Founded

#### HI ALL

Yea believe it or not it's October already. Anyone interested in helping with communications for the Habitat for humanity run, should show up at pavilion one at the front of Centennial Park at 8:00 A.M. on October 30.

I would like to thank everyone that helped with different events this summer. Don't forget the Christmas Parade in Salem on Saturday December 4 at 1:00 PM. If you are

around the parade route, please check into our net on 147.49 simplex.

The route will start from Salem High School, go onto N. Lincoln, turn West go through downtown to Ellsworth, and then turn north, disband on second St. at Chase Bank and the Broadway Plaza.



It's probably a little early, however don't forget to put the date of the club dinner that will be held the third Saturday in March 2011. Mark the date on your calender March 19 at 6;00 PM. at the Memorial Building upstairs. Also think of whom you would want as Ham of the year.

Everyone have a great Thanksgiving and New Year's and Holiday season.

73. Dave N8GOB



SAARA MEETS THE FIRST THURSDAY OF THE MONTH 7:00 P.M. ATTHE SALEM LIBRARY 585 LIBERTY ST., SALEM THRU THE END OF 2010



HAUNTED HAYRIDE

MEET AT THE LOG CABIN IN BOARDMAN PARK FRIDAY & SATURDAYS, 6 TO 10 OR 11 P.M. OCTOBER 15 & 16 - 22 & 23 - 29 & 30 CONTACT BILL EAGAN KD8HCQ FOR INFORMATION AND TO VOLUNTEER PHONE 330-549-5754



# **SPEAKS**

Volume 24.4

May 1987

AMATEUR RADIO

#### THE INVISIBLE HAND

This may seem like an unusual title for an article for amateur radio. There are things that happen to us as mere amateurs that we just don't think much about. I know that I have had some type of invisible hand, or some type of force, that seems to follow me around at times.

either take something apart or try to assemble something. Just when things are going what appears to be well, one will drop a nut, a screw or maybe even a bolt. Now it will hit the floor as we hear a little thud. Now the sounds come right beside our foot. We know it because as amateurs we are used to listening for sounds that may come from any of our equipment at any time. We just know that it fell right next to our foot. We also noticed that it did not hit our foot. Now it just has to be right next to it. Where else could it be?

Having had this type of thing happen before, we very carefully take a step backwards. After taking this backward step, we take careful notice that we did not step on the dropped object. While standing there, and holding our breath, we are sure that we did not step on it. We then exhale, and proceed to the next step.

We then look straight down. We can see that it is not between our feet. This gives us some keen insight that we know where it is not. With all of our valuable insight and training, we now know that it is not between our feet. Armed with this knowledge, we proceed to look to the left and right of our feet. We know it just has to be right here because we heard it hit the floor. Now, it is time to scratch our head and try to remember did it hit on my left side or my right side. After scratching our head with our mouth open, as this gives us some more air to clear our brain, as this is very important in this type of operation.

Now that we have our brain cleared, we know that it is on our left side. How do we know this? Well, our keen insight and power of observation from being an Amateur Radio Operator tells us this. We start to look very carefully on our left side.

We stare at the floor very intently, but much to our amazement we do not see our dropped object! How can this be? It just has to be there. After all we did hear it fall on our left side. What to do now? We just have to find it, or we will not be able to complete our project.

The next step is to get down on the floor on our hands and knees. Now this may sound like a simple thing to do. When one has reached my age and physical condition, it is not that easy. Now I can sort of, or kind of, get down as I do have an invisible hand helping me down. Getting down is hard work. It takes a lot of effort, as the old knees won't bend, and what if we on the way down hit our dropped object and move it so we can't reach it? We must use extreme caution when getting down on our hands and knees that we don't dislodge our dropped object from its hiding place on the floor. Now we know for sure it is hiding, as we cannot see it from where we were standing.

After a great deal of effort getting down on our hands and knees, we look all around us but to no avail. We just do not see our dropped object anywhere in sight. How can this be? How can this be? We ask ourselves several times over. It just cannot vanish in thin air. Well now there is just so much that one can do at a time like this. We very careful like, take our hand and start to feel around on the floor.

Now this is where being an amateur pays off. We JUST don't feel the floor, we pat the floor. We are very careful to pat it just right. We

can't do it with too much pressure, or not enough pressure, but with the just right amount of pressure. Having spent some time doing that, we still haven't found it. While still on our hands and knees, we think it is a good time to expand our area of exploration. We then move around some while patting the floor at the same time. After about a half hour or so of this we decide it is time to call for reinforcements

We do not like to do this as it deflates our ego.

Continued page 2



#### INVISIBLE HANDS - CONTINUED FROM PAGE 1

The macho man now has to admit that he cannot find the hiding dropped object. So we call the XYL in. Now we all know that this is the last resort that we can count on for any kind of help. When the XYL arrives, we are still on our hands and knees, and she thinks that we going to beg her forgiveness for something that we've done. Well trying to explain what the dropped object looks like to her, and in the mist of the explanation, she walks over to the other side of the room and asks is this it? Guess what? It is, and it is not on our left side but on our right side. Now I have tried to throw it that far and it will not go that distance no matter how I drop it, or try to push it, so there is an invisible hand out there that does these things to us.

73 KB8MNE Bill

Remember to volunteer to help out wherever you can in your Club. Club leaders need volunteers to achieve the ultimate goals set for their club. And don't forget to pay your membership dues. Support your Club. AND, while you're at it, pay your ARRL dues through your club!

# Swap & Shop

- 1. Yaesu FT-817 HF/VHF/UHF transceiver QRP \$350 - LDG Z11 QRP ant. Tuner \$ 50
- 2. Icom IC-271 144 MHz all mode transceiver 100 watts \$175
- 3. Icom IC-490A 430 MHz all mode transceiver (satellite)
- 4. Icom IC-560 all mode 50 mtr. Transceiver 10 watts (mobile or base) \$ 75
  - Mirage A1015G 50 mtr. Amp. (10 watt to 100 watt)
- 5. 4 ant. Tower sections
- 6. Elcraft K-1 CW 20-mtr transceiver with Ant, tuner board \$ 50
- 7. MFJ-960 6-mtr ant. tuner \$ 50
- 8. MFJ-1279 deluxe multimode sound card interface for 8-pin modular mic.
- 9. Kanga Fox-3 20-mtr QRP transeiver (built in altoids \$ 10
- 10 Cushcraft 124WP 4-element 2-mtr beam ant. \$ 25

My address and phone number are below, as is my e-mail address. I am willing to be negotiable on some things and even generous on others. I really would like to see someone else get some good use out of the things I have enjoyed for several years.

> **Everett Clay 715 Virginia terrace** Newell, WV 26050 304 387-2312 - eclay715@comcast.net

The prices are reasonable, but the remaining items are as is. They have not been checked out - ed

## GET READY FOR THE ARRL HOMEBREW CHALLENGE III

TAGS: arrl, arrl headquarters, ARRL Lab, Design, Homebrew Challenge, transceivers 10/06/2010

The ARRL has sponsored two Homebrew Challenges in the past, designed to test our members' design and construction skills by making useful amateur gear at low cost -- and sharing their results with our members. Our first ARRL Homebrew Challenge, announced in QST for August 2006, required the construction of a 40 meter, 5 W voice and CW transceiver built for less than \$50 of new parts. The Second Homebrew Challenge, announced in February 2009, resulted in a number of creative designs of low cost 50 W linear amplifiers to follow the transceiver -- two for about \$30, as well as a multiband amplifier with many features for somewhat more.

This time, we announce a challenge to build a transceiver in celebration of the (slow) return of sunspots. This challenge will be in two parts and readers can enter into either or both:

- •A single band 25 W SSB and CW transceiver for 10 or 6 meters (Option 1), with a prize of \$200.
- •A 25 W SSB and CW transceiver that can be switched between 10 and 6 meters, using one or two switches, (Option 2), with a prize of

Instead of challenging entrants to make the transceiver at the lowest cost, this time we will challenge builders to provide the highest quality, best performance and most features within the cost target of \$150 for Option 1 and \$200 for Option 2.

In addition to the cash prize, the winners of these challenges will have articles describing their designs in QST and will receive our usual page rate for the published articles. Additional entrants who meet the minimum requirements -- and have interesting design features -- may also be considered for QST or ARRL Web articles.

Entrants for either option must be received at ARRL Headquarters no later than November 1, 2011. To be considered, each entrant must submit a working transceiver that is suitable for testing in the ARRL Lab and for on-the-air judging by the ARRL staff judges. Documentation required includes a priced parts list indicating the source and purchase price of each part, an article draft including a design description, construction hints, alignment instruction, block and schematic diagrams. Photographs may be provided, but final magazine photos will be taken by ARRL staff.

For this challenge, some specific requirements are provided as follows:

- Frequency coverage
- o 10 meters -- 28.0-28.6 MHz or greater.
- o 6 meters -- 50.0-50.25 MHz or greater.
- Frequency readout (mechanical or electronic) resolution: less than 1
- Receiver noise figure
- o 10 meters -- less than 8 dB.
- o 6 meters -- less than 5 dB.
- •Receiver selectivity maximum: 3 kHz at 6 dB.
- •Receiver audio output: minimum: 0.5 W minimum with less than 10 percent distortion.
- •Transmitter must meet all FCC requirements. Note that for HF, spurious signals need to be down 43 dB below the carrier, while they must be down 60 dB on 6 meters.
- •TR switching:
- o CW -- semi or full break-in operation
- o Voice -- VOX or push-to-talk
- ·Mic sensitivity: Adjustable, with full 25 W output from standard low impedance dynamic mic or equivalent.
- •Output of 25 W into 50 W load with up to 2:1 SWR Continued page 3

#### HOMEBREW CHALLANGE III - CONTINUED FROM PAGE 2

for at least 30 seconds. No damage driving open or short at antenna jack for 30 seconds.

•Power required: Either 120 V ac, 60 Hz mains or a nominal 13.8 V dc supply.

**Evaluation Criteria** 

Transceivers that meet all the cost and specific performance requirements will be evaluated by ARRL staff members based on the following criteria:

- •Elegance and originality of design, craftsmanship (10 percent).
- •Receiver laboratory performance (25 percent).
- Dynamic performance; (blocking gain compression and two-tone, third-order IMD)
- o Image and spurious rejection
- o Sensitivity and selectivity
- •Transmit lab performance (25 percent).
- o Audio response and distortion
- o Keying waveform
- o Keying sidebands
- •Operating convenience (25 percent).
- o Intuitiveness of controls and functions
- o Ease of tuning CW and SSB signals
- o Frequency accuracy and calibration
- o AGC action smoothness
- o Mechanical and thermal stability
- •Ease of duplication, adjustment and calibration (15 percent).

The evaluation will be conducted by vote of the judges and will be final.

#### General Requirements

- •The cost target of \$150 for Option 1 and \$200 for Option 2 must include the retail cost of all parts required to assemble the transceiver. The following definitions of cost elements are intended to assist builders in understanding what needs to be included.
- •Parts must be readily available either from local retailers or by mail order. No "flea market specials" allowed.
- •Any test equipment other than a multimeter, RF power meter and communications receiver must either be constructed as part of the project or purchased as part of the budget. A personal computer and standard office software may be used in the design process, as well as any specialized freeware. Software requiring the purchase of a special license must have the license cost included as part of the total cost.
- •The full cost of parts purchased must be included in the above targets. This means that parts should be purchased for single unit price, unless multiple parts of the same type are used. For example, if seven 0.01  $\mu$ F capacitors are used and it makes sense to purchase 10, the total price for 10 can be apportioned over the seven, if that is less than the single unit cost. If any "free sample" parts are used, they must be priced at their regular retail cost.
- To equalize purchase options, parts cost need not include shipping, handling or sales tax.
- •Cost of usual construction consumables such as wire, solder, tape, PC etchant and similar items need not be included. If a PC board is used, the cost of the raw board must be included, as well as any costs incurred in board layout (for example, software based board provider charges).
- •Each entrant must submit a sample of the station with documentation

indicating the source and price of each part used in the construction. A draft QST article will also be provided including a discussion of the design with schematic diagram and description of the construction, test and alignment steps. All portions of the entry must be received at ARRL Headquarters before August 1, 2011.

•The station will first be evaluated by the ARRL Laboratory in a manner similar to a QST Product Review of HF transceivers. Entries determined by the Lab to be acceptable on the basis of FCC spectral purity requirements will be evaluated by the QST Technical Editorial Staff based on the listed requirements.

Always be yourself because the people that matter don't mind, and the ones who mind, don't matter.



THREE MILE RACE
SATURDAY, OCTOBER 30
ANYONE INTERESTED IN HELPING WITH COMMUNICATIONS SHOW UP AT PAVILION ONE AT THE FRONT OF CENTENNIAL PARK AT 8:00 A.M.

Volunteer to help with the
Salem Haloween Parade
Thursday, October 28 at 6:00 P.M.
Line up around 4:30P.M.
Contact Dave for more information

### THE EDITOR'S MUSINGS

There are times that we are unable to attend the meetings and fulfill obligations the way we'd like. This month was one of those times. I have to apologize for being so late with this issue of SAARA Speaks. I want to thank the members who did sent information to me (on time), because without them, I wouldn't be able to put this newsletter together. Bill, Dave and Ginger are the ones I have to thank this month. If some information is incomplete, I can't make up facts. When I miss meetings, I'm in the dark about what SAARA members are planning. Which is why I shouldn't miss a meeting In fact, no member should miss any meeting. This is where you get all the facts and visit with your

Do you realize that in about 40 years, we'll have thousands of old ladies running around with tattoos? (And rap music will be the Golden)

73, K8JA

#### 2010 SAARA Members

Al Avnet AB8AA Jane Avnet K8JAA John Fabry KC8SPF Steve Fabry KC8SOY Ernie Greenisen KC8QPH Carol Gottesman KD8NFD Ginger Grilli KC8ZFK Don Kemp NN8B Dale Leach KC8OCG Mel Lippiatt KA8OEB \*\* Bill McClaren KB8MNE Lela McClaren KB8YPD Tom Miller KB8DUX Linda Miller KB8SXQ Travis Mitchell KD8NMU Regina Neff KD8CGW Rick Smith KC8SUI Dave Sprouse N8GOB \*\* Roger Thawley KC8CTV Bob Tullis W8HZ \*\* Dave Volpe KB8NYS Frank Zamarelli (Honorary Member)

\*\* Life Member

#### 2010 OFFICERS

President Ernie Greenisen KB8DUX Vice President Ginger Grilli KC8ZFK Secretary Roger Thawley KC8CTV Treasurer Lela McClaren KB8YPD

Trustee's

1 Yr. Bob Tullis W8HZ
1 Yr. Dave Sprouse N8GOB
2 Yr. Bill McClaren KB8MNE
Club Dues Structure

Full Membership \$15.00/Year

(Includes immediate family members)

Full Retired \$12.00/Year
Associate Member \$10.00/Year
Non-Member Newsletter \$3.00/Year

Join the ARRL through your local ARRL affiliate club. When you do, the club gets \$15.00 for new members. A great way to support our club and have privileges that come with ARRL membership.

#### **OFFICIAL CLUB ADDRESSES**

Web Page www.qsl.net/saara/ E-mail egreenisen@neo.rr.com

U.S. Mail S.A.A.R.A., P.O. Box 696, Salem, OH 44460-0696

Editor: k8jaa@arrl.net

#### **NEWSLETTER Articles and Submittals**

SAARA claims no liability for articles published in this newsletter. The viewpoints in the articles are not considered the viewpoints of SAARA membership.

All submittals for SAARA Speaks must be received by the Editor (k8jaa@arrl.net) or hand delivered no later than December 10, March 10, June 10 or September 10 enabling the newsletters to be mailed and received prior to the months covered by them.

Advertisements for equipment for sale must also adhere to the same schedule. Newsletters are emailed to current members who have email addresses, and mailed to other subscribers, clubs that send newsletters to SAARA, and to selected officials.



SAARA P.O.Box 696 Salem, OH 44460-0696

AMATEUR RADIO AddressService Requested

www.qsl.net/saara



One Nation Under God

#### Columbiana County NETS

Sunday 9:00 P.M.East Liverpool 146 700 Triangle ARC NET 8:00 P.M.Columbiana County Columbiana County Emergency Training NET(ARES) Monday This NET alternates (lowest to highest) between 146.700, 146.775, 146.805, 147.255 and 147.285 repeaters in Columbiana County. 8:30 P.M.Bible Study on the Air 147.285 KB8MNE 7:30 P.M.Salem 147.510 Simplex Homeland Security Net (last Tuesday of every month) Tuesday KARTP Northern Columbiana County SAARA NET 9:00 P.M.Salem 147.255 KB8MNE 28.310 SSB 9:30 P.M.Salem SAARA Rag Chew Net

Thursday 8:30 P.M.Alliance 28.400 SSB Alliance ARC NET

9:00 P.M.Alliance 145.370 Alliance ARC NET

Saturday 8:00 P.M. 146.805- PL162.2 Skywarn net