Spurious Emissions

The Newsletter of the South Bay Amateur Radio Society

Volume 7 Number 1 Winter 2018

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SOUTH BAY AMATEUR RADIO SOCIETY
(SOBARS)
K6QM

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SOBARS is an ARRL-affiliated ham radio club with members from San Diego, National City, La Mesa, Chula Vista, Bonita, Imperial Beach, and San Ysidro, California.

OFFICERS

President: John Wright, K6CPO
president@sobars.org
Vice-President: Danny Lamb AI6JN
vp@sobars.org
Secretary/Treasurer:
Fred Curtis, KI6GRO
secretary_treasurer@sobars.org
Call-Sign Trustee:
Jim Beckman, N6RSL
Emergency Coordinator:
Ramon Dueñas, KJ6QQK
Property Trustee:
Louie Vignapiano, KI6SRR

SOBARS meetings are held at the Chula Vista RV Resort, 460 Sandpiper Way, Chula Vista, CA 91910
See the website for dates & times.

Club Repeaters:
146.085 (+) PL: 100.0
448.340 (-) PL: 100.0
Yaesu System Fusion®

CLUB NETS

Club nets are held every Tuesday evening on the following bands:
1830: (PT) 448.340 (-) PL 100.0
223.840 (-) PL 107.2
1900: (PT) 146.085 (+) PL 100.0
1930: (PT) 28.480 USB
7.240 LSB

From The President's Shack

By John Wright, K6CPO

The new year has arrived and it's time to look back at what we accomplished in 2017.

Repeater Work

During the late part of 2016 and early 2017, we experienced a number of problems with our two System Fusion® repeaters. First off, we experienced issues with the 2 meter machine and lack of sensitivity. The 2 meter repeater was virtually unusable and we shifted the weekly 2 meter net to the 70cm repeater.

We were also experiencing issues with the back-up batteries on the repeaters and had shifted both machines to line power. This essentially negated the advantages of being "off-grid" with our solar system.

These two items became a priority in 2017.

The first step was to move the repeaters to separate antennas, instead of running both through a diplexer to a single dual-band antenna. As we already had the necessary antennas and Heliax feed line on hand, it was a simple matter to connect each repeater to a separate antenna.

The first step was to replace the dual band antenna with a dedicated 2 meter antenna and connect the 2M repeater to it. We then removed the unused city antenna from the outrigger part way down the tower and installed the dual band antenna in its place. This was then connected to the 70CM repeater. Both repeaters were working as intended.

The cover photo of this issue shows Ed Flynn, WA6YVX, working on the antenna installations on the tower. Many thanks to Ed for all his work on the tower.

Once the antenna issues had been addressed, we turned our attention to the batteries. After some investigation, the board determined, the best route would be to purchase a pair of 50AH Lithium Iron Phosphate batteries from Bioenno Power. Because of the cost of these batteries, the membership was polled via an e-mail vote and the purchase was approved.

The installation of the batteries was written up on Page 8 of the Fall 2017 issue.

Net Control Operators

The club has a roster of active net control operators for our various Tuesday evening nets. Every month, the Secretary-Treasurer Fred Curtis, KI6GRO, sends out the schedule for the 2 meter net along with a up-to-date copy of the net roll call.

If you are a net control operator, please be cognizant of your scheduled shift. If you can not cover a shift, please contact one of the other operators or a club officer for a trade as soon as possible.

If there is anyone wishing to become a net control operator, contact Fred. If you are uncertain about it, we will train you.

Holiday Party

In December we held our annual holiday potluck get-together. At that time we awarded the annual K6SJA Memorial Ham Of The Year award. Congratulations to Jim Beckman, N6RSL, the 2017 winner.

2017 Ham Of The Year winner Jim Beckman, N6RSL, with 2016 Winner Sarah Honaker, KK6DKP. *John Wright, K6CPO*

ARRL Actions

As everyone knows, the ARRL is the only national organization looking out for the interests of amateur radio operators in the US. Because of this, recent actions by the league's Board of Directors are worthy of mention.

In January of 2017, the board adopted a policy that essentially prohibits any board member, Director or Vice Director from criticizing any action of the board, even if they voted against it.

This policy resulted in the censure of Southwestern Division Director (our division) Dick Norton, N6AA, by the ARRL board in November. The censure apparently stems from a league forum at an amateur radio event where Norton outlined the board policy. My information says Norton did not oppose the policy, but members of the audience did.

Amateur radio blogger Dan Romachik, KB6NU, elaborates on these events in an article elsewhere in this issue.

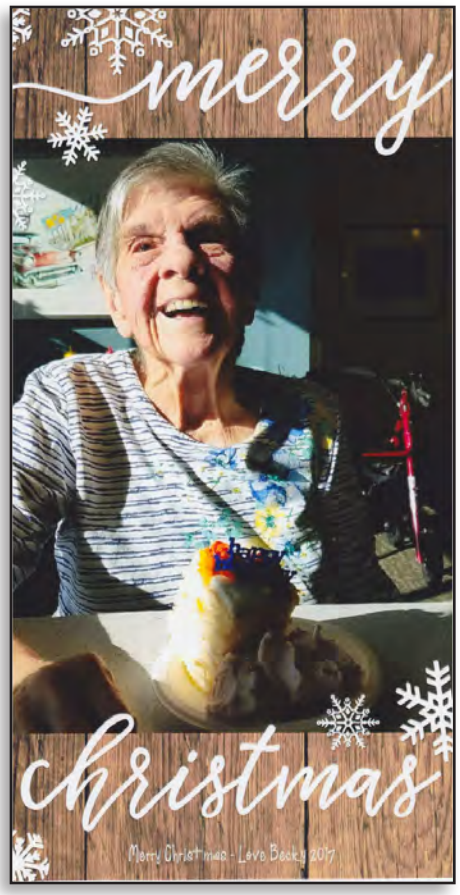
Other proposed actions by the ARRL board are questionable as well. A website has been created that outlines these issues better than I could possibly do; https://www.myarrl-voice.org/

I recommend everyone, ARRL members or not, to read the KB6NU column, the ARRL website and the website mentioned above. Form your own opinions and take any action you deem necessary.

The ARRL board's actions could have a bearing on all of us.

In Closing

Finally, SOBARS member John Markham received a Christmas card from long-time member Becky (Iona) Seay. Becky was an active member of SOBARS until she moved to Northern California to be closer to relatives. Becky is 98 years old and evidenced by her card still going strong. If anyone wishes to correspond with her, contact myself for her address



What The Heck Is The ARRL Board Thinking?

By Dan Romanchik, KB6NU

About a month ago, I received an email from the ARRL. Attached were minutes of a Special Board Meeting of the ARRL Board of Directors (http://www.kb6nu.com/wp-content/uploads/2017/11/Minutes-of-Special-Board-Meeting-ARRL-Board-of-Directors-1.pdf) held by teleconference on Tuesday, November 14, 2017. At first, I didn't think much of it, but after reading the minutes, I thought to myself, "What heck are these guys thinking?"

What the minutes document is the censure of Dick Norton, N6AA, for "criticizing publicly the collective action of the Board of Directors adopting said Code of Conduct[sic] and drawing the Board's collective decision making into disrepute." I won't quote the whole thing here, but you can find the text on my website at http://www.kb6nu.com/heck-arrl-board-thinking/.

So, what is this ARRL Code of Conduct? It's official name is the ARRL Policy on Board Governance and Conduct of Members of the Board of Directors and Vice Directors, and the board adopted this code at the January 20-21, 2017 board meeting. You can find this code on the ARRL website at http://www.arrl.org/files/file/ODV/ARRL Code of .

To be fair, this document does include some good things, such as acting responsibly when it comes to ARRL financial matters and treating ARRL staff with respect. What seems to be questionable, and the reason for N6AA's censure, however, is Section 8 Support of Board Decisions. I won't quote the entire section here, but basically what it says an ARRL board member must accept and publicly support board decisions, even if they voted it against it. If they express any dissenting opinion about a board decision, they can be censured, as N6AA was in this case.

In effect, this is a gag order on a director if he disagrees with a Board decision. Not only that, this section seems to say that once someone gets elected to the Board, his allegiance to the Board is more important than the views of the amateur radio operators he represents.

One of my Twitter followers put it this way, *"Where else can those ostensibly in a position of representation of the organization's members be punished for publicly criticizing the organization's rules? US Congress? Parliament of the UK? No, and no. @arrl board is looking more like North Korea than a representative body."* Seriously, can you imagine if the U.S. Congress had such a policy in place?

What did Norton actually do?

I emailed Norton to find out what he said exactly to bring on this censure. Understandably, he was a little hesitant to speak to me directly. I then asked if I could see the supporting statements.

I then received two emails. The first was from Mark Weiss, K6FG. His email contained the text of an email he sent to the ARRL Board of Directors. A second contained an email sent to the board by Tim Duffy, K3LR, the owner of DX Engineering. Both emails supported N6AA, noting that he stated that he supported the board action and that any opposition came from the audience and not from Norton.

So, I go back to my original question. What the heck is the ARRL Board thinking, first in passing this draconian ARRL Policy on Board Governance and Conduct of Members of the Board of Directors and Vice Directors, and second in using it to censure a director, who, according to several accounts, didn't commit the infraction in the first place? Are they so insecure in their decision-making that they have to resort to gag orders like this? Don't they see that taking actions like this brings them more "disrepute" than an honest dissenting opinion?

If this situation angers you as much as it does me, I encourage you to contact your director and make your feelings known. One of my blog readers suggests that your message be "short, non-aggressive, and to the point." He suggested the following:

Dear [your director's name here]

I am unhappy with both the ARRL Policy on Board Governance and Conduct of Member of the Board of Directors and Vice Directors (aka the "Code of Conduct") and the N6AA censure.

I want to freely discuss issues with our directors. I want our directors to tell me where they stand, not where the board stands.

I want the directors to be free to express their opinions and to know how they voted.

I want directors to not fear censure.

Therefore, I urge the following immediate actions:

Modify the Code of Conduct to allow the above.

Revoke the N6AA censure.

73,

[Your name and callsign go here.]

I hate to say this, but this is only the beginning. Some ARRL directors are planning to propose changes to the League's Articles of Association and By-Laws at the board meeting in January 2018. These changes will make the ARRL even less democratic and more authoritarian.

As reported by CQ magazine (http://cqnewsroom.blogspot.com/2017/12/changes-proposed-to-arrl-governing.html), if these changes are enacted "the board of directors will be able to revoke League membership 'for cause' and to remove board members by revoking their League membership; lesser disciplinary actions against board members, such as censure, will be allowed without the member receiving advance notice or an opportunity to respond to allegations." Another change will grant voting privileges to the president and three vice-presidents, even though these are appointed positions.

Again, I ask, what the heck is the ARRL board thinking? Do they really think that this is going to make the ARRL a stronger organization and a better advocate for amateur radio? If so, I'd like to hear their reasoning. ARRL membership has been declining for many years (as a percentage of licensed radio amateurs), and these moves are only going to accelerate that decline. I have already heard from many hams that they plan to let their ARRL membership lapse.

Please consider contacting your director today. It may already be too late to save the ARRL.

Building A Headset Switchbox For a VHF/UHF Radio

Article and pictures by John Wright, K6CPO

Last May I volunteered to be the off-site net control operator for the ARES hospital drill. It was an interesting experience and I definitely learned a few things.

One of the more important lesions was that I didn't have enough hands to hold a microphone and accomplish everything I needed to, especially when it came to log keeping. And since evolution didn't

see fit to grace me with a prehensile tail—as some of the lesser primates have—to hold the microphone, I felt I could use my intellect to come up with a solution.

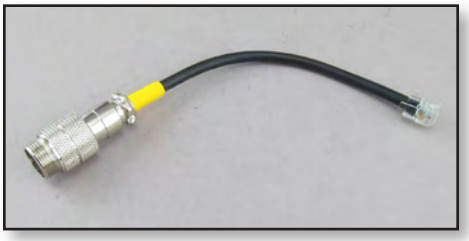
What first came to mind was using a headset and footswitch as many amateurs do, myself included, on their HF rigs. The problem was adapting a headset to a VHF/UHF mobile radio. To the best of my knowledge, it wasn't commonly done.

The radio I wanted to adapt was the Yaesu FTM-100DR System Fusion® mobile I use as my 2 meter/70 cm base station radio. I muddled over how to do this for some time, always coming up with ideas that required skills I just didn't have and were less than satisfactory. Then it dawned on me!

Who's the leader in headsets for amateur radio? Why Bob Heil of Heil Sound, of course. https://heilsound.com/ Heil makes all kinds of adapters designed to connect their headsets and PTT switches to all varieties of ham radios. There is a nifty little search page that will take you right to the adapter(s) you will need for your particular radio.

https://heilsound.com/heil-amateur-radio/support/adapter-selector/

Using this feature, I found that to adapt my FTM-100DR, I needed a Heil AD-100 to go from the 6 pin RJ11 modular microphone plug on the radio to a standard Yaesu 8 pin microphone connector and also a Heil AD-1-Y Yaesu 8 pin to microphone and footswitch connectors. (The headset earphone connects directly into the audio output jack on the back of the radio.) I decided on the Heil Pro Micro single sided-headset for a number of reasons. I would have one ear uncovered so I could monitor the secondary frequency during a drill and if I chose to use the setup in a vehicle, the headset would be legal under California law.



The AD-1ØØ adapter from Heil Sound.

In September, I attended the HAMCON

Heil Sound AD-1-Y adapter.

event in Torrance, Ca and purchased the headset and both adapters at the convention. When I returned home, I immediately connected everything

The Heil Pro Micro single sided headset.

up to the FTM-100DR and tried it out. It worked perfectly, but I ran into a minor issue. I wanted to be able to have the regular microphone and speaker available for times when I was not conducting a net and came to the conclusion that plugging and unplugging all the various elements involved was too inconvenient and time consuming. I needed a way of switching back and forth easily.

My feeble brain finally realized that half the work was already done for me. The Yaesu mobile radios all use a 6 pin RJ-11 modular connector for their microphones. Since the RJ series connectors are widely used in computer applications, it was a simple matter to find a two-position data switch with the appropriate RJ-11 connectors on it. Yay, Amazon!

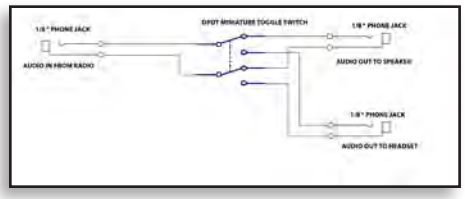
Front and rear views of the data switchbox as received.

The purchased switchbox handled all the PTT and microphone audio functions between the stock Yaesu hand mic and the Heil headset, but there was no provision for switching the radio's audio from the external

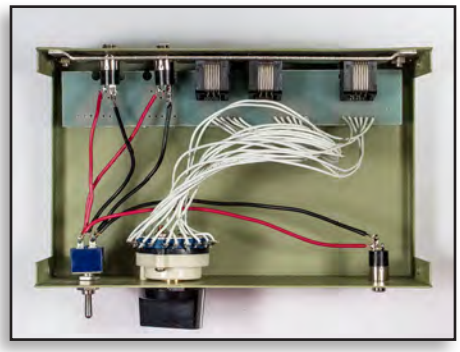
The front and rear of the finished switchbox.

speaker I use and the earphone of the headset. I had to add those functions to the box.

I drilled four additional holes in the switchbox, two on the front and two on the rear. I installed a miniature DPDT toggle switch in one front hole and 1/8 inch phone jacks in the other three holes. I then wired it according to the following schematic:



The switch is mounted on the front of the box as is the jack giving audio output to the headset. The audio in and audio out to the speaker jacks are on the rear of the box. The last step was to label the switch and the jacks.



Interior wiring. The red and black wireing was added.

Lastly, I purchased another foot switch to use with the box as moving the one connected to my HF radio was also inconvenient.

When the next hospital drill rolled around in November, I put the box to good use. It was very handy being able to operate with my hands free, yet able to switch back to normal operation by throwing two switches.

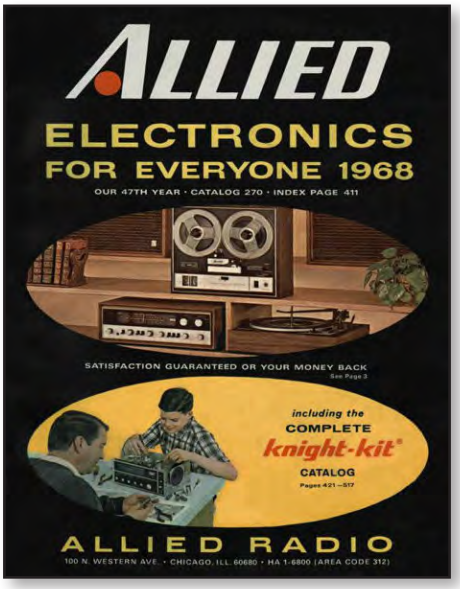
The switchbox installed on the operating desk.

This worked so well, I built a second one to use with my Go-Kits.

Catalogs Are About Possibilities

By Dan Romanchik, KB6NU

When I was a kid, I used to regularly get catalogs, such as the Allied Radio and Lafayette Radio catalogs shown below, and pore over them for hours. Even if I couldn't afford to buy the latest Knight-Kit or Lafayette shortwave radio, I could imagine what it would be like. These catalogs were chock full of possibilities.



I spent many hours poring over the Allied and Lafayette catalogs as a kid. These two are from 1968, when I was 13 years old.

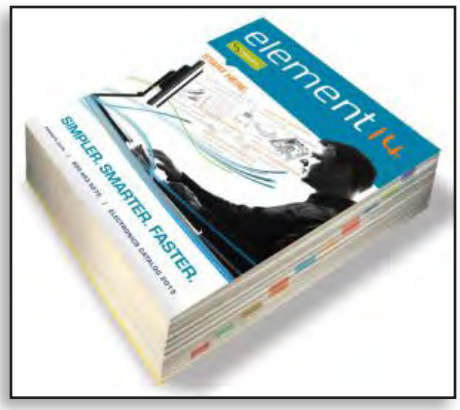
So, you can imagine how I felt when, last Thursday, I found both the Autumn/Winter 2017 DX Engineering catalog and the 2018-2019 Newark Electronics/element14 catalog in my mailbox.

DX Engineering has really taken the amateur radio world by storm over the last ten years or so. I probably don't have to tell you about that. If you're an active amateur radio operator, I'm sure that you have heard about—and probably ordered from—DX Engineering.

I think that DX Engineering did a

very smart thing by investing the money in a print catalog. There's something about browsing a print catalog that is just more satisfying than browsing online.

DX Engineering has just about everything you need to have fun with amateur radio. The one glaring omission? They still don't carry my study guides!



The Newark/element14 2018-2019 catalog is a completely different beast. Amateur radio operators are only a small part of Newark/element14's market, but one nonetheless. They have, for example, attended the Dayton Hamvention for many years.

As such, the catalog is not a "ham radio" catalog, but if you build stuff at all you'll find something of interest in its 1,799 pages. It includes nearly any kind of electronic part that you might need.

The section that might you might want to start with is the "makerspace" section. In this section, you'll find Raspberry Pis, BeagleBones, and even micro:bits. They really have everything, though, including passive and active components, connectors, cable, and enclosures.

Like I say, these catalogs are all about possibilities. You can search each company's website and find the parts they carry quickly and easily, but that experience is just not the same as browsing a print catalog and daydreaming about what you might find there.

So, get your own copies—they're free—and page through them. I'd be surprised if you didn't run across something that you didn't know about before, and it gave you some ideas about your next amateur radio project. ➢

QRM

Were you perhaps wondering why you didn't get that spiffy new radio from Santa this past Christmas? I think I've found the reason...

I'm sure we all feel this way, but the question has been asked: "What song should it play?" If you have a suggestion for an appropriate song, send them to the editor at k6cpo@cox.net and the best ones will be published in a future issue.

And one for the music lovers out there...