



# SPURIOUS EMISSIONS

INDIAN RIVER ARC

DECEMBER 2017

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## MERRY CHRISTMAS

Another year passed and once again in December instead of a monthly meeting, the club gathered for its annual Christmas Party.

This year the get-together was at the Olive Garden Restaurant where amid good company and good cheer all present enjoyed good food.

For entertainment this year Steve, N4UTQ put together a collection of pictures of amateur radio equipment through the years and of club field activities of the past decade. There was talk of tube radios, and members shared what type of tube equipment they still owned.

Merry Christmas to all.



## HAPPENINGS

“QRP” is the topic of the new episode of the [“ARRL The Doctor is In”](#) podcast, and “Coaxial Cable vs Balanced Lines” is the topic of the November 23 episode.

A new and exciting operating event will kick off on January 1, 2018, at 0000 UTC (New Year’s Eve in US time zones), when the [ARRL International Grid](#)

[Chase](#) gets under way. The year-long event hopes to build on the success of the highly successful 2016 National Parks on the Air (NPOTA). The objective is to work stations on *any* band (except 60 meters) in as many different Maidenheads grid squares as possible, and then upload your log data to ARRL’s Logbook of The World (LoTW). [Registration](#) is free, and it costs nothing to use LoTW.

Many hams are familiar with grid squares from the VHF/UHF and satellite realms, and everyone lives in one. ARRL’s VUCC is based on grid squares, and some contests on HF, as well as on VHF and UHF, also use them as a scoring factor. If you don’t know your grid square, David Levine, K2DSL, has an [online calculator](#). Just enter a postal address, ZIP code or a call sign, and his site will tell you the grid

square for that location. For example, enter “W1AW” and the site will return “FN31pr.” For the purposes of the ARRL International Grid Chase, though, just the two initial letters and the two numbers that follow (e.g., FN31) are all you need to know.

More information at <http://www.arrl.org/news/announcing-the-arrl-international-grid-chase>

## HAPPENINGS

AMSAT-NA's latest Amateur Radio CubeSat, RadFxCubeSat (Fox-1B), now known as AO-91, has been opened for general use. The Amateur Radio package is similar to that on AO-85, with an uplink on 435.250 MHz (67.0 Hz CTCSS) and a downlink on 145.960 MHz. — Thanks to AMSAT News Service.

If you've been using FT8 for a while, you likely have upgraded the software you've been using along the way. You might want to review "[FT8 Operating Tips for DXers](#)" (PDF) to see if there

are operating practices that also need to be updated as a result of the new software.

This [Instructable explains the differences](#) between many types of screws, including the specialized types used in modern electronic devices. Included is a history of these fasteners, pictures, and summaries of the claimed benefits of the various proprietary types. Wikipedia also contains a good [summary of screw drive types](#)

[Solar Flare Intensity](#) measures the flux of X-rays, as detected with spacecraft. The measure-

ments contain a letter (A, B, C, M, X) combined with a number representing the intensity in Watts per square meter. Using scientific notation, the letter represents the order of magnitude (power of 10 exponent), while the number is the mantissa. For example, a M2.5 flare would represent a flux of  $2.5 \times 10^{-5}$  Watts/m<sup>2</sup>. [X-class flares](#) are the largest, and the mantissa for an X-class flare can be as large as necessary. As far as the effects of flares go, M-class flares can cause radio outages, while X class flares can disrupt GPS satellites and affect power grids. A large flare measured in 2003

was greater than X28 - the maximum of the satellite sensor - but that one didn't hit Earth directly. The near miss was strong enough to damage other satellites, and affect some airplane navigation systems. The largest event yet noted by humans affecting Earth was the [Carrington Event](#) in 1859.

[Radio Blackouts](#) are [measured by NASA](#) using an R-scale from R1 to R5. R1, "minor" corresponds to an M1 flare, while R3, "strong" is correlated to X1 flares

## ON THE AIR

Minnesotan Tom Callas, V85/KCOW will be on the air from Brunei December 3-18.

MAURITANIA, 5T. Operators A92AA and A61M will be QRV as 5T1A and 5T1R, respectively, from Nouakchott from November 20 to December 20. Activity will be on 40 to 10 meters using SSB and FT8. QSL via operators' instructions.

**Dec 11-Dec 14, 0000Z-2359Z, NN4SA, etc**, Huntsville, AL. NASA Amateur Radio Clubs. 14.305 various. QSL. Address at QRZ.COM for appropriate call-

sign, NN4SA only is c/o Don Hediger ES32, Huntsville, AL 35812. Beginning of year-long event where 12 clubs at NASA centers and facilities will be operating special events, contests, and casual contacts. Participating calls of of this date: NA6MF; NA6SA; W6VIO; NA1SS; W5RRR; NN4SA; N1KSC; KG4NJA; W4NAN; W4WFF, and NA8A. See URL for complete list of clubs and call signs which will be active and further details of the year-long event which ends in Dec. 2018. We will be self-spotting on the DX clusters and using multiple bands and

modes. QSL info available at each call's QRZ.COM page. [nasaontheair.wordpress.com](#)

**Dec 26, 1400Z-2200Z, W2T**, Trenton, NJ. Delaware Valley Radio Association. 14.250 7.250. Certificate & QSL. DVRA - W2T, PO Box 7024, Trenton, NJ 08628. Anniversary of the Battle of Trenton. QSL Card for SASE. If you also work the W2P for the Battle of Princeton on January 3, you can get a certificate of Commission in the Continental Army Signal Corps. See DVRA Website for details. [www.w2zq.com](#)

ARRL has announced that W1AW will start scheduled transmissions on 6 meters beginning on January 2. Transmissions on 50.350 MHz will become a part of W1AW's regular CW code practice, starting with the 1400 UTC fast code practice on January 2.

REPUBLIC OF KOREA, HL. Special event station DT23WOP is QRV until February 2018 for the 23rd Olympic Winter Games. Activity is on the HF bands. QSL via HL1IWD.

## My Story of Operating HF Radio by Steve Luchuck

My 9th grade science teacher was a ham and one day he brought his Heathkit 101 into the classroom and strung a 20m dipole just outside the classroom in the trees that were convenient. With the speaker facing the class, he dialed in on a QSO in progress and politely asked for a break. We then found out that the other two fellows were quite some distance away. This was amazing to me. My next introduction to ham radio came in 1968 when I was traveling with a buddy and his dad was a ham and he had one of those Atlas

compact radios in the car and again I was very impressed that the great distances you can talk with ham radio gear.

When the CB radio craze appeared in the 1970s I jumped in with both feet and it was neat because you could reach other stations 10 to 15 miles with ordinary equipment. I learned through other CB'ers that a lot of people were using illegal amplifi-

ers and we called those guys "Big Straps". Big Straps could talk skip to other Big Straps great distances away just like those ham radio operators. This intrigued me and I started thinking about how neat it would be to have a ham radio license.

My father dabbled in electronics and he had an amateur radio handbook from 1967 so I started reading it. The roadblock to getting a

ham radio license was passing the Morse code test. I had a code practice key with a built in oscillator and I tried to teach myself Morse code with a frustrating lack of success, so I pursued another path. After I graduated college, I acquired a SSB CB radio and found that it was possible to talk skip with legal limit power if you had a decent antenna. I later acquired a linear and this made skip contacts reasonably frequent. I started collecting QSL cards to show off as

trophies of my long distant contacts.

It wasn't until much later that a work buddy of mine, WB4ZUY, steered me toward a ham radio class that was sponsored by the local radio club. This is it, I thought, I would finally dig in my heels and learn the Morse code and get that general ticket. My buddy, ZUY, had written a simple DOS program that allowed you to drill on the code at whatever speed you wanted and to select what characters you wanted to hear, so when the class began, I was armed with a tool to learn the code.

Glenn Diggs, WB4BFQ, was the code instructor and he handed out a syllabus for learning the code. Each week we would learn one character, so I used this schedule for drilling on the code at home and my code practice drove the family crazy. At the end of the class, I passed the 13 WPM code test and the written test for my general license.

Within days I had dipoles strung in the attic and a borrowed Kenwood 520. Now I was on HF, so what next? I started out on 15m and quickly realized that it did not make sense to log every contact. The guys on 15m were a lot more friendly than the guys on 20. Most of my QSO's were short and there was one net that I checked into regularly. It dawned on me one day that I enjoyed having the capability of DX and the radio equipment more than I actually enjoyed making contacts, since I knew I could do it anytime I wanted, but you never got to talk to any station that you had worked previously.

My wife's sister and her husband moved to North Carolina to a nice place way up in the hills, so we began visiting periodically and I would take an HF radio and a dipole antenna to string up in the trees. One trip up, for a niece's wedding, I had made arrangements with my buddies down here to group QSO on a designated frequency and a specified time. We

arrived late and there was a pre-wedding party in progress, so I did not have time to go around and introduce myself to the groom's family; I had to get the antenna up. The groom's family were amused as I shot my slingshot into the trees and when they realized I was setting up a radio antenna, some of them commented about how out dated radio was with the invention of the cell phone. My brother in law was watching over my shoulder when I tuned the radio to the arranged frequency and we both heard Bob, N4VO, calling me. He asked, do you know that guy? Yep he's a good friend. By the way cell phones still don't work in those mountains!

Since then I have always taken a radio station whenever I travel and try to make opportunities to work my friends at home. On one trip to my home in Tennessee, I just had the radio on to listen for anyone back here in Florida who might give me a call, and I answered some guy calling CQ. I was talking to Daniel KA9ZHY in Indiana. We talked for about half an hour and I found out that he didn't like Field Day or contesting and that he would rather just rag-chew and make friends.

The next day, I heard Daniel again! I went back to him again and for the first time I was talking to someone I knew on HF! I talked to KA9ZHY daily during that trip and when I arrived home, I called him just to let him know I made it home OK. After that, Daniel introduced me to some of the other guys that hung out on that frequency. This bunch of guys like to talk about anything strange and interesting, so we attract a lot of people stopping by just to comment on our topics. Today I have been talking to these guys for so long that we all know the

names of each other's wives, children, pets....

This is what I enjoy most about amateur radio. Once I developed HF friends the joy of radio is all fresh and new again. I had one memorable QSO when I was in Tennessee and I was talking to Greg AB4GO back in Florida and we were joined by friends and fellow club members Rich KI4UZI, who was in North Carolina and John KE4QIV, who was in South Carolina

On HF, you can always talk to someone somewhere, but talking to someone specific, when you want to talk to them, is another challenge. Once when I was in Tennessee, the band was particularly good and we had a group QSO going back here to Florida, and Joe Parker KC4CFE had managed to load up his 20m beam on 40m and I had a Q5 copy on him!

So to get on HF and enjoy it:

Get an antenna up. A good friend, Mark AB4IX, once told me early in my radio career; if you want to radiate, resonate. If you match your antenna it will receive and radiate. To make a wire antenna take two pieces of wire a little longer than the frequency you want to use and shorten it a few inches at a time until its 1.0 SWR on the frequency you want to operate.

Get a radio. Any HF radio will do. Then get another. Having a backup radio is important.

Listen to other's QSOs and do likewise. It's 73 not 73s.

Lastly; make friends. Attend club events. Get to know the fellows that hang out on the local repeater and check into the local nets. The fun will find you.

73  
Steve N4UTQ



### W1AW CW PRACTICE TRANSMISSIONS

7 PM EST Slow CW : 5-15 WPM  
Mon, Wed, Fri

7 PM EST Fast CW: 35-10 WPM  
Tue, Thu

#### FREQUENCIES:

1.8025, 3.5815, 7.0475,  
14.0475, 18.0975, 21.0675,  
28.0675, 50.350, 147.555.



#### Editor's Note:

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