

HAPPY NEW YEAR

2025



# THE SIGNAL

NEWSLETTER OF THE  
BELLA VISTA AREA RADIO CLUB

ARKANSAS' LARGEST  
AMATEUR RADIO CLUB

- Christmas & Award Banquet Highlights
- BVRC CW Academy Starting Soon
- CW Series #3 of 4 –  
Tools For Sending CW
- HAM 101 Workshop Reminder
- Real or Fake? – Will The Real Baofeng  
Please Stand Up
- The Birth Of Radio
- DXCC DEN: Johnston Atoll

January 2025

**Monthly Meetings: 1<sup>st</sup> Thursdays @ 7 p.m.**  
**Arkansas Law Enforcement Training Academy (ALETA)**  
**3424 S. Downum Road, Springdale AR**  
*(HAM 101 Workshop for Newcomers @ 6pm preceding meeting)*

**Club Calls: N5BVA / W5NX**  
*(Repeater Nets) (Contesting & Special Events)*

**Repeaters: 147.255 +.600 khz offset, pl 162.2**  
**444.100 + 5 mhz offset, pl 162.2**

**Website: [www.bellavistaradioclub.org](http://www.bellavistaradioclub.org)**

## **WEEKLY NETS:**

**BVRC HAM 101 Net**  
**Tuesdays @ 7 pm on the**  
**WX5NAS Skywarn Link System:**

Bentonville - 146.865, -offset, pl 103.5  
 Springdale - 147.315, +offset, pl 97.4  
 Fayetteville - 147.315, +offset, pl 110.9  
 Huntsville - 443.625, +5 MHz, pl 97.4  
 Green Forest - 145.310, -offset, pl

**BVRC Legacy Net**  
**Wednesdays @ 7 pm on the**  
**BVRC Dual Linked Repeaters:**

N5BVA/Bella Vista  
 147.255, +offset, pl 162.2

N5BVA/Springdale  
 444.100, +5 MHz, pl 162.2

**BVRC 3830 Roundtable**  
**Sunday Afternoons**

4 pm during CST  
 4:30 pm during CDT  
 3.830 MHz



# NEXT BVRC MONTHLY MEETING



Thursday, January 2, 2025 @ 7pm  
Arkansas Law Enforcement Training Academy  
3424 S. Downum Road  
Springdale, AR

## January Meeting Information

**HAM 101 Workshop, 6pm preceding monthly meeting** – BVRC's 2024 Ham of the Year will be our instructor to kick off the 2025 HAM 101 Workshop. Jon will be speaking on the use of the Autopatch. – Whether you think it's a novelty of the past or it's an emergency tool, an Autopatch allows the operator to call any phone number via their HT or mobile radio, even in hard to reach rural areas. This is a service available ONLY to BVRC members on the W5NSN repeater on 444.700 + DPL364. Come hear Jon describe it's use, operation, and how you can dial up on tones.

**BVRC meeting, 7pm** – To kick off 2025 with a BANG, BVRC esteemed member Robert Hill – K5NZV will be with us with his presentation, “Living the POTA Life”. Robert, along with his XYL – BVRC Secretary Dana, W5DGH – are BVRC's leading members in Parks On The Air operation. They have 142 total activations at 55 unique parks in 13 states with 5,796 QSOs, and are constantly increasing those numbers. Robert will be sharing the ups and downs, along with the “what to do's and what not to do's” when conducting a successful POTA park activation. Yes, staying at home as a POTA hunter is fun and rewarding, but hitting the road and being a POTA activator can be just as exciting, as you will see from Robert's presentation!

**SEE YOU THEN!**

## BOARD MEMBERS

### *PRESIDENT*

Jan Hagan – WB5JAN  
[ianhagan51@gmail.com](mailto:ianhagan51@gmail.com)

### *VICE PRESIDENT*

Joe Hott – W5AEN  
[joe.hott@gmail.com](mailto:joe.hott@gmail.com)

### *SECRETARY*

Dana Hill – W5DGH  
[dana.hill1979@gmail.com](mailto:dana.hill1979@gmail.com)

### *TREASURER*

Marc Whittlesey - WØKYZ  
[almarc11@yahoo.com](mailto:almarc11@yahoo.com)

### *TECHNICAL OFFICER*

Tem Moore – N5KWL  
[temmoore@gmail.com](mailto:temmoore@gmail.com)

### *NSBVA TRUSTEE*

Roger Dickey – KJ4QIS  
[dickeyr@gmail.com](mailto:dickeyr@gmail.com)

### *BOARD MEMBER AT LARGE & PUBLIC INFORMATION OFFICER*

Tom Northfell – W5XNA  
[w5xna@arrl.net](mailto:w5xna@arrl.net)



## APPOINTED OFFICERS

### *VE TESTING COMMITTEE*

Chair: Don Cooper – KC7DC  
[don\\_c@hotmail.com](mailto:don_c@hotmail.com)

### *EDUCATION & ELMER 911 COMMITTEE*

Chair: Vinson Carter – WV5C  
[vinsoncarter@gmail.com](mailto:vinsoncarter@gmail.com)

### *NETS COMMITTEE*

Chair: Dana Widboom – KI5TGY  
[dcwidboom@gmail.com](mailto:dcwidboom@gmail.com)

### *MEMBERSHIP COMMITTEE*

Chair: Tom Northfell – W5XNA  
[w5xna@arrl.net](mailto:w5xna@arrl.net)

### *SOCIAL MEDIA COMMITTEE*

Chair: Alex Smith – KI5EQK  
[ki5eqk@gmail.com](mailto:ki5eqk@gmail.com)

### *WEBMASTER*

Roger Dickey – KJ4QIS  
[dickeyr@gmail.com](mailto:dickeyr@gmail.com)

### *NEWSLETTER EDITOR*

Don Banta – K5DB  
[arsk5db@gmail.com](mailto:arsk5db@gmail.com)

# From The Desk of The President



Earlier in December I got off Santa's lap at the Pinnacle Mall where I told him of my wish list for Christmas. Of course, besides wishing for good health and prosperity for family and friends and world peace for all, when I got to the ham radio part of my wish list, things got very serious.

I really like my Yaesu FT-891 for its small size and great capabilities but wouldn't an upgrade to a Yaesu FT-710 AESS be a nice Christmas present. And, of course, I would need a shiny new monitor to display all this wonderful radio can show. And it goes without saying, I would also need a decent beam covering 10 to 20 meters to go with it wouldn't I?

As for my New Year's resolutions, besides my annual resolution to lose weight, I am also going to make a resolution to branch out in my amateur radio journey. Is this the year where I dive into digital operations? Can I finally really focus on DX operations to complete my DXCC? Of course, I am making a commitment to activate more states with my Parks on the Air activities.

For you, I hope your Christmas wishes come true and your New Year's resolutions are realized fully. In any case, I am looking forward to next year spending time with my fellow BVRC members enjoying the best hobby in the world!

73! – Jan, WB5JAN



# BVRC CW ACADEMY STARTS APRIL 7 !



The 4<sup>th</sup> BVRC CW Academy will begin Monday, April 7, 2025! If you are interested in learning and adding Morse code to your amateur radio experience, if you enjoy a classroom atmosphere, and if you would like to join other beginning students in a fun and relaxed atmosphere in learning the code, here is a “well ahead of time” heads-up for you to sign-up for the classes.

## DESCRIPTION:

**Event** – Bella Vista area Radio Club CW Academy

**Location** – Arkansas Law Enforcement Training Academy (ALETA), Springdale

**Instructor/Coach** – Don Banta – K5DB

**Class Schedule** – Classes will be held every two weeks on Monday evening.

There will be 10 class sessions: April 7, April 21, May 5,  
May 19, June 2, June 16, June 30, July 7, July 21, and August 4.

**(A virtual class orientation will be held Monday, March 24.)**

**Homework** – There will be homework assignments for each class.

**Class Times** – 6:30pm to 8:30pm

**Class Objective** – At the completion of the course, students will be able to send and receive all letters, numbers, most used punctuation marks, and prosigns at 5 words per minute. A handsome Certificate of Completion will be awarded to each student passing the final CW test and completing the course.

**Equipment information** – **YOU DO NOT HAVE TO PURCHASE A KEY OR OSCILLATOR!**  
*Keys and oscillators will be provided free of charge on a loan-out basis for the duration of the class. Paper and pen are all you need to supply.*

Students will need to pickup  
keys and oscillators at the BVRC March 6 meeting

The class will consist of 8 students, so seating is limited.....sign-up today!

To sign-up – Contact Don at: [ar5k5db@gmail.com](mailto:ar5k5db@gmail.com)



BVRC

Christmas and Awards

Banquet 2024

Over 100 attendees were on hand for the annual BVRC Christmas and Awards banquet held at the Arkansas Law Enforcement Training Academy facility in Springdale on Thursday evening, December 5. The meal was outstanding consisting of the main course of lasagna, salad, and bread from Giraldi's in Fayetteville (and, as always, fantastically coordinated by BVRC's Hospitality Director Bill Durham – KG5ZCI). Members provided excellent side items and desserts which rounded-off the spectacular meal.

A returning special treat was provided by the Hope Quartet, a very talented foursome of ladies from the Bella Vista area. The quartet performs year 'round at many different functions and meetings. It was a thrill to have them back!

Our current officers were unanimously elected to another term, having previously expressed they would be happy to serve again in 2025 (*THANK YOU, OFFICERS, FOR YOUR DEVOTION AND DEDICATION!!!*).



BVRC's meeting place – the Arkansas Law Enforcement and Training Academy in Springdale – has graciously been made available to the club to conduct its monthly meetings. BVRC utilizes two of the facility's classrooms for its meetings and classes. But for the annual Christmas and Awards Banquet, ALETA also has a huge gymnasium that the club uses to accommodate the December banquet, which (in addition to Field Day) is our largest attended event of the year. This year was no exception. (THANK YOU ALETA!)

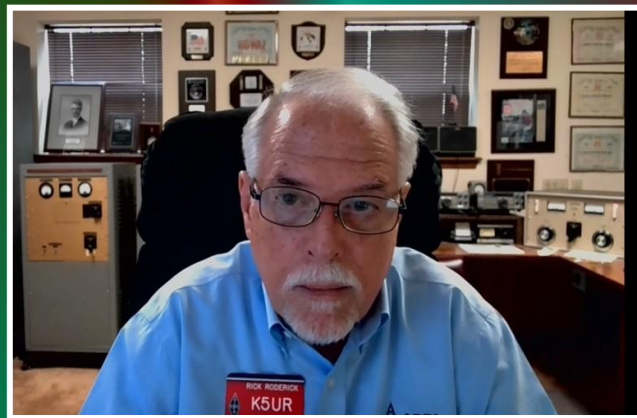
This year's banquet had several additional special features: a video recorded Christmas message from ARRL President (and fellow Arkansan) Rick Roderick – K5UR, a ham radio Christmas poem rendered by our President Jan-WB5JAN (see photo on following pages), *GREAT* year-end door prizes, and of course, the main event of the evening – the presenting of the annual awards to those members who have transcended the norm to promote our stellar club and amateur radio.

In keeping with tradition, last year's 2023 award winners presented this year's winners with their plaques. Enjoy the photos on the following pages from this year's banquet.....





The Hope Quartet entertaining banquet attendees with Christmas favorites.



ARRL President and native Arkansan Rick Roderick – K5UR addressed the banquet with a pre-recorded Christmas greeting, admonishing BVRC for its success and encouraging the club to keep up the great work.

BVRC President Jan Hagan – WB5JAN recites "A Ham Operator's Night Before Christmas", a very humorous and entertaining ballad which brought many chuckles from the banquet crowd.





2023's BVRC Rookie of the Year Dennis Tune – W5DM and President Jan present the 2024 Rookie of the Year award to Michael Kemper – W5KMK. Michael has steadily progressed in amateur radio, acquiring the Worked-All-States and DXCC awards, as well as serving as one of the Net Control Stations for the HAM 101 Net.

2023's BVRC Volunteer of the Year Bill Durham – KG5ZCI and President Jan present the 2024 Volunteer of the Year award to Stephen Ponder – N5ZE. Not only has Stephen progressed in the hobby since passing his first license exam less than 2 years ago, he has helped BVRC in countless ways in 2024. Thank you Stephen!





2023's BVRC Presenter of the Year Mark Whatley – K5XH and President Jan present the 2024 Presenter of the Year award to James Bennet – KA5DVS. The Presenter of the Year is awarded to the individual that has given the best program at monthly club meetings. James' May program on 3-D printing applications for ham radio was exceptional .

2023's BVRC Elmer of the Year Jay Bromley – W5JAY and President Jan present the 2024 Elmer of the Year award to Vinson Carter – WV5C. Vinson has not only performed a stellar job as the club's ELMER 911 online program coordinator, he has provided an excellent example to many newcomers in what a class amateur operator is and does.





## ***BVRC 2024 HAM OF THE YEAR***

2023's BVRC Ham of the Year Don Banta – K5DB and President Jan present the 2024 Ham of the Year award to Jon Williams – K5DVT. Since becoming a ham as a youngster 12 years ago, Jon's passion for the hobby is evident. He has accelerated in many areas of radio, and especially VHF/UHF. Jon's gift of his time and talents has helped spur BVRC's tremendous growth. His Skywarn linked repeater system has been, and remains, a huge benefit to BVRC and a valuable resource to amateurs throughout northwest Arkansas. Jon conducted two excellent and fun fox hunts at this year's Field Day, as well as operating through the late night/early morning hours. He was also one of our program presenters this past year, with his program, "Automatic Packet Reporting System in Amateur Radio".

***On behalf of the board and membership of BVRC,  
thank you Jon and congratulations!***

At the BVRC annual Christmas and Awards banquet, the club also presents Special Service Awards, when applicable, to club members who have demonstrated exemplary effort in furthering the advancement of the club.

There were two such individuals this year to receive SSAs and they are very well deserved:



The first SSA was presented to Bill Durham – KG5ZCI. Bill generously renders his time and talents to benefit BVRC and amateurs throughout Northwest Arkansas. This year Bill helped construct the antenna for the club’s N5T Special Event train excursion, which was a *tough* undertaking. Bill not only brings treats to monthly club meetings, but Bill also organized meals for our 2024 Field Day and organized food for this year’s banquet feast. **THANKS BILL!!!!!!**



The second SSA was presented to Glenn Kilpatrick – WB5L. Glenn has gone above and beyond in his past service to enhance and grow the Bella Vista Radio Club. As a past president of BVRC, Glenn updated many of BVRC’s founding documents. Through his efforts, Glenn brought national recognition to the club’s outstanding website. This year, Glenn participated in many of the club’s major events and activities and presented a stellar program, An Introduction to WinLink.”

**GLENN, A HEARTFELT THANKS FROM ALL OF US FOR ALL YOU’VE DONE!!!!!!**



Would an informative amateur radio video on many aspects of the hobby help you? Would you like to see some of the great programs you missed before joining BVRC? You surely can! Go to YouTube and query "Bella Vista Radio Club", then go to the BVRC Channel page and subscribe! BVRC has many interesting and informative videos that you will enjoy!



# FIELD DAY 2025

**COMING  
SOON**

ARRL Field Day



Thanksgiving, Christmas, and New Year's have once again passed, with lasting memories of get-togethers with family and friends.

The Winter Solstice has also come and gone. What does that mean to the ham operator? It means the days are once again getting longer and nights shorter. And yes, we may still have to endure a few last shots of winter, but *IT'S TIME TO PREPARE*.

Prepare for what? For the biggest event in amateur radio. Yes, before you know it, it will be here: FIELD DAY 2025. In only about 6 months, "CQ FIELD DAY" will once again fill the airwaves, June 28-29.

**MARK YOUR CALENDAR NOW FOR AN EXCITING 2025 FIELD DAY ADVENTURE WITH THE BELLA VISTA area RADIO CLUB!**

Start thinking now about how you would like to be a part of this awesome event. Would you like to help with site set-up (exciting!) or take-down? Bring a special dish for the Field Day feast? Radios, antennas, power sources, accessories, food, drinks, etc. are all part of the plan that you can help with. Do you plan to operate SSB? CW? Digital?

Remember, this is the largest amateur radio event in the United States and Canada, and only happens once a year.

So plan on coming and staying for a good length of time. With the station activity, fellowshiping with other club members, and just enjoying the "World of Field Day", the time will fly, and you'll have a ball!

***BVRC FIELD DAY LICENSE TESTING!***  
The BVRC VE Testing Team be on hand to conduct a special Field Day VE test session for all those wishing to test for their first ham license or license upgrade. The test session will be held at 2 pm on Saturday, June 28!

If you plan to participate this year and would like to lend a helping hand when Field Day weekend rolls around, watch for more information on the BVRC website, Facebook page, and *THE SIGNAL*. And of course, FD coordinating plans will be discussed in greater detail as FD nears.

**PREPARE NOW !  
FIELD DAY COMETH !**



# New BVRC Members!

**Jeff Crawford – K5DRJ - Springdale**  
**James Simmons – KA5IOS – Jay, OK**  
**Lisa Johnson – KI5ASM – Rogers**  
**Wayne Pearson – KJ5JJO – Fayetteville**  
**Devon Johnston – Bella Vista – WD5WD**



## Start 2025 With Pursuing Amateur Radio Awards!



If you're a new General or higher class licensee, what better way to get 2025 started than to pursue all kinds of great amateur radio awards? There are awards for working all the states, different DXCC countries, Parks On The Air, Grid Squares on 6 meters and above, as well as state QSO party and other contest awards, county awards, CQ zones, and many more! Nothing is more exciting and gratifying than getting some of that "ham radio wallpaper" for your shack. Here are some links to follow for more information:

<https://www.arrl.org/awards>

<https://parksontheair.com/>

<https://contestcalendar.com/index.html>





# BVRC VE REPORT

From Don Cooper - KC7DC

BVRC VE Coordinator

December, 2024



# **PASSED**

## ***Congratulations!***

**WAYNE PEARSON — KJ5JJJ — FAYETTEVILLE  
NEW TECHNICIAN!**

**CLAYTON HORNSBY — KI5CAM — SILOAM SPRINGS  
NEW GENERAL!**

**ALEX SMITH — KI5EQK — SPRINGDALE  
NEW GENERAL!**

**WILL KOERTGE — KC5DWK — FAYETTEVILLE  
NEW AMATEUR EXTRA!**

### **Next month's test sessions:**

- **Jan. 11, 10 am - Shiloh Museum, 118 W. Johnson Ave, Springdale**
- **Jan. 11, 2 pm - Bella Vista Public Library, 11 Dickens Place, Bella Vista**

Here is The Signal's third installment on the 4-part series, "All About CW".

We hope these articles on the wonderful mode of CW will encourage you to join us for the annual BVRC CW Academy classes beginning April 7 (see page 6 of this issue of The Signal). In these classes, you will learn Morse code and at the end of the course, you will be able to send and receive at 5 words per minute. You can then build your speed after you get on the air. If you wish to sign-up for the class, send an e-mail to Don-K5DB at: [arisk5db@gmail.com](mailto:arisk5db@gmail.com) and he will send you more information.

# Tools for Sending Code

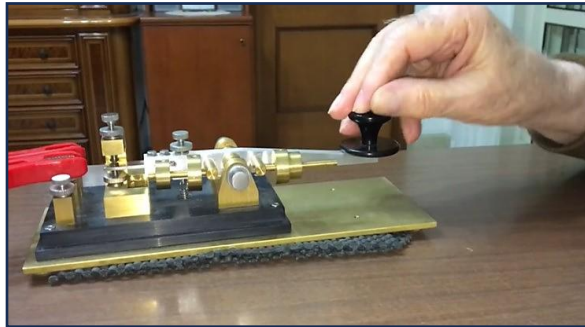
By Steve McGrane – KM9G

(Reprinted with permission from ARRL On The Air magazine, January 2022, ©ARRL)

One of the first things that comes to mind when we think of CW is the Morse code key. At its heart, a Morse code key is very similar to a light switch. You make or break a connection – in this case, to make a series of long and short pulses that are put together in a meaningful way. Here's a closer look at the tools hams use to make these connections.

## The Straight Key

In the case of a Morse code *straight* key, the length of time you keep the switch connected is the length of the signal that's transmitted over the air. When you press the key, the connection is switched on. If you let go, the switch automatically returns to the off position.



squeeze the dah paddle, the key will auto-repeat *dit-dah-dit-dah-dit-dah* until you let go. If you do the opposite and squeeze the dah paddle first, the key will auto-repeat *dah-dit-dah-dit-dah-dit* instead. By mastering the timing of squeezing and letting go, you can send any combination of dits and dahs. The different types of paddles are: single-lever, dual-lever (most common kind) and bugs (semi-automatic paddles).

Most people use a three- or four-fingered grip on a straight key, centering their index finger and stabilizing with their thumb and middle finger. This allows you to stay properly oriented on the key, and also reminds you to make small, precise presses that enable you to time the length and spacing of *dits* and *dahs* (ham lingo for the familiar "dots" and "dashes" of Morse code.)

## The Paddle

*Paddles* are an alternative to straight keys. Instead of you manually controlling the length of the dit and dah as you do with a straight key, the paddle handles it for you electronically. On a set of paddles, one paddle controls the dits and the other paddle controls the dahs. When you push the switch on, the paddle will send the character at the proper length every time.

If you hold the switch closed long enough, the paddle will repeat the character at a perfectly measured pace. You can adjust that pace faster or slower, depending on your skill level and the skill level of the person on the receiving end. Finally, if you squeeze the paddle together, that will alternate which character is sent. If you squeeze the 'dit' paddle first, then

## Which One to Use

When trying to choose between a straight key or paddle, keep in mind that one isn't really better than the other, they are just different. I come from an engineering background. I try my best all day every day to be efficient and precise. A paddle speaks to that nature.

A straight key, however, seems to have a soul. Imagine a language you're familiar with, spoken in a regional accent. Some place drop the final "R", others have a southern drawl. Similarly, you can hear nuances from operator to operator by the way they use a straight key. There's even a name for this quality: the *fist*. Some hams recognize the fist of another operator before they even send their name, location, or call sign.



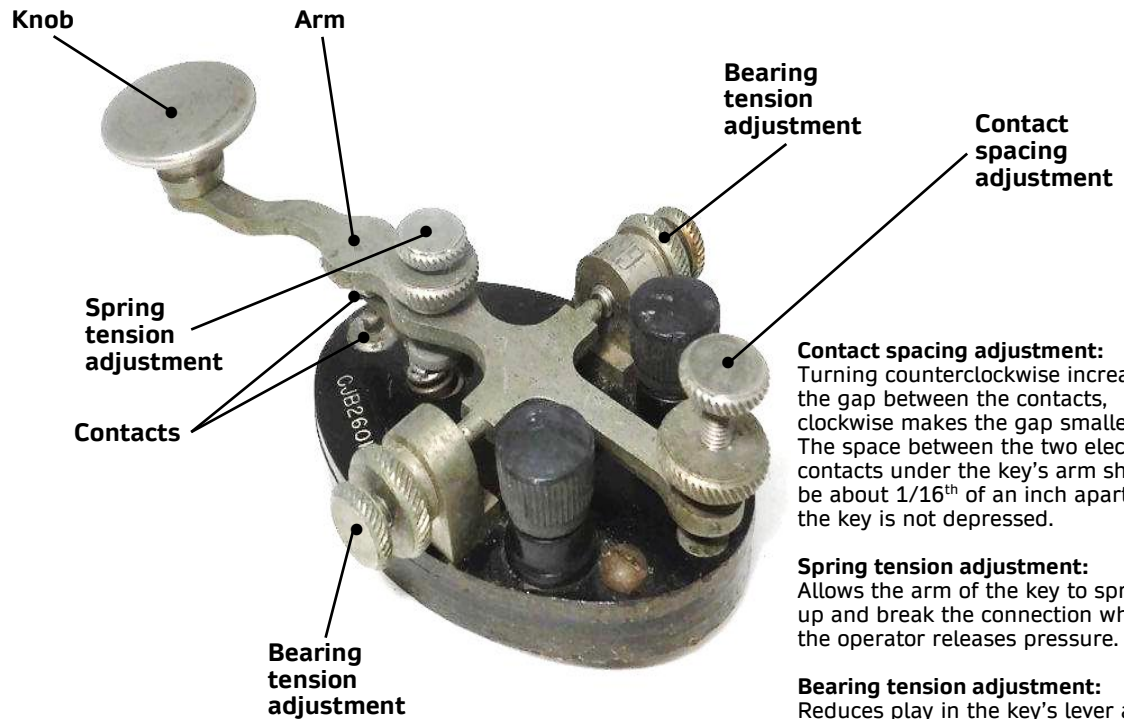
Some people enjoy the history associated with one form of key or the other, and want to connect with that.

The most important thing is to find a key or paddle that works for you and enjoy it.

## THE BIG PICTURE

### Key Pieces and Paddle Parts

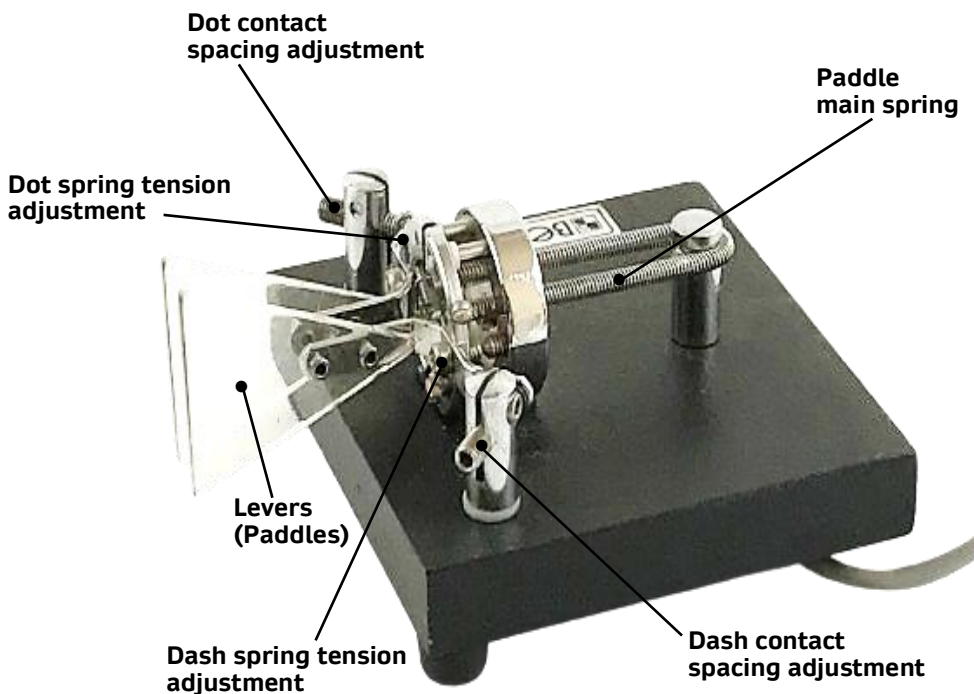
Of the tools used to send Morse code, straight keys and paddles are the most common. Though they differ in appearance and in required operating technique, they're both essentially on-off switches with similar components.



**Contact spacing adjustment:** Turning counterclockwise increases the gap between the contacts, clockwise makes the gap smaller. The space between the two electrical contacts under the key's arm should be about 1/16<sup>th</sup> of an inch apart when the key is not depressed.

**Spring tension adjustment:** Allows the arm of the key to spring up and break the connection when the operator releases pressure.

**Bearing tension adjustment:** Reduces play in the key's lever arm without introducing friction to the up-and-down movement of the arm.



**Contact spacing:** Adjust to determine how far you must move the paddle before the contact is closed.

**Tension adjustment:** Adjust to increase or decrease the amount of force required to push each paddle.

**Operation reversal:** Illustration shown is for right-handed operators. Paddle can be reversed for left-handed operators by menu option on newer transceivers. If older transceivers are involved, left-handed operation can still be accomplished by reversing the two wires that are connected to the 'dot' and 'dash' poles on the underside of the paddle base.

# MEMBERSHIP RENEWAL



A reminder for everyone wanting to keep their BVRC memberships current for the coming year and have not as yet done so, the deadline for dues is March 31. The dues are \$15.00 per year (\$1.25 a month). If you have any immediate licensed family members living with you at your home domicile, you can include them as a Family Membership *at no extra charge*. You can renew your membership using any of these options:

- Personal check or money order to the BVRC Treasurer, Marc – WØKYZ via regular mail, payable to:

Marc Whittlesey  
1 Radcliffe Drive  
Bella Vista, AR 72714

- Via PayPal by using Marc's e-mail address: [almarc11@yahoo.com](mailto:almarc11@yahoo.com). After entering \$ amount, in the next section marked *What is this for?*, enter "BVRC membership renewal"
- Pay in person at a BVRC monthly meeting

**Also note:** *If you are 73 years of age or older you now qualify for BVRC's Lifetime Membership. Contact Marc at the above e-mail address and when you advise him that you have reached your 73rd birthday, your membership in BVRC from that time forward is **FREE**. You will also receive a handsome BVRC Lifetime Member certificate suitable for framing.*

The BVRC membership form and other essential information is included on the BVRC website club membership page. To view the page, click [here](#).

**THANKS FOR YOUR SUPPORT!**



*"The power company would like to have you QSL them \$200!"*

# ATTENTION ALL NEWCOMERS TO AMATEUR RADIO AND THE BELLA VISTA AREA RADIO CLUB!



## HAM 101 WORKSHOP

Each month before BVRC's regular monthly meeting at 7:00 pm, we offer a unique benefit for all new hams – the HAM 101 Workshop.

HAM 101 Workshop is a special meeting that convenes at 6:00 pm, one hour before the regular monthly meeting, just for you. Each month, one of our veteran hams moderates the meeting with a topic, followed by a Q&A session on any and all topics of amateur radio. It is a great time of discussion, learning, fellowship, and fun. If you're new to the hobby, these meetings are geared just for you. Bring your questions and we'll see you there!

**TIME:** 6pm, before each regular BVRC monthly meeting at 7

**PLACE:** Arkansas Law Enforcement Training Academy (ALETA)  
3424 S. Downum Road  
Springdale, AR



# NEWCOMERS: BVRC Is Here For You!

If you're new to BVRC and amateur radio, there are many of us who know EXACTLY what you're going through:

- What do I do now?
- How do I program my HT?
- How do I make a contact?
- What is FT8 all about?
- What's the best coax to use?
- What is APRS?
- What is a "hamfest"?
- What does "greylines" mean?
- What kind of radio should I get?
- Where can I find the repeater frequencies?
- Can I buy a decent HF radio on a budget?
- What kind of logging software should I use?
- What are these strange calls I'm hearing?
- Should I use just a single or dual band radio?
- What are the good ham radio apps?
- How do I ground my station?
- What kind of antenna should I use?
- I have high SWR – what can I do?
- How do I learn Morse code?
- How can I learn about propagation?
- How do I operate on a Net?
- What are radials?
- How do I become a Storm Spotter?
- What is UTC?

All of us have "been there and done that". That is why BVRC has several experienced hams that are here to guide and help you avoid some of the "walls" that you might run up against when learning the ins-and-outs of the hobby. And.....even if you're not new to ham radio and are in a quandary about something, *we're here for you too!* With BVRC, you have several resources that are available to you that will assist you in understanding what amateur radio is and how it works, and they're all out there waiting on your call for help!

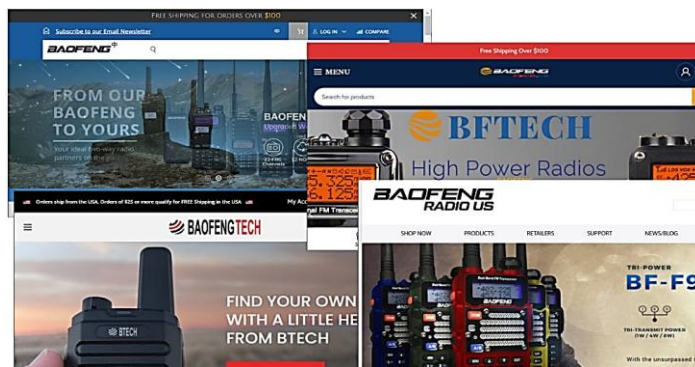
- **ELMER 911** – This is an exclusive service for BVRC members, and in particular, our newcomers. You can pose a question 24/7 through ELMER 911. All you have to do is go to the ELMER 911 page on the BVRC website, then go to the ELMER 911 tab: <https://bellavistaradioclub.org/elmer-911/>. You will see a form that you can complete that describes your question or issue. Complete the form, then click "SEND". Our ELMER 911 Coordinator will then assign your question to one of our team of Elmers who will contact you via e-mail. You should get your answer in 12-24 hours, and sometimes sooner.
- **HAM 101 Workshops** – Just before each regular BVRC monthly meeting at 7:00 pm at the ALETA facility, come join us for the HAM 101 sessions, beginning at 6:00 pm. These sessions are designed specifically with newcomers in mind, so you can bring your questions, have those questions answered by our experienced Elmer (mentor) hams present, and also learn more about the hobby from the Q&As of other participating newcomers. We've had very good attendance on each BVRC meeting night. Our ELMER 911 feature is, of course, ultra-convenient. But if you'd rather enjoy the fun and excitement of in-person newcomer get-togethers, you can join-in with the monthly HAM 101 sessions, or you can join on-air newcomer gatherings each week on the BVRC HAM 101 Net. *And, of course, experienced hams are welcome to these sessions, anytime.*
- **BVRC HAM 101 Net** – Get your questions answered or issues resolved (as well as gaining on-air experience!) by joining us on our weekly HAM 101 Net. This net resembles the in-person HAM 101 monthly meetings, except it occurs on-air. A panel of Elmers will be on hand to field any questions or issues you might have. It's a fun on-air experience that you'll really enjoy and also learn net operation protocol in case you're unfamiliar with nets – a great learning experience! This net takes place on the WX5NAS Skywarn Link System. You can find the repeater that is closest to you and it's operating frequency, offset, and PL tone on page 1 of this newsletter. *Experienced hams are also encouraged to join us. You're welcome anytime!*

**So, take advantage of these opportunities if you need help with something (experienced operators, too!) Send-in your question via the website, join us at the Ham 101 Workshop newcomer meetings, and check-in on the HAM 101 Net to ask questions and learn from other members' questions! BVRC has your back!**

# Is Your Baofeng Authentic Or Fake?



Everywhere you look today there are advertisements for Baofeng radios with different labels, different model numbers, and slightly different names:



Will the real Baofeng please stand up? Probably not, and here's why:

First you need to ascertain who the REAL Baofeng is. This might be tough because there is BaofengRadio.com, BaofengTech.com, BaofengTech.us, BaofengRadio.us, and many more. We all know that China (and also the U.S. to an extent) "reverse engineer" items and then make cheaper versions of them. Once an item is made and it looks to be successful, it seems that others both inside and outside of China have no problem acquiring that design and building it with minor modifications with a "new" name on it.

According to a recent article, the original, and real, Baofeng is Baofeng Electronic Co., Ltd located in Changfu Industrial Zone, Xiamei Town, Nanan, Quanzhou City, Fujian, China. This is based on their websites BaofengRadio.com and BaofengRadio.co, having the most extensive company information, the most history which appears to agree with other authoritative websites, and their name is listed in many legal company databases in China predating other potentially fake Baofeng radio companies.

Let's take a look at a "fake" Baofeng. The fake is probably built from the same schematics using most if not all of the same electronics, probably even using the same plastics sourced from the same manufacturer. It might have even been shipped on the same ship through the same port and could be sold in the same stores. It looks like the real one and operates like the real one. But.....a different quality of parts could be used, different quality control standards, etc.

If you investigate the market concerning this radio, you will find there are a lot of people selling Baofeng radios and very few of them are actually manufactured and sold to the consumer by Baofeng Electronic Co., Ltd in Changfu Industrial Zone, Xiamei Town, Nanan, Quanzhou City, Fujian, China. In other words, there are a lot of fake Baofeng radios out there.

So why do people sell and review fake Baofengs? – Most sellers don't really know who the real Baofeng is, nor do they care. What they care about is MAKING MONEY. They buy product XXX and sell product XXX. If they make a profit factoring in returns etc., then they keep selling XXX. They know the market and they know how the end user/consumer thinks most of the time.

They surmise the end user doesn't really care. They pattern sales from the perspective of what the consumer wants is a radio that does a certain job and they want it for as little money as they can get away with paying. Why buy a \$500 Kenwood when a \$30 Baofeng does what they want? That same logic applies to the question "Why buy a real Baofeng for \$50 when a \$30 knockoff will do the job you need?" It even looks the same!



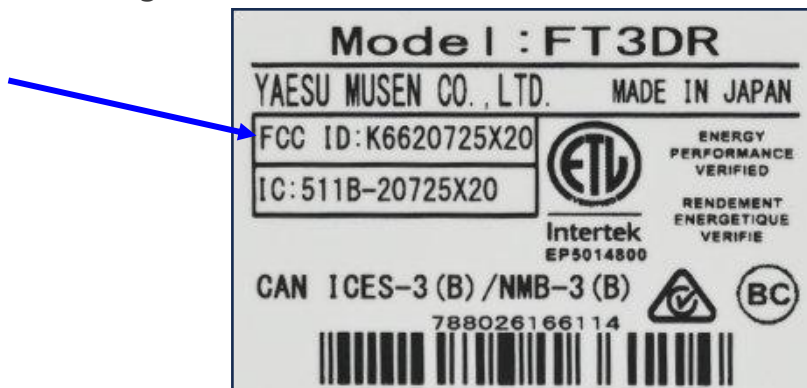
And yes, there are some serious differences between cheap radios and expensive radios. That applies to most things in life. Many people think when you buy an expensive radio, a lot of what you're paying is for the name. That may be true to a point, but you're also getting better quality than you would with a low-end radio, and with additional features as well.

To answer the main question of this article, one of the KEY indicators as to whether you own a real Baofeng or a fake is *FCC certification and licensing*.



An FCC certification means that the radio has passed tests to ensure it does not interfere with other equipment, among other things. Every radio that transmits should have an FCC certification. Many do. Every radio by the big companies (such as Kenwood, Yaesu, Alinco, and Icom) are all FCC certified.

They all possess a sticker attached to either their outside casing or the inside battery compartment, showing an FCC identification number as in the illustration below:



Fake Baofeng radios usually either do not display a certification sticker at all, the sticker could also be fake, or the radio received an FCC certification and was subsequently modified to do things it should not be able to do. But by and large, if you desire to determine the authenticity of the unit, I would probably go with looking for the certification sticker.

That's the bottom line for your search for a real Baofeng radio. – They are FCC certified for amateur radio use. The fakes are not. Not long ago, the FCC cited Amcrest Industries in Houston, Texas which runs BaofengRadio.us for illegally marketing UV-5R radios "capable of operating outside the scope of its equipment authorization".

In closing, Baofeng radios are the most copied, pirated, and faked radio out there because they are cheap, easy to manufacture and sell like hotcakes. The way to stop the fakes is to quit buying them. For example, if everyone bought Yaesu, Kenwood, Alinco, Icom, etc, and not Baofengs then the motive would not be there to fake them. Even if people would research to find out who the real Baofeng is before purchasing instead of just going by price, this would diminish or possibly vanquish the production of the fake units. In actuality, and even though an element of ignorance is involved, it is the consumer's fault this is happening.

But that's ok.....we get what we pay for. The \$30 knock-off Baofeng is just that. – A cheap, disposable radio for people to learn on and/or abuse. If it breaks, throw it in the trash and buy another one.

**ATTENTION NEWCOMER BVRC BAOFENG AND OTHER HT OWNERS**

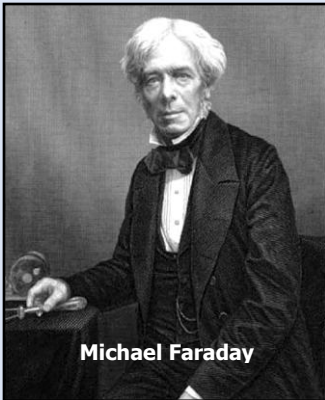


BVRC Social Media Coordinator, Alex Smith – KI5EQK, advises that if you are having difficulty in programming NW Arkansas repeaters into your Handi-Talkie, bring your unit to any BVRC monthly club meeting and he can program it for you on the spot! You can leave the meeting with your HT programmed and ready to go! Alex has the programming cable for Baofeng radios. If you have another make of HT, you will need to acquire the programming cable for your radio and bring it with you along with your HT, and Alex will also be able to program that radio for you. **A BIG THANKS TO ALEX FOR HELPING OUR NEWCOMERS!**

# The Birth of Radio

by BVRC member Steve Werner – K5SAW

Radio communications has certainly become a common way of life today, but it really has not been very long since radio waves were first predicted and later demonstrated. Electrostatic and Magnetic effects have been known for centuries, but it was not until the 1800's that scientists demonstrated the connections between electricity and magnetism. Michael Faraday is credited with the idea of electric and magnetic fields, and he used those fields



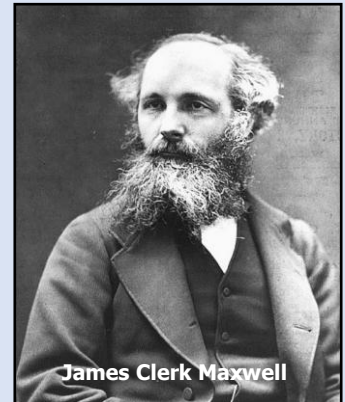
Michael Faraday

in 1830 to describe electromagnetic induction where a changing magnetic field creates an electric field. Many other electric and magnetic discoveries were made in the early to mid-1800's by Andre Ampere, Hans Christian Orsted, Jean-Baptiste Biot, Lord Kelvin and Felix Savart. However, James Clerk Maxwell in 1865 consolidated all these discoveries into four simple equations to describe all the known properties of the electric and magnetic fields as well as describing a new traveling electromagnetic wave created by electric and magnetic field interactions. Maxwell calculated the speed of the traveling electromagnetic wave in free space, and this speed matched the currently measured speed of light very accurately. This well confirmed that light was made of a traveling electromagnetic wave, but the equations did not limit the electromagnetic wave to the frequencies of light. Many folks postulated that invisible forms of this electromagnetic wave should exist, but it took another 23 years (~1888) for Heinrich

Hertz to demonstrate these invisible electromagnetic waves which were later named radio waves.

Maxwell's Equations in a nutshell.

- 1 The total electric field lines (flux) going into and out of a closed surface is equal only to the amount of charge inside the closed surface.
- 2 The total magnetic field lines (flux) going into and out of a closed surface is always equal to zero. This means it is impossible to have a magnetic monopole (i.e., just a north or just a south pole magnet).
- 3 A changing magnetic field produces an electric field. This is just Faraday's law of induction, and it is the principle behind electric generators.
- 4 An electric current flow will produce a magnetic field, and a changing electric field will produce a magnetic field.



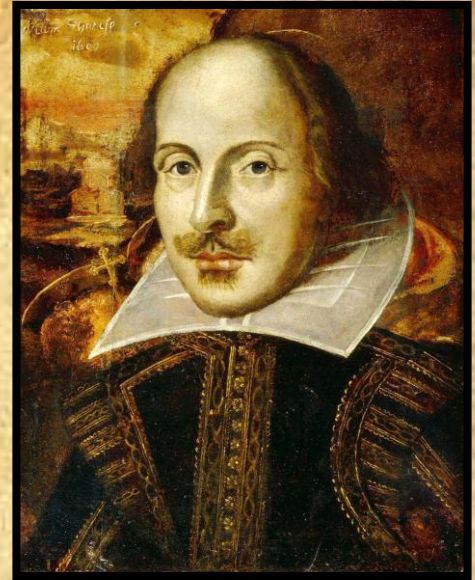
James Clerk Maxwell

Equation number 4 is where radio waves were born. The first part of the equation (Ampere's Law) describes the magnetic field that results from electric current flow, and this is the principle behind an electromagnet. The second part of the equation, often called the displacement current, was hypothesized by Maxwell simply to make the equation mathematically consistent, but the implications of this hypothesized term were huge. Equation 3 tells us a changing magnetic field makes an electric field while equation 4 tells us a changing electric field makes a magnetic field. The electromagnetic wave is just the back and forth action of the changing magnetic field making a changing electric field and this changing electric field making a new changing magnetic field.

The final triumph for Maxwell was predicting the speed that an electromagnetic wave would travel in free space. The magnetic permeability ( $\mu_0$ ) is the measured resistance encountered when forming a magnetic field in a vacuum, and the electric permeability ( $\epsilon_0$ ) is the measured resistance encountered when forming an electric field in a vacuum. Maxwell showed that 1 divided by the square root of  $\epsilon_0$  times  $\mu_0$  was equal to the speed of light. It is truly remarkable that two measured physical quantities could be used to calculate the speed of light and radio waves.

After Hertz's radio wave demonstration in 1888 (130 years ago) the pace of radio communication development was incredible, and by 1909 there were already 89 amateur radio stations listed in the *Official Wireless Blue Book of the Wireless Association of America*.

You don't have to write like William "Bill" Shakespeare in order to write an article for The Signal. --- In fact, we prefer articles without the words "thy", "whilst", "tis" and "oft".



Working on a new kit or homebrew project? Have you recently received a rare or interesting QSL card to share? Received a new radio award? Or do you just have a neat photo (ham radio related) or some comments to share with other BVRC members? Maybe you have acquired a new piece of equipment, or constructed a new antenna? Taken a trip focused around ham radio to share an amateur radio related experience? *Why not write an article for The Signal?*

The article can be short or long, simple or elaborate. Please include pictures! We're always looking for material for the BVRC newsletter, and feedback from our readers goes a long way toward keeping the newsletter interesting! So why not give it try? Write an article and send it to the newsletter editor, and we'll get it in there! It's fun, and at the same time your contribution helps support BVRC and our hobby! Articles can be submitted electronically or on paper, whichever you prefer. As *The Signal* editor, I particularly look forward to putting a new issue together when I have material submitted by our club members. Hope to hear from you soon & 73! (Send it in!)

*Submit your material to:*

Via e-mail: [arsk5db@gmail.com](mailto:arsk5db@gmail.com)

Via regular mail: Don Banta, K5DB

3407 Diana St.

Springdale, AR 72764

# THE DXCC DEN



By Don - K5DB

## This month's featured country:

### Johnston Atoll

Primary Call Sign Prefix: KH3

As DXCC Den continues our travels to rare and out-of-the-ordinary countries, to kick off 2025 we travel to the north Pacific and visit a U.S. possession that is extremely rare on amateur radio - Johnston Atoll.

Johnston Atoll is an unincorporated territory of the United States, under the authority of the United States Air Force (USAF). The island is closed to public entry, and limited access for management needs is only granted by a letter of authorization from the USAF. A special use permit is also required from the United States Fish and Wildlife Service (USFWS) to access the island by boat or enter the waters surrounding the island, which are designated as a National Wildlife Refuge and part of the Pacific Remote Islands Marine National Monument.



**Location of Johnston Atoll**

The isolated atoll has been under the control of the U.S. military since 1934. During that time, it was variously used as a naval refueling depot, an airbase, a testing site for nuclear and biological weapons, a secret missile base, and a site for the storage and disposal of chemical weapons and Agent Orange. Those activities left the area environmentally contaminated. The USAF completed remediating the contamination in 2004 and performs only periodic monitoring today.



Johnston is a 3,200 acre atoll in the north Pacific Ocean, located about 860 miles southwest of Hawaii.

On June 29, 1926, by Executive Order 4467, President Calvin Coolidge established Johnston Island Reservation as a federal bird refuge and placed it under the U.S. Department of Agriculture, as a "refuge and breeding ground for native birds." Therefore, Johnston Atoll is administrated primarily by USAF and secondarily by the USFWS. Although it has been closed as an airfield, personnel from both U.S. agencies still maintain the island.



Ham radio-wise and as was stated earlier, Johnston Atoll is very rare. It currently ranks #8 on the DXCC Most Wanted List. From the end of WWII through 2003 Johnston was activated many times by military personnel, small DXpeditions, and/or research scientists that held amateur licenses, before the USAF gained primary administration. The last activation took place in 2003 with German amateur DL9WVM operating with the Johnston call sign of AH3D.

The last DXpedition team, consisting of 4 operators, to be granted operating privileges used the special event call sign K3J in 2001.



So, it has been 22 years since the last activation of Johnston Atoll. If you are wondering about any future DXpeditions to the island to get it on the air, let's turn to Lou Dietrich - N2TU who was the team leader of the Wake Island (K9W) DXpedition and the co-leader of the Palmyra Island (K5P) DXpedition, and who has labored intensely on getting permission for a modern day operation from Johnston. Lou says:

"In an attempt to obtain landing permission, multiple proposals have been submitted to the USAF. Initially, the process appeared to be fast tracked. The USAF was aware of the very positive feedback we received after the Wake Atoll operation. For Johnston, the USAF was given a very contained 'foot print' of our operations. Our set-up would be self-contained and restricted to wherever area USAF deemed safe and of short duration (2 weeks). We would be self-financed, have appropriate medical personnel with us, and follow the same protocols as the USFWS volunteers for ingress and egress to the atoll. Additionally, we offered the USAF compensation for any USAF supervision required on the atoll. The amateur team individually signed a Waiver of Responsibility, which effectively eliminated any chance of legal action for any reason. The Waiver was a Department Of Defense (DOD) authored document which assured the US Government of complete isolation.

Progress moved ahead nicely until a single Colonel objected on the basis of potentially hazardous material being brought back to our point of embarkation (Hawaii) by personnel's clothing and/ or other material. Any assurances given, such as we would follow the exact protocol as the dozens of USFWS personnel and further, we would be under the supervision of the USAF, fell on deaf ears.

Multiple re-submissions were sent to the good Colonel's chain of command, up to and including the Secretary of the USAF in the Pentagon. All were summarily dismissed or simply unanswered. Literally, hundreds of hours have been invested in the multiple iterations of an Operations Plan, Logistics Plan, soliciting personnel for the operation, attempting to get support from US Senator and Representatives (tough going!), issuing Freedom of Information applications, and on and on.

Summarized: Using the guise that hazardous material would be transported off the atoll is simply another way of saying it isn't in their mission . Stating the atoll is unsafe seems disingenuous as literally hundreds of USFWS personnel have lived on the atoll for extended periods, roamed the atoll, dove and fished in the lagoon and even farmed vegetables in the soil. The USAF has a mission and that mission does not include amateur radio.

All hope is not lost. Eventually, Johnston Atoll will be turned over from the USAF to the USFWS. The Pacific Region USFWS have been open to amateur radio operations as long as their terms are met. So if we live long enough, who knows!"



Current Johnston administrative buildings can be seen in the distance

So.....for you DXCC country chasers, all you can do is wait. As Lou says, hopefully the administration of the atoll will be exclusively be turned over someday to the U.S. Fish and Wildlife Service, with whom amateur radio has a very good rapport, and possibly granted access.

Personally, I could use Johnston for Challenge award points on other bands, but I can say - fortunately - that I have initially worked and confirmed this rare entity.....54 years ago. I was 15 years old and still a novice when I worked Wayne on 15-meters CW. Wayne was a member of the Atomic Energy Commission Amateur Radio Club. He was serving in the U.S. Air Force and was stationed at Vandenberg AFB in California. At the time I worked him, he told me his assignment was serving at the base for 6 months, then flying to Johnston for 3 months, then back to Vandenberg. It is the only time I ever worked Johnston and one of my most cherished QSL cards. This was back when KJ6 was its prefix. 'J' for Johnston.

**JOHNSTON ATOLL**  
LAT: 16° 44' 18" N LONG: 169° 31' 18" W  
780 MILES

**KJ6CF**

HAWAIIAN ISLANDS

HOLMES & NARVER, INC.  
ATOMIC ENERGY COMMISSION  
AMATEUR RADIO CLUB  
P.O. BOX 101  
APO SAN FRANCISCO, CALIF. 96305

EQUIPMENT:  
TRANSMITTER: COLLINS 325-3 + 30S-1 LINEAR  
RECEIVER: COLLINS 755-3B  
ANTENNA: TA 36 TRI-BANDER 300' TOWER

TO RADIO: WWSZKE CONFIRMING OUR QSO CW  
ON 20 JULY 70 AT 0530 ZULU (GMT)

MODE	FREQUENCY	READ.	STR.	TONE			
A1	21	5	6	9	<input checked="" type="checkbox"/> TNX	<input checked="" type="checkbox"/> QSL	<input checked="" type="checkbox"/> PSE

OP: Wayne

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