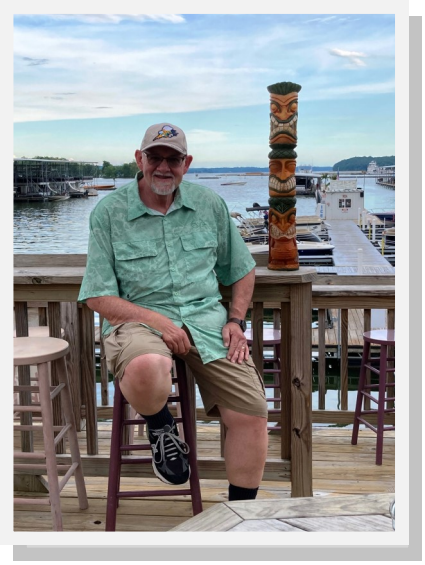
Goat Notes

CELEBRATING AMATEUR RADIO!

https://gotahams.com **October/November 2022**

449.160 (-) PL 77.0

A word from your new editor…



Hello everyone from Ken N6PCD! It is my honor to be selected as your newsletter editor. I have big shoes to fill as I pick up the mantle that was left when our beloved Kathi Mixon KD6CAF passed on to the next world this August. I will attempt to fill this position to the best of my ability, and pray my work honors her work and that of our previous editors.

My wife, Pat and I have been members since 2019. I'm an extra class licensee and Pat holds a Technician license, callsign N6PRC.

We live in a townhouse in Upland with CC&R's. Still, I've managed to cobble together a decent station in spite of restrictions that limit my ability to deploy a decent antenna for HF. I'm using a Comet CHA-250b vertical. Having said that, I've managed to earn WAS, WAC, DXCC, and CQ WPX digital using this setup and 100 watts.

Any mistakes, misspellings, or other flubs are strictly on me

I wish to express my profound thanks to all who have contributed to this newsletter, I couldn't do it without you!

73 de N6PCD

BACK TO BASICS: THE AMATEUR'S CODE

by Paul M. Segal, W9EEA (1928)

The Amateur's Code is the creed by which all ham radio operators should aspire to live by. Written in 1928 by Paul M. Segal, then general counsel for the ARRL. You can still find the code published to this day in many ARRL books and publications.

The Radio Amateur is:

CONSIDERATE….. never knowingly operating in such a way as to lessen the pleasure of others.

LOYAL….. offering loyalty, encouragement and support to other amateurs, local clubs and the American Radio Relay League, through which Amateur Radio in the United States is represented nationally and internationally.

PROGRESSIVE….. with knowledge abreast of science, a well built and efficient station, and operation beyond reproach.

FRIENDLY….. with slow and patient operation when requested, friendly advice and counsel to the beginner, kindly assistance, co-operation and consideration for the interests of others. These are the hallmarks of the amateur spirit.

BALANCED….. Radio is an avocation, never interfering with duties owed to family, job, school or community.

PATRIOTIC….. with station and skill always ready for service to country and community.

RADIO ACTIVITIES

Monthly Club Meeting

GOTAhams Monthly Club Membership Meeting - the second Tuesday of the month, 7PM , Zoom and In-Person. If you would like to join the meeting in person, please join us at Casa Jimenez Mexican Restaurant in Claremont at 921 W Foothill Blvd. Please arrive an hour early (at least) at 6PM so that you can order your dinner and have it out of the way ahead of the meeting. (The restaurant does expect you to order a meal). We'll be in the back room. See the weekly email for Zoom details.

GOTAHams Nightly Net

Held each evening at 8:00 PM on the club repeater: 449.060 (-) PL 77.0. Please see Dave's weekly email for a list of topics.

Radio In The Park & Elmering in the Park

See the weekly email for days and times. These are fun events, so come on out and join the fun!

Monthly Simplex net

Hosted by Erik KN6NRQ on 146.580MHz. A great way to explore the reach of your 2 meter equipment without benefit of repeater, both receiving and transmitting. Last Wednesday of the month. See the Weekly email for vital details.

V.E. Amateur Radio License testing

LAST SATURDAY EACH MONTH AT 1PM. Location is Brackett Field airport in La Verne. Sponsored by the GOTAhams. Frank Westphal and his experienced team of examiners are resuming in person Amateur Radio License testing at Bracket Field Airport in La Verne. *See Dave's weekly email for testing requirements and other important details.*

Interested?

If you would like more information about Amateur Radio, GOTAhams Club Activities, or have any interest in joining the GOTAhams Amateur Radio Club please contact the Club Secretary Dave Wilkie (K6EV) at K6EV@ARRL.NET. All are Welcome and no license is required to become a member.

HELPFUL HINTS

John KN6UYZ

Is this familiar to you? I bought an HT, got licensed, joined the GOTAHAMS, pushed the PTT switch on the net one night and my palms were so sweaty, the HT practically fell out!

Well, the palms took care of themselves after a week or so, but I still think the Anytone 878 is a little slippery. It certainly is so if you were in any kind of hot weather or perhaps wearing gloves. I went on the hunt to find something to fix what I find to be a problem.

Amazon seemed like a good place to start. There were hundreds of choices but I found some anti slip stickers by Dragon Grips. I think they were more for cell phones than handhelds but I ordered them and stuck them on the radio. They had the look and feel of miniature blacktop. Somewhat rough but surprisingly still a little smooth. Some people would be quite happy with this product.

For me though, the next step was Home Depot and Lowe's. Most of the choices came in 50 foot rolls by 5 in wide. A little more than I had in mind. By the way these stick-on, anti-slip products were the kind you put on stairs or maybe skate boards so you don't fall. The texture is more like gritty sand paper. Decided to give it a try.

I located a small quantity package for $3.95 at Lowe's. It was sold by Skid Guard Safety Tape.

I cut each piece to fit, applied 7 small strips to the radio and IMHO it works great. Ok, 7 strips could be a touch excessive but of course you could do with less. From three or four feet away, you can't really see the strips on the radio.

Problem solved. The radio definitely doesn't slip out of my hand anymore! Good price and still looks good.

If you're interested, I have enough for about 6 more radios if anyone wants to give it a try, just let me know. Please see the following page for pictures.

Thanks for reading and 73 to all.

John Gribbin

KN6UYZ

HT SLIP-PROOFING PROJECT

Skid Guard safety tape, from Lowe's

Dragon Grips, as ordered from Amazon.com.

Our Radio In The Park event on Sept 17th was attended by at least 14 members including Dave K6EV, Craig KM6EIC, Ken KC6WOK, Bruce KM6WBI, Mark KN6SBK, Chris N6CTA, Grace K6FS, Robert KN6VTS, Kevin KN6UWV, Ken N6PCD, Lori K6LRY, Marco KN6SJQ, Mike KN6HHW and Nilesh KK6PA. Chris and Dave set-up HF stations. Grace generously treated the group to pizza for lunch. The weather was wonderful.

Dave K6EV

The fall and rise of an FT-60R (title inspired by K6EV)

Jere, KN6PED

For a second time, during a daily net, I experienced an issue with my FT-60 where reception intermittently dropped out.

At first, I thought it was a problem with the other person's equipment, and then when the next caller was cutting out, I thought that maybe it might be the repeater. So, I powered up my Baofeng UV-5r and since it experienced no dropouts, the issue had to be with my FT-60R.

I believe the root cause of the issue has to do with when I had accidentally bumped the radio off a table and it fell to the floor. Aside from a catastrophic circuit failure, I thought of 3 possible causes.

The squelch and/or volume controls had been jostled and it loosened the connections.

The speaker connections were compromised.

The jack used to redirect audio externally had a bad connection.

During the net, I found that I could temporarily fix the problem by squeezing the unit where the speaker is in the front. I have no idea how I discovered this, but I did.

So, I started to dismantle the radio and ran into a snag – the pieces of the case wouldn't separate after removing the screws. Luckily, I looked at a YouTube video and found that the squelch and volume controls have nuts with slotted grooves that are hidden by rubber grommets. It also included a timely warning not to try to unscrew the antenna connector (which had a seductively placed hex-nut that just screamed "unscrew me".)

Once I got the front and back separated, it became pretty obvious that the cause was related to the concussion of the fall which had over-compressed the springy contacts on the motherboard.

The speaker is mounted on the front case, and connects to the back case via 2 springy bent copper contacts. I have highlighted these in the enclosed photographs. This explains why squeezing the case temporarily resolved the issue.

Oh! The fix was to stretch out the springy contacts. I almost forgot to mention that!

Here are the speaker connection pictures with arrows pointing to the connection points.

Here is the link to the aforementioned YouTube video:

https://www.youtube.com/watch?v=l8PY4wNzQqU

Radio Fun Facts!

Guglielmo Marconi was able to send and receive his first radio signal in Italy in 1895, and in 1899 he sent a wireless signal transversely to the English Channel. In 1902 he received a letter 'S' telegraphed from England marking the first transatlantic radiotelegraph message.

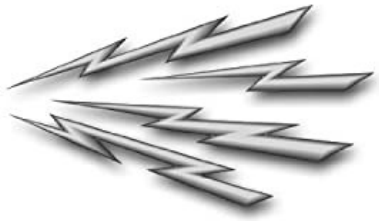
In 1900, the Canadian inventor Reginald Fessenden managed to transmit the world's first voice message. In 1906, on Christmas eve, he made the radio broadcast.

The first public radio broadcasts were done on top of the Eiffel tower by radio scientists. Lee de Forest, together with his peers, is viewed as the father of radio broadcasting. Being an opportunist, he took a break on his honeymoon in 1908 and climbed France's most famous landmark. He broadcasted a selection of music to the Parisian suburbs and became the first radio DJ.

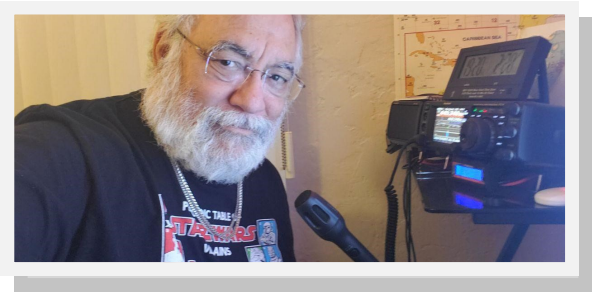
The Eiffel Tower was meant to be brought down after twenty years. However, it survived because the military began to use it as a radio tower to intercept crucial military transmissions during World War I.

It is believed that radio waves will continue to travel forever unless something absorbs them. If that is the case, and if there are more life forms in other parts of the universe, then other planets may have heard the radio waves.

The sinking of the Titanic in 1912 mandated the use of radio at sea. The radiotelegraph on the titanic was among robust systems globally and was being operated by the Marconi company. During the sinking, they used the radio to reach out to the nearby ship to rescue passengers.



My Latest POTA Activation



Savi, W1SAV

On Sunday morning, July 31st, I activated park K-3462, close to DTLA and the Metro rail. The park was the Los Angeles State Historical Park. It is a beautiful park with views of Chinatown and the downtown skyline…right next to a Metro rail line. By the way, the train emits tons of RF. I made 15 contacts, all on 20 M, and all with 20 W using my MPAS 2.0 antenna. I took a shot at activating, although the K index was 3, SFI was in the 60s, and sun spots were in the mid-forties.

The morning was slightly warm although there was no real overcast. My son, Rigel, and his dog Dagger rounded out the crew. Rigel continued reading his current book after walking Dagger around the park. The park is not that big; however, the park's perimeter is deceptively long.

Once my kit was set up, I started the calls. At first, I feared the activation was going to be a bust. As I mentioned earlier, the atmospheric conditions did not look at all promising, but it slowly started to change. I got the first contact just before 10:00 on 14.275 from Mississippi. Forty-two minutes later I got my 15th contact. Halfway through I was getting some QRM and switched frequency. I realize now that I forgot to annotate the new frequency so it looks like half my contacts may never match.

Back to my contacts and imagine my surprise when I hear the callsign EI9HQ. I verified it twice, and sure enough, I got Ireland. Ireland! Using 20 Watts. On a vertical. In the field. I was so jazzed that frankly at that point, I was done. This will be a most memorable activation. Lucky number 3! *So*--I'm new at this...

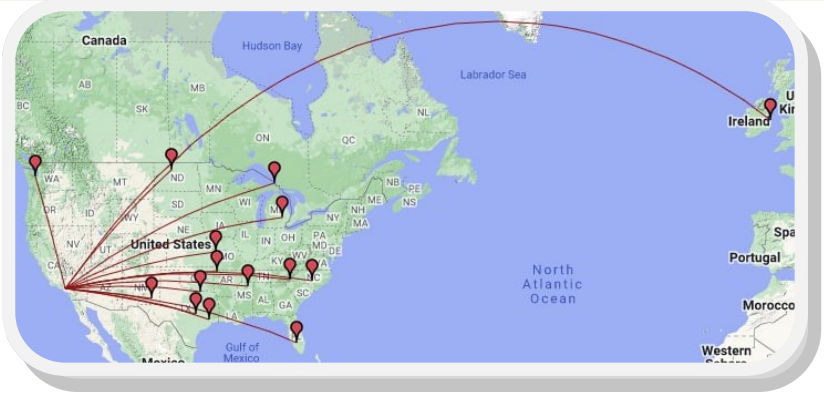
My kit consisted of the following: my Yaesu FT-891, LDG Z-100 Plus autotuner, MPAS 2.0 antenna system in the vertical configuration with the spike in the ground, and my Bioenno 30 Ah battery. Evidently, all was working well.

It just goes to prove that, if you're above the noise level, the world is at your feet.

73 de Savi W1SAV

Please view photos on the following page!

W1SAV Activation of Park K-3462



Technical Stuff: What is Single Sideband?

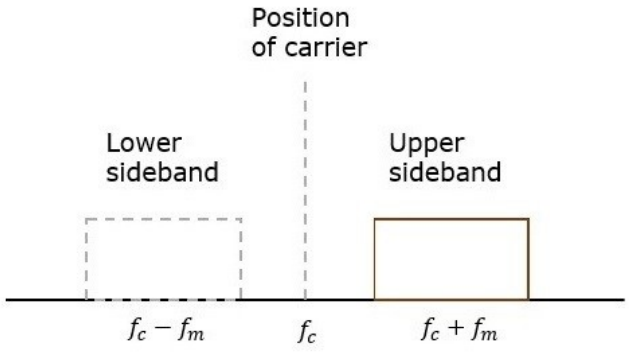
Radio transmitters work by mixing a radio frequency (RF) signal of a specific frequency, the carrier wave, with the audio signal to be broadcast. In AM transmitters this mixing usually takes place in the final RF amplifier (high level modulation). It is less common and much less efficient to do the mixing at low power and then amplify it in a linear amplifier. Either method produces a set of frequencies with a strong signal at the carrier frequency and with weaker signals at frequencies extending above and below the carrier frequency by the maximum frequency of the input signal. Thus the resulting signal has a spectrum whose bandwidth is twice the maximum frequency of the original input audio signal.

SSB takes advantage of the fact that the entire original signal is encoded in each of these "sidebands". It is not necessary to transmit both sidebands plus the carrier, as a suitable receiver can extract the entire original signal from either the upper or lower sideband. There are several methods for eliminating the carrier and one sideband from the transmitted signal. Producing this single sideband signal can be done at high level in the final amplifier stage as with AM but it is usually produced at a low power level and linearly amplified. The lower efficiency of linear amplification partially offsets the power advantage gained by eliminating the carrier and one sideband. Nevertheless, SSB transmissions use the available amplifier energy considerably more efficiently, providing longer-range transmission for the same power output. In addition, the occupied spectrum is less than half that of a full carrier AM signal.

SSB reception requires frequency stability and selectivity well beyond that of inexpensive AM receivers which is why broadcasters have seldom used it. In point to point communications where expensive receivers are in common use already they can successfully be adjusted to receive whichever sideband is being transmitted.

When single-sideband is used in amateur radio voice communications, it is common practice that for frequencies below 10 MHz, lower sideband (LSB) is used and for frequencies of 10 MHz and above, upper sideband (USB) is used. For example, on the 40 m band, voice communications often take place around 7.100 MHz using LSB mode. On the 20 m band at 14.200 MHz, USB mode would be used.

An exception to this rule applies to the five discrete amateur channels on the 60-meter band (near 5.3 MHz) where FCC rules specifically require USB.



Carrier and a sideband are suppressed and a single sideband is allowed for transmission

Happy Halloween and Happy Thanksgiving to all!!!!