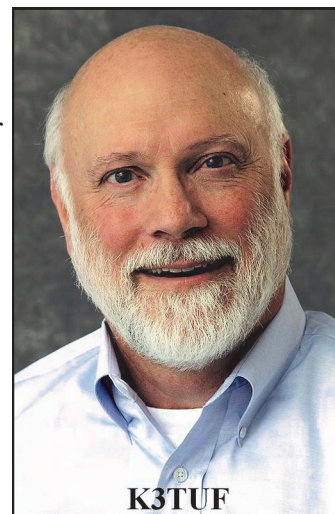
Microwave Tuesday:

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

prime VHF location, but now you need to come (or at least visit) to see a major EME operation take place on a number of VHF and Microwave bands. More to come, but make sure this is on your calendar.

So until this major June event, lets still talk on lots of bands,

Phil, K3TUF



March Meeting: Homebrew / Hardware Night

Homebrew Award Winners:

- Best Design & Construction
HF & VHF Amplifiers: Vitaly Vasheka KC3ACQ
- Best Design & Construction
10 GHz Microwave Enclosure: Ed Finn WA3DRC
- Best Station Automation
Tom Fredericksen KA3FQS

From Joe WA3SRU, Awards Chairman







Comments by Gary WA2OMY

We had a good turnout for our annual homebrew night this year. Since the number of homebrew entries has declined somewhat over the last few years the BOD discussed adding tech night to homebrew night. The name of the meeting took on the name, "Homebrew / Hardware Night". Success! We had a broad range of items to test and tune, including a 2M HT, 1296 transverter, and several preamps, filters, and power amps. The meeting ran late, we had visitors, and overall the meeting was well received. This is on track to be an annual event after the Crying Towel meeting. The effort for having test and tune at the meeting has been made a lot easier the past couple of years with the help of Michael, KB1JEY and Warren, WB2ONA. Michael has a kit of tools, adapters, soldering, test gear, cables, and a cart to move it all in, ready to go at a moment's notice! Warren has a load of Bird meters and slugs.

One thing that was requested was noise figure measurement. We will consider supporting this in the future. There are three HP 8970 noise figure meters around I know of, hopefully one good one will come out of the three.

K3IPM JANUARY CONTEST PICTURES



4 Beko's --- Yikes!





HI LENNY,

AFTER MANY YEARS OF COMING UP IN JANUARY AND PUTTING THE ANTENNAS TOGETHER ON THE TOWER TRAILER, I GOT TIRED OF IT (AND NEXT WEEK I TURN 77).

TWO YEARS AGO I DECIDED TO TRY A BUCKET TRUCK ASSEMBLY WHICH WAS **VERY** SUCCESSFUL. SO THIS YEAR I WENT TO A SECOND BUCKET TRUCK. IT WAS A BIG HIT! WA3DRC, ED, BOUGHT THE TOWER TRAILER SO NOW I KNOW IT HAS A GOOD HOME>

ALONG WITH MY NORTHERN SHACK SET-UP I FEEL I'M GOOD FOR ANOTHER 77 YEARS!!!!

SEE YOU SOON

STAN, K3IPM

Tnx K3JJZ for pictures

W2KV 10 GHz Portable Transceiver

For about the last month I have been building a self-contained 10 GHz portable transceiver. I thought the unit would be useful for hilltopping, in testing my fixed-station 10 GHz rig and as a loaner for generating 10 GHz contacts. The unit is fully integrated with an IF radio, 20 dB gain horn and tripod mount. It runs on a 12 volt car battery.

The electronics are housed in a 8 by 14 inch plastic Bud box with a hinged lid. The IF rig, a Radio Shack HTX-100 10 meter rig, is mounted to the lid of the box. **Figure 1** shows the front of the unit with the IF rig on top.

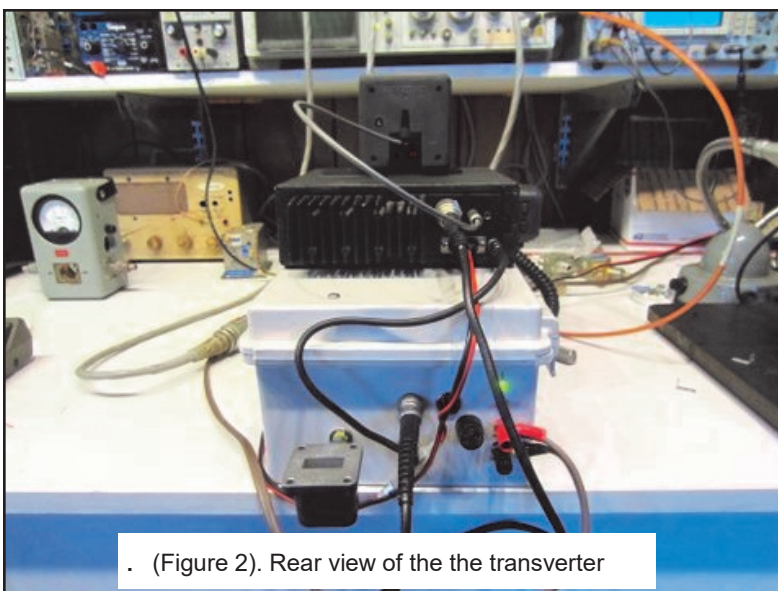
It has one watt output at 10 GHz and a reasonably sensitive front end. **Figure 2** shows the "business end" with 12 volt input terminals, BNC IF connector, SMA microwave connector and RCA keying input

Block Diagram

Figure 3 (following page) shows a block diagram of the transverter. The unit has two passive, bidirectional conversions, from 28 to 144 MHz and from 144 to 10368 MHz with a total of 18 dB loss. The first conversion uses a Mini-Circuits SBL-1 mixer driven by a homebrew low phase noise 116 MHz crystal oscillator followed by a homebrew 2 meter band pass filter. The second conversion uses a flea market mixer driven by a Frequency West 10224 MHz PLO followed by a pipe cap



(Fig 1). The packaged 10 GHz Rig



(Figure 2). Rear view of the the transverter

filter at 10368 Mhz.

The receive amp is a homebrew unit using 3 low noise GaAs FET stages. I built the thing over ten years ago when I had access to a lot more test equipment than I have now. I must have put a lot of effort into it since it is done on Duroid and has individual gate voltage control pots. It has about 30 dB of gain at 10 GHz. I can't find any documentation on it but I will continue to look. It runs on a fixed -6V gate voltage and the 8V drain is switched on during receive.

The transmit chain consists of a Watkins-Johnson gain block running on +12V with about 22 dB gain and +11 dBm output. The final amplifier is old and of unknown origin. It takes 10 dBm in and puts out

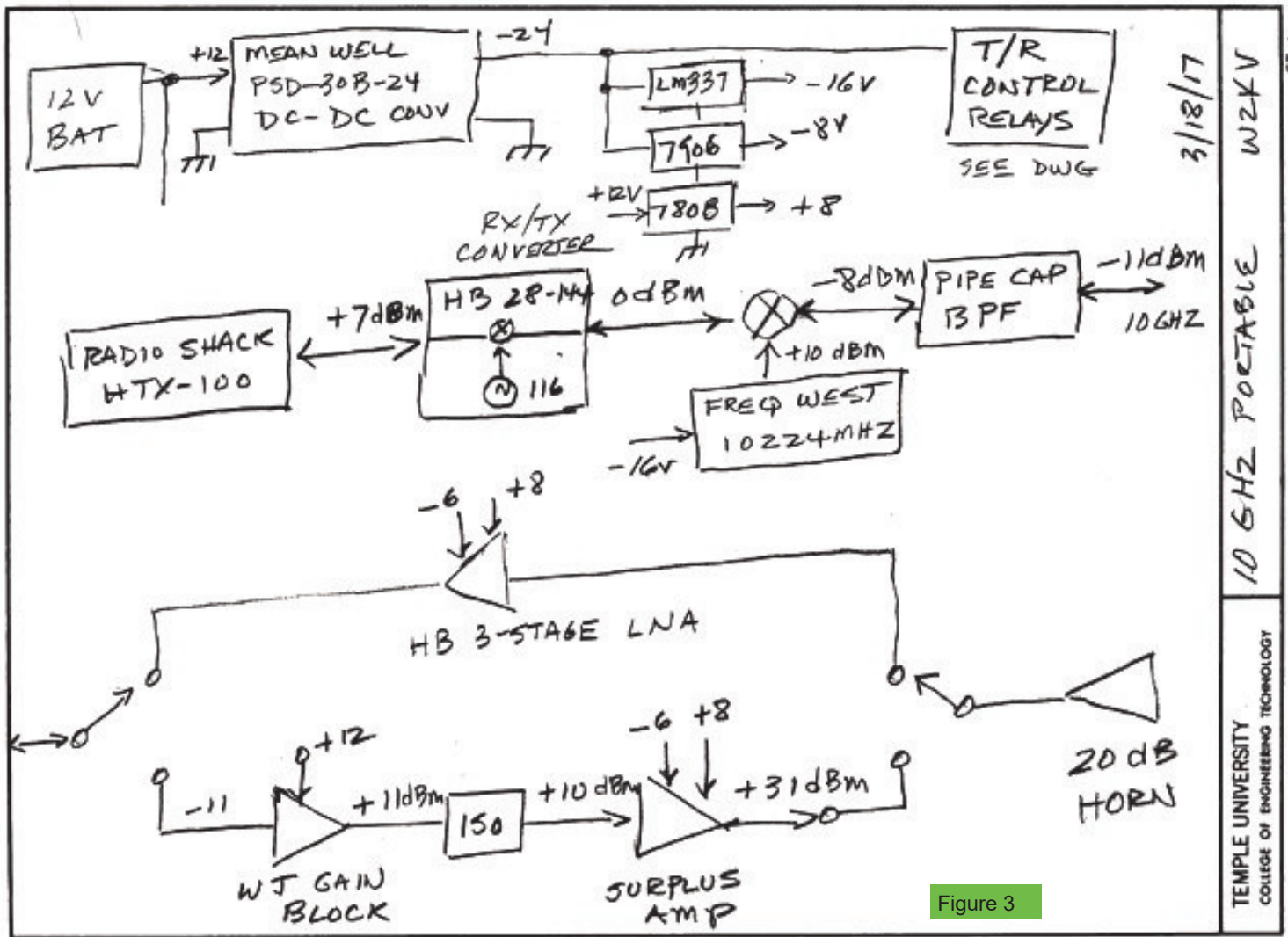


Figure 3

+31 dBm. It also runs on a fixed -6V gate voltage and + 8V switched on during transmit. An isolator was required between the driver and final amp to prevent oscillation.

The microwave switching is done by a pair of very compact Dow-Key 401T SMA relays. These were flea market finds and were supposed to operate with a 28V supply and TTL levels to transmit and receive pins. The TTL function didn't work so I took them apart and wired the coils directly to the former TTL terminals. They are latching type relays and require only a momentary 28V pulse to each pin to switch back and forth. I used the negative 28V supply and a relay and capacitor as shown in the switching diagram (next page) to provide the T/R pulses. The coil polarity in the Dow-Keys had to be reversed to operate on the negative supply.

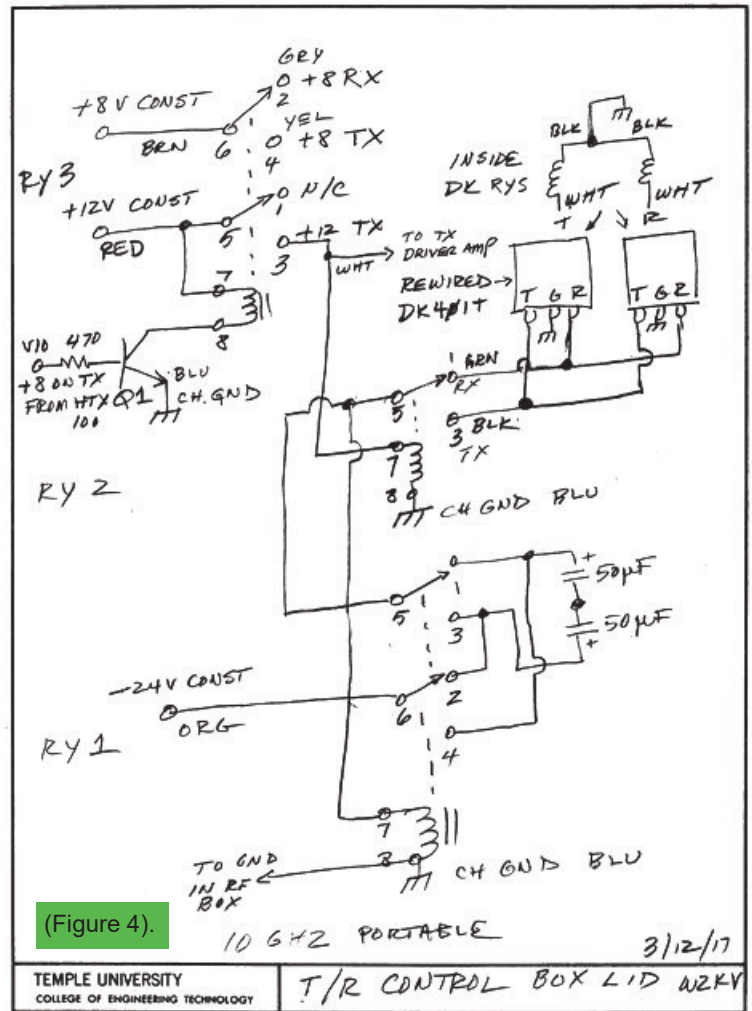
The negative voltages required by the Frequency West PLO, the gates and the T/R relays are supplied by a Mean Well (that's the actual name) 12 to 24 volt isolated DC/DC converter. The part number is PSD-30B-24 and is about \$15 at Mouser. It will supply 1.25 amps at 24 volts and there is no common ground between input and output so the output can be reversed for -24 volts. An LM337 adjustable negative regulator supplies -16.5 volts to the PLO. The Frequency West units are rated at -19V but this one seems happy at -16V and runs cooler. Fixed regulators LM7906 and LM7808 provide the gate and drain voltage for the amplifiers.

The three control relays mount under the Bud box lid to save space. They are 12V DPDT units and provide switched transmit and receive voltages and also the -24 pulses to the Dow-Key relays. A schematic is shown in Figure 4.

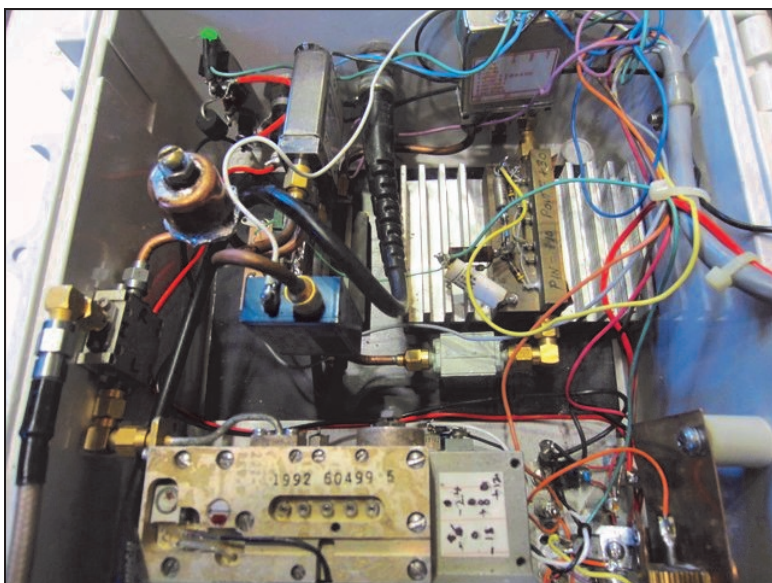
The Radio Shack HTX-100 ten meter rig is a good choice for an IF as it is easily modified for transverter service. If you remove the top cover there is a piece of double sided PC board material shorting a set of three contacts. The contacts are used in measuring the collector current of the driver and final amplifier stages. If this PC board is moved over so as to un-power the final amplifier about +7 dBm leaks through from the driver amp to the output on transmit and the receive function is not affected. This allows use of the stock UHF antenna connector and the internal switching for transmit and receive. There is also +8V on transmit line which can be sent out to an added connector for use as a transmit control signal. The whole contraption mounts on a photo tripod and is powered from a 12V car battery. It draws about 3 amps on transmit and about 1.5 amps on receive, mostly for the Frequency West PLO.

It fought me every inch of the way, but it is running fine. It gets hot in the box, and I will probably need a small fan to keep it cool.

I have a 2 foot dish and feed that I can substitute for the horn, but it will need some mechanical work. Maybe mount the dish on the tripod and put the transverter on a table. I couldn't hear any sun noise with the horn so maybe a RX preamp might be something to try. Peter WW2Y wants to take the portable box out to try some locations to work from. Maybe I will bring it to the shore next time I go and try to hear the Packrat beacon. It's about 57 miles but a flat unobstructed path.



(Figure 4).



Most of the RF Section



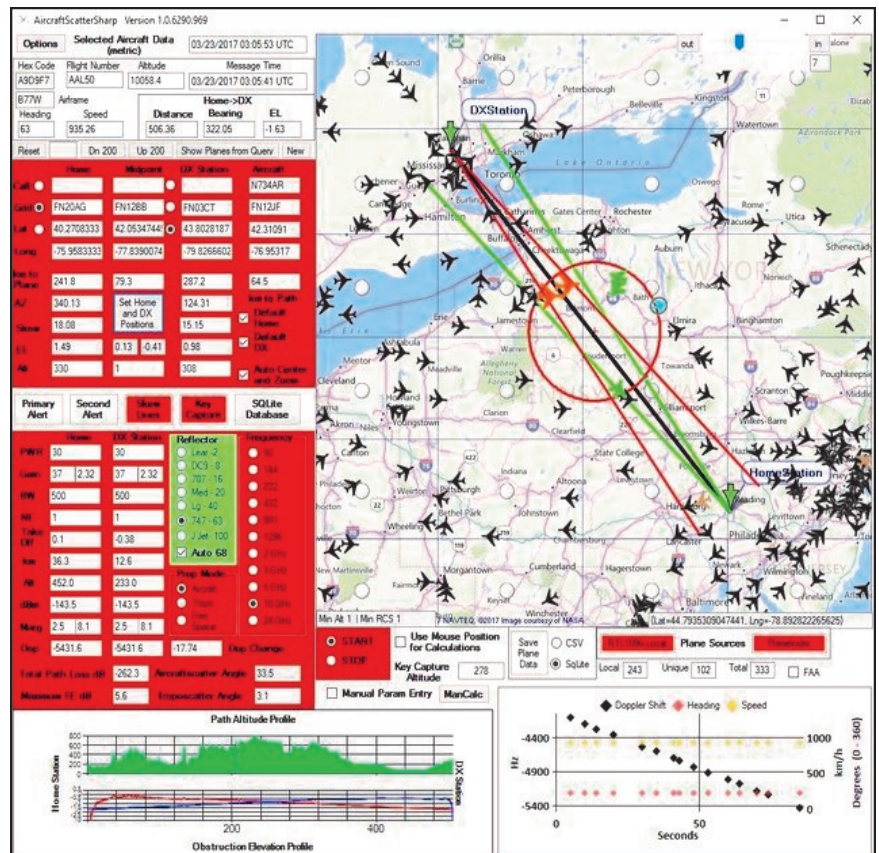
Updated AircraftScatterSharp Program

AircraftScatterSharp has gone through a number of iterations since its inception in 2012. This report is to bring readers up to date on the newest changes to this program. More information is available at www.nitehawk.com/w3sz/AircraftScatterSharp.pdf and there is also some information on my general aircraft scatter webpage at www.nitehawk.com/w3sz/AircraftScatter.htm

The following features are the most recent additions to AircraftScatterSharp:

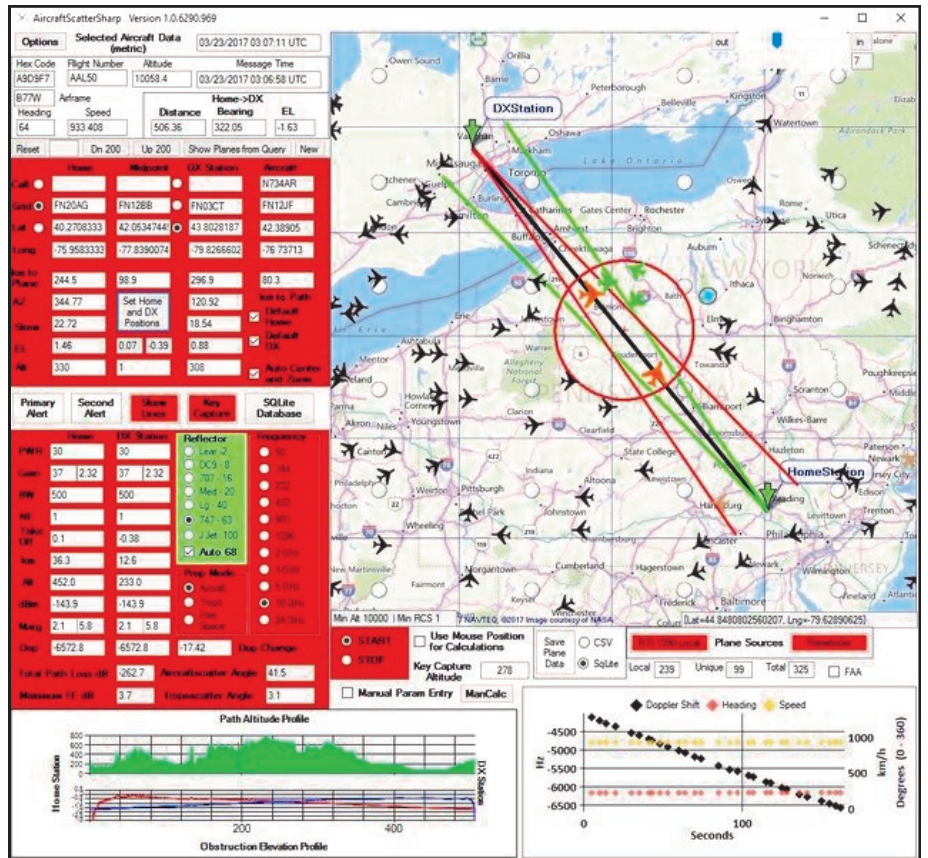
1. The ability to limit aircraft viewed to those above a user-specified altitude
2. The ability to limit aircraft viewed to those having a radar cross section (RCS) greater than a user-specified value
3. The addition of estimated RCS values for more than 100 commonly spotted aircraft.
4. The addition of an "Automatic" mode where the program will automatically assign an estimated RCS value to a plane based on its airframe type, as specified by its ICAO type code.
5. Display of estimated signal margins both with and without Forward Scatter Enhancement for both Home and DX stations.
6. An expanded "manual" or "experimenter's" mode allowing manual entry of multiple parameters that would normally be provided by the ADS-B aircraft data. This allows for testing path properties without needing to have an actual aircraft in position to do so. Just as when "live" aircraft are being assessed, with this manual mode as well path loss can be evaluated and compared for aircraft scatter, troposcatter, and free path conditions.
7. Text and Graphic display of Doppler shift data as well as rate of change of Doppler shift.
8. The addition of additional "preset" values for the RCS compared with prior versions.

A "good" problem that we have in our portion of the mid-Atlantic states is that there are just too many planes in the sky and on the screen, and the planes with sufficient RCS and altitude to be good reflectors can get "lost" in the plethora of planes that are too small or too low in altitude to be useful. The image to the right shows the situation at 2240 as I type this; its less crowded than during the day, but there is still too much "noise" on the display:



Below is a screenshot taken just after the one on the previous page but with a lower altitude limit of 10000m, eliminating those planes that will be too low to provide a reflector at distances of 800 km or more.

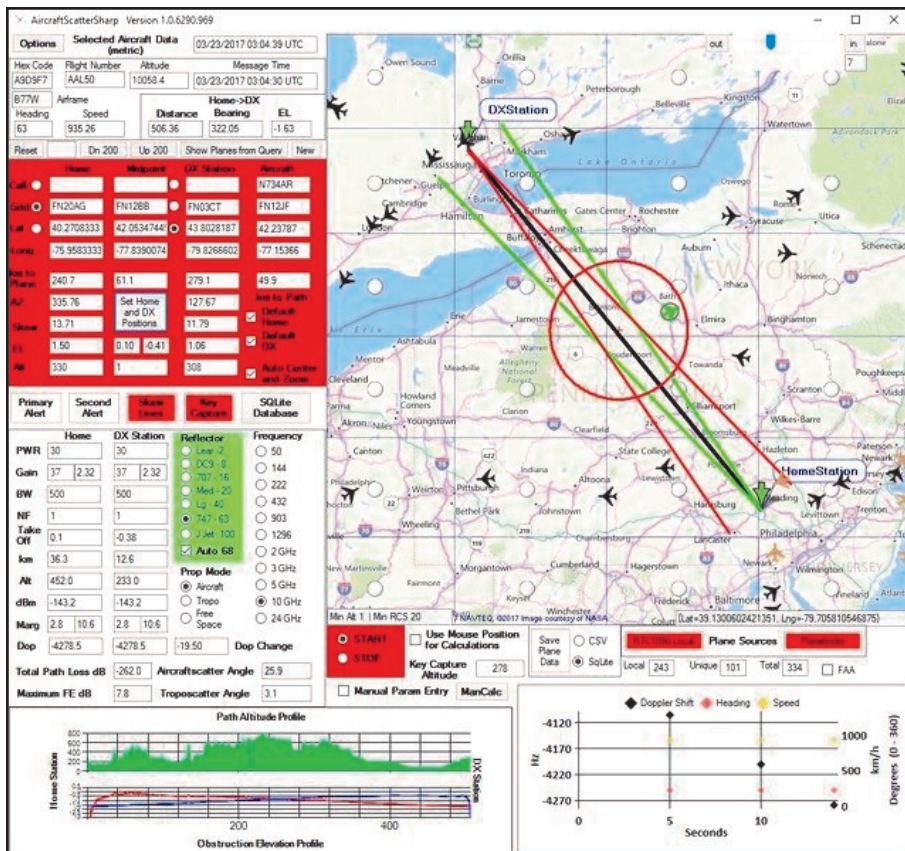
You can see that with this altitude limit of 10000m the screen is slightly less crowded with aircraft. But there are still many aircraft on the screen that are too small and have too small a radar cross section to be generally useful for aircraft scatter:



In the image to the left, the altitude limit has (for demonstration purposes) been reduced from 10000 m back to 1 m, but the minimum RCS limit has been changed from 1 to 20.

You can see that increasing the RCS to 20 dramatically reduces the number of aircraft displayed. Whereas on the first image there were hundreds of planes displayed, on the image below there are only about 20 planes displayed. But each of these planes will, if it approaches the direct path line running between the Home and DX stations, provide an excellent reflector.

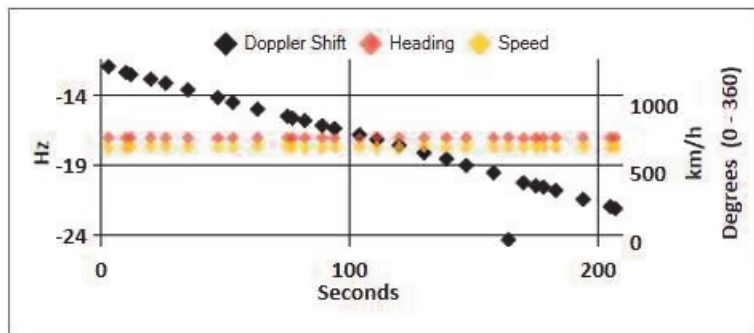
The plane that is selected in the image below is heading towards the "sweet" spot where maximal signal return occurs. The plane has ICAO type B77W, which represents a Boeing 777-300ER, with an ...Scatter cont'd



estimated RCS of 68 sq m. It has a length of 74 m (242 ft), wingspan 61 m (200 ft), and maximum take-off weight of 299,000 kg (524,000 lbs). It will be an excellent scattering object.

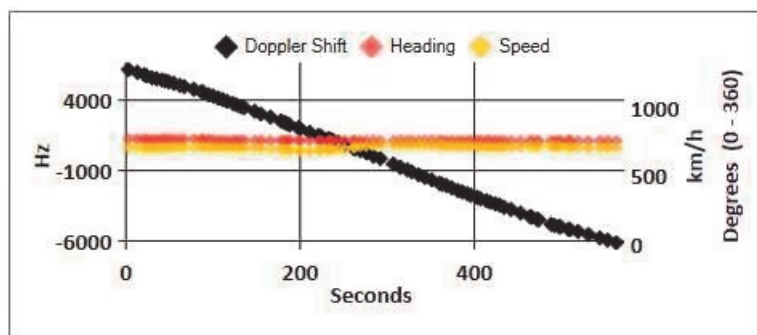
Setting the RCS limit in this fashion eliminates from the display the noise of planes that will not provide useful reflectors.

Doppler shift is an issue on the higher frequency bands. When a plane is flying along the path between the Home and DX stations, the Doppler effects to and from the plane cancel each other, but when the plane is flying perpendicular to the inter-station path the Doppler shift is doubled compared with what it would be for a single station. On 10 GHz, this means that the Doppler shift can approach 20 kHz for typical aircraft velocities. The Doppler shift at any time as well as its rate of change are displayed in text boxes near the bottom of the data display area situated to the left of the map, and just above the Path Altitude Profile display. In addition, the Doppler shift along with the aircraft speed and heading are displayed in graphical form in the right lower corner of the display below the map, as is shown on the right. This display was made with the frequency set to 10 GHz.:



Both the vertical and the horizontal axes of this display scale automatically. On the left of the graph you can see the Doppler shift axis ranges only from about -30 Hz to +20 Hz. This tells us that the plane responsible for this display was flying down the inter-station path. Otherwise, at 10 GHz, the Doppler shifts would be much larger. You can also see that the aircraft speed is on the order of 600 km/hr, not particularly fast for a commercial jet. The heading is on the order of 200 degrees or so. The speed and heading are shown on the Doppler display to help in the rapid interpretation of changes in the Doppler pattern.

To the right is the Doppler display for an aircraft flying approximately perpendicular to the inter-station path. In this case the Doppler shift ranges from near +6000 Hz to -6000 Hz. Aircraft velocity is on the order of 700 km/hr and the heading was again on the order of 200 degrees:



So the Doppler shift is a very good reason to seek out planes flying parallel to the inter-station path.

Another very important reason to use planes flying along this path as scattering objects is the fact that the magnitude of the Forward Scatter Enhancement effect, which can provide up to 20-30 dB of additional signal, falls off extremely rapidly as a plane moves off of this path.

Aircraft Scatter is great fun! So get on the air and try it! AircraftScatterSharp will greatly increase your chances of success. --Roger Rehr W3SZ

Current Status of the K2LIM Rover

This project started after I got back from the 10GHz contest (part 1) in August 2016. It was a rove along the south shore of Lake Erie with Warren – WB2ONA. **I was hooked!**

I decided to use my 1988 Chevy conversion van as my 10 GHz rover. I bought upright posts that fasten to the drip rail on the van and then designed and built a rack that sits on top and carries the tower which tilts up when in at an operating site. It goes down for traveling. Remember this was to be my 10GHz rover.

As I got further into the project, the “light bulb” went off in my head, I had all the antennas and transverters (extras I might add) in storage so why not go all out and make this a **10 band rover**.

The first picture shows the van with the rack and the tower in the up position. From the bottom going up the antennas are as follows: 222, 902/3, 1296, 2304, 3456 on one side of the mast. There are 2 – 11 element 432 antennas on the opposite side of the mast fed with a power divider. Just above the top 432 antenna is the 5 & 10G dish and above that the 2M antenna.

The second photo (next page) shows the 4 element 6M antenna on the very top, about 3' above the 2M beam.

The bottom four bands are fed with $\frac{1}{4}$ " super-flex and 902/3 thru 3456 are fed with $\frac{3}{8}$ " super-flex. The 5&10G transverters are in a weather proof box that will be mounted to the back of the dish. Remember those boxes that Lenny (NGE) gave out at one of the Mid-Atlantic conferences? Those are the ones. $\frac{1}{4}$ " super-flex goes from the I.F. rig up to the 5 & 10 box along with the PTT lines.

The third picture shows the 902/3 – 3.4 transverters and an Yaesu FT-847 for the I.F. rig and the rotor control. (also, next page)

Fourth photo is the other FT-847 for the bottom four bands with the SSPA's in the rack below.

The desk top is made from $\frac{3}{4}$ " plexi-glass, discarded from the local hockey arena. I decided to use this as **it affords me the ability to monitor the watt/VSWR meters from the operating position**. The fourth photo also shows the view of the rack thru the desk top.



...K2LIM cont'd

The power output for the bands is as follows: 6M – 170W, 2M – 200W, 222 - 150W, 432 -110W, 902/3 -60W, 1296 – 50W, 2304 – 20W, 3456 – 8W, 5 & 10 - 3W each.

To answer the question in your mind: “Is he going out to rove for the contest station?” The answer is no. But I will be out with this setup for the sprints and this will also serve as an auxiliary microwave position at the K2LIM contest station so we don't miss working you when the main microwave station is tied-up working another station.

In testing, I was able to make a 200+ mile contact on 2M, from where the van sat in my driveway, with Ellis – WA1RKS, I'm satisfied. Warren was here last week and we checked the 2.3 and 3.5 setup's and then I installed them. The 5 & 10G box will go in place after the NEWS conference, as I want to have the LNA's tested first.

It has been a lot of fun building and I am looking forward to working many of you with this rover station.

Ken, KA2LIM



Yuri's Night Celebrating The World's First Cosmonaut

Yuri's Night is a global celebration of humanity's past, present, and future in space. Yuri's Night parties and events are held around the world every April in commemoration of Yuri Gagarin becoming the first human to venture into space on April 12, 1961, and the inaugural launch of the first Space Shuttle on April 12, 1981. This year it will be held April 8-9 2017. It includes some spectacular EME Skeds. See <https://yurisnight.net/about/> for details.

TNX K2UYH for info.

Meteor Scatter Circa 1953

• Although you might not suspect it, in view of this past winter's experience, the 14-Mc. band is never completely "dead." This article describes a newly-discovered type of propagation that is always present, for which the optimum communication distance is of the order of 800 miles. It has gone undetected for many years because it is usually masked by other forms of propagation and requires first-rate equipment for its exploitation — equipment which, however, is not at all unusual.

For the complete article log on to the ARRL website and look up the article from the April 1953 QST.

Tnx W3SZ for info

Justin Kelly reports availability of a QRP transmitter smaller than a car's key fob, that can indeed be kept on your keychain. They run 160 mW and are available for 160M, 20M, 17M, 15M and 6M for \$39.95 each. See <https://www.etsy.com/listing/506756455/keychainqrp-160m-band-worlds-smallest?ref=market> for details

Hawaii - California Beacon Reception on 432 MHz

Only four weeks after the 70cm WSPR/JT9/JT65A beacon went on the air from the Big Island of Hawaii at KH6HME, it has been spotted in California by N3IZN and W6IT in Southern California. Congratulations Chris and Greg!

Although only a 'partial' duct formed and signals were never strong enough to be heard by human ear on CW, both WSPR and JT9 made it across this 4000+ km path on 432.3 MHz.

Spots occurred over about a six hour window, peaking at -14 at W6IT. That short peak would probably have produced JT65A spots, the wave file for the adjacent JT65 transmissions weren't acquired. One JT9 spot was made at -24 S/N.

More complete story at <http://www.sonic.net/~n6gn/HI70cm/HI70cm.html>

From Glenn n6gn via Paul g6yzc

George, W3FEY reports: I have some old logs and other memorabilia re John Roehm, W3ADM, contributed by Lloyd Jury. The logs don't appear to have much value and I will probably discard them. It is interesting however to see calls that I recognize in the logs. **John omitted the W prefix** for domestic contacts. Note the contact with W3CL Jan 6 1933.

1933

Date	KcS.	Cl.	Wkt	Q ^o	Q ^o	Q ^o	Q ^o
Jan. 6							
1855	3609.47	CQ	1BFS	4	8048c	x	J
1705	"		8YA	5	8048c	↓	J
1745	"		3CL	5	8048c	↓	J
2020	"	10WZ 1c					
2030	"	9FBT					

Southeastern VHF Society Conference

The SVHF Society will hold our convention in Charlotte, NC this year on April 28 and 29 at the Doubletree by Hilton Hotel Charlotte Airport, 2600 Yorkmont Road, Charlotte, NC 28201.

We have arranged rooms at \$95; you can call 800-222-TREE and ask for this rate under the name "South East VHF Society". Registration hyperlink is currently online: (<http://svhfs.org>). The conference fee for pre-registration is \$30, Friday's Luncheon is \$15, and the Saturday's banquet is \$40.

I hope to see many of you there, Gary Greene, W2ZV, conference committee member.

43rd ANNUAL EASTERN VHF/UHF/ MICROWAVE CONFERENCE

Fri./Sat./Sun. April 21-22-23, 2017
BAYMONT INN & SUITES
20 Taylor St., Manchester, CT 06042

(just a few miles northeast of Hartford, CT off I-84, at Exit 63)

Registration ONLY \$30 after April 1
Includes: Saturday Pizza+Sub Lunch
Thursday & Friday -- Evening Super
Hospitality Room, Proceedings CD

Friday afternoon sessions!! - 2:30-5pm,
Take your choice:
Arduino Workshop or
Get on Microwaves without a Wheelbarrow
of \$\$

Sat. Eve. Banquet Buffet \$30. Must order
banquet before April 10.

Extra Proceedings CD's -- \$5ea. at the
Registration Desk

Discounted VHF Conference Room Rate
again this year, available Thurs, Fri, Sat, &
Sun nights \$79 for 2 double beds or 1 king,
\$99 for a suite plus CT state tax

**Check: www.newsvhf.com for
updates**

SAVE THE DATE MID-ATLANTIC STATES VHF CONFERENCE

Friday October 6--Sunday, October 8, 2017

*****PAPERS AND PRESENTATIONS SOLICITED
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Send your Title or Outline to
rick1ds@hotmail.com

**We will have a Friday afternoon session 2P-5P
on station automation**

**Hospitality Friday evening and Conference on
Saturday from 8A-5P**

**Saturday evening banquet buffet and door
prizes**

**Sunday AM parking lot mini-hamfest outdoor
selling**

The Conference this year will be held again at the
Holiday Inn Bensalem-Philadelphia
Area
3327 Street Rd, Bensalem, PA 19020

The Wayback Machine

In CHEESE BITS, 50 Years Ago

Nibbles from April 1967. Vol. X Nr. 2
de Bert, K3IUV
(author's comments in italics)

- **“Our Prez Sez”**. Helen, the editor took a friendly gibe at the president (W2EIF, Joe) by leaving a page column blank, but with the heading “This space reserved for the President’s Message”. She had no mercy on someone that was late with their input.
- **ARRL Bulletin. NR 101.** 2/23/1967. A reminder from the league that many training aids are available, “designed to enhance club education and interest. A sampling was included. *(Reminds me that I have a copy of the League tape of W2HDQ, Ed Tilton [known in those days as Mr. VHF] on a 7” tape reel. One of these days I’ll get it transcribed to a CD, and bring it to a meeting.*
- **220 and up Directory.** An excerpt from the April 67 QST column “The World above 50 Mc” said “ARRL is preparing a directory of stations operating on 220 and higher. If you are actually *(their word)* on one of these bands we would like to know about it. If you haven’t already received the questionnaire, please request one so you can be included in the directory. When compiled, a copy will be made available to anyone who sends in a SASE.” *(Imagine the size if they did*

it again this year!).

- **Upcoming Meetings.** April speaker, W1HDQ, Ed Tilton *(see my note in the Bulletin 101)*. April 15. Ladies night, Buck Hotel *(Things we don’t have anymore!)*. May speaker. **Ed Clegg, W2LOY** *(designer of the Clegg line of equipment. Didn’t our prez used to work for him?)*. June speaker. W3HIX, John. His topic will be transistorized converters. *(John was a club member, and a design engineer at the Philco “Applications” group in Kulpsville. He designed the 432 transistorized converter that I still have down in the bunker. [remember, this was 50-years ago.] He was a good friend of mine who unfortunately met an untimely death)*.
- **Ham radio Demonstration.** The Big Brothers of Philadelphia planned an open house on April 5 at their location on Van Pelt St. The Packrats will have a Ham Radio station set up and operating on 50.2. The intent is to interest the boys in becoming Hams.
- **HAM RADIO public service.** Member W3ELI, George Van Dyke submitted the 3rd of a series of articles on the public service obligations of Hams. This one dealt with the format and techniques for getting messages in and out of the National Traffic System. It referenced the ARRL “pink” instruction form which detailed the format, Q signal definitions and other operating aids. *(A copy of the form was included in the Cheese Bits*

...Waybck cont'd

mailing. My copy still has it attached!).

- **Ladies Night.** April 10, deadline for reservations
- **Humor.** Another humorous article by member K3JJZ, EI. This time it was about his efforts to restore audio to a surplus BC-312. (*Go read it and have a laugh.*)
- **Swap & Shoppe.** From K3JJZ, EI, an Eico Sweep Generator and a collection of 4CX250Bs in sealed envelopes. \$6 each.
- **Miscellany.** *Postage remained at 10c this month (5 sheets 8-1/2" x 14", plus the ARRL operating aids card). 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 K3IUUV

Study Finds Anomaly with Amateur Radio Operators

Originally published in "Radio Artisan" See <https://blog.radioartisan.com/2017/04/01/study-finds-anomaly-with-amateur-radio-operators/>

April 1, 2017

Results from a study published by University of California Berkeley in The Journal of Psychology found that amateur radio operators are 45% more likely than the general public to believe fake news articles or material with misleading or outright wrong claims.

Researchers weren't specifically studying amateur radio operators, but discovered the correlation by accident.

The report noted:

"We tested over 15,000 adult subjects and recorded profiles of each person... the common attributes like age, race, ethnicity, etc. and also their likes, dislikes, hobbies, diets, habits, etc. We discovered a strong and unexpected correlation with those claiming to be amateur or "ham" radio operators after running all of the data through an analysis using a recently developed **Reverse Polish Bayesian** algorithm. The unexpected data correlation continues to have the research team puzzled and further study is warranted."

There is currently no proven explanation for the correlation, however one plausible hypothesis has emerged, that exposure to **high levels of radio frequency energy** combined with very fatty diets and long periods of television viewing, with political and news programming exposure, causing the frontal cortex of the brain to rapidly atrophy.

Researchers are struggling to reproduce the characteristics as lab mice either die or become very disinterested when exposed to the combination of factors, especially when frequencies in the 144 MHz range are used in experiments.

Events

For inclusion, please direct event notices to the editor.

"MWL Microwave Luncheon, a semiformal biweekly lunch meeting of hams in the FN10 - Elizabethtown, PA area. We meet at 1100 at Hoss's Restaurant on Route 743 about 1 mile towards Etown. Those interested in microwave communications and wanting to attend please contact John Jaminet, w3hms@aol.com for details."

Next Dates (tentative) : 4/6, 4/20, 5/4, 5/18, 6/1, 6/15/2017

VHF Spring Sprints 2 Meters - Contest - April 17, 2017, 7-11pm local. Rules and further info at <https://sites.google.com/site/springvhfupsprints/home/2017-information>

VHF Spring Sprints 222 MHz - Contest - April 25, 2017, 7-11pm local. Rules and further info at <https://sites.google.com/site/springvhfupsprints/home/2017-information>

VHF Spring Sprints 432 MHz - Contest - May 3, 2017, 7-11pm local. Rules and further info at <https://sites.google.com/site/springvhfupsprints/home/2017-information>

VHF Spring Sprints Microwaves - Contest - May 6, 2017, 8am-2pm local. Rules and further info at <https://sites.google.com/site/springvhfupsprints/home/2017-information>

WARC Hamfest - Hamfest/Convention - May 7, 2017 EPA Conference and Warminster ARC Hamfest. New location Bucks County Community College, Bristol campus on PA route 413 just off of the exit of I-95. See <http://wp.k3dn.org/hamfest/> for details.

VHF Spring Sprints 6 Meters - Contest - May 13 - 14, 2017, 2300Z to 0300Z. Rules and further info at <https://sites.google.com/site/springvhfupsprints/home/2017-information>

ARRL June VHF QSO Party - Contest - June 10 - 12, 2017. Details to follow.

MWL (Microwave Lunch) March 23, 2017



For additional details on MWL, see "Events" at left

Russian EME Newsletter:

http://eme.vhfdx.ru/media/pdf/EME_vestnik_2017_7.pdf in Russian, mentions our own WA3QPX on pp.11 as a QSO. I don't think there was any reference to relaxing sanctions in the QSO so no need for Congressional involvement.

--W2BVH

FROM K3JJZ: Just received a land line from Joe K3VEQ who informed me that Loretta Cutler had passed away on March 17th. Loretta was the xyl of long time Packrat K3GAS Doc Cutler She was 100.

International Crystal (ICM) Going out of Business after 66 Years

See:<https://www.icmfg.com/> for info

Tnx WA2OMY for heads up.

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Kevin Schmidt Changes a Lightbulb

XYL: "So, what did you do today?"

Kevin "I changed a light bulb"

XYL: "That's all?"

Kevin: "Yes," I filmed it, look :
<https://www.youtube.com/watch?v=f1BgZlZRfT8>

Tnx WA3QPX for URL



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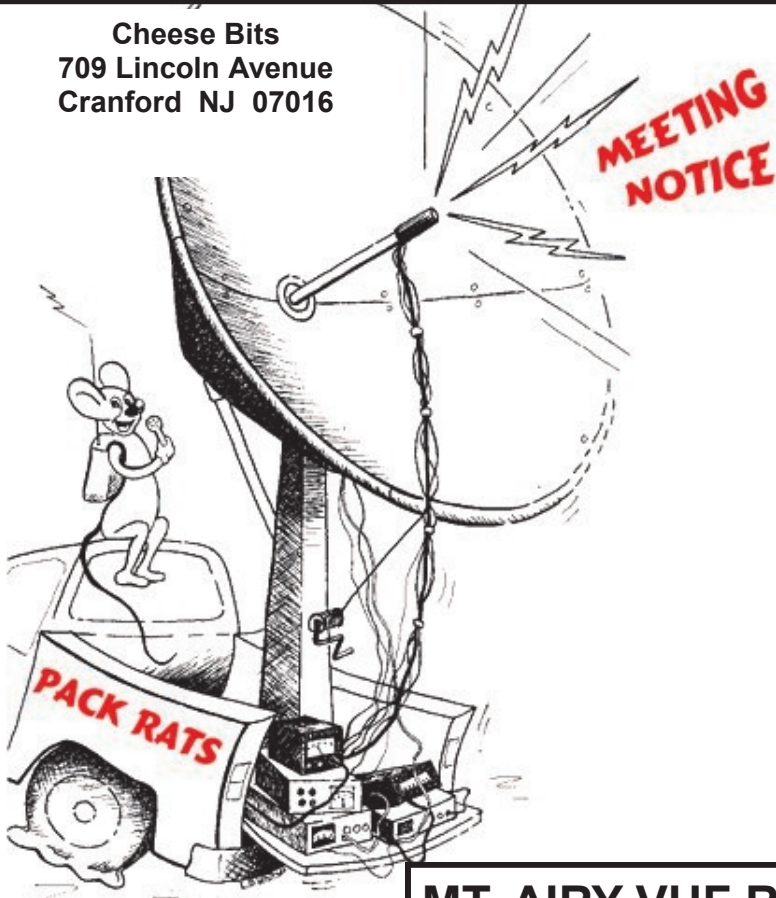
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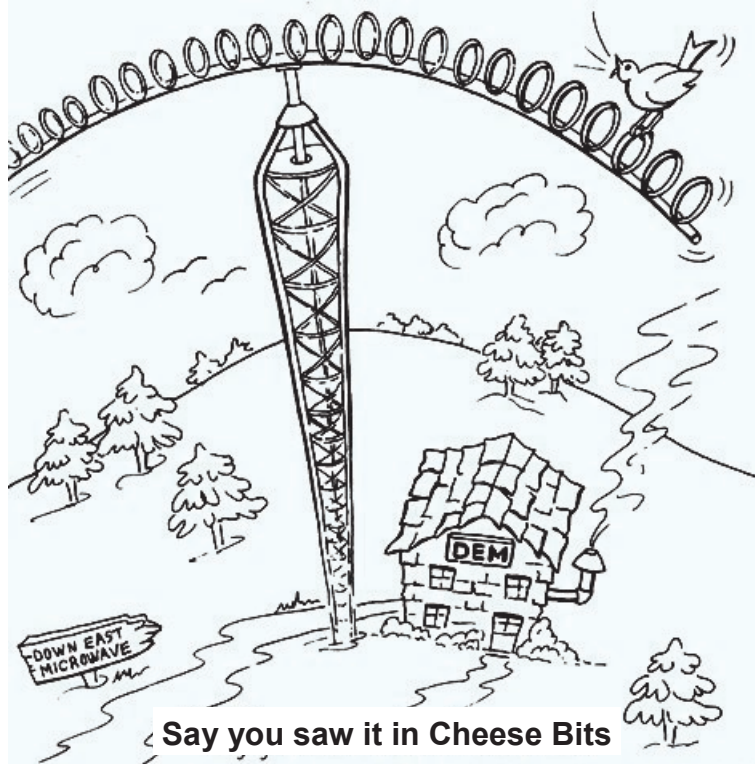
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