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the exchange

SWODXA
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SouthWest Ohio DX Association

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INSIDE THIS ISSUE:

The Prez says...

Tom, NR8Z

Welcome to the fourth edition of the SWODXA newsletter. Bill, AJ8B, has done it again, pulling together articles from across the DX spectrum. My thanks go out to all of the contributors. I know you will enjoy and learn from what follows.

I would be remiss if I didn't point out that the DX Dinner® will be here before you know it. Encourage your friends, those you work on the air and anyone at all to come to the dinner. They won't be disappointed in the opportunity to meet and greet famous and not so famous DXers. Starting in 2019 will be hosting the announcement of the IOTA DXpedition of the Year Award. This is a testament to the quality event that SWODXA has created and builds on every year.

The DXers motto, "work 'em first, worry later" came to me in connection with the loss of two of SWODXA's members. Neither David Collingham, K3LP (SK) nor Jim Weaver, K8JE (SK) ever hesitated to "work 'em first" in the sense that they gave so much to the amateur radio community. David will be remembered for many things, not the least of which was his call to make the world better through amateur radio and DXing in particular. Jim served both our club and the ARRL in leadership positions, making our ham community a better place. We were privileged to have both as SWODXA members and we will miss them.

Hams are known as experimenters and that's what we're doing at the moment with our meeting location. In case you missed the news, for February through April we're meeting at Frickers in West Chester. This gives us a chance to experience some southern hospitality, southern, at least, if you measure along I-75 in Southwest Ohio. From our February experience, this new location has more adjacent channel QRM than Marion's so we'll have to see if we can adjust our filtering or go QRO to make the meetings easier to copy around the entire room.

Good DX,
Tom, NR8Z
SWODXA President

In this issue...Another month of great contributions. Feel free to send me anything, including comments and suggestions.

Lower sunspots mean more listening. Maybe now is the time to get those award submissions in : K8DV tells you how! Patience is always a virtue. W8GEX tells us about his JT65 Patience Test. Jay, K4ZLE, has an excellent article on NOISE (and not the kind that I generate while Tom is conducting a meeting) Don't miss the INDEXA announcement that will positively affect our club! Don't miss the announcement, found only here, of the SWODXA DXpedition on April 1st. We also have a guest submission from Jim, WB2REM about the psychology of the QRMer. Excellent read!

The news is not all good. Both K8JE, Jim, and K3LR, Dave, became Silent Keys. They will be missed.

As always, I look for your input! Just send it to me at AJ8B@arrl.net

—Bill

HA8RM — A BIG gun from Hungary

An interview with Peter, HA8RM—yagimaker@gmail.com

I have had the pleasure of working HA8RM many times on many bands in various modes. Peter has always had an outstanding signal. The last time we worked, I took a minute to review all of the information on his QRZ.com webpage. I was so impressed with his antenna skills that I asked for an article, but, he modestly refused. He did, however, agree to answer questions. If you have other questions, please contact Peter via his email address. He was fast to respond and complete in his answers. Thanks Peter!

AJ8B: Peter. Thank You for agreeing to this interview. I have worked you many times and have heard your excellent signal many more, so I have been curious about your station. For starters, please tell me how you got in to ham radio.

AJ8B: When did you build your first ham station?

HA8RM: At the early eighties, when I was student in elementary school I built my very first, modest station. I lived with my parents then, had a pretty nice small shack, where I could build my very first (separated RX – TX) 80m QRP equipment.

AJ8B: When did you get on the air?

HA8RM: I started the ont he air operation at my age of 13.

AJ8B: Do you have a favorite band or mode?

HA8RM: I always loved the 80m band best, it has a special atmosphere, I feel comfortably myself there. CW or SSB, it doesn't matter, I like both. All the digital modes are ignored in my HAM life.

AJ8B: In reviewing your QRZ.com page, it is obvious that your have a talent for designing and building low band antennas. How did you get started?

HA8RM: Independently of all, I knew from the beginning, my main special interest area is the low band DXing. As many of us, I started this job with different kind of simple antennas (dipole, vertical, loops, ...), the breakthrought was ON4UN's Low Band DXing book. I read it many times over, I always get new information, ideas, inspirations, .. how to improve my station.

AJ8B: Describe what you are currently using:

HA8RM: Now I have an IC-765 radio, some home built power amplifiers. My favourite amp is „HA-Power", that is tribute to his professional „OM-Power 3500". I copied some details of the famous product and use the same GU78B tube.

The antennas are:

-160m Vertical Delta Loop - apex is 100ft height

-8om 2 elements Yagi (covers the whole band in 6 switchable segments) 110ft height

-40m 2 elements full sized Yagi (covers the whole band in 2 switchable segments) 110ft height

-20/15/10m 2 elements Cubical Quad

Some Beverages for reception.

HA8RM — A BIG gun from Hungary (cont.)

AJ8B: What are you working on now?

HA8RM: My main job is technician at a communication company, for more than 20 years. I also exist as a sound technician for more than 25 years. We support the technical background for the gigs, concerts.

AJ8B: You also wrote that you know that most people buy professional devices, but, you have built most of your own. What have you built?

HA8RM: As I look around, I found only home brewed tools, except the main radio.

Just a couple of examples below:

- 3 different power amplifiers for HF
- Different kind of power supplies (HV, High Amps, ...)
- Antenna switching unites (remote and outdoor)
- Speech processor (Auto CQ for SSB contests)
- Converters for VHF band (tipically 2m/10m)
- All the above mentioned antennas
- Antenna tuner units
- Many home made radios, before I owned my professional RIG

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

HA8RM: I guess, you will never know the good answer from me, haven't too much practical experiencesin that. You know, I don't really like the DXpeditions, I tried to avoid them mostly instead of wasting my time there. Anyway, during contesting or my DXing, I prefer the most operative partner, I reply him first. A good CW or SSB skilled operator can be succesfull very often, yet if he hasn't extreme power or antenna. Catching the right rhytm is also very important!

Sometime tuning away 50-80 Hz also recommended!

AJ8B: Any QSLing hints?

HA8RM: I prefer the direct QSL change, as I wrote it at my QRZ.com page. This way everybody get my card quickly and safety, who really need it.

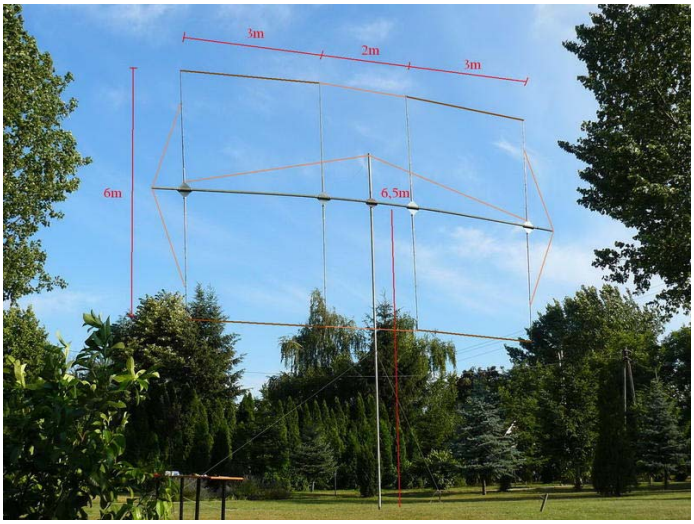
AJ8B: Thanks for taking the time to answer my questions. Is there anything you would like to share with us?

HA8RM: Thank you Bill, I really appreciated that you found me from the other part of Globe and made this interwiev.

My message is for all: There is no limitation in real life, just in the mind. Many years over I was a defeatist, I could not imagine, that I can have a good low band station, even a rotatable 80m Yagi. Then I started thinking different way, after some unsteady steps, I became braver and braver and finally realized my dreams.

I wish good success and DX for you and the kind Readers!

Peter, HA8RM



DX QRP

By Kevin, W8KJ

Kevin manages a QRP blog at www.cincinnatiqrp.blogspot.com

Whether you are a CW, SSB or Digital HF operator - low power or specifically QRP operating can bring that new challenge to our hobby.

Using 10 watts or less on voice modes or 5 watts or less with CW or digital can and does bring great joy and sense of accomplishment. QRP is a very large and growing sub culture in Amateur Radio. I invite you to give it a try.

Be forewarned, however - QRP can be addicting and you may find yourself always pressing the limits to see just how "low you can go". Low power is not for the impatient or faint of heart. The operator won't always get that QSO in the log on the first, second, or third, try. If propagation is poor, one might not make the contact at all...But when you do, it's like those first contacts made back when that license was brand new, in hand!

Here are a few tidbits of information about QRP that can help you get started:

- You already have the capability to turn down your HF transceiver to 5 watts output (in most cases) *no special radio to have to buy to try QRP*
- HF bands have QRP "watering holes"...frequencies where other QRP operators listen, hang-out, and operate. *frequency charts are available on the internet*
- CW is by far the most productive mode a QRP op will use. The digital modes, RTTY, PSK, JT & FT8 work well too. In February of 2014 I worked FT5ZM on 20m RTTY with 5 watts! That's over 11,000 miles away!
- Using SSB, the average power will be below the 5 watt level except on voice "peaks". SSB will work quite well; it just doesn't squeeze every bit of the 5 watts out of that antenna connector! The official QRP power level on SSB is 10 watts for this reason.

So why not give QRP a try. You will sharpen your operating skill set, learn to rely more on propagation, and have lots of fun.

72 – Kevin, W8KJ

DXCC Card Checking
By Dave, K8DV

DXCC With QSL Cards

How to Apply for DXCC Via DXCC Card Checker Using Paper Forms

I do not have to tell any of you that **DXCC** is the most prestigious of all Amateur Radio awards. Its rules for membership are clear and when you make your application, accuracy and attention to detail is most important. The guidelines below will help you complete your application to your Card Checker easily and with a minimum of problems. Last issue we wrote about using the DXCC Online Application, my recommendation to all who are submitting QSLs for credit. However, with that said, one can choose to use the ole tried and true method of manual forms.

The Responsibility of the Card Checker

Just as a refresher, as an appointed DXCC Card Checker I may check cards for the following ARRL awards:

Mixed	Phone
CW	RTTY
Satellite	160 Meters
80 Meters	40 Meters
30 Meters	20 Meters
17 Meters	15 Meters
10 Meters	6 Meters
2 Meters	5BDXCC (5 Band DXCC)
DXCC Challenge	WAS (Worked All States)
VUCC (VHF/UHF Century Club)	Deleted entities

Granting entity credits for all DXCC applications is done only at ARRL. The Card Checker's job is ONLY to verify that the information on the paper application is the same as what is on the card(s) submitted. The Card Checker only checks the cards and does not award credits nor do they determine QSL/DX operation acceptance.

The Rules

Only cards can be checked by DXCC Card Checkers. An application for a new award shall contain a minimum of 100 QSL confirmations from the list and shall not contain any QSLs that are not eligible (such as printed eQSLs directly from eQSL.cc) for this program. The first-ever application must contain a minimum of 100 separate DXCC entities. First- time ever applications with less than 100 cannot be processed. It is the applicant's responsibility to get cards to and from the DXCC Card Checker.

Applicants are responsible, up front, for all costs, including postage. It is strongly recommended that you keep a copy of all registered mail or other mail receipts. Neither the ARRL nor the DXCC card checker is responsible for cards handled by DXCC card checkers and will not honor any claims. The applicant and DXCC card checker must sign the application form. The applicant shall provide sufficient postage to the card checker to cover mailing of application and paperwork to ARRL HQ and return of cards if cards have been mailed to the DXCC card checker .

The applicant shall also provide the applicable fees. Credit card number and expiration date is acceptable for the ARRL DXCC costs). As mentioned in the previous article, cash tends to be an issue for DXCC card checkers as this has to be converted to check or credit card payment.

The DXCC Card Checker will forward completed applications and appropriate fee(s) to ARRL HQ. ARRL HQ staff will receive field-checked applications, enter application data into DXCC records and issue DXCC credits and awards as appropriate. There are NO FEES for using a DXCC card checker and the DXCC card checker receives no reimbursement from ARRL.

DXCC with QSL Cards (cont.)

By Dave—K8DV

The applicant and the DXCC Card Checker will be advised of any errors or discrepancies encountered by ARRL staff. Applicants and DXCC members may send cards to ARRL Headquarters at any time for review or recheck if the individual feels that an incorrect determination has been made. Cards not eligible for field checking must be sent to ARRL and cannot be sent along with an application checked by the checker.

The applicant can opt to send the entire submission to ARRL if they wish. Any QSL deemed ineligible sent with an application will be returned unprocessed.

To Submit an Application To The Card Checker

The applicant should look through all the cards and check for the following:

- Your Main Application sheet must be the latest issue.
- Your callsign and the callsign of the station worked is on each card.
- The CALLSIGN QSO DATE, BAND, MODE and ENTITY is on each card
- That the Entity callsign and the Entity name match on each card
- The card has not been altered in any way.
- That you have at least 100 cards if you are making your Initial or First application.
- 160M cards and deleted entities OK.

The applicant should sort the cards in order – first by band, then by mode. Cards with multiple QSO's must be together in a group of their own, at the end. Cards must NOT be sorted alphabetically. The Sort Order of the cards MUST MATCH EXACTLY the order of which the cards appear on DXCC application Form (Part 2 The listings)

Initial New DXCC Application Form Part 1

Forms can be found here: DXCC Application Forms The information on Part 1 tells DXCC what you are requesting and it also tells them your current mailing address so that all returns can be sent to the proper address. There is also the applicant's affirmation section. Check which award you are applying for eg: NEW, ENDORSEMENT, MIXED or PHONE or CW etc. Then list the Number of cards and the Number of QSOs. Complete the right hand side of the form with your name, callsign and all other details.

DXCC Fees are shown in DXCC Rules on this Website DXCC Fees Schedule

Endorsement Applications:

This is ONLY for building totals on Existing awards. Often people check off endorsements when they do not have an award but are only building totals for a future award. Once you have a DXCC you can build your number as you wish. There are no restrictions. When you finally reach 100 then you can check off NEW. Then, in future submissions you can endorse them. Your name and address is required as this affects where your paperwork will be sent AND where the yearbook will be sent. The yearbook is not sent to the QST address unless the DXCC address is the same as the QST address. You must sign and date it and place the month and year of your membership expiration if you are an ARRL member.

Applications have been placed on hold if the signature is missing.

DXCC with QSL Cards (cont.)

By Dave—K8DV

Part 2: The Record Sheet:

This is the second part of the application DXCC Application Forms where you list the QSO's you intend to claim credit for with the submission. The importance of accuracy and legibility here ***cannot be emphasized enough***. Cards may be rejected if complete information is not on the record sheet. The applicant's callsign shown on the card must match exactly. If it is different in anyway it will be rejected. (eg: K8DV is not the same as KD8V etc).

Sending Your Cards

Package up your cards and SIGNED Application form securely and send them to the DXCC Card Checker:

David Vest, K8DV
2934 Rontina Blvd
Goshen, OH 45122

Mailing Suggestions

1. Label the first envelope or pack with the address above and your return address.

2. Label the second envelope or pack to your home address with the address above on the back. I will return your cards in the same envelope.

3. Enclose a third business sized envelope (with at least one unit of first class postage) on it. Have it addressed to:

DXCC Desk, ARRL HQ
225 Main Street
Newington CT 06111

The third envelope will be posted by the card checker to the DXCC Desk with your application form inside.

Payment

The ARRL DXCC requires payment for all awards and endorsements. You can do that by simply filling in your Credit Card details on the right hand column of Application Form A. ARRL will then charge EXACTLY the amount required to your Credit Card in US Dollars converted to New Zealand Dollars. DXCC Schedule of Fees

Basic Do's and Don'ts for DXCC Applicants

Do's

- Be careful, check every card carefully BEFORE submission.
- Make sure applications are complete and information is legible
- Make sure ALL data is recorded properly
- Make sure entity name and callsigns match (this is a frequent problem)
- If the record sheet is not in proper order, the applicant must re-do the application in the proper format.

Don'ts

- Don't leave fields that are blank on the record sheet, all fields are required.

I strongly suggest that you look at the ARRL DXCC web site. It will give you insight into what the rules are all about. If you have any problems or questions concerning your application you can reach me at k8dv@cinci.rr.com

73,
Dave, K8DV

The Longest Wait

By Joe Pater W8GEX & Paul Hardcastle, A65DR

Submitted by Joe, W8GEX, and reprinted with permission of THE DX Magazine. This article originally appeared in the May/June 2017 edition

From time to time an email catches the eye of the editor. That was the case with the story of two U.S. amateurs trying to work Paul, A65DR, on 60 meters JT65. What follows is the story as told by both sides of the effort to make a contact. I hope you find it interesting. If you have not yet tried 60 meters and /or JT65, perhaps it will encourage you to do both.

From Joe, W8GEX

I have a story that I think is worth telling as there is nothing better than a great Elmer.

Phil, K6EID, a radio friend, and I, are always trying to work new countries on the 60m band. A lot of guys have worked Paul, A65DR on JT65 or CW. Phil and I heard others working Paul but we could never hear him and never saw a JT65 track on the computer. So, I wrote Paul and asked for a schedule. Paul responded immediately with a time. This was two months ago. We had what seemed to be hundreds of emails as we tried calling just about every night. Phil would call, I would call, and Paul would call. Then he would send a sad email saying, not tonight. Lots of times Paul would email from work with a time for that night's schedule. Night after night we tried with no luck, but with Paul's encouragement we hung in there, always hoping tonight would be the night. He told us that our night would come eventually.

Then, finally, we had our night! Phil, K6EID made the contact first and then I made the contact. This was the first and only time we ever saw his signal. This probably took two months of scheduling.

The point of all this is that I would like to recognize Paul for his outstanding patience and perseverance for two US hams that he doesn't know, just for us to get a new country in our logs.

It was without a doubt the longest time I've ever spent in my getting a QSO. Paul, my hat goes off to you my friend.

From Paul, A65DR

"Failure only ever has one cause: Giving Up!"

Having read Joe's entry in his 60m newsletter about my QSO's with K6EID/W8GEX, and also N5DG, I thought I would write a little about the DX side of those things here in A6.

When I read that the agenda for WARC 2015 included a proposal for a new 60m worldwide band for ham radio I was quite excited at the prospect of a new band being a hybrid of 40 and 80m. I thought it would be great to get that 200khz-wide band. Then came the news at the end of the conference and I was very disappointed that all we had got was 15khz at 15w iERP. I never really got the attraction of the number 15 - WARC 15, 15khz, 15w. Bah humbug. I thought the allocation was pathetic and decided to put it out of my mind. Then in about September 2016 I noticed on a routine check that the "WARC 15/15/15" was allocated to A6 hams. I wasn't following developments because the allocation had caused me to lose interest in 60m. I thought it would be not worth the effort. I was not a JT65 or QRP enthusiast at that time. But since we had the allocation, and my TS590 was US specs with 60m open, all I needed was a usable antenna and I could use the band. It turned out after testing that my rig's internal ATU would tune my full size 40m GP for the new band. Woohoo - I could be on air, and I would easily reach my 15w iERP limit even with the rig ATU inline. I had some practice QSO's with A65DC to test things out and in Nov 2016 I was on 60m internationally.

Contrary to what I thought, that the WARC allocation would make the band uninteresting to me, I found the extra challenge of the limitations added to the interest of the band. The 15/15 would really add to the character of the band and make it more satisfying to make the difficult QSO's. I never anticipated that, so lesson learned!

The Longest Wait (cont.)

60m is great because of the difficulty WARC has set upon us. mmm. Maybe I'll take another look at 160...

As it happens, I wake early for work (day shifts) two days per week. So a little earlier alarm gives me some radio time during the (very) early morning in A6, which is evening in Eastern USA/Canada. For me we are talking on the radio 0400-0520 local time, which might explain why I'm usually the only A6 on the air at that time. It is a good time for radio on the DX path - EU is sleeping (as is most of Russia and the Middle East). So it means I can have QSO's with NA/Central America/ Caribbean/South America with no ' EU wall' in the way. I have had great radio at this time.

' The early bird catches the worm'. After a couple of mornings of JT65 on 60m I got the first email (I think it was K6EID) reporting my reception in NA and asking for a QSO.

Well, it is no favour for me - I wanted the QSO to NA also. Other requests fol- lowed and soon there was a queue. VE9 and more East- ern USA were wantingA6. It is sure nice to be popular... Well, we all like to be popular and we have all enjoyed help from fellow hams, so it was easy to "pay it forward." I was very happy to keep the requesters informed when I was gonna be on the band early. One by one, they all got their QSOs and LoTW confirmations. But K6EID and W8GEX remained outstanding. It bothered be that these polite patient gentlemen were still waiting.

I built an N6RK Rx loop to help my receiving (I don't have space for a beverage).

Still, I never managed to work the two patient stations. It was not acceptable to quit. I remember early on that I was quite sure of myself. We just needed a good day. But as time moved on, winter (and the good darkness overlap) was running out and I had real doubts. Still, we had to keep trying. Maybe, just maybe, after all the disappointing mornings we might get a miracle. As time went on my hope dwindled and I really wondered if I had been way too optimistic. My 15w iERP limit was hurting.

My NA requesters had good Rx setups, but it was proving just too difficult. Then came a day that gives me vivid memories. I was really quite tired and needed to catch up on sleep, so I unusually decided to set my alarm for 5am instead of 4am. By the time I had made coffee and reached the shack it was obvious this was a very good radio day. My JT65 decode history was extra rich, and I think included K6EID as well as many other new ones. Un- fortunately it was equally obvious that I had missed it and anyway it was time to get ready for work. I was racked with guilt. We had been trying for two months, many times we had tried and failed. And here it was, the golden good day had arrived and I had chosen to sleep instead. I gave myself a good mental slapping for that. But,,, what could I do now? The only thing I could think of was to try the next day and cross my fingers that the good conditions stayed for a second day. Not a normal early start for me, but I felt like I was in debt and had let my new friends down. I really hoped I could make this better. So even though it was a night shift the next day, I was gonna be awake from 0400. When the next day arrived I was awake and staggered to the kettle at 0345. I was not going to be beaten again this day. " please, radio gods, be nice to us this morning"...

As the band was opening I worked K6EID. That was amazing to me. We tried and failed for many overs, but when the band came good and I was watching the waterfall moving slowly with the faint trace, waiting to see if it would decode and confirm the QSO, I was conscious that my heart was pounding in my chest. This blew me away - how could JT65 be this exciting? It has its good points, but excitement is not one of them. None the less, here I was after two months with my blood coursing, waiting for this decode. I'll have to call this ' slow exciting ' . The decode did come through and the QSO was confirmed: Now for W8GEX. "Please, lets wrap this up...." N5DG had called and as this was also a challenging station (being further West) we exchanged reports and that QSO was done. Straight back to W8GEX, could this be hat-trick morning?

It took a while longer, but eventually W8GEX was receiving me. OK, one way was working. All I needed was one over with my report and I could then return a report to W8GEX and make it a royal morning. I remember emailing W8GEX - "just my report. Gimme all you got!". Then I got it. One decode with my report of -17. I received that at -21. All Joe needed was my report back to him and it was done. The return report was right away with W8GEX having a better receive setup. That was it - we had done it, with only one decode (ever) on my side from W8GEX. Yes, it was a super radio morning with magic conditions, but the people who wanted it enough were all there on the radio to catch it. And most importantly for me, I could stop feeling guilty for sleeping "late" the previous morning. —>

Southwest Ohio DX Association Announces the activation of DXCC #341!

As expected, there is a lot of discussion and activity surrounding the announcement by the DXCC desk of the new entity of Freedonia. SWODXA filed the petition for this new entity based on the criteria found in DXCC Section III, rule #2B,

"In countries where Amateur Radio operation has not been permitted or has been suspended or where some reluctance to authorize amateur stations has been noted..."

There has been no activity in Freedonia since 1933 since two brothers operated GR0UCH/0. Zeppo manned the AM station and Harpo handled CW chores. (Visit http://tinyurl.com/zjptlmf for more information about Freedonnia)

Freedonia is located on the Ionian Sea; a peninsula off of Albania. The DXPedition will be led by Tom, NR8Z . Other team members will include K4ZLE - Jay, K8BA—John, K8FL - Jim and Joe, W8GEX. K8FL will handle the QRP station and Joe will handle 60 meters!

The IARU has agreed to allow the same call sign to be used for this inaugural DXpedition, GROUCH/0. The team logo is shown on the left.

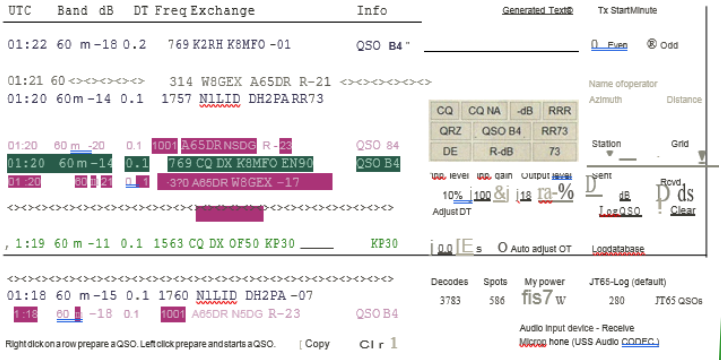
The DXpedition will be located in the capital city of Chicolini. The Prime Minister of Freedonia, Rufus Firefly, has made it his agenda to bring Freedonia up to par with his neighbors in the region. He views amateur radio as a great public relations event and has put his whole hearted support behind this project.

Quite a bit of planning has gone in to this event and SWODXA is thrilled to be a part of this. There will be three stations in operation for the one-day activation. The picture shows the capital of Chicolini with its' beautiful harbor and our intended operating positions. GROUCH/0 will be QRV on 04/1/18 at 0000Z and shut down at 2359Z. QSL via K8DV and visit the website to make donations or inquiries about this important event. The website is www.aj8b.com. Of course, Club Log will be used as well.

The Longest Wait (cont.)

In all my time on 60m I have had one, just one, decode of W8GEX. This includes countless nights/mornings when I left my radio and PC going, and searched the decode logs for the callsign. It is a testament to perseverance that, with just one decode we were able to make that QSO. I was stoked, as my antipodean cousins would say.

In the big picture of the annals of ham radio media this QSO doesn't' add up to a hill of beans, but, for Joe and I, it is a moment that will live with us as long as we are radio hams.



DXegesis—Noise is nothing to SNeeR at!

Jay Slough, K4ZLE

According to a not-so-recent edition of the ARRL Handbook:

QRM? = Is my transmission being interfered with?

QRN? = Are you troubled by static? (1)

I don't know about you but the two toughest bands for me to spend sustained "Butt in Chair" time are 160 meters and 80 meters, respectively. If you have tuned around on those bands you know the source of my discomfort is 'noise.' The noise on those frequencies is predominately static - QRN, N for nature produced, as opposed to QRM, M for man made. However, both abound in abundance and distract from our operating pleasure.

You can be like I have been for decades and avoid those two bands or you can accept the challenge and expand your total enjoyment of the hobby. Dealing with noise is not uniquely germane to our only MF band and our lowest HF band. We experience both types of noise on all ham frequencies.

One type of man made interference I find more prevalent to these two bands is BC band interference. The fact that I used to live about 2 miles from a clear channel station which produced 50 KW of AM bedlam may be why it is ever present on my mind. Even the 10th harmonic of 700 kHz overloads your receiver if you live that close to their antenna . If you are similarly plagued, you may need to shunt that station's signal to ground with special filtering.

QRM, QRN -- Whichever type of noise we encounter, there are mitigating techniques we can employ. Some work for both, some for only one source or the other. I personally find very little relief from noise blanker / noise reduction circuits or notch filters. While they are vastly superior today to what they were 50 plus years ago, even modern DSP techniques work best on repeatable, predictable types of noise. Do not misunderstand, if you have these options on your receiver/transceiver, try them. I encourage you to spend time playing with the knobs and pushing the buttons. It may even pay to read the manual (Heaven forbid! Do real hams read the manual?) I was surprised what additional noise mitigating features were available on my K3 until someone showed me on a recent operation. (Obviously reading the manual is one of my many short comings!)

Just how disruptive is ambient QRN on a band like 160 m.? Carl Luetzelschwab, K9LA, ran some numbers specific to his station particulars and concluded that just an S3 noise level degraded his ability to hear a signal at the noise floor by 30 db.(2) That represents a power differential of 1000. In that situation, if a station could be detected at the receiver's noise floor, but you have an S3 ambient noise level, the DX station would have to increase his power 1000 times in order for you to hear him. Most of us can't work 'em if we don't hear 'em, although some folks must think they can because they continue to call even though they do not hear the DX station! You do not control the power output of the DX station, so if an adjustment is to be made you have to make it on your end.

The key to doing that is understanding a very simple concept, the Signal + Noise to Noise ratio. Stated mathematically, or for me visually, it is S+N/N. Most of the time we simplify the name to just signal to noise ratio (SNR), but the sum of both must be dealt with in the numerator. If we can increase the signal strength relative to the noise our ability to hear is improved. Stated in the negative, if we can decrease the noise relative to the signal we achieve the same result. Sometimes we need to decrease both, but the goal is to make the differential change favor the signal.

If the noise is directional, like man made noise from a specific direction or thunderstorms in an unwanted direction, AND that is not the direction to which you want to work, the solution is simple if you have a 'steerable' antenna. Just aim in the desired direction. However, sometimes you do not aim directly toward the desired direction. Let me give an example. Say you are located on the east coast of the US and you are trying to work a station in W. Africa. Your normal short path heading might be 090 degrees, but you have thunderstorms or a persistent Mediterranean rim station out at a heading of 030 degrees. By turning your beam a little further south of 090, or a little north of 090 depending upon your antenna pattern, you may be able to put the offending noise in a side null and hear the desired station better. Direct path may not always be the best path. I have used this

DXegesis—Noise is nothing to SNeeR at! (cont.)

technique while on DXpeditions to knock down the signal strength of stations from one area so I could work stations in my target area.

On the lower bands it is common practice to use a different antenna for receiving than for transmitting. Beverages, loops, Ewes, pennants and the like are used for this purpose. They favor one or two specific directions in a narrow beam width in order to attenuate unwanted noise from other directions. Even if the major source of offending noise is also in the desired direction, by minimizing extraneous noise from unwanted directions you may be able to increase the overall signal to noise ratio and get that bugger in the log! Remember, you want to decrease noise relative to desired signal. While the net signal may be lower in strength on one of these antennas than on your normal transmit antenna, if the readability is higher, you may now hear what was not readable before. If the desired signal is still too weak, once you take the noise down, you can re-amplify the resulting signal without amplifying the offending noise and achieve a resulting improvement in SNR.

You can sometimes achieve an improvement in SNR by cranking back on the RF gain or inserting some additional attenuation. Again, it behooves one to play with the knobs and learn how to use those controls on the radio.

If the noise is man made, like electric blankets, arc welders, dimmer switches, etc., you may need to track it down and eliminate it at it's source. For instance, at my current QTH, a neighbor installed an electric fence to corral his horses, but he used a portion of chain link fence as a ground instead of installing a ground rod. After I identified the source, he had no problems with me installing the requisite ground rod.(3) I will not deal with how to track down this type interference/noise in this treatise, except to say the ARRL has an excellent reference dealing with the subject.(4) As an aside, the primary source of this type noise will many times be found on your own property!

In conclusion, noise is a problem. Noise is a pesky problem and it is not something to sneer at, but there are ways to minimize the negatives associated with noise and make our overall experience on the air more enjoyable. The key is improving the SNR. I have not covered all associated techniques, but my intent is to get you to realize the fundamental involved (improving the SNR) and do some digging on your own.

1 The ARRL Handbook for Radio Amateurs 2000, pg 30.38
2 See: http://www.k9la.us/An_Introduction_to_Operating_on_160m.pdf Carl has some other fantastic articles on 160 m operation on his website that merit reading. I further recommend looking at this website for 160 m specific information: w8ji.com
3 Be leery of the legal ramifications of doing something on someone else's property!
4 The ARRL RFI Book 3rd Edition

IOTA Announcement

The inaugural Island Radio Expedition Foundation's (IREF) "IOTA DXpeditioner of the Year Award", will be presented at the 2019 Dayton DX Dinner. The Southwest Ohio DX Association, (SWODXA), has agreed to present the award at their annual DX Dinner, which, in the words of IREF President Mike Crownover AD5A, " will add prestige and visibility to the award and will provide the appropriate recognition for IOTA Expeditioners".

The new award from IREF will join the list of awards presented annually at SWODXA DX Dinner including DXpedition of the Year, DXpeditioner of the Year (DXCC) and the presentation of the CQ DX Hall of Fame inductees.

Details on the IOTA DXpeditioner of the Year award can be found at https://irefradio.com/activator-award/ and the competition begins January 1, 2018.

Please note the new, permanent IREF website, www.irefradio.com .

K8JE—Jim Weaver—SK

Dr. James Edmund Weaver
1935 – 2018

Dr. James Edmund Weaver, born February 5, 1935, passed away January 14, 2018. Dr. Weaver is the beloved husband of wife Mara Weaver (nee Vanags), dear father of the late Ruthann Todd Stambaugh, Pamela Davis, Mary (Scott) Kincaid, Kathryn (David) Matacia, Joseph Weaver, Patrick (Tracy) Weaver, Christopher Weaver, cherished grandfather of 8 grandchildren and great-grandfather of 2 great-grandchildren, as well as brother of Marilyn (Carolyn) Britton, Charles (the late Jennifer) Weaver, and Donald (Jackie) Weaver. Dr. Weaver is preceded in death by late wife Janice Weaver (nee Kessen). James was director of civil defense and Master of Organ C.C.M. He was also Grand Knight of Columbus, director of ARRL, director of GCARA, and music director St. Matthias, St. Bernard, and St. Andrews Catholic Church.

Of course, Jim was our club president and advisor. We will miss his gentle guidance and leadership.

K3LP—Dave Collingham—SK

Well-known DXpedition leader and contester David Collingham, K3LP, of Mt Airy, Maryland, died on January 6 after falling through the ice on a pond near his home the previous evening while trying to rescue his stranded dog. He was 59. Collingham was co-leader, with Paul Ewing, N6PSE, of the 2016 VP8STI/VP8SGI DXpedition to South Sandwich and South Georgia islands, and he was president of the Intrepid-DX Group.

Licensed at age 15 as WN6KTF in his home state of California, Collingham went on to take part in more than 70 DXpeditions and served as leader or co-leader of 14 major DXpeditions. Collingham had several Top 5 finishes in international competitions to his credit. He also had written articles for *QST*, *CQ*, and other publications.

Collingham was a 2014 inductee to the CQ DX Hall of Fame, credited with focusing on using Amateur Radio as an educational tool at home and abroad. A Fontana High School graduate, Collingham provided a complete station for the school. He also promoted and taught Amateur Radio to young people in Iraq, Ethiopia, and Rotuma.

NCJ Editor Scott Wright, K0MD, recalled hearing Collingham speak at a Dayton DX Dinner. “He challenged those in attendance to always think of others, especially DXers who are generally less fortunate,” Wright recounted. Collingham noted that he’d left behind some of the ham radio gear he’d brought to a DXpedition or operation to another country as a donation to help keep ham radio going there. Wright said Collingham also challenged those in attendance to help school clubs and start one, and to realize that ham radio would die, were a new generation not mentored and fostered. Member of ARRL, Southwest Ohio DX Association, Potomac Valley Radio Club, and the National Capital DX Association.

Psychology of the QRMer

by Jim, WB2REM

I have worked Jim many times using many modes while he was QRV from remote and exotic locations and noticed what an excellent operator he was and how he controlled his pileups. I had to learn a little about this excellent operator. After reviewing his QRZ page, I came across a couple of articles that Jim authored that I know will be of interest to our SWODXA club members. The first appears this month and the next will be in the May edition. My thanks to my friend Jim for allowing me to reprint both articles. This article first appeared in CQ Magazine, October 2013.

If you've ever been the victim of intentional interference, you've probably wondered, "What makes this person act this way?"

Jim, WB2REM, a licensed psychologist for more than three decades, has some answers.

Have you ever been in a radio conversation only to have someone throw a carrier on you or make a rude comment without identifying? I know I have, and with increasing frequency. I have been an amateur radio operator for over fifty years and during that time, I have observed a gradual decline in good operating habits and procedures which may also mirror the general decline in civility that we've seen among the public at large in recent years.

So what and who is a ORMer? By definition ORM is interference caused by man and a ORMer (pronounced by some as "Ouarmer") is a person who demonstrates these attributes while operating. This behavior can be seen as either unintentional or intentional in nature with the latter fitting into the category of malicious interference. Once we understand why the ORMer interferes with us, it should be easier to address his/her behavior in a more positive manner.
I believe the deterioration in behavior among hams has its roots in a number of arenas. These include:

- Intolerance of divergent views
- A general lack of operating experience
- Feelings of station inferiority
- Group diffused inappropriate behavior
- Operating under the influence
- Acts by truly emotionally sick individuals

Unintentional ORM

Unintentional interference can be found in many forms. For example, it could come from a station operating close to another's frequency. Likewise, when two hams unknowingly share a frequency in a state of ionospheric transition, they may find themselves suddenly in competition with each other. In this instance, the stations need to become aware of what has happened and politely agree to change frequency.

Very loud stations, although within normal frequency bandwidth, can create the perception of splattering across the band. The affected station, whose receiver may be over- loaded, may blame the stronger station for the interference. This can sometimes be corrected by turning off the receiver's noise blanker and/or preamplifier.

Nets with established frequencies of operation can also create interference to OSOs already in progress. A net may not assume ownership of a frequency. However, in cases like this, if you politely explain that a net is scheduled to come up on frequency, the stations in conversation will likely respond positively and move. The worst thing that can be done is to proceed with the net, pretending the other stations in OSO do not exist. This is bound to create animosity and lead to possible intentional interference to the net.

Contest participants may also precipitate predictable unintentional ORM and generate anger from non-contesters who are affected by competition for a frequency. The demand for frequency spectrum is greatest during these times, which can result in overcrowding and frayed tempers. Contesters sometimes forget that the frequency used is not exclusive to them and that non-contest stations have the right to operate with- in the same spectrum.

Psychology of the QRMer (cont.)

Stations that are not involved in the contest activities might want to find less active frequencies in order to avoid confrontation. The WARC bands (30, 17 and 12 meters) may be a good refuge during contest weekends, since virtually all contest sponsors exclude these bands from competition.

Intentional ORM

Malicious or intentional interference first appeared in a very noticeable form in the 1990s. With the appearance of FCC Counsel Riley Hollingsworth on the scene in 2000, the FCC began to crack down on violators. The active citing and prosecution of offenders for intentional interference and rule violation resulted in a reduction of malicious interference. However, malicious interference has returned again in recent years in the form of cursing, singing, carrier-throwing, and other rude and generally obnoxious behavior.

[CQ Ed. Note: The perception of increased FCC enforcement during Riley's tenure resulted in a general improvement in on-air behavior. Riley's retirement coincided with changes in FCC privacy practices that resulted in fewer public notices regarding enforcement actions and the perception of reduced enforcement activities, even though there was actually very little change. But the perception of reduced enforcement has resulted in a broader deterioration in on-air behavior.-W2VUJ]

Stations operating from rare DX entities are also prime targets for intentional interference , especially if they employ the common- and generally recommended-practice of transmitting and listening on different frequencies. The wider the frequency "split" that is chosen by the DX operation (occasionally up to 20 kHz), the more likely it is that interference will occur to ongoing QSOs. This type of operation and associated interference tends to create anger and animosity toward the DX station as well as producing a higher likelihood of retaliation by stations affected by the interference. DX stations, whenever possible, should scan the frequency or frequencies on which they will be listening for availability, before announcing the split.Very loud stations seem to attract ORMers. I can only speculate that this is because less powerful stations feel intimidated by their presence or that they are just heard by more people, which in turn attracts more listeners. One way of addressing the problem is to make people who are listening feel comfortable about breaking into a conversation if they so desire.

When stations engage in discussions of controversial topics such as politics or religion, it can incite stations who may be monitoring on the frequency and inadvertently provoke an emotional reaction. This can put the normally passive listener on the defensive and possibly lead to disruptive and illegal transmissions.

Substance use/abuse has affected all aspects of society. Unfortunately, station owners sometime encounter malicious interference from those who have lost their inhibitions through alcohol and/or other drugs. The only way to address these individuals is to ignore them. As would be surmised, engaging in fruitful conversation with someone inebriated would not be productive.

Underlying Factors

As a licensed psychologist of 35 years, I have come in contact with many personality types. I feel that many of the operators creating malicious interference are psychologically troubled individuals. The behavior we observe from ORMers, for the most part, is not driven by us, but by the overall mental health of the offending operator. Most of us could agree that people who willfully interfere have a need for attention and recognition. These operators tend to employ *displaced aggression,* which is anger directed onto others rather than onto the actual source of their frustration, all the while acting out with somewhat infantile behavior. These hams tend to rationalize their behaviors by thinking that others believe the same way they do and they may project their negative self-image onto others. The overuse of defense mechanisms by such individuals tends to create anxiety and emotional turmoil.

Inappropriate group behavior is created by a diffused sense of responsibility. Some troubling hotspots of ORM- where cursing, insults, and poor operating procedures occur- are self-perpetuated by a "monkey-see, monkey-do" attitude. There is a feeling that if someone else can get away with the behavior, so can I. It's useful to avoid these frequencies to lessen their impact and reduce the size of the audience these people are so desperately seeking.

What You Can Do

How can you make your ham radio experience more pleasurable? You can avoid the frequencies which promote toxic, provocative and attention-getting behavior. Like children, these stations crave attention. If they are denied this attention, they will feel unrewarded and often will leave the frequency. If someone chooses to ORM you, ignore them. Challenging them just lets them know that they have gotten to you and reinforces their resolution to continue. In the worst-case scenario, when the offending station is transmitting, announce a change in frequency and move.

Are you seeing yourself in the mirror here? At times, stress and anger affects all of us. When it gets bad, turn off your radio! Recognize your feelings before they get you in trouble and address the malcontent in an appropriate arena. Amateur radio is a great hobby which provides most of us with a positive life outlet. Let's not ruin it with self-defeating behavior that diminishes the quality of our hobby

FT8 Update—Reprinted with Permission of the Daily DX - Thanks Bernie!!

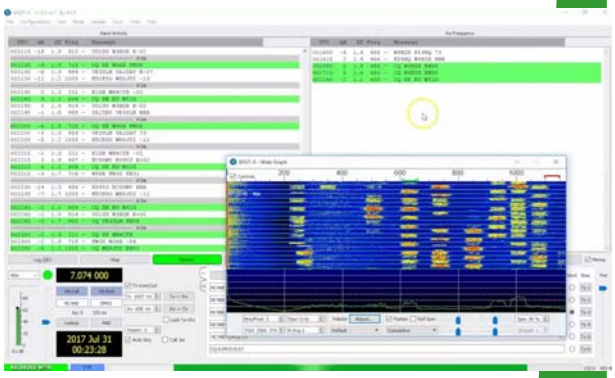
The WSJT Development Group is pleased to announce a Release Candidate of WSJT-X Version 1.9.0. This is a second beta release, so it's called v1.9.0-rc2. A first candidate release, v1.9.0-rc1, has already been tested in the field by a small test group. A General Availability (GA) release of v1.9.0 will be announced at a suitable time in the near future. After that time you should no longer use any -rc# candidate.

Here's a short list of features and capabilities added to WSJT-X since Version 1.8.0:

1. New FT8 DXpedition Mode to facilitate high QSO rates in pileup situations
2. Decoding improvements for JT65 mode, including a priori (AP) decoding when VHF/UHF/Microwave features are enabled
3. Optional Auto-Sequencing in JT4, JT9, and JT65 when VHF/UHF/Microwave features are enabled
4. Better suppression of low-confidence false decodes generated by AP decoding in FT8 mode
5. Improved decoding performance for WSPR mode, especially effective at LF and MF
6. Minor adjustments to auto-sequencing behavior
7. More flexible Doppler control features for EME
8. Improved waterfall sensitivity for very weak signals
9. Automatic real-time forwarding of logged information to N1MM Logger+
10. Expanded and improved UDP messages sent to companion programs
11. Bug fixes and other minor tweaks to user interface

Public Test of FT8 DXpedition Mode

A primary purpose of this beta release is to allow field testing of FT8 DXpedition Mode. If you decide to install v1.9.0-rc2, please help us by participating in a public test run scheduled for March 6-7(evening of March 6th , NA time). The goal is to simulate a rare-DXpedition pileup by having many stations ("Hounds") calling and trying to work a designated pseudo-DXpedition station ("Fox"). Note that everyone participating in the test *MUST* use WSJT-X v1.9.0-rc2. In addition, you must read and carefully follow the instructions posted here: http://physics.princeton.edu/pulsar/k1jt/FT8_DXpedition_Mode.pdf



Reading the instructions for *FT8 DXpedition Mode* is very important! If you have legitimate access to more than one callsign (XYL, club call, or whatever) please feel free to call and work the Fox more than once. We want the test pileup to be as deep as possible.

The scheduled test will take place as follows:

Date UTC Frequency

Mar 6 2300 14.080 MHz
Mar 7 0000 10.141
Mar 7 0100 7.080
Mar 7 0200 3.585

The indicated USB dial frequencies are subject to change, depending on other band usage at the time. If last-minute instructions are necessary they will be posted here: http://physics.princeton.edu/pulsar/k1jt/DXpedition_Mode_Test.txt

Note that the dial frequencies are NOT the conventional FT8 operating frequencies for each band. DXpedition Mode should *NOT* be used on standard FT8 operating frequencies.

Of course you may also choose to do your own testing of FT8 DXpedition Mode together with a group of colleagues. One station would act as Fox, the others as Hounds. In such tests the Fox will be limited to using a single **Tx "slot".**

– 73 from Joe, K1JT, for the WSJT Development Group

The Little Pistols Guild to HF Propagation—Part 2

By Robert Brown, NM7M

This is part 2 of our series. K9LA, Carl, contacted the family of Robert Brown, NM7M (SK), and I received their gracious permission to reprint this excellent technical discussion. Thanks to the Brown family and to Carl for this.

The Little Pistol knows that RF is really electromagnetic waves, time-varying electric and magnetic fields which can propagate through a vacuum with the speed of light. But in the LP's efforts at DXing, those waves are actually propagated through a material medium, the weakly ionized portion of the upper atmosphere, termed the ionosphere. Indeed, with good fortune, the LP's signals go up into the ionosphere and then returned to earth at a great distance from where they started.

In some circles that's called ionospheric reflection but a better term is refraction, or bending of the ray path followed by the waves. All that results from the waves going through a medium which consists of free electrons and whose number density, so many electrons per cubic meter, increases with increasing altitude. And the Little Pistol knows there are several regions that make up the ionosphere, the F-region being the highest and peaking in number density around 300 -400 km, then the E-region around 110 km and finally the D-region below 90 km.

The present knowledge of a complex ionospheric structure is in contrast to the idea of one region of ionization developed by Chap- man in the early '30s. Then, as shown in Figure 2.1, it was assumed that ultraviolet (UV) quanta from the solar spectrum would encounter an increasing number of ionizable atoms and molecules on penetrating the atmosphere and would produce ionization at an increasing rate.

But solar quanta would suffer absorption in the process and the radiation intensity would decrease closer to the earth's surface. As a result, a peak in the production rate of ionization would be reached and then decline at lower altitudes.

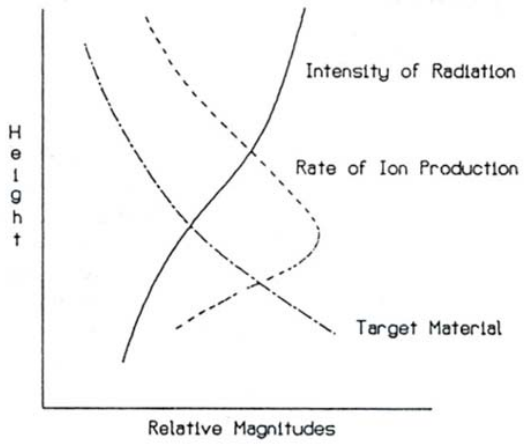


Figure 2.1 A schematic representation of the production of ionization in the atmosphere.

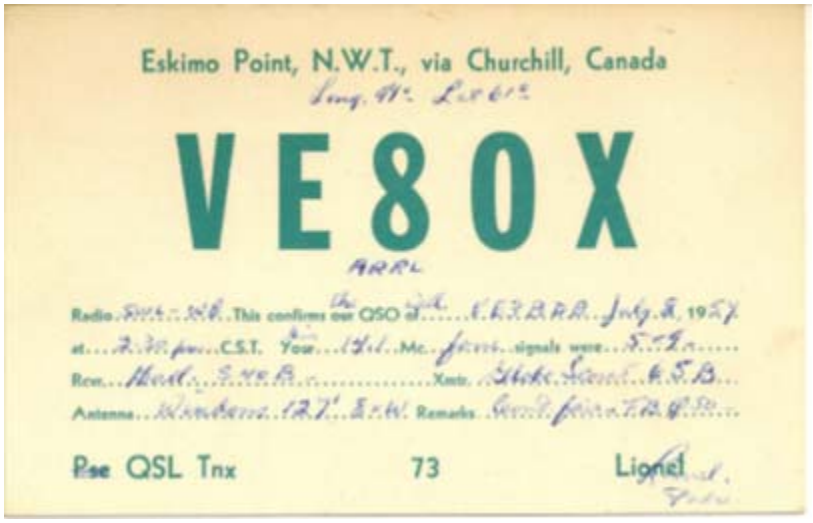
Actually, UV photons in the solar spectrum have enough energy to not only ionize molecules of nitrogen and oxygen, as mentioned above, but also to dissociate them into their constituent atoms. That last statement wouldn't involve too much of a stretch of the Little Pistol's imagination but to get into the various chemical reactions which might take place is another matter. Needless to say, "Whatever can happen will happen" in the part of the upper atmosphere reached by solar UV and the LP shouldn't be surprised at the result, an atmosphere whose chemical composition varies with altitude More specifically, from ground to the 100- km level, the atmosphere is well mixed by convection and turbulence and has a rather homogeneous composition of the major constituents, nitrogen (78%) and oxygen (21%), but with some trace constituents (such as water vapor, carbon dioxide and ozone) which are not homogeneously distributed. But above the 100- km level, atomic oxygen, resulting from dissociation of molecular oxygen by the solar UV, assumes greater relative importance with in- creasing altitude.

All this discussion of the neutral atmosphere may seem strange to the Little Pistol. "After all, radio propagation involves charged particles — electrons — right?" I won't say "Wrong!" But how about "Not exactly?" It turns out that ionospheric electrons find themselves in the middle of a great big chemistry laboratory up there with all the electrons, positive ions, atoms and molecules mixing it up, as it were.

Indeed, under the right (or wrong) circumstances, some of the atoms, molecules or ions can affect the electron density adversely, to the detriment of propagation so important to the Little Pistol. So it behooves the LP to pay attention to those ideas and come to grips with the current view of the ionosphere; to wit, the higher reaches of the ionosphere contain free electrons and positive ions from nitrogen molecules, oxygen molecules and atomic oxygen and as well as minor, but important, positive ions formed by ion-molecule interactions.

My QSL Story—VE8OX

Submitted by Joe, W8GEX


Eskimo Point, N.W.T., via Churchill, Canada

VE8OX

ARRL

Radio SW4 - NR. This confirms our QSO at 1957 July 8, 1957

at 2:30 pm C.S.T. Your 17rd Mc. fone signals were S-7 to S-9

Rcvr Hall S-40B Xmtr Globe Scout 65B

Antenna Windom 127' E-W Remarks Good fone QSO

Pse QSL Tnx 73 Lionel

Like a lot of us, I started out in 1955 as a SWL with my uncle Adrian later being WB8GEW. Being a young teenager, he gave me and installed a 15 and a 20 meter dipole on a knife throw switch. For a radio I was using an old Philco AM broadcast radio. Its 20m band spread was only, at best, ¼" wide. A slip of your finger would put you outside the band, so slow and fine tuning was always in order.

While tuning the 20m band on July 8, 1957 at 2:30 in the afternoon I heard VE8OX. Per his card, his transmitter was a Glob Scott 65B, a S40B receiver and a Windom 127 ft. wire antenna. I became pen pals with this Catholic priest located at Eskimo Pointe in the North West Territory of Canada. As I was an altar boy at the time, yes, I was an altar boy (!), I had many letters back and forth with Father Lionel. To my surprise on another day I copied my pen pal friend again on 20 meters. I have never forgotten the two times I heard him.

The amazing part of all this for me, was that I heard him twice on this old borrowed AM radio with such a small band spread. Later I had a Zenith Oceanic radio which was a big improvement.

The Little Pistols Guild to HF Propagation—Part 2 (cont.)

By Robert Brown, NM7M

I think it's fair to say the Little Pistol understands that the density number of electrons in the ionosphere varies with altitude but the LP probably doesn't know that the height variation of the electrons depends on a competition between rates of their production and loss. But the LP could understand that the rates for those processes vary with altitude, with solar illumination (for production) and changes in chemical composition (for loss).

Now the Little Pistol understands the matter in our atmosphere and ionosphere are parts of our environment, held to the earth by its gravitational field. And the LP's DXing probes the ionosphere, showing changes in the degree of ionization from time to time. But the changes in the neutral atmosphere escape the LP's attention as it's not directly responsive to HF radio signals. Again, imagination takes over and the LP knows that both parts of the environment vary as a result of changes in solar illumination.

But what the LP probably doesn't under- stand is that the ionosphere is also controlled, even influenced, by the earth's magnetic field and its variations. In the static circumstance, geomagnetic control of the ionosphere may be a new one for the LP, at least when discussed in any detail. The LP is far more likely to have heard of, even experienced, the effects of ionospheric storms which go along simultaneously with geomagnetic storms and affect HF propagation. Those circumstances are not beneficial to LP's DXing and their explanation will turn out to be rather complicated. So the LP had best pay attention to those discussions as becoming a Big Gun may depend heavily on dealing with those occasions.

I want to conclude this section on elementary considerations by having the reader note that so far, everything has all been qualitative in nature. Of course, some quantitative aspects have been implied — the LP's operating frequencies, changing seasons and times of day, transmitter powers and antenna gains. Those are all characteristic of operations at the Little Pistols's QTH.

Now what needs to be added to the discussion are the quantitative aspects, particularly those which go with DX paths across the earth's surface, their location relative to the geomagnetic field and the effects of solar illumination, rapid on a daily basis and slow over a solar cycle. That additional discussion will turn knowledge of the ionosphere into a quantitative decision-making tool and, I believe, serve the Little Pistol well so let's get to it, starting with the sun.

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: http://aj8b.com/application-for-dxpedition-grant/ 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 and Frank Schwob, W8OK (sk), was elected as 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 Marion's Piazza on Kingsridge Dr. in Dayton, OH. 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 officers are President Tom Inglin, NR8Z; Vice President Steve Coy, K8UD; Secretary Mindi Jones, KC8CKW, and Treasurer Mike Suhar, W8RKO.

Website: We maintain a website at www.swodxa.org; managed by Richard, KC8RP 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.
(http://aj8b.com/application-for-dxpedition-grant/)

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 regarding 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

To join SWODXA, go to http://swodxa.org/member.htm