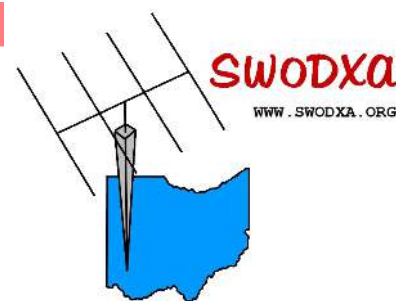




Volume 6, Issue 4

3/2023

the exchange



SouthWest Ohio DX Association

2023 Officers

President AJ8B
Bill Salyers
Vice—President W8KJ
Kevin Jones
Secretary KC8CKW
Mindi Jones
Treasurer W8RKO
Mike Suhar
Club Trustee: KC8RP
Richard Pestinger
Club Call : W8EX

The Prez says.....

The days are flying by as Spring is only 3 weeks away! That means that the DX Dinner is only 79 days away! Our participation in the Volunteers on the Air, VOTA, is only 3 weeks away. We have many club members involved with various projects. I couldn't be prouder of our members and our club. I have had a chance to present or to be involved with at least 9 different clubs over the past 12 months and I would put SWODXA up against any of them.



We have worked hard to have excellent presentations at each meeting and to get the word out about SWODXA. In the past few weeks, we have added 4 new members, 3 of which are featured in this edition. Janet, W8CAA, has crafted an email and has sent it to those members who have become inactive. (No small task.) Billy, AA8KY, has been staying on top of new members and prospective members. Ron, N8QF, has been filling in the operating slots for the VOTA. Jay, K4ZLE, is getting ready for the Sable Island DXpedition (CY0S.com) while he and the DX Forum assistant chairman, Brian, AD8FD, are getting things lined up for the DX Forum. Joe, W8GEX, has been actively promoting our VP5M fundraiser, promoting 60 Meters, AND co-hosting our podcasts. The officers (Mike, W8RKO, Kevin, W8KJ, Mindi, KC8CKW, and Tom, NR8Z) have been working on a variety of projects that we hope to discuss soon. Ken, KB8KE, has been researching other fund-raising options as well as potential ARRL grants. The DX Dinner committee has been active, and they will get even busier as we get closer to the 19th of May. That committee consists of Mike, W8RKO, Mindi, KC8CKW and Dwight, K4YJ.

(cont. on next page)

INSIDE THIS ISSUE:

SWODXA Club News	3
New Members	6
New Honor Role Member	9
ARRL VOTA	10
New Addition	12
VP5M Raffle	14
DX Mentor Podcast	15
3Y0J Op Ed	16
60 Meters	19
2022 DX Year in Review	20
Anatomy of an Inexpensive DXpedition	32
MI0JZZ Interview	37
9 Element Circular Array	39
Japanese Castles on the Air	45
ZS4JAN Interview	51
DX Friends	57
Club Contacts	59
Club Fact Sheet	61
DXpedition Donation	62

The Prez Sez (cont.)

In addition to all of this, we have the DX Committee who oversees the DX Grants and the DXpedition of the Year. As I have said many times, with all the great operators we have, the money we have donated, the accomplishments that our club members have achieved, the great DX Forum, and the DX Dinner, it is the DXpedition of the Year that garners international attention and makes the club famous. This year in particular, all eyes will be on us as this is announced at the DX Dinner. The folks responsible for the ballots and the voting are Dave, K8DV, Dwight, K4YJ, and the chairman, Joe, W8GEX.

Three of our members have garnered national recognition. Ernie, W8EH, Jim, AB8YK and Dave, K8DV. They were recognized for....well, I won't spoil it, you can read about it in the following pages.

So, by this time, you are thinking "How Can I get Involved?" I am so glad you asked! Here are a few things you can do:

- Buy a ticket to the DX Dinner
- Buy a raffle ticket(s) for the DX Dinner prizes.
- Buy one or a five pack of VP5M chances.
- Contact a DX friend and get them to check us out. They can always attend a virtual meeting to determine if they feel they can learn or contribute.
- Sign up for a Volunteers on the Air slot – Contact Ron, N8QF
- Give me feedback on the newsletter and/or the website.
- Drop me a note and let me know that you want to help. I have a project in mind that won't cost a thing to you or the club, but I think it will really reap benefits.
- Write an article or a quick note about your latest ATNO, piece of equipment, antenna, or thoughts about the club, DX, DXCC etc.

It is always dangerous to list members who have been active as you always leave someone out. If I have not mentioned you, PLEASE let me know ASAP.

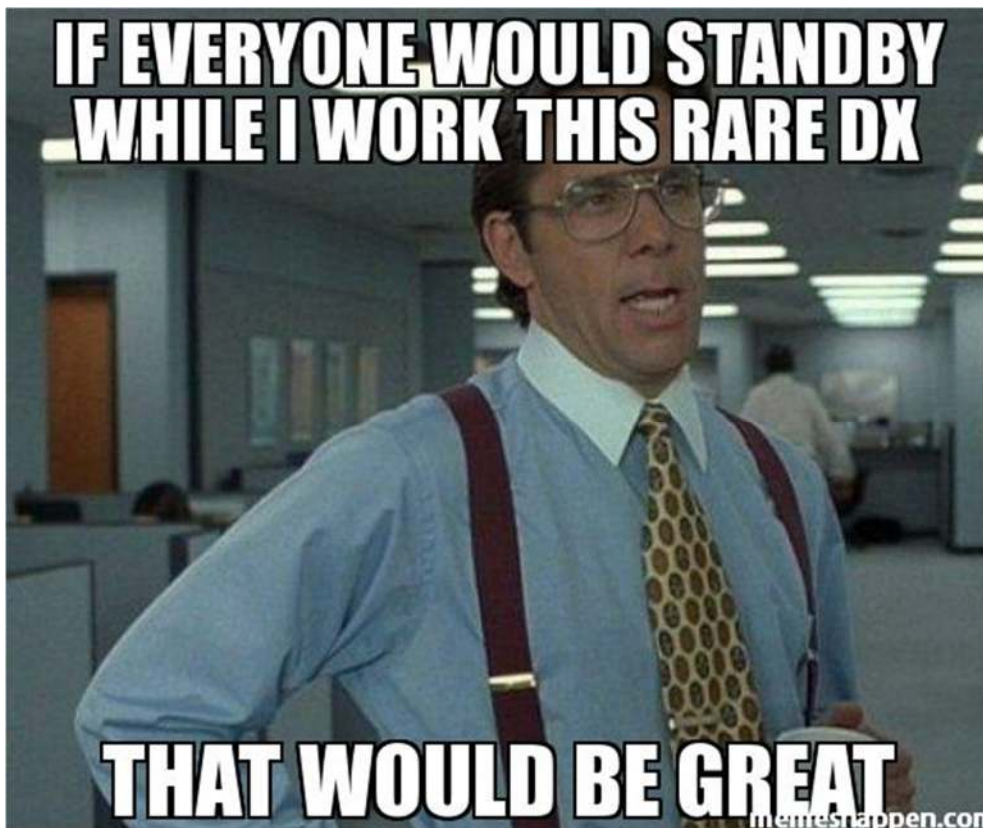
See you in the pileups!

AJ8B => Bill

SWODXA Club News

Upcoming Club Dates and Topics

Meeting Date	Topic
March 9th	Rob Sherwood, NC0B
April 13th	Horizontal Loop Antennas by John, N7GHZ
May 11th	DXPedition to Montserrat by Cliff, KD6XH
June 8th	Nano VNA Basics by Jim Anderson, K8OS
September 14th	The CQ DX Marathon by Mark Wohlschlegel
October 12th	All Things CQ WAZ and Don Quixote by Jose Castillo, N4BAA



SWODXA Club News (cont.)

Hi Bill,

I just received my Six Meter VUCC award in the mail from the ARRL. I'm at 119 grids confirmed.

I received my first 'Parks On The Air Kilo Award' for making a cumulative total of 1000 contacts from a single park, East Fork State Park. I operated portable from there on several different multi day camping trips to get 1000 contacts. On the last trip in November, I made 815 contacts on CW, Phone and digital. It was surprising that I worked quite a few DX stations with the end fed half wave wire antennas and QRP using my Icom IC-705. 14 countries and 49 states (missed Alaska) worked on the last trip. The Parks On The Air program has really increased the activity on the bands. A lot of times there are pileups with many hunters trying to break through to the park activators. It's fun being the activator and having everyone trying to get to the front of the line to work you. A few other SWODXA members are having fun getting out activating parks too.



Ernie W8EH

(Cont on next page)



Cabin Fever? Spring into the new year with Icom



SWODXA Club News (cont.)

Orlando HamCation Presents Its 2023 Award Winners

Ken Lyons, KN4MDJ, and Jim Storms, AB8YK, are the 2023 recipients of the Carole Perry Educator of the Year Award. The award is given to individuals who have made outstanding contributions to educating and advancing youth in amateur radio. It was first awarded at HamCation 2019 to its namesake, Carole Perry, WB2MGP, in honor of her work as an educator teaching students about ham radio.

Jim Storms, AB8YK, is a 2023 Carole Perry Educator of the Year Award winner. Photo courtesy of HamCation.



Storms is a co-founder and a current team leader for the Dave Kalter Memorial Youth DX Adventure. He co-founded the Youth DX Adventure in 2010 with Dave Kalter, KB8OCP, (SK). He has been licensed since 2007 and holds an Amateur Extra-class license. He is also an ARRL Member and General Chairman of 2023 Dayton Hamvention®.

Orlando HamCation has been sponsored by the Orlando Amateur Radio Club since 1946, and is held annually on the second weekend of February. HamCation has grown to become the second largest hamfest in the world. 2023 HamCation is February 10 - 12 and will host the ARRL Southeastern Division Convention at the Central Florida Fairgrounds and Expo Park in Orlando. Visit www.hamcation.com for more information.

www.PhotoQSLs.com

Your Photos or Your Design
Order On-Line
Simple 5 Step Process
Inquiries:
PhotoQSLs@yahoo.com

New Member Spotlight—Denis, W1WV

Members of SWODXA,

Greetings! My name is Denis Cote, W1WV, and I am excited to be a new member of the SWODXA organization. I have been a ham since 1988 and I am very active chasing DX and contesting on HF. My primary interests are CW but I also participate in SSB and digital modes. I have been involved in the radio hobby since the age of 14 when I gained an interest in shortwave radio listening.

As much as I embrace the newest technologies in ham radio, I have a fond love of vintage tube equipment. I have personally restored a small collection of boat anchors in my station. My pride and joy is a restored B&W 5100 AM/CW transmitter and NC303 receiver. From time to time you may hear me on the 3885 AM window. I am also active in VHF/UHF weak signal and enjoy home brewing, especially amplifiers.

Other interests outside of Ham Radio; I enjoy the sport of running; both on road and trails. I recently completed my 6th marathon in October 2022 and completed two 50K ultra marathons. I enjoy all things outdoors.

On the professional level, I am an Engineer for close to 30 years. I am currently employed with a state-owned utility at a 1100 MW pumped-storage hydroelectric power generation station.

I look forward to meeting you in the future to learn and share our ham radio experiences.

Best 73,

Denis Cote, W1WV

East Berne, NY

W1wv@arrl.net

(Cont on Next Page)



New Member Spotlight—W1WV—(cont.)



New Member Spotlight—John, KF6EFG

I live in a small town south of Indianapolis, Indiana with my wife and are surrounded by our family. We enjoy family outings, and love to see the kids and grandkids.

I have always been interested in radio communications when I listened to Shortwave in elementary school. I became licensed when in the 1990s; I was listening to far away stations from Hawaii and Australia come through on 11 meters, and was bitten hard by the HF bug. Life and family intervened, and it wasn't until 2016 that I came back to the hobby and started on the path for my General license. I like to participate in QSO parties, and the draw of far away contacts. As POTA and FT8 came into popularity, I try to participate in as much as my schedule allows, and recently set up a dedicated station for FT8.

I am currently using a Yaesu FT-450 for my digital station with a Hustler BTV-5 at max power 1000w; My voice station is a Yaesu FT-891 using a EFW antenna at 100w portable. I am looking forward to Hamvention, and possibly a FT-991A to compliment the home station.

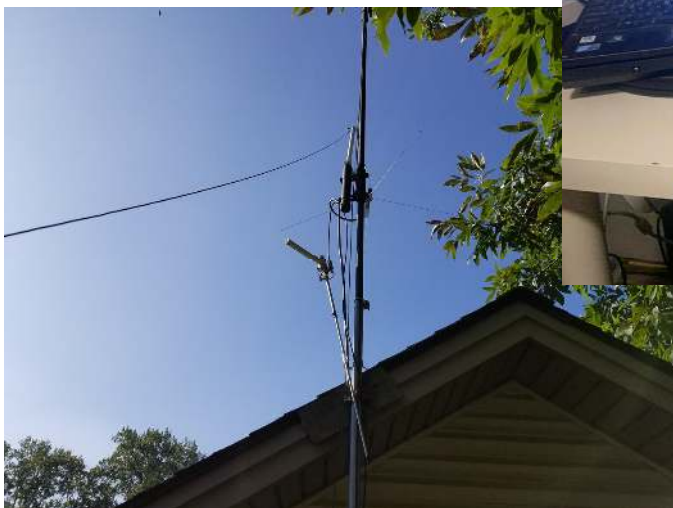
My future plans include studying for my Extra exam, learning Morse Code, and completing my dedicated station.

I joined SWODXA to learn more about DXing, and the fellowship of other hams interested in the hobby.

I hope to meet you at the SWODXA Dinner and Hamvention.

Cordially,

John McGrath—KF6EFG



New Member Spotlight—Craig, KD8SMS

I am from Dayton Ohio. I first got into radio with my grandfather in the sixties. We had CB radios and talked everywhere that we could at the time. I became interested in Amateur radio and worked to get my first license in 1968. I remember the thrill of talking to MARS stations located in Viet Nam a few times. I went off the air for several years while I was in the Army and then while running a business.

My interest came back to radios, so I bought and worked on radios for the fun of getting the rigs back on the air. I sold over 50 radios on eBay, mostly tube type radios. I became licensed again in 2012 and have a small rig on 10 meters.

I have attended Hamvention almost every year since 1978. I am currently studying to get my Amateur Extra License. I have attended the DX Dinners for several years and volunteer with AJ8B at the Will Call table passing out tickets.

I thank you for allowing me to join the DX club.

73's

Craig Kenley KD8SMS



K8DV Earns Honor Roll

Dave, K8DV, recently earned DXCC Honor Roll status and now has the hardware to prove it!

Congratulations to Dave for an outstanding achievement and years of hard work.

With all of his other achievements, I hope he has wall space for this one!

Well Done and Congratulations!

SWODXA Club News

The ARRL Volunteers on the Air Operating Event

I hope this is an event that most of the club will participate in. You don't have to leave your shack. Please consider a 2 or 4 hour shift (or more!)

While at the Highland ARA Christmas party, I was approached by Scott, N8SY. Scott is the Vice Director of the Great Lakes Division and a great guy. We struck up a conversation that went something like "With all of the great operators that must be in SWODXA, I have an event that would be a great fit for SWODXA!" With that, Scott explained the Volunteers on the Air program (VOTA) that is being sponsored by the ARRL in 2023.

The basic idea is explained by ARRL Director of Operations Bob Naumann, W5OV, and ARRL Radiosport Manager Bart Jahnke, W9JJ, in QST:

2023 is the ARRL Year of the Volunteers. With that, ARRL will be holding Volunteers On the Air (VOTA), a year-long on-air celebration that recognizes the organization's abundant volunteer support and contributions. By using ARRL's Logbook of The World (LoTW, www.arrl.org/logbook-of-the-world), participants making contacts in 2023 will accumulate points, as well as contact new stations and make new friends all over the world.

From January 1 (0000 UTC) to December 31, 2023 (2359 UTC), hams can participate in the VOTA event, which will include special week-long activations by W1AW portable stations from all 50 states and most US territories. Each W1AW portable activation will begin on a Wednesday at 0000 UTC and end the following Tuesday at 2359 UTC, and each state will be activated twice. **Ohio will be active from Wednesday, March 15th, 0000Z until Tuesday March 22nd at 2359Z. This is where SWODXA gets an opportunity to shine. Members can get on the air using W1AW/8 and represent Ohio for all those looking for points. N8QF, Ron, has graciously agreed to coordinate schedules to ensure that we have as much time covered as possible. Ron can be reached at N8QF@Roadrunner.com. We will be in touch after the first of the year with more details.**

Scoring and Awards

This is the second ARRL-sponsored operating event for which every member is worth at least one point (the first was ARRL's 2014 Centennial QSO Party). The event is open to all, and only ARRL members, appointees, and elected officials; HQ staff; W1AW; DXCC Card Checkers, and ARRL Affiliated Club call signs are worth points. DX member stations outside of the US may count for points.



(Cont. on Next Page)

SWODXA Club News

The ARRL Volunteers on the Air Operating Event (cont.)

Only two-way contacts qualify for points (cross-band, cross-mode, and repeater contacts are not valid), using any mode (CW, phone, or digital) -including EME and satellite operations- on 160, 80, 40, 20, 15, 10, 6, 2, and 1.25 meters, as well as 70 centimeters, VHF/UHF/SHF, and microwave bands available to US amateurs above 2 meters (2190-, 630-, 60-, 30-, 17-, and 12-meter band contacts are not counted for credit in this event).

All contacts must be uploaded to LoTW. (N8QF and I will supply more information on this in 2023.) Stations exchange call signs and signal reports common to the modes being used. Contacts do not have to be contest-style, and participants are not required to provide ARRL organizational information.

The VOTA database will assign point values to all contacts within logs submitted electronically via LoTW.

Participant scores are the values of all the completed eligible contacts, as uploaded to LoTW. Eligible contacts may be made with the same station on each of the three mode categories. Points are assigned based on the level of volunteer, or ARRL representative or member contacted. For example, ARRL RadioSport Manager Bart Jahnke, W9JJ, may be contacted for 75 points on 20 meters CW, 20 meters SSB, and 20 meters digital, as well as on the other bands where multiple modes are used. Essentially, each station may be contacted on each of the mode groups on each band. There are no multipliers or bonus points.

See the Volunteer QSO Points Table at <https://vota.arrl.org> for the list of contact values.

Scores will be calculated daily (between 3:00 and 6:00 AM the following morning). Real-time score leaders by band and mode will be viewable on the VOTA dashboard, and certificates will be available to print or download (details will be announced on the dashboard after the event begins).

Worked All States (WAS) and VHF/ UHF Century Club (VUCC) awards can be enhanced by contacting the portable W1AW and volunteer stations (standard LoTW award tracking and application processes with credits and fees will apply).

The deadline for completing LoTW uploads from your 2023 contacts is February 10, 2024. A final tally of participation, as well as a summary, will be made in the weeks following the deadline. This deadline is not connected to WAS or VUCC awards.

More information can be found in this month's QST or at <https://www.arrl.org/volunteers-on-the-air>



New Addition to The Exchange

After our February meeting where the topic was QRP DXing, I was surprised how many requests I received for a link to the video and then all of the great feedback and comments received on the topic and the presenter, Randy Shirbroun, ND0C. I am excited to announce that Randy will be our featured QRP column editor starting with the May 1st edition.

I grew up in western Iowa and was first licensed in 1968 as a Novice at the age of 14. I quickly developed an interest in DXing and contesting. During the late 1970's, I became increasingly intrigued with QRP operation after reading various articles and columns, most notably by W0RSP and K4TWJ (SK).

In March, 1980, I finally took the plunge and elected to go 100% QRP with the purchase of the venerable Ten Tec Argonaut 509. I was immediately impressed with the DX that could be worked with 3 watts and I jumped in to the CQ WPX SSB Contest a couple weeks later. The results cemented my commitment to QRP contesting and DXing.

I continue to run exclusively QRP with a maximum of five watts from my home station, located in southwestern Minnesota, participating in most major contests and chasing DX. I have a typical residential lot with a modest antenna farm including a triband Yagi at 40 feet, a 40 meter rotatable dipole, and a tuned inverted vee.

After over four decades of running 3-5 watts, I remain a stalwart devotee to QRP operation. After all that time I am still amazed by what can be accomplished by those low power levels. I have worked 323 DX entities using both SSB and CW. I have several WAZ awards endorsed QRP and lacks only 14 countries on 80 meters from achieving 5BDXCC, all QRP.

(Cont. on Next Page)



New Addition to The Exchange (cont.)

In addition I have achieved some success in several major contests over the years and I am an active member of the Minnesota Wireless Association (MWA).

For over ten years I have been an active Summits on the Air (SOTA) “chaser” and I activate summits when possible, using QRP of course.

A few years ago I jumped into satellite operation, using a maximum of 5 watts output - 100% portable operation using a hand-held Yagi. I have worked over 600 grids in all 50 states and 30 countries using SSB on both FM and linear LEO satellites. In addition I have activated nearly 100 grids in US and Canada, providing rare ones to other operators.

Professionally, I am a Senior Technical Service Veterinarian for an animal health company, stepping back from an administrative role as he transitions to a semi-retired status. This reduced time commitment gives me more opportunity to pursue other non-business interests, including amateur radio, travel, and family activities.

I live in Worthington, MN with my wife, Amy, who, fortunately, is very supportive of my various amateur radio activities. We have two daughters and one son. The younger daughter, Kylee, is in high school and is also a licensed ham: KE0WPA. We enjoy camping, hiking, and boating together. I also collect antique radios and pre-1900 maps and veterinary books.



SWODXA Announces Major New Prize Raffle at the DXDinner®

The Southwest Ohio DX Association (SWODXA) in conjunction with the owners of Harbour Rock Villa announces a Major Prize Raffle to raise funds to support DXPeditions.

The Prize is a week at Harbour Rock Villa in the Turks & Caicos Islands. This gorgeous villa has room for 6, a well-equipped amateur radio station, multiple antennas, including the use of a vehicle, and assistance in obtaining a VP5 license. The winner will provide their own transportation to the island and meals.

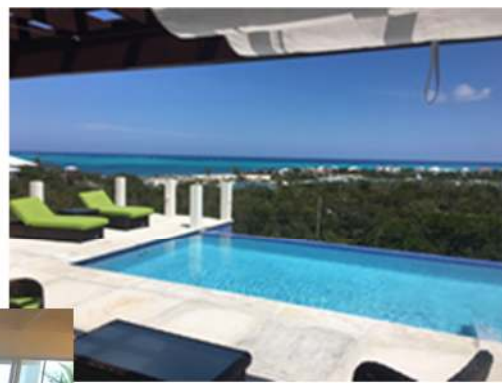
This raffle prize is worth approximately \$5,000 and will be awarded at the 2023 DX Dinner held in conjunction with the Dayton Hamvention®.

Please visit <https://www.harbourrockvilla.com/vp5-ham-radio-2> to view the Villa layout, the amenities, and other details. For updates and more ham information search VP5M on QRZ.com.

Raffle tickets can be purchased after January 1st, 2023. Ticket sales will be capped at 500. The cost is \$25 each or 5/\$100.

More information can be found at www.swodxa.org/VP5M, by emailing thedxmentor@gmail.com, or by calling 1-513-855-3980.

Don't Just Work DX – Be DX at Harbour Rock, Turks & Caicos – VP5!



The DX Mentor Podcast Announcement

A new Amateur Radio Podcast is now available, and we invite you to give us a listen. The DX Mentor Podcast is different than any other podcast you have heard. It is focused on helping you become a better DXer no matter your current level.

Each podcast will focus on a specific topic and will feature several guests to discuss and analyze the topic at hand. These guests are among the top in the subject matter and will cover the topic so that both entry level DXers and seasoned DXers will learn something.

The DX Mentor Podcast is sponsored by Icom America, The DailyDX, and Gigiparts and is available on Stitcher, Spotify, Google Podcasts, iHeart, Amazon, and Apple podcast services.

The introductory edition of The DX Mentor is available now. Go to your favorite Podcast service, download The DX Mentor and subscribe. When the first edition drops on January 8th, 2023, you will be right there with us.

You should also subscribe to The DX Mentor YouTube® channel, Twitter®, and TikTok®

More information can be found by emailing thedxmentor@gmail.com, contacting us on Discord (TheDXMentor) or by calling 1-513-855-3980.



3Y0J—Why Am I NOT in the Log?

Submitted by K8DV—Dave Vest

So how many of you are disappointed like myself that you did not make the 3Y0J log? I am sure there are more than just a few. This is or was the biggest DXpedition to come alone in many years and had lots of hype surrounding it, had tons of media blitz as well. Given their plans there would be no reason that any of us would not end up in the log. The team was made up of many seasoned DX'ers and many that had been on several large scale DXpeditions. With all this most of us had this sense of confidence that we would not only get in the log but most likely be in the log multiple times on multiple bands and modes.

But like with any best laid plans reality hits and plans have to be changed or modified to fit the current conditions. This is what the 3Y0J team got hit with upon reaching Bouvet. Even with all the great technology we have and satellite views, nothing was going to be able to prepare anyone for what they were greeted by upon arrival. To say the least this was not a walk up with a suitcase in one hand and radio equipment in another to say the least. But they were determined to activate Bouvet and had to modify the plan from large scale DXpedition to a lower scale activation due to the difficulties of just getting on the island never mind getting tons of equipment to shore. Even with that there was a difficult climb to the camp/operating site. Certainly not a mission for those of faint at heart.

Some of you may be in the same boat as me, you have managed to hone your skills and ready you station the best you can to be ready to make contact with that last few you need on your quest to get to number one Honor Roll for DXCC. I am currently at 332 current and 336 overall and Bouvet is in that last 8 I need on my quest to number one Honor Roll. Like others I watched the Bouvet DXpedition with lots of interest and read every update that I could find from the first announcement and was continuously impressed with what the team was doing to ensure success and controlling the things in their control. I also made sure my station was as ready as I could get it, some of you that know me know that back in July 2022 I lost my tower and SteppIR Yagi to a tornado. So to get ready I put up a new OCF dipole and a elevated vertical for 30 meters so I could dedicate a radio to just that band as I have found in the past that was always a good band for here in southwest Ohio for working DX in just about anywhere in the world. I also setup my alerts to let me know when they were active so if I was not near the rig I could keep up with activity and get to the radio if needed. I also got setup to use a remote station if needed to increase my odds by having a better antenna available to use. A good DX'er will always have as many tools available to them and work all modes and bands.

(Cont. on Next Page)

3Y0J—Why am I not in the log? (cont.)

You have heard the old saying, “Timing is everything!” Well this is true for me as for the last several years I have been going to Orlando to Hamcation in February. I made my flight reservation back in October and this was going to take me away from the rig for 4 days with limited access to the remote and only able to remote into my own station for digital modes such as FT4/FT8 as long as I did not lose power. I monitored all the alerts I was receiving and going to those frequencies to see if I was able to decode them and only was able to decode them once while I was out of town at Hamcation but was unable to make contact. The night before leaving for Hamcation I spent several hours on 30 meter CW chasing but without success. I would be remised if I did say this, I am disappointed in the DX community that felt that they needed to cause D’QRM on their transmit frequency and the pirates that gives false hope to those that worked you, this is very sad that ham radio and DXing has stooped to that level.

As easy as it would be to blame the 3Y0J for me not being in the log, it is not their fault, they did something that most of us could not/would not do. I look at what could I have done to make it in the log as at the end of the day it is up to me to make it in the log. Taking 4 days away from the station even with access to remote control is still not the same as being in front of the rig. That is on me, not having my tower and Yagi back in the air that is on me too. I was hedging my bet that they would be on Bouvet for the time announced and thought there will be time once I get back from Hamcation. So with all that I felt comfortable that I had time and would make the log.

Well like any best laid plans that is not how it turned out, they announced that due to weather and worsening conditions they would be leaving Bouvet early as they had already survived one storm and there was one coming in that was going to be equal or worse and they made the call for their own safety that they needed to cut the DXPedition short. Is this disappointing, sure it is but it was the right call as a new one for me is not worth anyone getting hurt or worse, KILLED.

I am sure that the entire 3Y0J team is disappointed and I bet all of them are going to rerun the turn of events over and over in their mind thinking about what could have we done differently. Given the timing and having only what resources they had on hand, they made the best of what they had and made several thousand QSOs filling in that missing country for many DX’ers around the world.

So 3Y0J, Why Am I Not In the Log? The simple answer is me! I could blame you, the D’QRM, the band conditions and so on but the bottom line is it was not my turn, I made some incorrect assumptions and decided to go hamfesting while they were on. I prepared the best I could, I thought I was ready, so now I am looking at it thinking what I could have done differently to increase my chances.

(Cont. on Next Page)

3Y0J—Why am I not in the log? (cont.)

Times like this I remember what my Dad KZ4G (SK) told me years ago, DXCC is a journey not a destination and you work them one at a time.

My hope is at some point there will be operations again from Bouvet and at some point the other seven I need, only time will tell. In the meantime there is still plenty of QSOs to be made, more band slots to fill. New tower and yagi to get flying. Like many of you I am disappointed by I am not mad at the 3Y0J team just as I sure they are too as I truly believe they wanted to get in a lot more logs than they did.

Keep tuning the bands and feel good for those that made it in the log as they must have been better prepared than you or I were that did not. To quote an old saying, “Just wait until next time”, and perhaps we will not be wondering “Why Am I Not in The Log?”

73, Dave, K8DV

DXCC HR

9 Band DXCC

2300 Challenge



60 Meters—The Channel Band

By Joe, W8GEX—w8gex@aol.com



Ethiopia - ET3AA was on 60 meters with Nodir EY8MM making the first 5MHz contacts from Ethiopia. His QRN was so bad he have to give it up.

SENEGAL: 6W Willy ON4VT will be back in Senegal from February 4, to 31 March 2023. 73, Willy

St Eustatius PJ5/W5JON: October 25 - 31, 2023. Including: Active 6-60m, on SSB and FT8. ALL QSL's DIRECT or LoTW.

Sable Island: CY0S Will be on starting March 20 to 29.

Vanuatu: YJ0A has been very active on 60m from Feb 9 to 25.

Solomon Islands: H44MS DL2GAC (aka VU2BMS), Bernard, is planning to be back on Malaite Island (OC-047) beginning around February 15. He will stay until the end of April. He will have a dipole for 60 meters and activity will be on SSB and some FT8. QSL via DL2GAC and eventually LoTW.

THE GAMBIA C5 Operators Gérard/F5NVF, Abdel/M0NPT (7X2TT) and Luc/F5RAV will once again be active as C5C from The Gambia, between February 16, and March 13, 2023. Activity will be on 80-6 meters, including 60m. QSL via F5RAV, direct, eQSL or LoTW. Look for more details to be forthcoming.

Recent Activity: YB7WB, YB9/ON6NX, ZL4OL, ZL2BH, TF3VG, DU2FIS, YB1BUL, VR2ZXP, YJ0A

Facebook: <https://www.facebook.com/groups/347995275954755/>

60m website: www.60metersonline.com



Below is the annual DXCC Year End Review. Thanks to Bernie, W3UR, and Joe, W1JR, for permission to reprint this here.



Special Edition – 2022 DXCC Year End Review – by Joe Reisert, W1JR – January 1, 2023

DX in 2022 was quite improved over 2021. Solar activity is on the rise mainly affecting the upper HF bands, especially 10 and 12 meters. Covid (CV) and its variants are still out there and causing problems but many DXers found workarounds. Despite CV, some DXpeditions were successful during the year although many others were postponed or cancelled due to flight problems and various personal reasons. FT8 is filling in the gaps as we'll see later.

2022 in Review: I dedicate the 2022 DXCC Year End Review to the memory of JH1AJT, Zorro-san (Little Fox) Miyazawa who became a Silent Key in March 2022 at age 73. Zorro was the founder of FGC (Foundation for Global Children) in 2010. Along with his travelling he organized many DXpeditions to rare and semi-rare DXCC entities such as E3, A5, XZ and XU to name a few.

About 270 entities were active during 2022, about the same as in 2021. The only entity active on the top 10 on the Club Log DXCC Most Wanted List (In order of rarity: P5, 3Y/B, FT/W, BS7H, CE0X, BV9P, KH7K, KH3, 3Y/P & FT/G) was FT8WW. The only other entity active in the top 20 was VK0MQ on Macquarie Island. Some semi-rare DXCC entities such as 3B9FR, 4U1UN, 9N7AA, S01WS, ST2NH, TR8CA, TT8SN, TZ4AM, and VK9DX(N) were active off and on during most of the year. CW activity decreased except during contests. Meanwhile FT8 activity at times averaged over 75% of the stations on the DX bands.

Some recent DX gatherings and conferences were cancelled due to CV or were on Zoom such. Others will resume in 2023 such as the International DX Convention (Visalia) in April. The Dayton Hamvention will be in May as usual. However, the former Crown Plaza in Dayton, the gathering spot for many DXers closed in October 2021.



JH1AJT, Zorro (R), with the Prince of Bhutan (L)

(Cont. on Next Page)

DXCC Year End Review (cont.)

The Arecibo Observatory 1,000 ft. (305 Meter) diameter dish antenna sometimes used for Amateur Radio purposes was destroyed in 2020. Now the National Science Foundation has decided not to rebuild the antenna but instead replace it with an education center concentrating on STEM (Science, Technology, Engineering and Mathematics etc.

Ham Radio and the Internet: There is no doubt that the Internet has had a profound influence on DXing. The DX Cluster Network is made up of many DX Cluster nodes. Many DX Cluster nodes such as DX Summit, DXHeat, VE7CC and the RBN (Reverse Beacon Network) etc. are great resources for timely DX spot activity and DX info.

When spotting DX on the DX Clusters, make sure to show the mode of operation such as CW, SSB, FT8, FT8/FH especially when the frequency spotted is not in the expected frequency spectrum. Please don't ask for skeds etc. Most DXpeditions aren't watching the DX Cluster and most users don't appreciate these interruptions.

Radio Propagation: The only known day of 0 (zero) sunspots was on June 8th. DX radio propagation was fair in early January with solar flux near 100 but improved to around 125 by early February and reached 150 by the end of March. It peaked again in mid-April and reached 165 in mid-May. Near mid-September solar flux started to average around 150. By the end of the year it averaged 110-165. Check DX.QSL.net/propagation.

As guidelines radio propagation is usually best when the A index is <15, the K index is <4, the solar wind is <375 kms and solar flux is >125. The solar flux should improve as the sun heats up during solar cycle (SC) 25. Remember that Frank, W3LPL is now reporting up to date timely HF propagation in every issue of The Daily DX based on the NOAA/SWPC web pages.

Also check out QSO Today which has been interviewing many prominent and interesting people in ham radio who talk about the hobby, radio propagation etc.

Recent solar forecast papers say an early peak above projections portends an earlier and higher SC peak. So far this has been happening. Check SWPC Solar Cycle Progression. Watch for long path propagation to improve. We'll just have to wait and see. It still remains to be seen if there is a link between the four Jovial planets - Jupiter, Saturn, Neptune and Uranus to the long term solar cycle as some writers have proposed.

(Cont. on Next Page)



**DXers Have
A Choice**



The Daily DX - is a text DX bulletin that can be sent via email to your home or office Monday through Friday, and includes DX news, IOTA news, QSN reports, QSL information, a DX Calendar, propagation forecast and much, much more. With a subscription to The Daily DX, you will also receive DX news flashes and other interesting DX tidbits. *Subscriptions are \$49.00 for one year or \$28.00 for 6 mos.*

The Weekly DX - is a product of The Daily DX that can be sent weekly to your home or office via email in the form of a PDF (portable document format). It includes DX news, IOTA news, QSN reports, QSL information, a DX Calendar, propagation forecast and graphics. *Subscriptions are \$27.00 for one year.*

Get two weeks of The Daily DX or a sample of The Weekly DX free by sending a request to bernie@dailydx.com, or at <http://www.dailydx.com/trial.htm>.

DXCC Year End Review (cont.)

Band by Band Activity in 2022 (Frequencies in MHz):

160 Meters: DX activity was low to moderate especially on CW except during contests when activity filled the band. The cancellation of many planned DXpeditions due to CV really hurt 160 DX. FT8 activity has increased around 1.840. Try to avoid using frequencies on 160 meters that are divisible by 5 (e.g., 1.820, 1.825, 1.830 etc.) since broadcast birdies are often present.

75/80 Meters: Nowadays DX activity has been low to moderate on these bands except during contests and DXpeditions. DX was also hurt by the cancellation of many DXpeditions due to CV. On the other hand FT8 activity has increased around 3.573.

60 Meters: More entities have now received permission to operate on this band albeit many are often limited to 15 watts and a dipole antenna. Well over 250 DXCC entities have been active on 60 meters. Most DX activity is now concentrated around channel 3 at 5.357 and almost entirely on FT8. The FCC is still considering non-channelized operation near channel 3 for USA stations. The ARRL awards program does not recognize 60 meter contacts for awards. USA stations on 60 Meters are limited to 100 watts output power and a dipole antenna. Use of gain antennas requires reduced transmitter power.

40 Meters: 40 meters is still the workhorse band during night time and in local winter. Much activity has shifted to the FT8 mode around 7.074. CW and SSB DX activity are especially high during contests. USA stations cannot operate SSB below 7.125 so it is best to stay above 7.128 for safety.

30 Meters: 30 meters is still very popular especially for low power stations. This band is usually open a few hours before sunset to after sunrise but it can be open almost all day during local winter. There is lots of FT8 activity around 10.136. The USA power limit is still 200 watts transmitter output power.

20 Meters: It is still the go-to DX band especially during daylight although much of the CW activity has moved to the digital modes near 14.074. SSB activity is still high. As radio propagation improves some of this activity may move to the higher HF bands.

17 Meters: Low sunspot activity had really hurt the higher HF bands especially before October. However, 17 meters has been less affected and often opens shortly after 20 meters. There is lots of FT8 activity around 18.100. All modes seem to be doing well on this band.

15 meters: With increasing sunspots 15 meters is starting to open and support worldwide DX. FT8 activity near 21.074 is high.

(Cont. on Next Page)

DXCC Year End Review (cont.)

10 and 12 Meters: These bands are beginning to support good DX. Vigilant DXers are taking advantage of the improved radio propagation. There is activity during the summer months when F2 propagation is poor but is often assisted by sporadic E propagation. 10 Meters was wide open from October through December especially during DX contests.

6 Meters: In recent years DX seems to have gone mostly digital. MSK144 is popular all year around 50.260 while FT8 is most popular around 50.313 and 50.323 during band openings. EME (Earth Moon Earth) DX using digital modes such as Q65 is becoming very popular during local moonrise and moonset.

TEP (Trans-Equatorial Propagation) and other related propagation associated with the equatorial ionospheric anomaly are increasingly common with increased sunspot activity. K6MIO released a report on TEP explaining its mechanisms (ref. 1).

Over 200 stations contacted TO7GJ (FH) during a recent EME DXpedition. Three top 6 meter DXers have confirmed 280 or more entities and three North American DXers confirmed 200 or more.

2022 Month by Month DX Activity Sample:

January: This January was very productive even on the upper HF bands with over 210 entities active. Notable semi-rare stations included CE0YHO, VK9DX(N), 3X2021, SV2RSG/A, 3B9FR and XV1X to name a few.

February: Likewise February saw Z21A, TU5PCT, Z81D and HV0A. As usual there was lots of DX contest activity.

March: Solar flux increased DX on 15 Meters and above. DX wise FH/K6ZO, FH/FR5DX, TZ1CE, 9N7AA, FJ/KP4DO, 9X4X, 5UA99WS, 7Q7M, 5X4E, FJ/DK6AS, C56DF, D60AB, FW1JG, XX9ET and TY2CP were all active.

April: This month did not disappoint with YJ8RN, XT2MAX, JX/LB4MI, HC8MD, TX5N (FO/A 54K), VP2V/N2EIN (10.5 K), 9N7AA, 9N7CI, 9N7WE, FW1JG, C91AHV and E51WL (N).

May: A special operation was VU4W (Andaman I.) working 33.5 K with 57% being FT8. Also active were HK0/PY8WW, 4U1ITU, C5C and 6O1OO.



W7GJ, Lance, during his September 2022 TO7GJ 6 Meter EME DXpedition to Mayotte Island. He hopes to go to ZD9 in 2023.

(Cont. on Next Page)

DXCC Year End Review (cont.)

June: This was also an active month with 9X2AW, JG8NQJ/JD1 (JD1/M), VK0MQ (Macquarie 5.5K), D2UY, Z21RU (53K), XZ2B, 7O/DL7ZM, 5A1AL, OJ0MR and FP/KV1J (3.6K).

July: 7Q7RU, PY0FUN, Z66X (2.6 K), 3A/F6EXV, 3A/PB9DX (20 K) and K7K (NA070-11K) were all active.

August: As usual this was a quiet DX month but H44MS as well as 4W/JH2EUV were active.

September: Activity increased with J5JUA, E41MS, ZL7/K5WE (18.5K), FH/OK1M, VK9XX, 5J0DX and FO/F6BCW (FO/M).

October: 3C3CA, D60AE, TX7G (FO/M), TY0RU (124 K), P29RO (OC240) and FJ/SP9FUY were very active.

November: This month it was reported that for one week over 230 entities were reported as active. Activity started with 5V7RU, VK9CM, A35GC, T33T, T88WA (29K), K8H (KH8-14 K), TY5AF, J5JUA, TL8AA/TL8ZZ, 4U1ITU, VK9XX and 3D2AG/P (3D2/R).

December: YOTA call signs were everywhere from dozens of countries. Also 9M6NA, H44SHD, VK9WX (W), XT2AW, S21DX (10K), 3D2AG/P (14.5K) and FT8WW were active.

Unauthorized Operations: During the year many so called pirate operations were prevalent including but not limited to YK9R, FT5XU, YI1BGD (now QRT), 1A0UN, JW6VDA, VQ9LT, RI1FJ, ZL8AC and ZL9HR etc. DXpedition call signs such as FT8WW (sometimes during activation) were often pirated. Many EZ call signs were spotted (probably E7 stations copied incorrectly) but EZ operation has been unauthorized since 2006. Also many call signs were busted or copied incorrectly and posted on the DX Clusters. WFWL (work first, worry later) still applies so don't waste your time and \$\$\$ working suspected pirates.

The CQ Marathon website maintains a large list of incorrectly spotted call signs. Many thanks to John, K9EL who is stepping down after many years running this website and turning it over to Mark, WC3W.

DXpeditions: They are the lifeblood of working the rare to semi-rare DX entities. They usually have obstacles since these entities are often in remote locations that makes travel difficult. Permission to operate from these locations can sometime be difficult to obtain and travel can be very costly. Despite this, some EME DXpeditions took place at semi-rare locations.

(Cont. on Next Page)

DXCC Year End Review (cont.)

This year was no exception with many delays and cancellations. Hurricanes and severe storms damaged antennas on some DXpeditions. Temperatures above 35C (95F) along with high humidity and critters were sometimes a problem. Power outages and local RF interference sometimes made it difficult to copy weak signals.

Operating techniques: The INDEXA Summer 2022 newsletter discussed many operating tips. This past year was a tough one worldwide. Needless to say, the RST report on CW is now almost always 599 and 59 on SSB! FT4 and FT8 and especially the F/H (fox & hound) mode are more complex.

The DX Code of Conduct is a great operating guide. Don't tune up your transmitter on the common DX frequencies or on top of a DXpedition station. Split frequency operation on rare DX stations is almost always a must. Unfortunately many stations call right on the DX station frequency or tune up on same which causes panic. Deliberate QRM is always forbidden. The old adage still applies. Always Listen, Listen, Listen before you start to transmit!

Also don't spot rare DX on the DX Cluster unless you know it's legit and surely don't spot rare DX call signs for test purposes. It causes lots of bells to ring worldwide and unnecessary worry. Finally, don't post rare call signs to thank someone for receiving a QSL etc. Those watching the cluster do not appreciate this type of boasting.

Digital Operations: RTTY hasn't died but activity except during RTTY contests is fading. WSJT-X is often the dominant DX mode with sometimes 75% of all DX activity. WSJT-X is managed by K1JT and his development team. It can often decode signals that are barely audible. FT8 sensitivity is up to 10 dB better than CW. The developers of WSJT-X have just announced availability of candidate release WSJT-X 2.6.0-rc5. General availability release 2.6 is likely early in 2023.

(Cont. on Next Page)



DXCC Year End Review (cont.)

FT8 can be a band opener during times of poor propagation. It also allows smaller stations to participate in DXing. The use of a panadapter is highly recommended and assists in observing where the activity is concentrated. A recent mode known as Q65 became available. It is highly recommended for EME, ionospheric scatter, and other weak signal work on VHF, UHF and the microwave bands.

According to mode analysis by Club Log, FT8 was often the dominant DX mode at 75-80% of communications outside of contests and during weekly CW Ops Tests (CWT). DXpeditions often use the F/H (Fox and Hound) split frequency mode several KHz above or below the normal FT8 channels.

Operating FT8 has a learning curve. Since most of the activity on the channel is displayed, it is fun to see many well-known DXers now operating FT8.

DX Contesting: DX contests as usual were everywhere this year and lit up the sometimes quiet bands using CW, SSB and digital modes. CWops have been busy all year and were honored to receive the Yasme Excellence Award.

Early reports are that it was a normal contest year with greatly increased 10 meter DX activity especially from October through December. The WA7BNM Contest Calendar is a great source of contest activity. The ARRL Contest Update is a monthly newsletter that often has interesting tidbits on upcoming contests and operating etc. Remember that testers should stay healthy so you can operate long hours of continuous activity in the contest. The next Contest University (CTU) is scheduled for the Hamvention in May 2023.

When spotting DX on the DX Clusters, make sure to show mode of operation such as CW, SSB, FT8, FT8/F/H especially when the frequency spotted is not in the expected frequency spectrum. Please don't ask for skeds etc. Most DXpeditions aren't watching the DX Clusters.

DXCC and ARRL Matters: There are many interesting resources on the ARRL website including Contest Update the K7RASolar Update the DX Bulletin and The Propagation Forecast Bulletin. They are worth checking out on a regular basis. The ARRL DXCC List is a very helpful publication for DXers and is available at a cost of less than \$6.00. New publications were published in 2022 which were primarily aimed at improving technology and assisting newcomers to the hobby such as licensing manuals. The 100th edition of the ARRL Handbook was substantially revised. The ARRL QSL bureau is another service for ARRL members.

LOTW (Logbook of the World) is operated by ARRL and is becoming very popular worldwide. It now has over 1.6 billion records with over 165,000 users. Contacts are constantly being uploaded. You can check out if your QSO has been logged on LOTW.

(Cont. on Next Page)

DXCC Year End Review (cont.)

There are now over 1,600 persons that have qualified for the top of the ARRL DXCC-Honor Roll. Over 220 persons have reached the ARRL DXCC Challenge 3,000 level.

Participants in ARRL contests using the low power category will now be limited to 100 Watts (instead of 150 Watts).

Finally, reports in the news media tell us that Bougainville, an autonomous region in Papua New Guinea (P29), has voted to become an independent nation in 2027. If this happens, it could be added to the active DXCC list.

QSLing: Postage costs and shipping costs have gone through the roof. USA rates are increasing in January 2023 and also in other countries. DXpeditions are often asking for \$3.00 and sometime up to \$5.00 for a QSL confirmation. A few countries are still not accepting mail. The USPS announced in mid-December that it is temporarily suspending mail service to over 15 countries. Paper QSLs can often be ordered either by email, web sites or several OQRS services (Online QSL Requests Service). Paper QSLs are becoming a lost art form. LOTW can often be used by those operators who don't require a paper QSL.

Club Log is also a great resource for log checking and QSLing info especially OQRS. Some DXpeditions upload their logs often so you can verify your QSO and hence eliminate duping. Nowadays most contests require log submission to the contest sponsor shortly after the contest is over.

Technology: The state-of-the-art is constantly improving our equipment. Receivers and transceivers are becoming more sophisticated and can better handle strong signals both with improved filtering and software. It is interesting to note that this is the 75th anniversary of the invention of the transistor which had a profound effect on the design of our receivers and transmitters. More vacuum tube power amplifiers are being replaced with solid state amplifiers.

Accessories are a necessary part of operating. Nowadays building is often being replaced by buying. Many commercial sources are available. Likewise electronic flea markets and hamfests are often a great source of inexpensive equipment and accessories.

One of the areas constantly changing is antennas. As solar cycle 25 continues its rise more emphasis will be concentrated on gain and multiband antennas for the upper HF bands. These antennas do not need to be as large and placed as high as antennas in the lower HF region.

(Cont. on Next Page)



**DX Engineering—The Trusted Source
for High-Performance Coaxial Cable**

*DXpedition teams depend on DX Engineering's durable,
low-loss coaxial cable. You can too.*

DXCC Year End Review (cont.)

Variations of hex and spider beams are now becoming common since they are relatively small. These antennas are already being widely used by recent DXpeditions. Even a simple half wave dipole at 25 feet AGL or higher can be very effective on the upper HF bands. Remember to keep transmission lines losses low since coax losses increase as frequency increases.

Another technical subject is the problem of RF feedback, powerline radiation and radiation from antenna feedlines. These are discussed in detail in ref. 2 and ref. 3. Recent videos and papers by N6MTS are very informative in describing how to use a vector network analyzer such as the NanoVNA to check out the performance of common mode current chokes (check the Internet).

A more recent area of concern is RFI from the switching power supplies used on solar power arrays and is addressed in ref. 4. A new solar power array installation nearby my home has severely impacted my operating and overloading large sections of the HF spectrum, especially 30 meters. Thus it is limiting my weak signal operation.

RIB (Rig in a Box) is now being tested and upgraded by C6AGU/AA7JV. This is a small remote station that can be left on land when there are environmental restrictions. It is operated remotely from a boat or via the Internet.

IOTA: Poor radio propagation and CV just about shut down travel to most rare and new IOTA activity. A few exceptions were RI50WS (AS104), K7K (NA070), RI0QQ (AS092), P29RO (OC240), XF1S (NA169) and S21DX (AS140). The IOTA website is www.iota-world.org. An IOTA dinner will be held in Visalia in April 2023.

YOTA (Youngsters on the Air): This is very important for the future of our hobby. Many operators are allowing youth to operate from their own station especially during the SSB contests, on the digital modes such as FT8 and some even on CW. Several groups have introduced CW training such as CWops with CW Academy, the Long Island CW Club and K1USN that transmit slow speed CW for practice.

December this year was designated YOTA month with numerous stations sporting call signs with YOTA from around the world. Several scholarships are now available to youth under 25 years of age such as WROF, NCDXF, the ARRL Foundation and ARISS. YOTA camp is scheduled for July 16-21, 2023 in Ottawa, Canada.

Safety: This can never be stressed enough. With many hams confined to working at home there is a need for antenna and tower repair. As hams are aging, it is most important to employ professional expertise for antenna work especially when tower climbing is required. Climbing harnesses are mandatory and should never be disconnected from the tower. Old school safety belts are no longer considered safe.

(cont on next page)

DXCC Year End Review (cont.)

Silent Keys (SK): This is always a tough subject to discuss. The CV pandemic has also been a factor. Many prominent DXers and major contributors to our technology and success of our hobby have died this past year, some from CV. The Silent Key listing in the latest QSTs has recently decreased but I wonder if this is due to under reporting.

The following is a partial list of SK DXers and others that contributed to our hobby. They are generally listed in the order as they have departed us during this past year: F2YT, XW1A, W7CD, YV1OD, JH1AJT, DL7UXG (DXNL), KC6AWX, W7LR, W3TMZ, OK1RD, LA1EE, G3LIK, G3SXW, DJ9ZB, RZ3CC, DL1DA, V31MD, HI8X, CO2LP, HZ1AN, UA0SE, K6TA, K2QMF, GI4FUM, W4EA/W4ETO (ETO), HS1YL, ZL1AIH, UT5UGW, W2HD, CN8KD, W9WU, K7NV, DJ2BW, EA5BYP, OH5NQ, V85SS, UR8GX, G3JUL, W1YL, AA5B, W7OM, N6OJ, K5YJ and W9EVT.

And now the Drum Roll: DX is still affected by travel restrictions due to CV. There were approximately 70 entities that were NOT believed to have been active during 2022*.

Africa (19): 3B6, 3C0, 3Y/B, 9Q, 9U, E3, FT/G, FT/J, FT/T, FT/X, FT/Z, S9, TJ, TN, VK0/H, VQ9, ZD8, ZD9 and ZS8.

Antarctica (1): 3Y0/P.

Asia (10): 1S, A5, BQ9P, BS7H, EZ, P5, T6, VU7, XU and YK.

Europe (2): 1A0, and R1F.

North America (9): CY0, CY9, FO/C, KG4, KP1, KP5, TI9, XF4 and YV0.

Oceania (21): 3D2C, C2, E6, FK/C, H40 (Temotu), KH1, KH3, KH4, KH5, KH7K, KH8/S, KH9, T2, T30, T31, T32, VK9M, VP6D, ZK3, ZL8 and ZL9.

South America (8): CE0/X, CE0Z, HK0/M, PY0/S, PY0/T, VP8/G VP8/O and VP8/S.

*Please note that some rare entities may not be on this list for 2022 because operations were short, set up schedules or only on VHF, EME (Earth-Moon-Earth) etc.

Those DXCC entities that are not believed to have been activated in ten (10) or more years have increased and now includes: 3Y/B, 3Y/P, BQ9P, BS7H, CE0X, EZ, FT/G, HK0M, KH3, KH7K, KH8S, KP5, YK, YV0 and ZL8. This means that an avid DXer working hard at DXCC may take well over 10 years to make it to the DXCC Honor Roll. This list also serves as a guide to those planning DXpeditions to rare entities. As for me, the top of my need list for the DX Challenge has not changed in many years and not surprisingly goes to P5, BS7H, FT/W and BQ9P in that order.

(cont on next page)

DXCC Year End Review (cont.)

Upcoming DXpeditions: The 3Y0J DXpedition to Bouvet Island is planned by a Norwegian group in January 2023. CY0 (Sable I.) is hoping to be QRV early in March 2023. Also TN, 9U, 3B7, 1S and others are all promised for early in 2023 but delays to some of these have already been announced.

Remember to stay tuned and check the www.ng3k.com/misc/adxo.html for future operations.

Looking ahead to 2023 and Beyond: As stated above, solar cycle 25 should be really cranking up in 2023. DX has really changed in the last few years with FT8. Some DXers chase the ARRL DXCC Honor Roll, the DXCC Challenge or the CQ DX Marathon. Well over 1,600 DXers worldwide have confirmed all 340 on the present DXCC entities list. More than 230 DXers have now achieved the very difficult DXCC Challenge 3000 level. Fernando, EA8AK now has an amazing 3271 entities and still leads the DXCC Challenge.

It's time to improve or repair if necessary your 10 thru 15 meter antennas as well as keeping your 80 and 160 meter antennas in repair. Then there are the never ending DX Contests, DX Marathon, DXCC Challenge and IOTA chasing. There are lots of things to do. Don't let the airways slow down for lack of activity. HF radio conditions on the higher HF bands are improving. Try to stay active and join the fun. Also don't forget to support the various DX foundations around the world that help make DXpeditions possible!

Finally: We hope this review has been informative especially for historical purposes. I have tried to rearrange the subjects this year. Any suggestions are appreciated. Most prior year editions can be viewed on the "K8CX Ham Gallery." They are listed on the Table of Contents.

Once again I am honored to be asked by Bernie, W3UR to write this review for the 18th year and for his valuable inputs and help. Thanks also to John, K9EL for his inputs and especially to Frank, W3LPL for his many helpful comments and inputs. Finally thanks to my son Jim, AD1C for his computer help!

Happy New Year and best of DX in 2023.

73, Joe Reisert, W1JR

(Cont. on Next Page)



**DXers Have
A Choice**



The Daily DX - is a text DX bulletin that can be sent via email to your home or office Monday through Friday, and includes DX news, IOTA news, QSN reports, QSL information, a DX Calendar, propagation forecast and much, much more. With a subscription to The Daily DX, you will also receive DX news flashes and other interesting DX tidbits. *Subscriptions are \$49.00 for one year or \$28.00 for 6 mos.*

The Weekly DX - is a product of The Daily DX that can be sent weekly to your home or office via email in the form of a PDF (portable document format). It includes DX news, IOTA news, QSN reports, QSL information, a DX Calendar, propagation forecast and graphics. *Subscriptions are \$27.00 for one year.*

Get two weeks of The Daily DX or a sample of The Weekly DX free by sending a request to bernie@dailydx.com, or at <http://www.dailydx.com/trial.htm>.



Industry Leading SDR

IC-705
HF / 6M / 2M / 70CM
SDR Analog / Digital

IC-9700
2M / 70CM / 23CM
SDR Transceiver

IC-7300
HF / 6M SDR Transceiver

IC-7610
HF / 6M SDR Transceiver

For the love of ham radio.

f t in y i

©2022 ICOM America, Inc. The ICOM logo is a registered trademark of ICOM, Inc.
All other trademarks remain the property of their respective owners.
All specifications are subject to change without notice or obligation. 3/1/2022

ICOM

DGCC Year End Review (cont.)

NOTE: Obviously all the opinions etc. expressed are solely mine as are any errors that I have made. This End of Year Review is copyrighted. Therefore copies or use of this review MUST first be approved by Bernie, W3UR and then a courtesy copy of the reprint sent to Joe@Reisert.org.

References:

1. "F-Region Propagation and the Equatorial Ionospheric Anomaly" by K6MIO
2. "Common-Mode Chokes" by W1HIS
3. "A Hams Guide to RFI, Ferrites, Baluns, and Audio Interference" by K9YC
4. "Can Home Solar Power and Amateur Radio Exist" by K1KP, QST, April 2016.

Anatomy of an Inexpensive DXPedition

Lee Barrett—K7NM/VP2MLB

We presented this article in our last newsletter but I left some information off during the editing process. My apologies to Lee. Here is the entire article. (This time)

There is a legend in Montserrat that if one drinks the water of the volcano, you are doomed to return to the island. I must have unknowingly imbibed because this was my fourth trip back. The Gingerbread Hill (GBH - <https://gingerbreadhill.com>) villa is extremely “ham friendly” and has been since my first trip in 2006. At retirement in April as an international medical company VP, I had a lot of air miles to use. I immediately thought of the beauty and comfort of GBH. However, I could only find one local ham in Utah who wanted to go!



Through my PhotoQSLs.com ham contacts and through SWODXA, I put the word out for a potential trip in October 2022. The results were interesting. Mike Furrey (WA5POK) from Texas, Cheryl Pratt (KM4TYV) from Tennessee, Larry Anderson (K5LDA) from Alabama and Clifford Hauser (KD6XH) from Ohio joined Glenn Dixon (AC7ZN) and me from Utah forming the new team. Weekly Zoom calls were used to coordinate the trip - deciding on gear, transportation, licenses and even shirt designs. The team is shown in the photo standing in front of the Soufriere Hill Volcano which buried the island’s capitol city, Plymouth, in 1996.

Montserrat is in the eastern Caribbean – 15 minutes by “bug smasher” aircraft southwest of Antigua. Due to the amount of gear and weight limitations for the six of us, it was less expensive to book a charter from Antigua and back than to fly the regular flights. Commercial airlines routinely fly into Antigua’s nice airport. But since Montserrat’s airport has no runway lights or instrumentation system, it can only be approached through Visual Flight Rules (VFR) with no night landings. Schedules for the normal commercial hops are limited. And, you had better be there to check in one hour before departure.



(Cont. on Next Page)

Anatomy of an Inexpensive DXPedition (cont.)

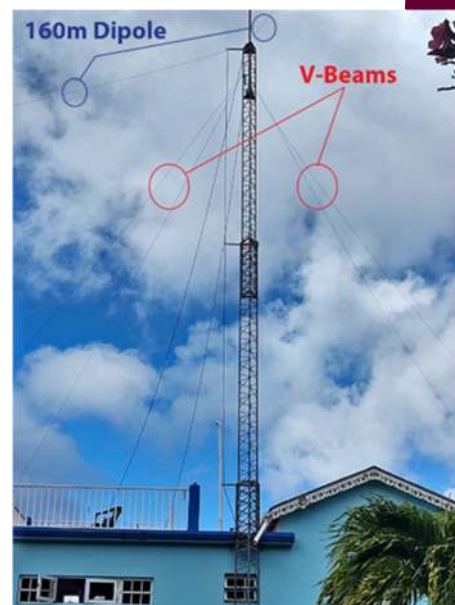
The team met at JFK airport on 12 October 2022 – the first time in 3D. We flew together to Antigua. Due to logistics and price, one person flew the commercial leg while the rest of us and gear flew charter. From Utah it was 27 hours of flying and waiting – but worth it!

We were at GBH by 6pm – having already stopped at a grocery store to stock up on initial food stores. We would make three more trips over the 9 days we were there. Dinner selections for our first night were texted to our host, Clover Lea, from an on-line menu at Antigua and ordered as “take-out” from Sir Martin’s estate (he produced the Beatles and had a recording studio in Montserrat before the volcano - he has passed on – but his wife visits occasionally from England). The Martin estate is a Bed and Breakfast with a wonderful restaurant. One cannot help but be a bit stunned by the beauty all around GBH. The view from my upper floor window each morning and the sunsets are “eye-watering”. Further, the day temperature averages 84 with nights at 74. Trade winds are almost constantly blowing through your bungalow, keeping the temperature very comfortable day and night.

Also staged at GBH were two Toyota land cruisers for our use. This also was arranged through the GBH ownership. The cost for 9 days was \$650 for the two. Two of us had to get Montserrat driver licenses at the airport. That involves showing your US license and paying \$20. Since Montserrat is a British possession, you drive on the left side of the road. This is one of the bigger challenges on the island. We used these to primarily go into the town of St. Peters for groceries. On other trips, we also visited some of the many restaurants on the island.

The first morning on the island we deployed the antennas. With six people it went much quicker than previous trips - one time being with my wife only. Though there are Yagi antennas available (in pieces to be assembled) and a motorized 60’ tower with rotor installed, the time required to put the Yagi’s together seemed a bad trade-off to operating time. We used four wire antennas. Hanging from the tower top were the center baluns of the nested Vee-Beams (designed for the 2006 trip) and a full sized 160m dipole. The Vee-Beams cover 40m – 15m without a tuner. The 160m dipole covers 12m, 10m and 6m with a tuner. The third antenna was a set of wire verticals for 80m – 10m. There were 12 each 65’ radials spread as uniformly as possible on the terrain. We used an air cannon to shoot a line over an 80’ high palm tree to raise the vertical elements. It took about five minutes to change band

(Cont. on Next Page)



Anatomy of an Inexpensive DXPedition (cont.)

elements, raise it and then tune the C-Match network at the bottom for minimum SWR. We ran this antenna on 10m, 12m and 17m in the day and on 60m and 80m at night. It is entirely made out of #18 speaker wire pulled apart into single strands. The whole antenna and radials weigh 16lbs. It was extremely effective! The last antenna was one we left behind after the 2018 trip when my team took first place for DX, High-Power, Multi-op in the ARRL 160m CW contest. It is a 700' long Beverage antenna pointed NW or SE depending on termination. It was also very effective on both 160m and 80m for receiving.

We had two or three stations on each day and a good part of the night. The upper bands (15m – 10m) were open all day and into the late night. It has been a long time since these type of openings have occurred – and long before FT8 was invented. Further, there are a number of hams who visit Montserrat and operate SSB or CW so it is not so rare on those modes. Therefore, we decided to focus on FT8 on the high bands, 60m, 80m and 160m. This made us VERY popular. One surprise was nightly openings on 6m into South America from 6pm until 10pm local time. Solid pile-ups. When the band faded, then we moved to 160m for late night pile-ups. We did operate limited SSB and CW operations. In all, we accumulated over 6500 QSOs during our time there.

This was more of a vacation outing than a contest style operation. One whole day we were QRT while visiting the volcano area and the buried city of Plymouth – the former Capitol. See the photo of the 3rd floor of a hotel sticking up out of the sand, ash and rock. Truly impressive to walk around! We balanced personal time with hamming - keeping it fun!

We had a few troubles. The KPA500 linear would not turn on upon arrival. We were relegated to 100 Watts on all transmitters. One Kenwood radio had a fan and one final transistor compromised for which we found a “work around”. My Astron power supply for my K3 had a demolished fan upon arriving home – all of this after taking a fair amount of care in packing the equipment in bubble wrap. But we were able to still function.

The island is populated by large toads (which are deafening), iguanas, goats and roosters. There are also small piglet looking creatures, which I am sure would be delicious if anyone could catch one. Two of our team took kayaks to a remote beach around the island (there are only a couple of small accessible beaches) and found a sea turtle breeding ground and a cave full of bats. Montserrat is an interesting place!

(Cont. on Next Page)



Anatomy of an Inexpensive DXPedition (cont.)



The total cost per person for this trip including airfare was around \$2K for 9 days on-site. This was the average over our six person team. Airlines are reliable and GBH is very inexpensive for the quality of stay. We are already talking about a “Next Time”. Licensing is fairly straight forward. The cost for a new license is \$26. One can apply on-line through the Montserrat Information and Communication Authority (MICA). Ms. Monica Blake is the person I have dealt with for years. The

biggest problem is to pay for the license. Before October 2021, the US Postal Service would be able to cut an International Money Order for the amount. But they ceased serving Montserrat after that date. MICA can only take cash at this time. So either arrangements need to be made through Clover Lea to pay GBH with credit card so she can pay MICA in cash, or you will have to go to MICA the first week day after you arrive to pay in person and receive your license. It is unknown how long this situation will remain in effect. A license can be issued for 7 days or for a year – your preference.

Mini-DXPeditons don’t have to be expensive and/or fraught with danger! Montserrat is highly recommended! So, where is Montserrat? See the map below





Amateur Radio

Connecting Generations!

Fun to read, interesting from cover to cover, written so you can understand it. **That's CQ.** Read and enjoyed by thousands of people each month!

The changes in amateur radio over the years have been astounding. Still some things have remained remarkably the same, namely the type of people who are drawn to the hobby. As a group, hams have a tremendous amount of knowledge on a wide array of topics, an amazing willingness to share that knowledge with each other, and an unwavering commitment to helping neighbors, near or far, in times of need.

So whether you are an old-timer or new to the hobby accept the challenge and read **CQ. SUBSCRIBE TODAY!**

Print or Digital...Your Choice

PRINT EDITION ONLY

1yr—12 issues \$42.95 2yrs—24 issues \$77.95 3yrs—36 issues \$111.95

DIGITAL EDITION ONLY

1yr—12 issues \$30.00 2yrs—24 issues \$57.00 3yrs—36 issues \$83.00

COMBO Subscriptions - Get BOTH the PRINT & DIGITAL EDITIONS

1yr—12 issues \$61.95 2yrs—24 issues \$112.95 3yrs—36 issues \$161.95

CQ Communications, Inc.

Phone: 516-681-2922 <http://store.cq-amateur-radio.com>

Interview with MI0JZZ— Chris

Chris immediately answered my email requesting an interview. He is an active ham from Northern Ireland and is a great operator.



AJ8B: How did you first get interested in amateur radio?

MI0JZZ: My brother brought a AM set into the house when i was 10/11 (1978)

AJ8B: Do you have a favorite band or mode?

MI0JZZ: All the bands and SSB, FT8, and CW

AJ8B: What time of day and days do you like to operate?

MI0JZZ: I try to get on everyday for a few hours

AJ8B: Any secrets to your success?

MI0JZZ: I will be successful when I have all DXCC Confirmed (28 left)

AJ8B: Any tips that you can share?

MI0JZZ: Just don't dive in when buying equipment ask the local hams for advice

AJ8B: Describe what you are currently using:

MI0JZZ: Yaesu ftdx5000 , cobweb antenna @35ft 200w

AJ8B: What advice do you have for those of us trying to break pileups to work DX?

MI0JZZ: Listen to the DX, let the big guns have there days/week, then smaller guys have a better chance

AJ8B: What is your favorite contest?

MI0JZZ: CQWW SSB in October

AJ8B: Any QSLing hints?

MI0JZZ: I am a card collector so when the card becomes available, get it paid for, hopefully you'll be in the first wave going out.

AJ8B: What coaching/advice would you give new amateurs?

MI0JZZ: Take your time and listen to the station your looking to work, patience is key

(Cont. on Next Page)

Interview with MI0JZZ (cont.)

AJ8B: I were to stop by for a visit, what local place would you want us to visit?

MI0JZZ: My shack then a tour of our beautiful coastline

AJ8B: What local food would you want me to try?

MI0JZZ: Ulster fry

AJ8B: Thanks for taking the time to answer my questions. Is there anything you would like to share with us?

MI0JZZ: When I became a ham way back in 2002, I used to take the mic off the rig and let on \that I was working the station I could hear on the radio for practice.





Making DX Happen Since 1983

Support DXpeditions

WWW.INDEXA.ORG

A 501(c)(3) non-profit organization

Join Today




INDEXA



@indexa_dx



International DX Association
2309 Lincoln Ave, Saint Albans, WV 25177, USA

INDEXA®

9 Element Circle Array RX Antenna by Jim, AB3CV.

This article appeared in the January 2023 Newsletter of the Potomac Radio Club. I really enjoyed it and am considering building this great antenna. Thanks to Jim, AB3CV, and John, K3TN, for permission to reprint this here.

This is about my recent construction of a 9-circle array receive antenna. The 9-circle RX antenna was originally designed by W1FV and described in NCJ in two articles. (See links at the end)

The reason for wanting a better receive antenna was that too I often couldn't hear DX stations that others were able to on 80m and 160m. Of course, propagation has a significant effect on what can be heard even within the Mid-Atlantic region but too often I felt like I was missing out. If you can't hear them, you can't work them!

My TX antenna is a quarter wave vertical on 80m with 32 radials averaging 100 feet in length. I have a horizontal tail attached to it at 53 feet by a vacuum relay creating an inverted-L which gives me 160m as well. When on 160m a $\frac{1}{4}$ wave matching line at the base is inserted which gives me resonance at 1840Khz. Another relay ensures that when not transmitting the antenna is detuned for both 80m and 160m to avoid compromising any receive antennas on those bands. RBN assessment on 80m and 160m shows I'm heard around the world with my 1500W amp. I'm just a bit dea

I'm now at 224 entities worked on 160m and 281 worked on 80m and getting new ones on those bands is becoming very difficult. I've often watched videos by VE6WZ on YouTube about various station ideas and found one on his updated combiner box for a 9-circle array. This piqued my interest, and I started doing some research.

My current RX antenna for both 80m and 160m is composed of two 2 element arrays which share a common element for 3 elements in total. The two elements selected are combined by a DX Engineering NCC-2 which allows phasing between the two to achieve directionality and some steering of the receive direction. With 2 elements it forms a cardioid pattern with a deep null to the rear. It performed better here in my current Mt. Airy QTH than it had in my former QTH in Parkton where it was implemented partially in an oak forest. The local RFI environment was an issue there as well. It was however an improvement over what I previously had used in Parkton: a K9AY and a BOG (beverage on ground). The K9AY was also buried in the oak forest which likely didn't help its performance but was constantly getting destroyed by the local deer herd. The BOG never really worked well at all.

My Mt Airy QTH has a side yard where my 2 element RX arrays are located but it isn't big enough to really accommodate either a 4-square or 9-circle. My lot also didn't have enough space for a beverage in any direction much less for multiple directions. However, my side yard is adjacent to my neighbors' largely unused portion of their property: they have a vegetable garden in one portion and an attempted (failed so far) wildflower garden. Other than that, it is just periodically mowed as a grass yard.

(Cont. on Next Page)

9 Element Circle Array (cont.)

I had done some work with a compass, measuring tape and lot description map and discovered that I could implement a 9-circle with only 3 elements on their property if they were willing. I asked them and they immediately agreed to seasonal use of their property from November thru the end of March! Great neighbors! See site map Fig 1 which shows the approximate locations as well as my TX antennas.

The choice of a 9-circle over a 4-square is worth a mention. Since my use of the full array will be seasonal, I can use the 3 elements pointed on a 45/225 heading without the full array. A 4-square with one element missing is useless. Also, the 9-circle has an antenna for every 45 degrees with only a 1db reduction when a station is between those lobes. I can also easily just put out 3 elements in a hurry if some DX-pedition comes up in another direction when the full array is down.

The 9-circle is comprised of nine 24ft tall, telescoped aluminum elements each on a fiberglass insulator which is then bolted to a piece of 2"x1/8" angle driven into the ground. The angle stock not only acts as the element support but also as a ground reference for each element. See Fig 2.

Eight of the elements are arranged in a 120-foot diameter circle spaced every 45 degrees. The ninth element is in the center. When a direction is selected the center element is always used with diametrically opposed elements to form a 3-element array. The signal from each of the three elements is buffered by a simple impedance converting preamp and summed by the combiner box by using a combination of relays and delay lines. This gives a very directional antenna in a 120-foot circle for 80m, 160m and even 40m, and every 45 degrees at that. Try doing that with just beverages!!

(cont on next page)

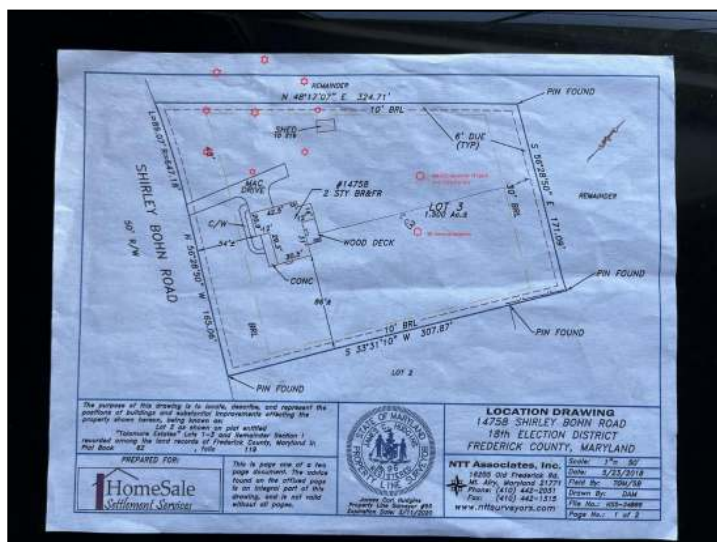


Figure 1 AB3CV Site map



Figure 2. Element mount, one of 9.

9 Element Circle Array (cont.)

DX Engineering had previously sold a full kit to implement the YCCC version of the 9-circle but no longer does so. But I'm comfortable doing construction of electronics and the VE6WZ YouTube videos gave me the confidence to give it a shot. I needed to teach myself KiCAD, the Computer Aided Design (CAD) program used by VE6WZ to create the boards, which I did by watching several videos on YouTube.

I downloaded his designs from the links at his videos and sent them off to a board fabricator that was inexpensive and quick turnaround: JLCPCB. Other parts were ordered from Digikey, MGS4U for fiberglass insulators and DX Engineering for the tubing and miscellaneous parts to construct the elements.

I got my coax from Joel at The RF Connection. Both preamp boards and the controller use only through-hole parts, so construction was easy. My AA54 antenna analyzer was used to create the proper length of the phasing lines. The feedlines from the combiner to elements just need to be identical and long enough to reach - I chose 70 feet. Figure 3 shows the deployed combiner box, the center element and all the cabling.

Since I'm planning to remove the elements, cabling, and combiner each April all the coax is just left on the ground. Of course, I'll leave the supports that were driven in the ground for reuse next year.

Instead of a manual rotary switch to control the selection of direction I chose to use a software program called PSTRotator. I have long used PSTRotator for controlling my rotator via a Green Heron RT-21, controlling my Steppir DB-19e and selecting among my TX antennas. A second instance of PSTRotator was created to control my 9-circle rather than use a manual switch box. Each instance uses a USB connected KMTronic 8 port relay box to perform their functions. A small RJ45 breakout board from Winford Engineering was used to implement a diode matrix to form an 8-line to 3-line converter to operate the combiner relays. Figure 4. CAT6 direct burial cable provides power and control signals to the combiner box and preamps. This gives me computer control of the RX antenna direction which in turn gives me the ability to operate remotely. The direction selected can be by clicking on the compass rose or manually selecting the relay desired. The direction can also be driven by my logging program. See Fig 5.

(cont on next page)



Figure 3. Combiner deployed, coax and center element.

9 Element Circle Array (cont.)

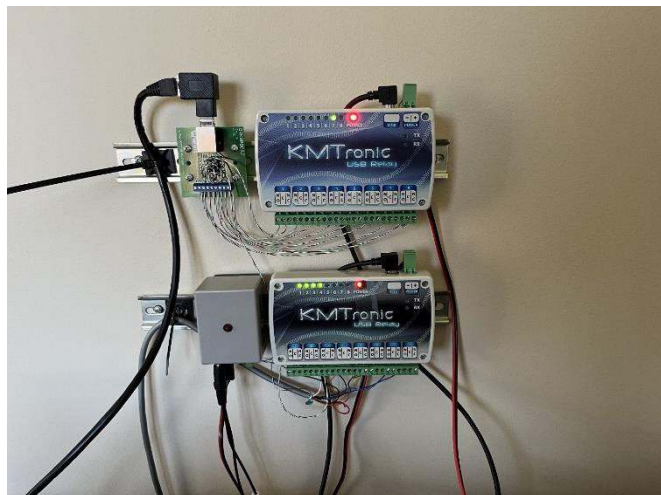


Figure 4—Control Switches in Shack. Top is RX PSTrotator controlling control, bottom is other antennas RX Direction.

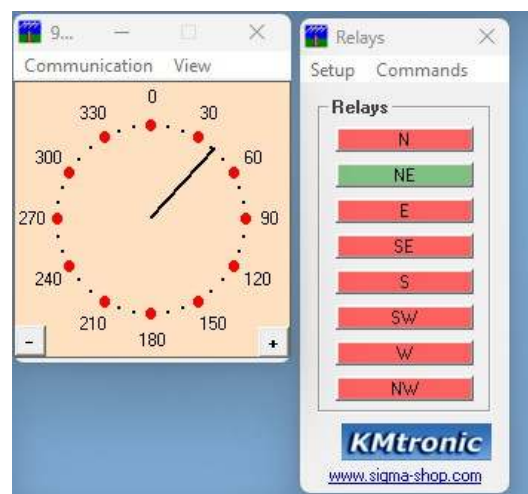


Figure 5

So how well does it work? Great!

I always expect something to go wrong on power-up but this time I had been sufficiently careful, and nothing smoked! I was immediately greeted with wonderful front-to-back performance and good side-lobe shape, both determined by on-air listening of available stations.

My K4D has two separate receivers so I'm able to listen to both antennas and compare them on side-by-side band scopes. Because FT8 presents fairly steady signals for 13 seconds, it was used to compare the two antennas the busy 80m band when first turned on. When pointed to EU the 2-element antenna decodes a lot of stateside stations and the spectrum is quite full, often making it difficult to pull out EU DX. However, the 9- circle really rejects the stateside stations making hearing EU DX very much easier.

It's difficult to show the impact in a single picture but Fig 6 is my best effort. It shows WSTJ and a strong W1 signal around 1350hz in the top of the waterfall which was reported as +24db on the previous cycle. On this cycle about 2/3 of the way through I switched the antenna from NE to SW and the signal is greatly attenuated (see zoom inset.) It was likely -15db or so. Not every signal receives that level of attenuation of course but it shows the general effect. It is very nice to try to hear signals from EU without so many strong signals coming in from behind. Those of you who have worked at big stations with significant RX antenna farms may be used to this, but it is a real treat for me on my modest 1.5 acre lot (plus a bit more from my neighbors!)

(cont on next page)

9 Element Circle Array (cont.)

I also listened to directions around the compass rose on 160m and 80m and was very pleased to see that rotating on and off the direction of a received station had a significant impact on received signal strength.

The output from the 9-circle is quite low so I need to operate with the K4 preamp engaged and I've also added a DX Engineering RPA-2 preamp for a bit more gain to bring the antenna noise floor comfortably above that of the K4.

So far, I'm very pleased with the result! It won't magically create QSOs but it will give me a better chance of hearing in the direction I want with less interference from other stations or QRN.

Links

[9 Circle Overview Video and Combiner Box](#)

[Preamp board](#)

[9 Circle Design Part 1](#)

[9 Circle Design Part 2](#)

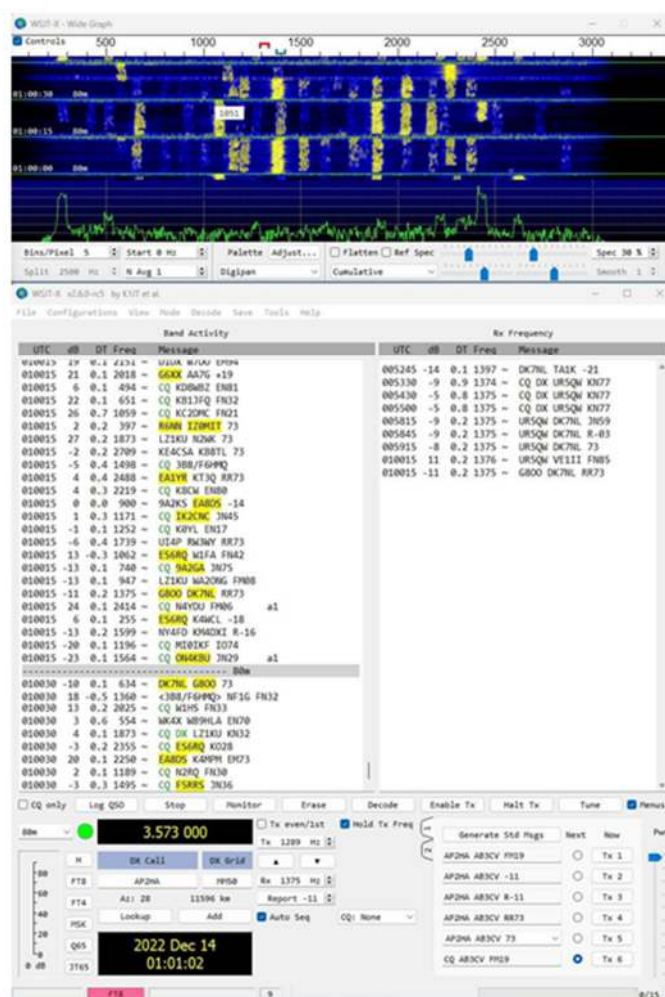


Figure 6 – example performance of the array

Heard It. Worked It. Logged It.



IC-7851

The Ultimate HF / 6M Transceiver

The Pinnacle of HF Perfection

Keep that competitive edge and magically pull out the weak signals



IC-7610

HF / 6M SDR Transceiver

The SDR you have asked for. Faint signals are no longer a challenge for DXers and contesters around the world.



IC-9700

**2M / 70cm / 23cm
SDR Transceiver**

Direct sampling to the VHF/ UHF world. Built with the VHF/UHF weak signal operator in mind.



IC-7300

HF / 6M SDR Transceiver

New technology changing our world. Industry's first, HF - Direct sampling system in an entry level rig.

For the love of **ham radio.**



www.icomamerica.com/amateur
sales@icomamerica.com

*Frequency coverage may vary. Refer to owner's manual for exact specifications. ©2022 Icom America Inc. The Icom logo is a registered trademark of Icom Inc. All other trademarks remain the property of their respective owners. All specifications are subject to change without notice or obligation. 31520

ICOM

Japanese Castles on the Air—JACOTA Castle #2—Fukuchiyama Castle

This is part 3 of the Japanese Castles on the Air program submitted by Greg Cook, JO3SLK,. Thanks to Ray, N9JA, for connecting us for these great articles.

This is the second castle in the JACOTA series of articles about operating at historical castles and castle ruins in Japan. The castle is Fukuchiyama castle, located in the city of Fukuchiyama, Kyoto prefecture. Fukuchiyama Castle was originally built in 1572. It was reconstructed on the same foundations of the older castle in 1580. Like many other Japanese castles, it was destroyed in 1872 during the Meiji Restoration (1868 ~ 1912.) In 1986, the castle keep was rebuilt with the support of the residents. It also has a local history museum on the grounds. A water well named 'Toyoiwa no i', located in the castle grounds, is the deepest castle well in Japan.

I had visited the castle a couple of weeks before my operating date. I found out that the castle and castle museum director is also a ham and so when I asked for permission to operate at the castle, he quickly agreed. Again, it is always a good idea to visit the castle, explain your desire to operate there and get permission from the castle staff.

The weather forecast was for rain that Friday, but I thought I might take a chance and go. The following Monday was a holiday and so there would be a lot of visitors over the weekend....so Friday was chosen as the operating day. As it turned out, the rain forecast was correct....and it rained all morning with just a few breaks. The few times it stopped raining enable me to take a few pictures.

Fukuchiyama castle sits on a high hill above the city. The land that the castle was built on belonged to the warrior that build the castle. There is a parking lot below, where this picture was taken. There is also a bridge that goes over part of the old moat that you must cross to get to the castle museum and to the castle itself. This picture is taken from the parking lot about a 15 minute walk from the castle.

(Cont. on Next Page)



Japanese Castles on the Air (cont.)



I bought a cart from my local DIY store and loaded it up with antenna components the IC-705, umbrella, camp seat and camera equipment. It was too far from the parking lot to the castle to make multiple trips.

You must go up a long and steep slope to reach the castle. Pulling the cart with all the equipment was a real chore, and I was quite tired when I finally reached the top where the castle Tenshu (castle keep) is at. One slip and the cart and all the equipment would have gone roaring down the slope and crashed into something or someone!

The Keep was rebuilt and is in very good condition. It is quite impressive when you turn the corner of the slope and see it for the first time up close. The base of the Tenshu is built with stones in the Nodaura style... random sizes stacked up. The base was very solid, and the rock were of various sizes, color, and patterns. The wood on the walls looked like it had been refinished not that long ago and was quite impressive.

(Cont. on Next Page)



Japanese Castles on the Air (cont.)



Making a U turn, you come to the main entrance of the Keep. There is a small shrine to the right of the entrance, and the deep well is close by. There is a main gate to the right of the picture that was used for most people entering the Tenshu yard.

I chose an operation location near the edge of the castle ground, unloaded the cart, and covered the bags from the rain. The few visitors that came to the castle that day would stop and stare at this foreigner and his assortment of equipment!



A few did inquire about what I was doing and were surprised to learn about operating ham radio at the castle.

(Cont. on Next Page)



Japanese Castles on the Air (cont.)

I set up a 7MHz Buddipole antenna using two antenna arm sections, one coil and a long whip element. The counterpoise wire was connected to the VersaTee adaptor at the base and expended out along a line of bushes. The end of the counterpoise was attached to some branches, about one meter above ground. After attaching the clip to the recommended place on the coil, I checked the SWR with my antenna analyzer. I made a few adjustments by shortening the counterpoise and was able to get the SWR to about 1:1.5 at the center frequency. I also attached an umbrella to the tripod to stay dry, and to protect the IC-705 and my contact log. There was a contest going on at the time, and the and was full of high-powered stations.

I also had a noise level of between S5 and S7, which I did not expect. I think it might have been caused by the microwave tower with lots of other antennas on it. I did not really pay that much attention to the tower the first time I visited the castle, even though it is quite tall. A lot of VHF/UHF antennas are also on the tower for possibly police and fire departments as well as business band use.

There was also a wireless security camera system nearby, and the 1,300 volt DC electric train line and station were not that far away.

(Cont. on Next Page)



Japanese Castles on the Air (cont.)



I called CQ a few times in SSB, but I had more luck calling back to other stations that were calling CQ. The rain started again, and it was heavy at times. The umbrella was too small, and I, the radio and my logbook got wet! This made operating difficult and a bit miserable.

I checked the weather map again, and it showed a huge rain front approaching in about 30 minutes...one that would last for over an hour or two, so I decided it would be best to take down the station, pack up and get back to the car. My operating time was only about an hour or so, and it was a bit frustrating with the rain and noise, but still a lot of fun. I had a chance to operate at an historic site, meet a new ham, and take a few pictures of a very nice castle. It was worth the 2 ½ hour drive from my home to Fukuchi-yama castle.

— GET PREPARED. GET OUT THERE. —

Adventure READY



OFF GRID
Communication Gear
for Your Next
Adventure!

GigaParts
Technology Superstore

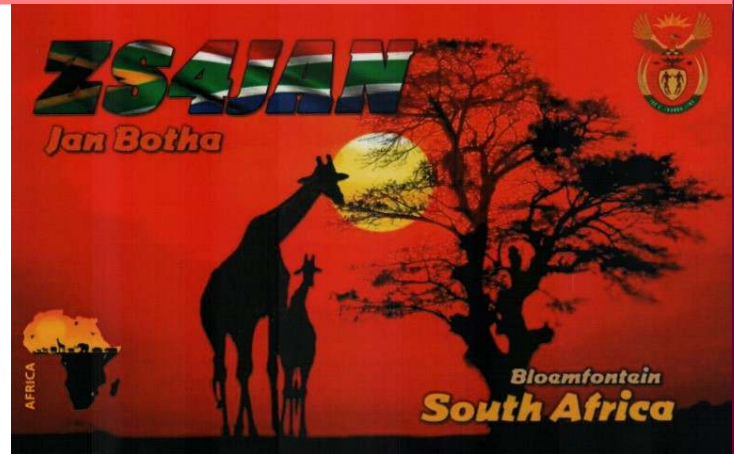
(256)535-4442

www.gigaparts.com

1426 B Paramount DR
Huntsville, AL 35806

Interview with Jan, ZS4JAN

I worked Jan several times and checked out his QRZ.com web page. His QSL card is one of the favorites that I have received. He is a builder, operator, contester, and DXer. Thanks to Jan for answering my questions.



AJ8B: How did you first get interested in amateur radio?

ZS4JAN: I've been shortwave listening from as early as I can remember. Radio was the only electronic medium of receiving news when living in a rural farm community. I've built my first crystal radio when I was 9 years old. The design was obtained from a book "See and make Series. Modern Crystal Sets by RH Warring" at the local town library. To be able to receive a radio station with this simple design got me hooked. I wanted to improve on the crystal radio design and set my focus again to the library. Here I've found The ARRL Handbook for Radio Amateurs. I think that these books were almost permanently lend to me looking at the date stamp marks. The wonderful world of amateur radio got me asking around in town and I came across my radio amateur elmer Frans Heidler ZS4AE.

His station was in a caravan. I've spent many school afternoons in his caravan reading through amateur radio magazines, listening to him working the stations. I joined him in many antenna activities while he explained to me the technical side of the hobby, talking to me as if I was a peer. He gave me my first QSL card. I was haltered by the imposed age restriction of 16 years in South Africa, and the current cost of a basic receiver. Forced military duty followed, and it was only in 2003 that I completed my exam and received my unrestricted callsign ZS4JAN (my name is Jan). A month after receiving my callsign I entered my first contest and won the rookie class in CW, I was hooked. Contesting and chasing awards became my goal and reason for being active on the air. This personal chase forced me to improve my station with a restricted budget, but with a wealth of technical knowledge. Being an active awards hunter led me to document my awards as they started rolling in. The document to date consists of 132 pages with over 6500 awards, plaques, medals, and certificates.

(Cont. on Next Page)



ZS4JAN in front of Equipment Rack

Interview with ZS4JAN (cont.)

AJ8B: Do you have a favorite band or mode?

ZS4JAN: I like all the HF bands from 80m to 10m. I am working on a 160m DX vertical to complete my 160m DXCC. I do not have a favorite band; they are all unique in their own way. My modes of interest are phone SSB, AM, CW, RTTY, BPSK31, JT65, FT8, SSTV.

ZS4JAN: Personal information? My name is Jan Botha. I'm 51 years old, married, and have two sons. I'm living in a small city called Bloemfontein, capital of the Orange Free State province. Bloemfontein is in central South Africa, 400km south of Johannesburg.

I was an Avionics technician in the South African Air Force for 21 years working on several fixed wing fighter aircraft and small to medium helicopters. My work entailed avionic radio, radar, instrumentation, electrical, electronic warfare, Sperry 3D compass systems and Helitune. I'm now a diagnostic Engineer at a medical device company called Beckman Coulter for 13 years. I support, maintain and repair laboratory bloodline instruments in five pathology disciplines. Due to the nature of my work, I travel a lot supporting hospitals and ER's. I also manage an engineering business from home called Wireless Communications and JB Custom Engineering. Here I incorporate electronic and mechanical engineering/machining to the HAM community and private sector.

AJ8B: What time of day and days do you like to operate?

ZS4JAN: My HAM activities are limited by my irregular work hours, even on weekends. I try to be on air as much as possible because I do not know when I will receive an emergency call out to the hospital. On air I like to run my station and will very seldom do search and pounce operations.

AJ8B: Any secrets to your success?

ZS4JAN: I do not think I'm successful. I just try to run my station as much as possible. Keep your signal clean. High quality SSB audio with good on-air practices are a winner.

AJ8B: Any tips that you can share?

ZS4JAN: We are all part of a unique hobby on this planet. So unique that not even governments and the military have the borderless advantage of communications, friendship, and camaraderie. It is our duty to protect this and share this with the younger generations. Take ownership of your callsign and protect it like your family name. The rest in this great hobby will follow.



6x2 Band Pass filters

(Cont. on Next Page)

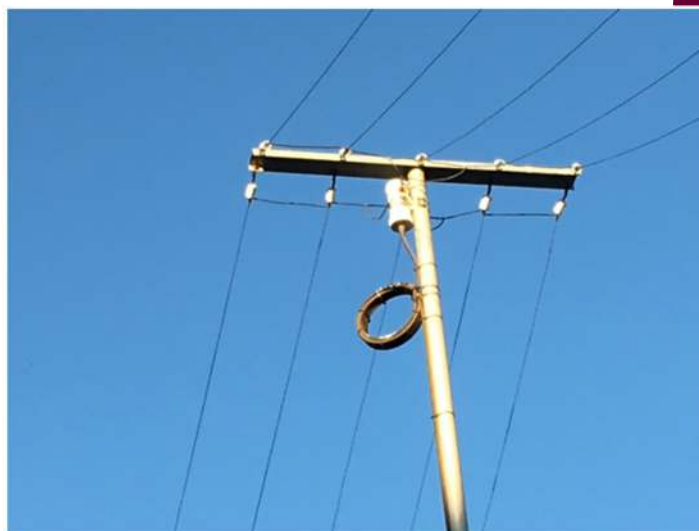
Interview with ZS4JAN (cont.)

AJ8B: Describe what you are currently using:

ZS4JAN: I have had the privilege to operate most of the high-end radios, but for me the original Yaesu FT1000MP is still the favorite and best. My daily operating corner consist of two FT1000MP's connected in SO2R mode. The #1 FT1000MP is complimented by the Yaesu VL1000 amplifier, W2IHY audio deck, and Heil PR40 microphone. The #2 FT1000MP is connected for CW and digital modes.

Both FT1000MP's are controlled by the Super Combo Keyer from ZS4TX. The 6x2 band pass filter stack from W3NQN provided the insulation between the two transceivers. The Band stack controller, station lockout and digital interface are from ZS4JAN. The crank-up tower from Pro-Sis-Tel are only 10 meters high. The antenna, coax and rotator surge protection are from ZS4JAN. On top at 15 meters is a 4 element yagi for 12/17m. Below that is the 7 element Yagi for 10,15, 20m.

My antennas are all home build in my Wireless Communications workshop. The full-size Yagi design are built on the principles from Optibeam. I also have a 5-band parallel wire dipole covering 10-80m on my southern border and a 3-band wire dipole on my northern border. The 2 dipole antenna systems are used for 20,40,80m SO2R contesting. My #1 FT1000MP was original owned by Chris ZS6EZ, then by Bernie ZS4TX. They both used this MP at two WRTC's (world radio team championships). This MP also feature in the WRTC Finland video by James Brooks 9V1YC with the two ZS testers. This MP holds many world/continental/ZS records and are still going strong.



5 Band Wire Dipoles

AJ8B: What advice do you have for those of us trying to break pileups to work DX?

ZS4JAN: Being a very small air pistol in this Western movie I have found that patience and timing are very important. All of us would like to break through the pileup to log the rare one. I will not use bad practices just to log the DX, integrity is worth much more to me. Learn from this experience and put it to test. Also learn from the advanced DX operators during a DXpedition.

AJ8B: What is your favorite contest?

ZS4JAN: In the past I took part in 55 contest each year. My favorites are CQWW, WPX, BERU, ARRL10m, SARL field day, SARL80m, SARL main contest in August that consist of phone, CW and RTTY over 3 weekends.

(Cont. on Next Page)

Interview with ZS4JAN (cont.)

AJ8B: Any QSLing hints?

ZS4JAN: These days I use LOTW, eQSL, QRZ logbook and a few other platforms. I also have a QSL manager Pedro EA5GL. I do have a special event callsign allocated to me permanently ZT4T. I use paper QSL cards for my special events. I use a system I call ZS4JAN courtesy QSL cards. I will send the new callsign worked my QSL card, with a blank courtesy QSL card that already has all the QSO information on it. The operator must confirm the information and sign. Included are a paid return envelope and information letter. I use this system only for local ZS due to the high postage cost.

AJ8B: What coaching/advice would you give new amateurs?

ZS4JAN: Choose carefully and get an elmer to guide you during your first year. Get yourself a copy of the ARRL Handbook for Radio Amateurs. I have a few DXPedition DVD's from James Brooks 9V1YC that I use as learning material and guidance. It is amazing what you can learn from these videos just by listening.

AJ8B: If I were to stop by for a visit, what local place would you want us to visit?

ZS4JAN: The Boer Museum and the Cheetah wild cat farm.

AJ8B: What local food would you want me to try?

ZS4JAN: Braaivleis are like a barbeque, but unique to South Africa, and Biltong.

ZS4JAN: Have you built or home-brewed your own equipment ? What did you build?

FM radios. Frequency counters for HF/VHF/UHF. CIV interface. DigiLink usb soundcard interface.

Laboratory power supplies. LC meters. SO2R controllers. Co-ax lightning arrestors. Rotator lightning arrestors. CW beacons. Foxhunt beacons etc. SO2R controllers.



Surge Arrestor at Tower

(Cont. on Next Page)

Interview with ZS4JAN (cont.)

b. What were the highlights of building your own equipment?

- A successful unmanned CW 40m beacon 500mW with pic code controlled through the GSM network.
- A functional SO2R contest station with proven results.
- Support test equipment to enable me in designing and building my own devices.

AJ8B: Thanks for taking the time to answer my questions. Is there anything you would like to share with us?

ZS4JAN: Additional to being a DXer and Contester, I also collect Yaesu items, The ARRL Handbook for Radio Amateurs, and display electron tubes boxes.

I hope the information will paint a picture of me and my HAM career, and the wonderful friends I have made all over this small planet with Amateur Radio.

73 es GL GD DX

ZS4JAN/ZT4T

Jan Botha



Part of Tube Box Collection



Part of Tube Collection

NEW

ID-52A

2M / 70CM Analog / Digital



Waterfall Display

See Band Conditions Instantly

- Multi-function Analog/D-STAR 2M / 70CM
- 2.3" Color Display with Waterfall band scope
- Dual D-STAR receive
- VV/VU/UU receive capability
- Bluetooth® enabled

▲ ID-52A & Repeaters Shipping Now ▶

ID-RP2010V
ID-RP4010V
ID-RP1200VD

2m Analog/D-STAR Repeater
70cm Analog/D-STAR Repeater
23cm Analog/D-STAR or DD Repeater



D-STAR ready



Perfect Companion On The Go

IC-705

HF / 6M / 2M / 70CM SDR Analog/Digital



www.icomamerica.com/amateur
sales@icomamerica.com

For the love of **ham radio.**

ICOM®

©2022 Icom America Inc. The Icom logo is a registered trademark of Icom Inc. All other trademark remain the property of their respective owners. All specifications are subject to change without notice or obligation. 31502

From Our DX Friends

I sent our friends the following question suggested by Doug, G0LUH, "What has your experience been on 75/80 meters? Do you have access to that band? If so, do you operate split? Please send along any details or experiences you have had with this section of the spectrum?"

We have Yagi antennas on upper bands, even on 40m we have some shortened Yagi. But on the 80/160m bands is just wires so I don't look at those bands with much sympathy. Signals from DX stations are weak and need to be very concentrated to work something distant. Unfortunately we don't have any additional receiving antennas, usually, it is stolen by the people walking the dogs around. You can't hear much with a 10m of unterminated wire on 160m. Hihi! That's why my counting on those bands is quite low - a little over 180 countries on 160m and 280 on 80m. Tuff to make some new ones there. No place to have better antennas on those bands.

73 es DX de Janez **S51DX**

Primary e-mail : s51dx@yahoo.com

URL : <http://www.qsl.net/s51dx/>

Hello Dear Friend,

It's nice to hear from you. Well, I used to have a Cushcraft R9 Nine-Band Vertical Antennas and it wasn't bad for 80 meter, however in my area there was lots of noise and did not benefit from it much.

I made another dipole antenna for 80 but also much noise..therefore I don't have much contact on 80 and I guess it's dead on my side.

Regards

Ibrahim de **A61ZX**

Hello Bill

I do not have that much to tell about 80M operation. Maybe you can use my 80M page on the internet for something ? <https://www.oz2i.dk/sh5/80M-OU2I/>

On that you can see some statistic for the periode 2011-2022 - with 10.722 Q's Right now I am preparing my trip to Algeria using my call sign 7U7EE for the ARRL DX CW Contest.

CU on the bands.

Best 73 de **OZ2I** Henning

(Cont. on Next Page)

From Our DX Friends (cont.)

Hi Bill,

I used to be quite active on 75/80 in my earlier years on radio more on SSB than CW, then came along the Digital modes which we do quite a bit of until conditions get better.

Now to answer the second part of the question I have never done split operations even when the pileup gets large on my side, to me it seems a bit selfish to tie up 5/10 / 15 and sometimes 20 kc of band but then again that's MY opinion on that.

Again that's it in a nut shell from me ..

73

Regards Chris **9Y4D..**

Hello Bill

No great experience here, after several years and the use of an inverted V-dipole at 14m high, not high enough, I have installed a vertical antenna of 21m 40 radials, the performance is much better. The receiving antenna is essential because QRM is always strong, here.

I have used two reversible beverages of 200M for four years and it helps me a lot in listening to DX stations. On 80M I have 244 DXCC essentially in CW. After that, you need space to have fun on the low bands.

73'

Ben—**F8PDR**

**So I bought a new transceiver
and she asked...**



**“Are you going to sell any of
your old ones?”**

Club Contacts



Outgoing President,
NR8Z—Tom Inglin

nr8z@arrrl.net



President and Newsletter Editor
AJ8B—Bill Salyers

aj8b@arrrl.net



Vice-President
W8KJ—Kevin Jones

w8kj@bcara.net



Treasurer & DX Dinner
Chairman
W8RKO—Mike Suhar,

msuhar@woh.rr.com

Club Contacts



Secretary
KC8CKW—Mindi Jones

kc8ckw@fuse.net



DX Grant Committee Chairman
W8GEX—Joe Pater

w8gex@aol.com



DX Dinner Moderator &
DX Forum Chairman
K4ZLE—Jay Slough

k4zle@yahoo.com



DX Dinner Prize Chairman
K4YJ—Dwight Kelly

k4yj@frontier.com



SWODXA Station
Trustee W8EX

—
KC8RP—Richard Pestinger
rpestinger@gmail.com

SouthWest Ohio DX Association (SWODXA)

Club Fact Sheet

Who We Are: *SWODXA* is comprised of active DX'ers and contesters with a deep passion for all aspects of Amateur Radio. We welcome everyone who is interested in joining our club to please contact us. *SWODXA* members are active in all facets of DX and Contesting. We also travel to, and fund various DXpeditions all over the world. *SWODXA* sponsors the annual DX Dinner held on the Friday evening of Hamvention weekend in Dayton, Ohio. In addition, *SWODXA* members moderate the Hamvention DX Forum and host the *W8DXCC DX Convention*. *SWODXA* is proud sponsor of the prestigious *DXpedition of the Year Award*.

DX Donation Policy: The policy supports major DXpeditions that meet our requirements for financial sponsorship. Details are available on the website at: <https://www.swodxa.org/dxgrant-application/> and elsewhere in this newsletter

Club History: The Southwest Ohio DX Association (SWODXA) is one of the country's premier amateur radio clubs. Though loosely formed in mid-1977, the club had its first formal organizational meeting in August of 1981 where Frank Schwob, W8OK (sk), was elected our first President. While organized primarily as a DX club, SWODXA members are active in all aspects of our hobby.

Requirements for Membership: We welcome all hams who have an interest in DXing. It doesn't matter whether you're a newcomer, or an old-timer to DXing; everyone is welcome! Visit <http://swodxa.org/member.htm>

Meetings: The club meets on the second Thursday of each month at Hunter Pizzeria in Franklin, OH, and virtually via ZOOM. Members gather early in the private room for dinner and then a short business agenda at 6:30 PM, followed by a program. If you enjoy a night out on the town with friends, you'll enjoy this get together. Meeting attendance is NOT a requirement for membership.

Club Officers: Four presiding officers and the past president (or past VP) make up the Board of Directors. The current roster of officers are: Past President Tom Inglin, NR8Z, President Bill Salyers, AJ8B; Vice President Kevin Jones, W8KJ; Secretary Mindi Jones, KC8CKW, and Treasurer Mike Suhar, W8RKO.

Website: We maintain websites at www.swodxa.org and www.swodxaevents.org managed by Bill, AJ8B. These sites provide information about a variety of subjects related to the club and DXing.

SouthWest Ohio DX Association (SWODXA)

DX Donation Policy

The mission of SWODXA is to support DXing and major DXpeditions by providing funding. A funding request from the organizers of a planned DXpedition should be directed to the DX committee by filling out an online funding request.

(<https://www.swodxa.org/dx-grant-application/>)

The DX Grant committee will determine how well the DXpedition plans meet key considerations (see below). If the DX Grant committee recommends supporting the DXpedition in question, a recommended funding amount is determined based on the criteria below. The chairman of the committee will make a recommendation at the general meeting on the donation.

Factors Affecting a DXpedition Funding Request Approval

DXpedition destination	Website with logos of club
Ranking on the Clublog Most Wanted Survey	QSLs with logos of club sponsors
Online logs and pilot stations	Logistics and transportation costs
Number of operators and their cre-	Number of stations on the air
LoTW log submissions	Bands, modes and duration of operation

H40GC	H44GC	ZL9HR	XX9D	HK0NA	FT4TA
KH1/KH7Z	EP2A	FT5ZM	C21GC	VK9WA	NH8S
K4M	CY9C	VK9MA	PT0S	FT4JA	YJ0X
6O6O	VP6D	TO4E	XR0ZR	VP8STI	VP8SGI
W1AW/KH8	K1N	3D2C	VK0EK	S21ZBB	E30FB
ST0RY	TI9/3Z9DX	VK9MT	K5P	9U4M	TX3X
VU7AB	3Y0Z	3C0L	TX7EU	CE0Z	3C1L
TI9A	3D2CR	3B7A	K9W	VU7RI	6O7O
C21WW	CE0Z	T30GC	T30L	D68CCC	W8KKF/WP5
K5D	3Y0J	T33A	3Y0J	CY9C	