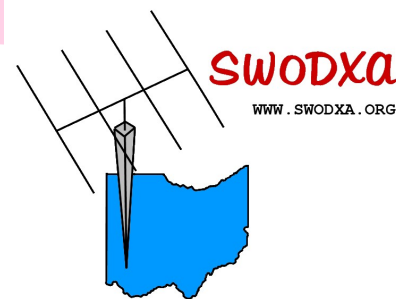




Volume 2, Issue 5

5/2019

the exchange



SouthWest Ohio DX Association

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The Prez says Tom, NR8Z

The DX Dinner® and DX Forum at Hamvention® are right around the corner. Mindi, KC8CKW, and her committee have everything in order for the Friday night DX Dinner. There are valuable door and raffle prizes to be won (thanks Richard, KC8RP). This year, in addition to awarding DXPedition of the Year® and the CQ DX Hall of Fame, we are welcoming the Island Radio Expedition Foundation (IREF) to award their IOTA Expeditioner of the Year. Jay, K4ZLE, has a great lineup of speakers for the Saturday DX Forum. Don't miss either of these events, this is where smart DXers congregate!



It is with great sadness that I convey the news that Rick Burdick, K8WWA, became a silent key. Rick was an accomplished DXer, with DXCC Honor Roll and over 1700 Challenge countries to his credit. He was also an avid 6 meter operator. Rick did a lot for SWODXA, I could always count on him to say yes whenever I approached him with a task. For many years when I was Treasurer Rick was on the audit committee and he reveled in looking for anything out of order and it kept me on my toes to make sure he didn't find anything. He always reminded me about the time he found one petty cash incomplete entry.

It was brought to my attention that one of SWODXA's charter members Don Tyrell, W8AD, is now a silent key. I never met Don, but I understand he was active in the early DXPeditions mounted by SWODXA including to Zone 2. He was a founder of Alpha Delta Communications.

The SWODXA meetings for May and June will be held at the Marion's Piazza at 8991 Kingsridge Dr. in Dayton. Then we will take a 2-month meeting break in July and August before returning to the Marion's in Mason for September. Remember, if you miss a meeting, you miss a lot!

Interview with Ivo, IZOMQN

I worked Ivo and had to check out his QRZ.com webpage. I found a huge collection of awards and very interesting information. I know that you will enjoy this interview. With Ivo's permission, I have edited it slightly.

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

IZOMQN: In 1985 I was on the town "band". Working in 11 meters (pirate) where I collected more than 300 countries.

AJ8B: When did you get on the air?

IZOMQN: In 2007, they discovered a rare tumor (chondrosarcoma) I decided it was time to get my license!

AJ8B: Do you have a favorite band or mode?

IZOMQN: The most beautiful band is 12 meters. I don't have a favorite band but I work FM, SSB, CW, MMD digital modes,

AJ8B: In reviewing your QRZ.com page, I see that you have been very successful with chasing countries and with contests. Any secrets to your success?

IZOMQN: I don't know what my secret is.

AJ8B: I also noticed that you like to operate from many locations. What equipment do you use? How do you pick the location?

IZOMQN: I got an Icom 735 (1991) self-constructed antennas, inverted v dipole. On rare occasions, I use a series of MFJ single-band stylus. My position varies according to the respect of the diploma rules.

AJ8B: You are an extremely accomplished contest operator. Any tips that you can share?

IZOMQN: Take care of your antenna in the smallest details.

AJ8B: What license levels do you have in Italy?

IZOMQN: Maximum level

AJ8B: Describe what you are currently using:

IZOMQN: My Icom 735 and an Icom 7300 station. My antennas are dipoles and a small 2-



element directive, all strictly self-built.

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

IZOMQN: I don't use amplifiers, I only run 100W. My experience comes from the CB. Listen a lot, have a lot of madness, try to locate the station, and hit at the right time !!

AJ8B: Any QSLing hints?

IZOMQN: The QSLer must respect the station and their own feelings (mine represents my passion for my cancer)

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

IZOMQN: The ability to use your own name / callsign. With modest antennas, you can get incredible emotions !!

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

IZOMQN: Thanks to you, I am a simple ham radio operator. With simplicity you can manage to have excellent results! with you I would like to share my passion for radio (I owe my health, or maybe life on the radio)

73 IZOMQN

Ciao 73 de IZOMQN ROSADI IVO MAURO
C.O.T.A. Member 453-SM
PER ÆTHERA OMNI SERVO

60 Meters—The Channel Band

By Joe, W8GEX

Hooked on 60 Meters

I got hooked on 60 meters back in July of 2003. The FCC gave us the band on July 3, of that year.

I had been planning an IOTA trip to the island of Montserrat, and was issued the call VP2MX. A team member, Phil W9IXX, asked if I cared if he operated 60m as it had just been authorized by the FCC. Of course, I said sure. The other crew members were Jim K8FL, Wayne K8LEE, Bryon WA8NJR, Phil W9IXX, Kirk W8QID (SK), Mike N9NS (SK), Bill W8MUV (SK) and myself W8GEX. Phil was the only one that was not a SWODXA club member.

Phil set up his 60m operation in the garage of the house we rented. Right off the bat Phil came running upstairs to tell me that he had just worked Pete NOFW, a SWODXA club member. To the basement I go to give Pete a call on this new band. That was my first qso and I was hooked. Not sure, but I think Phil made about 30 or so qso's during our trip. That doesn't sound like many, but keep in mind most hams never heard of the new band, and if they did, probably didn't have an antenna built yet. So, our team thought



Phil did a good job of putting 60 meters on the air for the first DXpedition.

When I got back home, I had my IC-706 modified to operate on 60m and put up a vertical with elevated radials that I still use today. I was hooked at this point and still am. I started making contacts in earnest and after a few years I worked WAS. I started sending out a newsletter to alert friends what was on the band and what might be coming up. Then I started sending letters to DXpeditions asking if they would get on the band, and most agreed. Some would ask the local authority for permission and, in most cases, it was granted. Other teams would just get on and take their chances not to be caught.

Today I still send out a newsletter to nearly 2000 of those interested in 60m. I'm still hooked.

Drop me a note if you want to receive the newsletter and I will sign you up!

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DXA—Bob, KK6EK & Peter, W6OP

One of the *newer* applications in Ham Radio is DXA. You may not have heard of DXA, but, at least for me, it has really made an impact.

There are a couple of events that really stick out for me when it comes to DXCC and “chasing paper”. In the 1970s I worked a station in Vietnam which would have been my final zone for WAZ CW as well as a “New One”. After waiting 9 months for the return QSL card (no LoTW!), I instead received the dreaded “Not In Log.” By the time I had received this notice propagation had changed, the DXPedition was over, and I had no chance to work that group again. (I still don’t have 3W confirmed!)

In the 80s, I worked an 8Q7 in the Maldives. Months later, I learned that he had copied me as AJ8D and I could not confirm that QSO.

The following is a mixture of my own observations, explanation and content provided by Bob, KK6EK and Peter, W6OP. My thanks to them for allowing me to reprint/cut/paste/plagiarize!

What is DXA you ask? DXA allows anyone with an ordinary browser anywhere to see updates about DXPedition activities, particularly the radio log, in nearly real time. For instance, within 60 seconds of your contact with VP6D, the browser page is automatically updated to show your call sign at your location, and confirmation of your contact in the log.

The image above shows the DXA screen right after I worked VP6D. You will notice several things. The first is the pop up that indicates that I did indeed just make a QSO with VP6D. The second thing to notice is that your call sign appears in the “Last Logged” column as well as on a tagged field on the globe. This will give you an instant idea of who they are working and how propagation is carrying signals that the DX station.

There are three other areas of interesting data on this web page. The first is a personal score card or the “Confirmed Logged” area. This grid in the lower left shows what bands and modes I have confirmed with VP6D. The second area is the “Currently Working” area. This grid shows what stations are active on what bands and modes from VP6D. Finally, the “Total QSOs” area gives a breakdown of what the DXPedition has accomplished to date.

A more detailed explanation of DXA follows:



“What is DXA? (W6OP and KK6EK)

DXA (<http://www.cordell.org/DXA/>) was conceived by Robert Schmieder KK6EK prior to the K7C Kure Atoll DXPedition in 2005. While the original DXA worked well it suffered from some serious performance issues when large numbers of users were watching the K7C activity.

After K7C, Robert asked for help in enhancing DXA and I met him in Visalia at the DX Conference. We discussed how DXA could be enhanced and what role I could play in it.

Rather than abandoning the original version of DXA I decided to enhance it with more modern technology. Where the original version required a page refresh once per minute for updates and used a lot of server side php code, DXA Version 2 uses client-side JavaScript and just makes a query to a web server for the updated QSO information it needs. Then in the web browser we update only those pieces of the web page that we need to.

The DXA system consist of three main pieces, the DXA Console, the Collector and a web/ftp server. And of course, the web browser the person monitoring DXA to see if they made a QSO is using.

(cont. on Next Page)

DXA—cont.

You can [watch a demo](#) of it in operation. This is still in development so sometimes it may be static and other times there may be activity.

The DXA Console is a Microsoft Windows program that runs on a PC at the DXPedition site. Once every minute it reads the DXPedition log. For N1MM Logger Plus the Console can read the log directly. Once the Console reads all the new QSOs made in the last minute it creates a packet and compresses it. Then through the satellite link it opens an ftp session and uploads the file to a server. The DXA Console can also be used to upload messages that will appear on the DXA web site. Photos and other types of files may also be uploaded if the DXPedition wishes. The Console display shows the operators the network status and a list of QSOs that have been uploaded. If the satellite link goes down for a while, the Console will keep running and when the link is back up upload all waiting packets.

When files are uploaded is when the Collector starts its work. The Collector, running on a virtual server in AWS, monitors the ftp server and when a new file is uploaded it looks at the file and decides what to do next. If the file is a message or photo it moves the file to other folders, so they can be processed. If the file is a QSO packet, the Collector will open the packet and add latitude and longitude information for each call sign in the packet. Then the QSO packet is moved to the folder the DXA web page looks in. The Collector has a local database where it keeps a copy of all the QSOs and synchronizes that with a remote database so when a user enters their call on the DXA website it lets them know what QSOs they have already made. The Collector also does a little more housekeeping as needed.

The DXA web page itself is standard, html and JavaScript. Browser requirements are current versions of IE/Edge, Firefox, Safari and Chrome, other versions may or may not work

correctly. Once the page is loaded in your browser it isn't necessary to refresh the page. Once every minute the browser makes a small and quick background request to the web server to get a new QSO file. Then it updates all the various pieces such as the current and previous QSO lists and what bands are currently being worked. If you have entered your call sign in the search field it will light up the band slot you worked and highlight your call sign in the currently worked list. It will also show a congratulations message.

What will I learn by watching DXA?

By watching DXA, you will get confirmation of your QSO within 2 minutes after making it, and you will be able to confirm your previous QSOs. You will see the logging activity of the DXPedition, so you will get a sense of the rotation of propagation around the world. You will see the bands and modes the operators are using in real time. You will be able to zoom the map to any location and watch the QSOs being made in that area. You will see messages that may provide specific information of value to you and your colleagues. You will be able to click on a link to send an email to the team on the island. You will see how much time remains before the DXPedition goes QRT. And you will be able to click on a link to request your QSL cards. All this comes on a single web page that needs no installation, no software, in fact no interaction at all. Just watch it. But we'll bet that once you start, you won't be able to take your eyes off it!

Where can I learn more about DXA?

A complete description of DXA is provided by the book [DXA: The Real-time Online Radio Log Server](#), by Robert W. Schmieder, KK6EK. You can order a copy (\$25 ppd) from Cordell Expeditions."

(cont. on Next Page)

DXA—cont.

I purchased this book and found it a fascinating read. I don't think that the impact of this application has really been fully appreciated by the DXing Community and I hope that changes over time. I had a chance to spend time with KK6EK at the SWODXA DXDinner® a few years ago and really enjoyed our chat. Two things struck me in my conversation with Bob. The first was his passion for DX and helping DXers. Bob has some great ideas on how to improve DXA. The second thing that I came away with was Bob's appreciation for the destination sites he has been lucky enough to operate from. He combines DXing and environmental study in a way that I had never seen before. I am sure that DXPeditions that Bob has been a part of have benefited from his interest in studying the "flora and fauna" at remote island locations. He also covers this in his books.

There was some discussion in the DXing community about the impact of DXA and whether it was considered "legal" by the DXCC desk. Below is information about this:

DXA and the ARRL Policy on Real-time Log Posting

The development and use of DXA on the 2005 Kure DXPedition K7C led to considerable controversy and not a little conflict between DXers, DXPeditioners, and the ARRL.

As a result of the K7C operation, in 2006 the ARRL took a position against exposure of all 5 elements of a QSO on public media such as website. However, in 2008 this policy was rescinded as being "unenforceable." Thus, there is no prohibition against exposing logs using real-time websites such as DXA.

(http://www.cordell.org/DXA/DXA_document/s/DXA_ARRL_policy_2008.html)

Ironically, as the ARRL was posting information about the then upcoming VP6D, Ducie Island DXPedition, they announced on the ARRL website that "VP6D Ducie Island 2018 DXpedition to Offer Near Real-Time Contact Posting."

(<http://www.arrl.org/news/vp6d-ducie-island-2018-dxpedition-to-offer-near-real-time-contact-posting>)



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Interview with TA1BM—Ismail

Ismail was the first TA station I finally confirmed on RTTY. I checked out his QRZ.com webpage and found a large collection of awards and plaques. He is also an accomplished ham, experimenting with all modes and bands. Check out his page! Ismail can be reached at ta1bm@hotmail.com.



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

TA1BM: I was following the monthly magazine of TRAC Turkish Radio Amateur Club which was established in 1963 and I made simple transceivers.

AJ8B: When did you get on the air?

TA1BM: In 1984, our country allowed us to test 10M. I tried it with Kenwood TS830s.

AJ8B: Do you have a favorite band or mode?

TA1BM: Favorite mode RTTY, PSK, SSTV all digital modes.

AJ8B: In reviewing your QRZ.com page, I see that you have been very successful with chasing countries and with contests. Any secrets to your success?

TA1BM: The secret to success is to be the fastest.

AJ8B: You are an extremely accomplished contest-er. Any tips that you can share?

TA1BM: Compete with yourself and take it seriously.

AJ8B: What license levels do you have in Turkey?

TA1BM: Class A

AJ8B: Describe what you are currently using:

TA1BM: My station is simple Kenwood TS830S, TS2000, HM Yagi antennas and Delta loop 100 watts.

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

TA1BM: Study the DX and be patient.

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

TA1BM: For my new radio amateurs my advice is to practice listening. There is much to read about radio amateurs.

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

TA1BM: I am very fond of radio amateur.

Thank you very much for your attention Bill



5W0GC & YJ0GC 2018 DXPedition—Part 2

Stan—LZ1GC

The 2018 DXPeditioner of the Year award winners keeps going and going and going.. Here is part two of our exclusive scoop on his most recent DXPeditions.



Vanuatu

Below is some brief information from Wikipedia about Samoa and Vanuatu.

Officially, the [Republic of Vanuatu](#) is a Pacific nation island located in South Pacific Ocean. The archipelago, which is of volcano origin is 1750 km east from Australia (VK), 540 km northeast of New Caledonia (FK), east of New Guinea (P29), southeast of Solomon Islands (H44) and west of Fiji Republic (3D2). The fourteen Vanuatu islands that have surface areas of more than 100 square km are, from largest to smallest: Espiritu Santo, Malakula, Efate, Erromango, Ambrym, Tanna, Penfecoast, Epi, Ambae (Aoba), Gaua, Vanua Lava, Maewo, Malo and Aneityum (Anatom).

The nation's largest towns are the capital, [Port Vila](#), on Efate Island and [Luganville](#) on Espiritu Santo Island. Vanuatu has a population about 243,000. The inhabitants of Vanuatu are called [Ni-Vanuatu](#). The Ni-Vanuatu are 98,5 % of Melanesian descent with the remainder made up of a mix of Europeans, Asians and other Pacific islanders.

Finally, on October 17 and after a 2-hour flight I was in Port Vila, Vanuatu. After the usual customs check at Port Vila Airport, I took a taxi to the Blue Pango Motel where Lubo (OM5ZW) and Karel (OK2WM) were waiting for me. When I arrived at the motel, we immediately began preparing for the raising the two vertical antennas for

160m and 80m. It took three hours to get both antennas in place. That evening YJ0GC was on both 80 and 160 meters simultaneously with two transmitters.

The next day we also installed a multi-band ground plane antenna to operate from 10 to 40 meters.



(cont. on Next Page)

5W0GC & YJ0GC DXpedition (cont.)



Stan, LZ1GC (L) and Lubo, OM5ZW (R) with Multiband GP antenna on

For the majority of the YJ0GC activity our team had 5 TX antennas and one RX antenna array, namely separate vertical antennas for 160 and 80 meters, 1 StepIR vertical antenna, 1 multiband GP antenna, and 1 vertical antenna for 10-40m for transmit and a AS-SAL-30-MK2-DX receiving antenna, kindly donated by Array Solutions. We used the receiving antenna on 160 meters.

We also had 3 operator positions, each one complete with a separate linear amplifier. Unfortunately, we could not use these resources to full potential due to the proximity of the antennas to each other. However, we did manage to work with two radios simultaneously during all of the activity. The third operating position was not used efficiently! In addition, to work efficiently on 160m we had to halt the other stations because of interference.

However, I think that YJ0GC activity was good despite these operational issues! Many contacts were made on the low bands - 160, 80 and 40 meters, so that the mission of the DXpedition with a focus on low bands was fulfilled. At the same time many contacts were also made on high bands to hopefully satisfy many with ATNO's.

Between October 15 and November 4, 2018, we made 23,448 QSOs with 129 different countries on CW, SSB, RTTY and FT8. The YJ0GC statistics from Club Log are shown in the following two tables.

Band/Mode breakdown

Band	CW	SSB	RTTY	FT8	Total	Total %
160	838	0	0	0	838	3.6%
80	2591	0	0	0	2591	11.0%
60	70	0	0	0	70	0.3%
40	3732	381	358	24	4495	19.2%
30	3768	0	640	29	4437	18.9%
20	2863	574	336	104	3877	16.5%
17	2667	506	257	207	3637	15.5%
15	1193	236	165	0	1594	6.8%
12	565	166	241	0	972	4.1%
10	617	79	241	0	937	4.0%
Totals	18904	1942	2238	364	23448	

Continent By Band

Band	160	80	60	40	30	20	17	15	12	10	Total	Total %
AF	1	5	2	21	19	13	9	0	0	1	71	0.3%
AN	0	0	0	0	1	1	0	0	0	0	2	0.0%
AS	231	655	3	998	875	1315	1323	816	781	872	7869	33.6%
EU	246	820	49	1869	2730	1739	786	28	1	0	8268	35.3%
NA	308	983	15	1356	628	590	1323	701	175	53	6132	26.2%
OC	42	89	0	155	99	161	128	29	8	8	719	3.1%
SA	10	39	1	96	85	58	68	20	7	3	387	1.7%
Totals	838	2591	70	4495	4437	3877	3637	1594	972	937	23448	

Do not think that during the YJ0GC DXpedition we went without problems. Because our vertical antennas for 160m and 80m were just outside of the motel, there were attacks on them! Several times we detected some of the radials and parts of the guy ropes for the verticals went missing. Apparently, some of the local residents caused us problems. Fortunately, I had packed spare radials and ropes, so these attacks did not significantly affect the YJ0GC activity.

(cont. on Next Page)

5W0GC & YJ0GC DXpedition (cont.)



Stan, LZ1GC, at the key as YJ0GC

An unexpected experience during the YJ0GC DXpedition was experiencing an earthquake with a magnitude 4.8 on the Richter scale. This was easily felt in Port Vila, Vanuatu at 20:33 local time on October 20. It was a strong horizontal quake lasting about 5 to 6 seconds. I had the feeling that the table on which the equipment was installed was moving. Despite the quake we continued our activity on the air non-stop!



From October 16 to October 27, 2018, YJ0GC activity was performed by 3 operators: OK2WM (Karel), LZ1GC (Stan), and OM5ZW (Lubo). On October 28, it was time for Lubo, OM5ZW to return to Slovakia. His work assignment did not allow him to stay until the end of the DXpedition. With Lubo's departure the

YJ0GC DXpedition continued to operate with two operators operating at full throttle.

At dawn on November 4, 2018, YJ0GC made its last QSO and went QRT.

After nearly 5 hours of dismantling the antennas and packing up, Karel, OK2WM and I headed for the Port Vila airport to begin our long journey back to Europe. On our way back to Vienna we would travel through Nadi, Fiji and Seoul, South Korea. Our journey back to Europe went as planned without cancellation of any flights nor problems with customs.



L to R:: Karel, OK2WM, Tony, 3D2AG and Stan, LZ1GC

For Karel and I an unforgettable experience was our pre-arranged meeting with Antoine, 3D2AG at the airport in Nadi, Fiji.

We gave as a gift to Antoine, 3D2AG part of the antenna equipment we used during our YJ0GC activity. We stayed at a local hotel, chatting away the night with Antoine, 3D2AG as we talked about all things amateur radio.

The next day, November 5, after an 11-hour flight on Korean Airlines, we stopped in Seoul, South Korea. There, awaiting our arrival was Aves Kang, DS2AGH - a good friend of mine for many years, who as usual, entertained us during our short stay in Korea! I thank Aves Kang for his help and, of course, his hospitality.

(cont. on Next Page)

Newsletter Topic : QSL Cards

QSL Cards; We all have QSL cards laying around. As a BURO Card Sorter for about 6 months, I am still surprised at how many hams collect them and send them. I can't be the only ham who remembers getting a packet of cards from "The Little Print Shop" in TX BEFORE I got my ticket from the FCC. (1971)

I was curious about our club members and what they do with them Just send me an email answering the following questions:

What do you do with QSL cards?

How do you store them?

Do you keep them all or just special ones?

Have your card habits changed over the years?

Did you know that the ham in charge of the 8th area BURO and at least 4 BURO card sorters are members of club?



5W0GC & YJ0GC DXpedition (cont.)

On November 6, after another 11 hour flight on a Korean Airlines Boeing 777, we arrived at the international airport in Vienna, Austria where we were expecting Wolfgang, OE1WEU and Lubo, OM5ZW. Finally, my 43 day trip to the Pacific Ocean in 2018 ended successfully on November 7 after an hour's flight from Vienna to Sofia, Bulgaria. So completed the 5W0GC & YJ0GC DXpedition 2018.

I want to express my gratitude for the support we have received from many radio amateur foundations, associations and clubs: GDXF, SDXF, EUDXF, LA DX GROUP, CDXC (U.K.), Mediterraneo DX Club, Clipperton DX Club, KC5WXA – Jake McClain Driver Memorial A.R.C., GM DX GROUP, SWODXA, WVDXA, GSDXA,

Mile-Hi DX Association, Willamette Valley DX Club, SWODXA, Thracian Rose Club and LYNX DX GROUP.

I also want to thank our corporate sponsors who supported this expedition:

ACOM Ltd Bulgaria, SILPA Ltd Bulgaria, micro-Ham, ARRAY SOLUTIONS, Spiderbeam Ltd and GES ELECTRONICS.

Thanks also to CLUB LOG, DXNEWS and all individual sponsors, before and after this expedition!

With respect and 73!

Stan, LZ1GC (5W0GC & YJ0GC)



Milford Hamfest

Twenty-Ninth Annual

Saturday June 15, 2019

8:00 AM TO 1:00 PM

Gates open at 6:00AM for setup

Admission: \$5.00



**** Grand Prize Yaesu FT-891 ****
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VE Exams - 9 AM - Walk-ins Welcome. Bring ID

W8DXCC DX Convention

Inaugural Event	Only 150 Tickets Available
Saturday, June 15 th , 2019	1:30 to 6 PM
\$5 For afternoon session	Tix & Info at www.w8dxcc.com
The Keynote speaker is Tim Duffy, K3LR, of DXEngineering	

Jay, K4ZLE, will emcee:	
Propagation Basics & Cycle 25	K9LA – Carl Luetzelschwab
DX on 100 Watts & a Wire	NR8Z – Tom Inglin
FT8	K8CR – Chuck & W8MRL – Rob
QSL & DXCC Basics	K8DV – Dave Vest



DXCC Card Checking
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How can you keep up on all that is going on in Ham Radio?

ARRL OH Section Updates

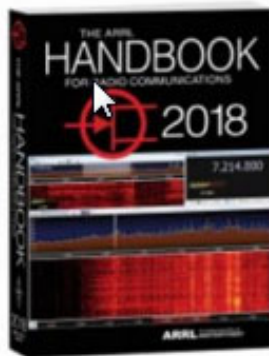
From our ARRL Section Manager, Scott, N8SY

Hey Gang, Do you get updates from your ARRL Ohio Section Manager via email? If not, go to: <http://arrrl-ohio.org/handbook.html> and get registered.

What's the catch? I want to get everyone checking in to the Ohio Section website as often as possible, and in order to register each month, you have to visit the website often! There's nothing else to it. I pay all expenses, and from time to time, I Give Away more than just a Handbook. And, you'll never know just what months will be those special times that I will have more than just a Handbook to Give Away!!

Did you see the ad from ARRL recently? Well, they liked my idea so much that they've copied it. Yup, they were giving away a Handbook too!

Many of you ask me just how do I know when the drawing is on? Well, that's easy all you need to do is check in on the Ohio Section Website on a regular basis and watch for the big RED Arrow that will appear on the left side of the page. This is the sign that the drawing is on and you need to get registered. So, keep a sharp eye out on the website and check in often! <http://arrrl-ohio.org>



The Monday Morning Memo...

If you aren't receiving this each Monday, you should!

The Monday Morning Memo is a free electronic newsletter sponsored by the Highland Amateur Radio Association, Hillsboro. Information published may be used in local club newsletters and distributed to others providing proper credit is given to the Monday Morning Memo or the Highland ARA.

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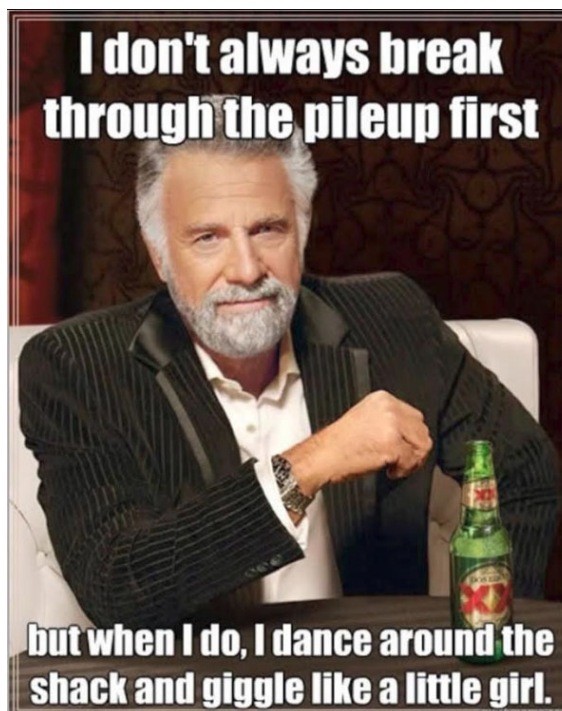
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OzarkCon 2019

Presented by Four States QRP Group

Submitted by Jay, K4ZLE

OK, OK, I know some of you hear QRP and think to yourself, "What a waste of time!" Alternatively, maybe for you, QRP's 5 watt definition means 1495 watts (5 watts less than the legal limit). Let's stay away from the merits or 'demerits' of QRP and focus on the event itself.

Even if you are not a QRPer, perhaps you are aware of the Four Days in May (FDIM) conference held in conjunction with Hamvention ® each year. It is sponsored by the QRP ARCI organization and is held at the Holiday Inn in Fairborn, OH. Unlike FDIM, OzarkCon stands on its own, separate from any other ham radio conclave and is held the first weekend of April in Branson, MO. At FDIM, the main events are all day presentations on Thursday and a banquet on Saturday night. In addition, there are other activities on Thursday and Friday evenings, like a mini flea market, HomeBrew contest, Build-a-thon and some sort of yearly challenge, like the one this year on how much sustained power can you get from a 2N2222, transistor.

The attendance at OzarkCon is roughly half that of FDIM but the format is similar. The official event also lasts about half the time, with the official happenings occurring on Friday and Saturday. Should it be called Two Days in April (TDIA)? This year a new feature called Ozarkcon University was added to kick off the activities starting right after lunch on Friday afternoon. Dave Cripe, NM0S, gave a talk on 'The Final Reflection - Myths and Mysteries of VSWR, Transmission Lines, and the Conjugate Match.' The banquet is held on Friday evening and the speaker presentations are all day Saturday. As with FDIM there is also opportunity to visit a small but cozy flea market/vendor area and to bring your HomeBrew project to compete for yearly bragging rights of best project is each of several categories. You also have the opportunity to build some neat little project at



the Build-a-thon. This year the project was a 40 meter "Cricket" QRP transceiver.

Of interest to those who do not **totally** subscribe to the QRP mantra, me included, the presentation topics are not limited to low power operating. For example, this year there were presentations on WW I communications, building a replica WW II Paraset (Allied spy transceiver), DMR, SOTA operations, Freeware CAD software (KiCAD) and more. In addition to the official activities, did you catch that the conference is held in Branson, MO? My wife and I arrived two days before the conference began and stayed another day after it was over. There is plenty to keep you occupied in this little MO town of 10,500 residents. We attended three very entertaining shows, visited the Veteran's Museum, Zip lined (me, not her), caught a view of the Ozarks from Inspiration Tower which is on the site of the Shepard of the Hills outdoor theatrical presentation (purported to be the largest active outdoor presentation in the world), drove around Table Rock Lake, ate Sunday brunch at the College of the Ozarks, and more. You can think of Branson as the Gatlinburg/Pigeon Forge of the Midwest, complete with some of the same attractions, like Dolly Parton's Stampede, the Titanic Museum, etc.

(cont. on Next Page)

OzarkCon 2019—cont.

I did not mention all the OzarkCon activities, but hopefully have given you a flavor of what fun you could experience by attending. Maybe QRP is not for you, but if you can spare the time and want to experience an enjoyable visit to the heart of our beautiful country, add this event to your bucket list. If you don't have a bucket list put it on your sand pail list. OzarkCon is scheduled for April 3 and 4 in 2020.

I failed to mention that the host organization produces some neat little kits, the 'profits' thereof are used to offset the cost of this event. Check them out at <http://www.4sqrp.com>. I should also point out that there are prizes galore. My wife won two and I won one. Literally, "everybody was a winner!"



Countdown to W4DXCC

September 20th – 21st, 2019
Mainstay Hotel and Conference Center,
Pigeon Forge, TN

W4DXCC is a DX and Contest Convention held in Pigeon Forge, TN and it's our 15th year. If you're a DXer, Contester or just an active ham you should attend this year.



The attendees enjoy the fellowship of other hams and share experiences. They meet old friends and make new ones. Once you attend you will be back every year. Representatives from Top equipment manufacturers will be on hand to demo new equipment and answer your questions One on One. It's an Easy drive from 2/3rds of the country.

This will be the most informative and relaxed DX and Contest convention you have ever attended, not to mention the many great prize drawings.

Radio BootCamp

This year convention attendees can attend a day long Radio BootCamp training session on Friday. Experienced hams teach new and old hams about building shacks and antennas, learn how to operate better while DXing and Contesting. There is something for every ham, New and Old.

It's time to make your hotel reservations

Call the Mainstay convention hotel at 865-428-350 to book your room,
ASK for W4DXCC by SEDCO special rates

Go Online at **W4DXCC.com** for Convention and Banquet tickets.

For More Details Visit us at **www.W4DXCC.COM**

Rick Burdick—K8WWA (SK)

There is nothing that I can say that will explain the type of guy that Rick was, how much he will be missed, or what he meant to our club and the ham community. Thoughts and Prayers with his family and friends.



Obituary of Harry "Rick" Burdick

Harry Richard "Rick", Jr., beloved husband of 45 years of Susan A. (nee Massey), loving father of Scott R. (Kelly) Burdick and Jennifer B. (Matt) Kremer, devoted grandfather of Abigail and Colin Dorsey and Jack and Joshua Kremer. Dear brother of Robert M. (Donna) Burdick, and Mary Ann (Pete) Back. He is also survived by five nieces and nephews and nine great-nieces. Rick served for 40 years with the Blue Ash Police Department. During his career he was an Officer, Detective, Patrol Sergeant, and Staff Lieutenant. He was past-president of the Greater Cincinnati Amateur Radio Association and he was an avid bass fisherman. Passed away on Thursday, April 25th at the age of 70. Visitation will be held on Tuesday, April 30th from 3:30-8PM at Thomas-Justin Memorial, 7500 Montgomery Rd. (45236) Kenwood. Mass of Christian Burial will be held on Wednesday, May 1st at 10:30AM at All Saints Catholic Church, 8939 Montgomery Rd. (45236). Interment will follow at Gate of Heaven Cemetery. In lieu of flowers, donations may be directed to Pancreatic [Cancer Action Network](#), or the charity of one's choice. Condolences may be shared with the family through our website, [ThomasJustinMemorial.com](#).

Anatomy of a 20M Gray Line QSO

By Carl Luetzelschwab K9LA - *This article appeared in the March/April 2003 issue of The DX Magazine and is reprinted here with Carl's permission.*



On January 29 around 1215 UTC, Tony AA2AE worked Paran VU2AU on 20m long path with exceptional signals. This was a classic gray line path. With some help from DXAID (from Peter Oldfield) and VOACAP (free download at elbert.its.bldrdoc.gov), we can gain a good understanding of what made this path work.

Figure 1 (from DX AID) shows the long path (thick dark line) from AA2AE to VU2AU, along with the terminator (thin line dividing night and day) at 1215 UTC on the 29th. Indeed, this is an excellent example of a gray line path, with the terminator and long path in perfect alignment around 1215 UTC.

To analyze this path, let's begin with a review of what determines if propagation exists between W2 and VU on the long path. First, there must be enough ionization to get RF from W2 to VU. This is expressed in terms of a maximum usable frequency (MUF) for this specific path, and depends on the time of day, the month, and where we are in a sunspot cycle. I'll assume a quiet geomagnetic field for this analysis.

Second, if the ionosphere can get a signal from W2 to VU (and vice versa), then the signal arriving at each end of the path has to be strong enough to be heard. The five major factors that affect the strength of the signal are the transmitter power, the antenna gains (including ground quality considerations and obstructions), the free space path loss (spreading loss), the amount of absorption, and the ground reflection losses for multiple hops. Ideally we should also address noise (predominantly atmospheric and manmade), but we'll keep it simple here and just look at

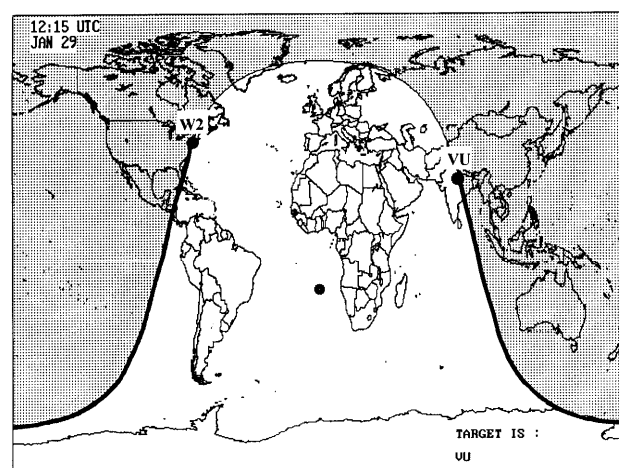


Figure 1 W2 to VU Long Path at 1215 UTC on January 29

signal strength.

Using data from VOACAP, we can plot the MUF and the signal strength for this path versus the time of day. I assumed S9 equals 50uv and one S-unit is 5dB. The results are per Figure 2 at a predicted smoothed sunspot number of 80 for January (from www.dxlc.com/solar, for example).

Figure 2 shows that the monthly median MUF (which is what customarily comes out of our prediction software because the model of the ionosphere is a monthly median model) begins increasing around 1000 UTC, rises sharply between 1100 UTC and 1300 UTC, then levels off after 1300 UTC.

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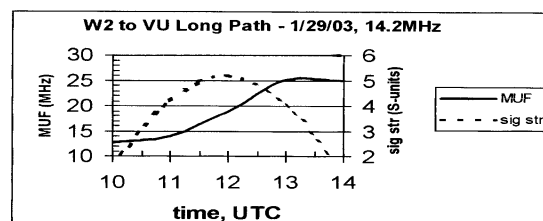


Figure 2 MUF and Signal Strength vs Time

Anatomy of a 20M Gray Line QSO (cont.)

Using data from VOACAP, we can plot the MUF and the signal strength for this path versus the time of day. I assumed S9 equals 50uv and one S-unit is 5dB. The results are per Figure 2 at a predicted smoothed sunspot number of 80 for January (from www.dxlc.com/solar, for example).

Figure 2 shows that the monthly median MUF (which is what customarily comes out of our prediction software because the model of the ionosphere is a monthly median model) begins increasing around 1000 UTC, rises sharply between 1100 UTC and 1300 UTC, then levels off after 1300 UTC.

Figure 2 also shows that the monthly median signal strength (same comment as above applies) starts moving the S-meter around 1000 UTC, peaks around 1200 UTC, then goes back down below S2 by 1400 UTC.

Why does the MUF rise between 1100 and 1300 UTC? And why does the signal strength peak around 1200 UTC? Figure 3, a time sequence of three pictures, explains this.

Figure 3a (left) shows the long path and terminator an hour prior to the QSO at 1115 UTC. The VU end of the path has been in sunlight all day, so the MUF is high. On the other hand, the W2 end of the path has been in darkness all night. Thus the MUF on the W2 end has decreased to its nighttime value – which Figure 2

shows to be around 12.5MHz. As the terminator approaches the W2 end of the path, the F region on that end starts getting illuminated and thus starts building around 1100 UTC. It rises through 14MHz just after 1100 UTC.

Figure 3a also sheds light on why the signal strength peaks around 1200 UTC. The VU end of the path, being in lots of daylight, incurs much absorption. Now look at Figure 3c (right). It's one hour after the QSO at 1315 UTC, and now shows the W2 end of the path in lots of daylight, incurring much absorption. It is logical to assume that absorption along the entire path would minimize in between these two extreme conditions – in other words, it would minimize when the terminator aligns with the entire path, putting the entire path at equal illumination as seen in Figure 3b (center). Indeed, VOACAP says the system loss minimizes around 1200 UTC. It's safe to assume that this is due to absorption minimizing, as the other two losses (spreading loss and ground reflection loss) do not change versus time. It's important to note that absorption doesn't go to zero along the terminator (or even in the dark ionosphere, for that matter) – this is especially critical on the lower frequencies.

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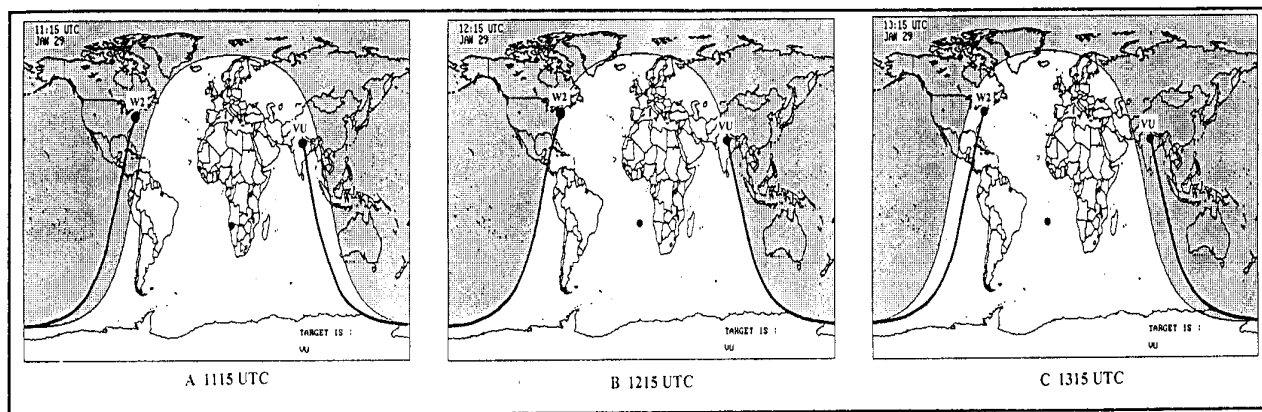


Figure 3 Time Sequence for the W2 to VU Long Path

Anatomy of a 20M Gray Line QSO (cont.)

Thus what opens the W2 to VU long path is the increasing MUF on the W2 end of the path in conjunction with decreasing absorption along the entire path as the terminator aligns with the path. What closes the path is increasing absorption on the W2 end of the path as it goes more and more into daylight.

Does the data of Figure 2 say this path should be there every day around the end of January? No, because the data is monthly median data. The MUF and the signal strength vary on a day-to-day basis about their monthly median values, and they're not necessarily in step. On some days, the MUF may not be high enough when the signal strength peaks. On other days, the signal strength may not peak high enough even though the MUF is high enough. And on even other days, neither may be high enough.

What about the reports from AA2AE and VU2AU that "the signals were exceptional"? The S5 prediction from VOACAP certainly isn't "exceptional" (it was based on their power levels and my best estimate of their antenna system gains). Being a monthly median value, the peak signal strength for this path could vary from roughly 20 dB below to 10 dB above S5 on any given day (from eyeballing the 90% and 10% values of transmission-loss variability in the tables in CCIR Supplement to Report 252-2). This could account for signal strengths up to about S7 on 'good' days (and down to about S1 on 'bad' days).

Another possibility that could improve signal strengths even further is a chordal hop across the geomagnetic equator on the VU end of the path. That end of the path is at the right time of day to give the ionospheric tilts that are necessary for a chordal hop, and a chordal hop would offer one less ground reflection and two less traversals of the absorbing region..

Chordal hop propagation is a propagation mode involving the daylight F2 layer and

night time F layer. ... A part of the green line is **chordal hop** propagation, there where the signal does not touch Earth's surface but reflects off of the F-layer.

Finally, it's interesting to look at this path on the next higher band (17m) and on the next lower band (30m). With absorption inversely proportional to frequency squared, the signal strength on 17m would be roughly 1 S-unit stronger at the peak time. But now would the MUF be high enough? Figure 2 suggests that any opening on 17m, while offering stronger signals, would on average be of a shorter duration as the MUF wouldn't get high enough until the signal strength started decreasing.

On 30m, again due to absorption being inversely proportional to frequency squared, the signal strength at the peak time would be roughly 3 S-units weaker. Except around solar minimum, the MUF on 30m would be high enough throughout the day so that it's out of the picture. Thus it comes down to being solely an absorption issue on 30m (and on lower frequencies, too). Another subtle issue comes into play as we go lower in frequency – refraction is also inversely proportional to frequency squared. So the electron density gradient across the terminator makes it tough for a low frequency signal to follow a great circle route when the terminator is nearby – it wants to refract, or skew, away from the higher density in daylight to the lower density in darkness.

In summary, analyzing a gray line path is no different than any other path. Whether the path is open depends on the answer to two questions: *Is the MUF high enough?* and *Is the signal strength high enough?* When you think about it, MUF and signal strength are like that old Frank Sinatra song about love and marriage - they go together like a horse and carriage. For propagation to be possible, you can't have one without the other.

Team Exuberance - The K3LR All-Youth Team Competing In The 2019 CQ WW WPX SSB Contest— Ruth Willet, KM4LAO

The CQ WW WPX SSB contest which occurred March 30-31st, 2019, was note worthy to follow and participate in. This annual contest is very popular among hams, allowing operators from around the world to refine and use their contesting skills as they work to achieve top honors in an assortment of different categories. The opportunities are exciting and as a result, many seasoned contest stations make this an annual scheduled event for a top-notch team.

K3LR, in Pennsylvania, is a superstation that is active in many contests, and yes, Tim Duffy, its owner, is hosting an amazing team this year. But this team has an awesome twist to its composition. Not only is this year the first time that K3LR will participate in CQ WW WPX SSB, but this is also the first time there has been a team of only youth ham radio operators! Each of these fine operators, all under the age of 21, are quickly becoming household names in the world of contesting. Dubbed “Team Exuberance,” they are determined to use their youthful energy and love for the hobby to give the other competitors in Multi-Two a run for their money.

The international team members include six operators: Violetta, KM4ATT; Marty, NN1C (ex-KC1CWF); Bryant, KG5HVO; David, VE7DZO; Tomi, HA8RT; and Levi, K6JO.

Violetta and David were participants in the 2018 Dave Kalter Memorial Youth DX Adventure to Curacao. As a result of that week-long adventure of radio operating, exploration, team work and international friendships, a desire to form a youth contesting team was sparked. Upon her return to the states, Violetta, who had previously operated at K3LR, shared her idea with Tim Duffy. He eagerly jumped on the idea and offered his support and his station.

Tim is approaching this contest as a excellent way to mentor youth through the use of his station. “While we have had individual youth at K3LR, this is the first full youth team we have hosted. Each youth operator will have one parent on the trip with them. I, along with one or two other members of my team, will be here to advise and coach, but we will not make any contacts. We will teach, encourage, and steer the ship so to speak, but the idea is that the kids will make all of the QSOs during the contest.”

As noted by Bryant, “It is really exciting that the initiative has begun for an all youth contest team. I don’t think it has really been done in the U.S. Our biggest challenge is that the entire team has never operated as a full team before this contest.” Violetta and Marty are taking on the roles of team leaders. All of the youth testers have been selected for the individual contributions they will be bringing to the team effort.

Above all else, Tim wants this to be a learning opportunity for the team. “Our number one goal is to have fun. This is passing the torch. Contesting has been a lot of fun to me for a lot of years and I want to share that. Our second goal is to learn something. Being a good contest operator sharpens a lot of skills that are good in life - how to interact with people, how to understand people with various accents, how to work with people to get certain information, and how to work together as a team. The focus on the team. It’s not just all about you and how fast you can run, but are you doing things that benefit the team. So emphasizing teamwork is important for a successful contest.”

(cont. on next page)

Team Exuberance (cont.)

Marty, NN1C, notes, “K3LR is planning to operate in the Multi-Two category. This means that there are multiple operators but only two transmitters. We will use four radios at a given time. The idea is that there is a stack of antennas for each operator. One operator is running while the other is interweaving QSOs search and pounce. As a result, we have four stations to be manned for the 48 hour contest. Each team member has different skills to be used, and hopefully all the hard work pays off.”

The team hopes that this will be the start of many future all youth contest teams. Marty is passionate about this, “It is important to us that this is not a one-shot deal. If this works out, we want to continue doing these from multiple stations. There have been very successful programs in IARU Region One; what YOTA is doing. We really want to bring that to the U.S. in a big way. This team is the trial run and not the last. It can only exist with more people like Tim Duffy who are willing to open their stations to youth. There is demonstrated interest and we certainly hope to keep going.”

Tim also stresses the importance of older hams mentoring youth: “I believe it is important that large and small station owners, testers all over the planet, become in-

involved and offer their help, mentoring, and assistance to youth. That happened to me. There were guys when I was a teenager that did that to me and said, “Sure, come and operate with us.” I think along the way we didn’t focus on it as much as we should. So I am very hopeful that others will do this. We want to continue on that effort. This is just as important as other things in amateur radio; to really focus on the youth and give back in this way.”

“Team Exuberance” is a top notch team and has high expectations and goals, “We would like to win Multi-Two,” Violetta said. “Our team will have hard competition, but we will do our best. This is the first time that the K3LR callsign has been entered specifically in CQ WPX SSB, so we want to live up to his good reputation from numerous contests.”

With the high quality of youth operators on the team, I am sure that this team will excel and deserves the support of all the amateur radio community as they exuberantly compete in the 2019 CQ WW WPX SSB Contest!

New “Solution” Discovered for 160 M Noise

Chuck, K8CR, has been testing a theory out and is pleased to report success. For years, Chuck has been drinking “Clamato” juice, which is a clam flavored tomato juice. Of course, I did not believe it existed, but, as the picture shows, it can be purchased. Since being a steady drinker (of the Clamato juice) and putting up a 160M antenna, Chuck now has over 50 confirmed on 160! He believes that the juice allows him to focus to pull them out of the noise...who knows???



Using a beacon to bring home the bacon

by J.J. Slough, K4ZLE

Have you ever tuned around a 'dead' band and wondered if the band was really dead if it were open but no one is transmitting from the open area. They are not transmitting because they do not hear any one from your area. Other than just blindly calling CQ on a dead band, how do you determine viable communications paths?

— WAIT

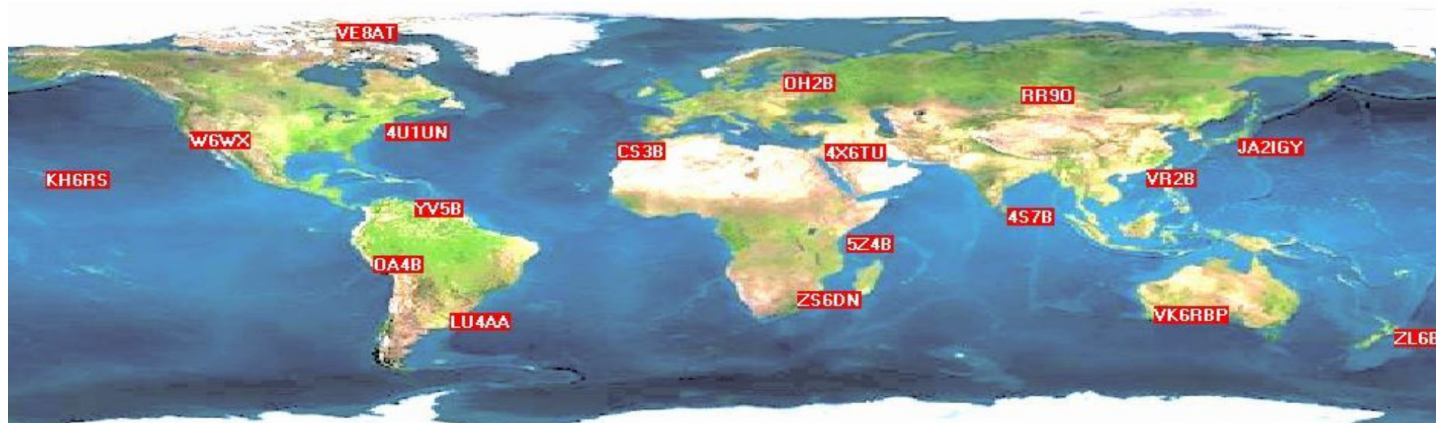
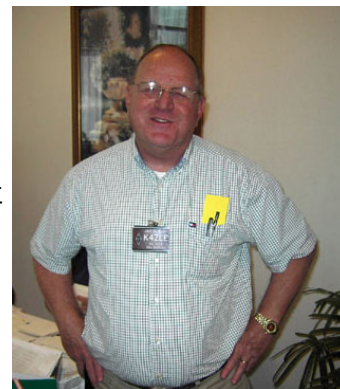
Before attempting to answer that question, let me give you another hypothetical situation. Suppose the band is open to one area, but being the wise DXer that you are, you know not to always follow the crowd. Followers are fellows that wallow with others. Leaders are lads that edge others. Maybe, just maybe, the band is open someplace else and by directing your attention (and antenna) there you can maintain that edge. How do you find out if these alternate communication paths exists?

The answer could very well be — beacons. The International Amateur Radio Union (IARU) and the Northern California DX Foundation (NCDXF) have joined together to sponsor and coordinate a series of beacon transmitters around the world at 18 sites covering every continent except Antarctica. These beacons transmit on 14.100, 18.110, 21.150, 24.930 and 28.200 MHz using stepped power levels of 100 to 0.1 watts into an omni antenna. Each station transmits at a given offset

from the beginning of the hour and identifies itself at 22 wpm CW. However, through the use of common sense and/or available software, you can know which beacon is which, even if you can not copy 22 wpm. With that knowledge you to know where to focus your attention.

There were three articles in QST about the beacon system, Oct and Nov 1994 and Sep 1997. These articles are also available on the IARU web site: <http://www.iaru.org/articles/>. You are encouraged to review these articles in order to understand how best to utilize the beacons. In addition to the IARU/NCDXF beacons, you can find a very comprehensive list of beacons at <http://www.keele.ac.uk/depts/por/28.htm>. This latter site lists over 150 different beacons, from 1.805 MHz to 28.993 MHz.

This is not super high technology stuff, but by using the beacons, you can tell if communication paths exists on 'dead' bands thus increasing your probability of nabbing additional new ones. You also can determine if more than one area of the world is open. Why not lead others down the path less followed? You have the edge.



NCDXF/IARU International Beacon Project

Tools and Programs for Beacon Listeners

9G2DX – 4X DXPedition to Ghana

Part 1—March 2019

Written by: Zvika Segal 4Z1ZV

As in a typical legend, this amazing adventure began about 2 years ago. Innocently enough, I took the challenge to handle the importation and installation of DMR repeaters being donated by an “unknown” radio ham in Africa. The donator was Haim Lewy, an Israeli Ham based in Accra Ghana and the owner of Sky-Links, communication company doing business in Africa.

My close friend, Dov Gavish 4Z4DX, ham extraordinaire, immediately recognized the opportunity to operate in a rare QTH.

An additional plus was to include locations in the WWFF (Flora and fauna, national parks), and to be the first one worldwide to operate in Ghana on 30/60/80 meter.

Initially, it looked like a weird vision, but fortunately, Haim took the challenge to arrange this DXPedition.

It turns out that getting to Ghana, as well as importing radio equipment, is not a trivial task. Haim arranged for us to get the visas, purchased most of the heavy and costly equipment such as: an IC-7300 transceiver, ALS-500 Solid State Linear, Spider Beam antennas, poles, cables, ropes, tools and so on.

Getting a visa for entry into Ghana is a challenge. You must have a local invitation as well as the yellow International Certificate of Vaccination with at least a proof of recent Yellow Fever vaccination, 8 photographs and substantial fee in cash.

Haim worked with the NCA (the local communication authority), to get approval and a special call sign – 9G2DX – for this special event. As a point of reference, you can count more fingers on your hand than the number of local hams in Ghana. Actually, we met 100% of them, ... Two.

Dealing with the difficulties in setting dates for the 4X DXPedition, a heterogeneous and well-balanced group was formed that consisted of people who were willing to invest their free time, efforts and money.

Among the group was Dov Gavish, 4Z4DX, a well-known figure in the ham community with over 50 years of seasoning. 4Z4DX has ham radio experience on all modes, and has participated in delegations to Himalayas and meeting King Hussain in Jordan. Joining 4Z4DX was Simon Heger 4Z1SH, a mature senior citizen with personal passion for rag-chewing on SSB. Zeev Stadler 4X5ZS, “the youngster” in the group, is a man with fire in his eyes and the determination to be dedicated and to perfect his tasks. The last member of the group was Zvika Segal 4Z1ZV (that’s me), acting as problem creator and problem solver. I was also charged with managing communications issues supervisor especially at the personal level (which is one of the challenges with such a unique group...).

On the start date we landed at Accra’s new and modern international airport. A VIP service was offered as part of our welcome mat. Once we collected our luggage, we were ushered through friendly immigration and customs and loaded up two 4X4 vehicles that waited for us and our belonging.

The first evening we spent in Accra, the capital, in high class hotel and had top notch dinner with Haim and his family at the Rockefeller sushi restaurant.

(cont. on next page)



9G2DX – 4X DXPedition to Ghana—Cont.



Zvika Segal 4X DXPedition to Ghana March 2019

Early in the morning, we moved to Haim's facility to pack and load the equipment. With the help of the local drivers, we moved two fully loaded off road cars to the first operating site; a new beach resort, still under construction, that was opened especially for us. We got a whole section facing the Atlantic Ocean and few local guys to take care of us, as well as having a dedicated driver and car 24/7.



Zvika Segal 4X DXPedition to Ghana March 2019

The way to the beach was a real adventure. We were introduced to an interesting trade system, "the mobile supermarket". Local people, the majority of them females, carry whatever you can imagine on their heads. This includes bread, ice, drinks to sewing machines or gas containers. They approach and offer their merchandize (a process through which you can try to improve your negotiation skill). Fifty-percent off "list price" is usual result.

At the beach resort we started the installation of our gear. Every electrical and lighting pole was turned into an antenna tower. With the gracious help of the local people, we

secured a block and line as the basic mechanism to haul up and lower down wire antennas.

The first installed antenna was a simple END FED, a 9:1 one transformer (AKA 9:1 bal-un) and 22 meters of wire with no radials. Performance of this basic antenna were impressive. We achieved a reasonable VSWR down to 60 meters and were rewarded with QSOs from



Zvika Segal 4X DXPedition to Ghana March 2019

all over the globe. This helped us get Dov operating CW, and simultaneously removed him from hounding us so we could continue install other antennas without "supervision". The first station used an IC-7300 transceiver, an ALS-500 (about 400W solid state linear), an MFJ manual antenna tuner, and Dov's favorite log software – the old and stable version of MIXW.

Our plan was to install the "Compact and Portable" Spider Beam antenna. I must say that other than the name and stated performance (up to 9 dBi gain) there is nothing there to justify the term "Designed for DXPedition". If the intention is to have a long stay at the same location (and you have some engineers on the team), then the antenna would be practical.

Once you open the box, you realize that the manual was correctly titled – "Fabrication Instructions". Actually, you get a KIT, with a Bill of Materials (i.e. poles, screws, rolls of ropes and wires, epoxy glue, uncut Velcro stripes, etc.).

(cont. on next page)

9G2DX – 4X DXPedition to Ghana—Cont.



Zvika Segal 4X DXPedition to Ghana March 2019

Even the 1:1 Balun is a kit that need to be “fabricated”. A good knowledge of reading complex and unclear instructions, as well as the ability to measure and to cut wires to specific lengths, and good soldering skills are all needed. It required very gentle handling to avoid breaking the carbon support poles and tangling the wires (which were everywhere). However, once the antenna was set up and running (at least for that one day), the performance was beyond our expectations. Unlike the Cob Web or Hex Beam, this is a real 5-band 3 elements Yagi (4 elements on 10 meters).

Once we understood the complexity of building the Spider antenna, we started to install other wire antennas, such as: a multi-band commercial antenna by Icom, a 40 meter dipole, and last but not least, the 80/160 meters Inverted V antenna recommended by Pop, YU7EF. This antenna was constructed of 30 meters of copper wire and an 8.5-meter vertical on an African



Zvika Segal 4X DXPedition to Ghana March 2019

bamboo pole. Loading coil for 160 meters was fabricated using empty mineral water plastic bottle and a tuning capacitor for 80 meters was a piece of open ended RG58 coax.

Performance of the antenna made Dov very happy as well as about 80 hams who were rewarded with their first Ghana QSO's. Thank you, Pop.

Later on, we tested a short version of a 20-meter wire dipole antenna with loading coils built by Shimon. The center was supported by an African pole (i.e. a piece of a tree). We were surprised and delighted as this setup yielded many QSOs to North America and Japan.

Operating conditions from the beach resort were excellent. It is widely open to south America, and provided good conditions to the USA, especially on 20 meters during evening and night time. It also gave us good conditions to Europe and Japan. We even made a few QSO's with Antarctica.

The ongoing challenge was pacifying Dov who was very upset with Simon's SSB operating method.

As a user of LOG4OM log S/W, Shimon transmitted to each ham his name as well as sharing with him the weather condition in Ghana. This drove Dov crazy, who's focus was to serve the global community with as much as possible QSOs.

We also sacrificed time during some of our meals in that it required driving for a total of one hour to get to a western style restaurant. Dov kept calculating the hundreds of “lost QSOs” due to eating and driving.

In response, we decided to change the culinary process by leaving Dov to have fun with the rig while the rest of the team headed out for a meal. Even the pizza that was ordered for Dov was a waste of time and food, as Dov needs only one apple per 8 hours of continuous operation.

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Zvika Segal 4X DXPedition to Ghana March 2019



Zvika Segal 4X DXPedition to Ghana March 2019

9G2DX – 4X DXPedition to Ghana—Cont.

One event that made me extremely happy was once when Haim was staring at the radio station, we encouraged him to step in and operate. In few seconds he started to manage the pileup in most professional way. Haim was a member of the known “4X4HQ” club in Tel Aviv over 30 years. For him it was like riding a bicycle following a long period of time. Just like that...

We set up 3 radio stations: IC-7300 with the SS Linear, IC-7000 with

the LDG IT-100 antenna tuner, and the IC-718 which operated as the FT8 station. Most of the QSOs on FT8 made by the Zeev – “the youngster” (over 1,000), which through his IT skills and dedication, perfectly met the requirements of such computer to computer digital communication technology.

Part of operating characteristics in Africa is the time domain and constant. Everything takes longer than planned, looks different than expected,

and is subject to weird electrical stability. One evening there was a sudden power outage whereby all the nearby village lights started blinking like a hazard signal.

When the village power came back and ours was still down, we learned the magic of the “pre-paid” electricity meter which sometimes resets itself after power failure. Our host needed to drive to the nearby office, pay the bill, and hope that it would propagate through the slow network. We continued to operate on batteries until they were also exhausted. Unfortunately, nobody was able to operate the generator since it was mysteriously not onsite.



JX7GIA—DXPedition to Jan Mayen

LA7GIA—Kenneth Opskar

I emailed Kenneth as soon as I saw that an article about his trip to JX was available. He immediately gave me permission to use this article, as he did for his trip to TT8KO. Kenneth can be reached at ken@la7gia.com. Thanks Ken!



I have been preparing for this trip for about 5 years. I really felt like winning a Powerball lottery when I was allowed a free seat at the 3 hour Military flight going from Oslo Military airport directly to Jan Mayen. In total this was a 16 hour daytrip. I have been discussing this possibility with the Military for about 5 years. They have regular flights going to Jan Mayen, but there are very rarely available seats both ways, and one also need a special invitation to be allowed to enter this military flight. They let me know the day before that there was an opportunity.

It was a big surprise to me as I almost had given up this possibility a long time ago. I had a full working day in the office, as well I made a TT8KO presentation in my local club in Oslo the same evening. I arrived home at 2200 local time when I started packing and testing the gear for this trip. I made some very quick propagation forecast using Voacap. I could not make up my mind whether using the 20m or

30m band. I made several considerations on choosing the right band while packing. I wanted to offer everybody a fair chance working JX on CW. Hence, I wanted to run on a single band, and a band that offered the best propagation world wide during my entire short stay as I did not intend to swap antenna. I thought I only was going to stay there for 4 hours, meaning maybe 2h operating. It was the day of departure I realized the aircraft would stay 5-6h at the airport. I considered 20m as the best overall band covering most parts of the world. Voacap predicted excellent propagation to Asia and NA.

Unfortunately there is a mountain blocking signals to NA (20 degrees elevation!), propagation to JA is almost unblocked as it just goes clear of Mountain Beerenberg (2000 m ASL). Same with EU.

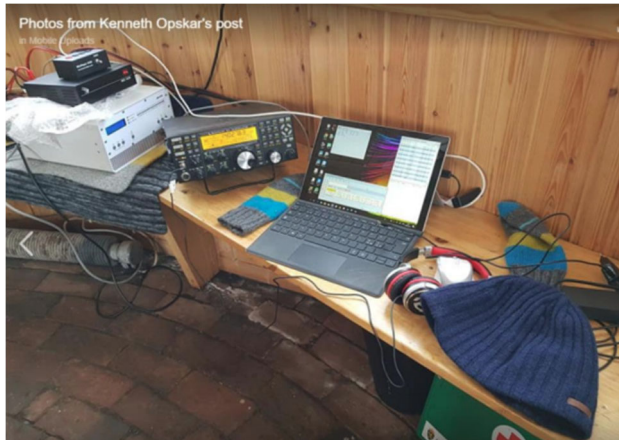
The day of departure I went to the Military airport 6 AM in morning. This is a 3h flight. It is common as I understand that they fly all the way to JX, just to discover that the fog or snow makes it impossible to land, and they go all the way back to Oslo. I was quite relieved when we landed very smoothly with the Hercules aircraft. My equipment was fairly lightweight on this trip, about 17 kg in total, and all went as carry-on luggage to make an efficient operation. I went out of the aircraft and after some greetings, they explained I could operate from the airport restaurant close to the runway.

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Photos from Kenneth Opskar's post

JX7GIA— cont.



I asked when the aircraft was leaving, but they did not know as it is no exact departure time as with commercial flights. I asked where to go, they pointed in the direction and I started running with all my bags. I did a very quick recon, and seeing a small antenna mast on top of the air traffic control tower, I agreed this was a good enough QTH. I climbed up 8m and attached one end of my 20+17m African fan dipole and strung it to a nearby flag pole. It was cold and windy but doing this quickly was no problem. From the dipole I run the lightweight Ultraflex 7 coax 35 meter to the airport restaurant – which was where I was going to operate. The African dipole is plug and play as it has a small coax and connector in the feeding point, so I can just plug in my PL259 quickly, see photo. It is made of recycled material and spare parts. It was also a nice moment to see the Norwegian flag on the Island!

I ran the coax into the airport restaurant, and the window had to stay in open position to allow this. I also had to switch off one heater as I needed power for my amplifier and power supply. This was no problem the first hour, but after a couple of hours operating I started freezing (but I know everybody would have done the same..).

The airport “restaurant” is really just a place where people can wait for the aircraft in case of delays, there are benches along the wall and a wooden oven in the middle. I would estimate about 10-12 minutes. Perfect for my

mini-DXPedition! From the airport restaurant I had a nice view to my antenna and the ocean and towards Mountain Beerenberg. As seen from the first photo, it is covered in fog. If I turned my head, I could also see down on the runway where the Hercules aircraft was parked. This was very convenient as I could see when they started preparing for take-off. After completing setup I listened on the band, and when I heard a few station on 20m, I knew there was propagation. As Jan Mayen is located at 71°N it is very common that even small disturbances results in total blackout of propagation. The propagation is very sensitive to the K-index. I started working the South EU stations, running about 700W. They were quite strong with a nice clean tone. Also worked many Russian stations with aurora flutter. Very nice to listen too! I understood that my LA friends were in the skip zone. After I while I worked a few of them far south, but very weak. At some point in time all propagation almost disappeared and I assumed I had to go out and change the antenna. But propagation recovered and as time went on it improved even more. I could notice that soon mostly EU stations had a nice clean tone. I managed to work my friend Adrian, KO8SCA, for his ATNO as the first NA station at 1140 UTC. He was very weak but readable with a nice aurora flutter. After that it took many hours before I worked the next NA station. At about 1220UTC some very strong JA stations started to come in. I was hoping for a JA run and called for ASIA but no luck, only a few stations made it into the log.

At around 1400 UTC I started working a couple of NA stations (WOVTT, NE8Z and a couple of more). I also called for more NA stations, but no signals there, and I had a hard time getting the stronger EU stations to QRX – some people really don't know how to standby!

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JX7GIA— cont.

The NA stations were not too strong but workable and with that really nice aurora flutter. By that time the EU station had started getting really great signals with clear tone and I enjoyed working them as well! Many familiar call signs went into the log. Some minutes later I also worked N7NR (Dave) from California. I think I have worked him on all my trips, he always has a great signal! Otherwise, I think most of the NA stations I worked was from northern part of US/Canada. I also had some nice short QSOs with FY5KE, D2EB and A45XR, very nice to work those DX stations. Indeed it was also very fun working my LA friends, not to mention some /M stations and also other stations like EA8AXT, VE3VEE and NV9L. I tuned into 8AXT and immediately knew it was my friend Ed EA8AXT from Canary Island who I visited earlier this year, it was an ATNO to him as well. Valerie NV9L broke the EU pile when her aurora flutter signal hit Jan Mayen loud and clean enough to make it into the log quickly 10 minutes before QRT. I was also waiting for big gun Marvin VE3VEE to come in and was quite relieved to hear him solid at around 1510 UTC just 5 minutes before I went QRT, maybe that gave him a needed Marathon point? At that time they had started preparing take-off at the runway. They had taken up the load limb, more and more people were gathering around the aircraft. I realized I had to start packing. The personnel started arriving in the air traffic control center as well. But, I was hanging in and managed to work 7 more NA (K7BV, K3RA, K50A etc) all with a nice aurora signal. I went QRT and immediately started disassembling the station. I put all the gear quickly in the suitcases, climbed the tower - still cold and windy - and cut the dipole down. Less than 20 minutes later I arrived at the aircraft with a smile and with my coax and dipole hanging out of the bag as I was unable to put it in nicely. I told them I had a great time! This was an unbelievable opportunity and I was very grateful they offered me this trip to JX. I thanked them, before I entered the aircraft hungry and thirsty. I had not had time for eating or drinking, but well into the aircraft I ate

my dinner which was 4 bread slices with cheese. I was cold after 4 hours in the "restaurant" without heating, and wet because of running in the snow. 3h later I arrived back home in Oslo after a 16h roundtrip. The total cost of this mini DXPedition was 5 USD, the cost of a Coke I bought at the airport. I made about 630 QSOs. I will upload all the QSOs to LoTW very soon. Paper QSL is via home call, direct only USD 3 + SAE.

There is no immediately plan to return to JX with flight, I never win in lotteries twice. I know many people want to go to JX with boat, maybe some larger group will announce it now or maybe later when the solar cycle improves?

QSO Statistics—630 QSOs

EU	84%
Asia	9%
NA/SA	5%
OC	1 QSO
AF	3 QSOs



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.*

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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 sponsors
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 credentials	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
6060	VP6D	T04E	XR0ZR	VP8STI	SP8SGI
W1AW/KH8	K1N	3D2C	VK0EK	S21ZBB	E30FB
ST0RY	TI9/3Z9DX	VK9MT	K5P	9U4M	TX3X
VU7AB	3Y0Z	3C0L	TX7EU	CE0Z	3C1L
		3B7A	K9W		

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. 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 alternating locations between at Marions Piazza on Kingsridge Dr. in Dayton, OH or Marions Piazza in West Chester. (Check the website) 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: President Tom Inglin, NR8Z; 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.