

Newsletter of the  
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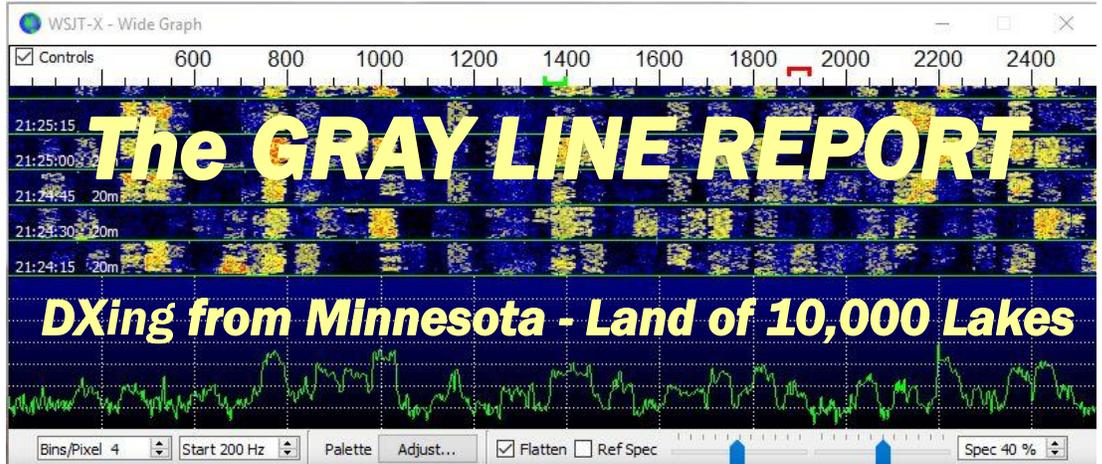
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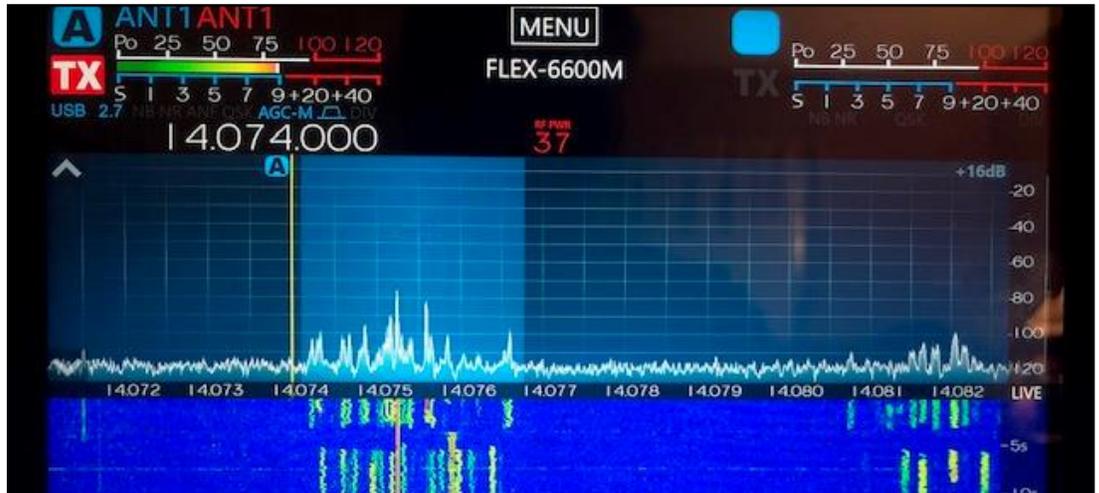
Gray Line Staff  
KØAD  
KØJM  
WAØMHJ  
WØZF



## Special FT-8 Edition

# TCDXA Members Share Their Views on FT8 and Other Digital Modes

Compiled by Al Dewey, KØAD



Even when most of the band seems inactive, there seems to always be plenty of activity on the FT8 and FT4 frequencies.

**It's no secret** that digital modes such as JT-65, FT8, and now FT4 have exploded in popularity over the last few years. In these times of very few sun spots, it is not uncommon to have digital signals the only ones you can find on the bands some days. I got to wondering about the extent to which TCDXA members are using the new digital modes in their everyday operating as well as their DX pursuits. So I put the question out on the reflector and received a lot of responses.

In general, I would categorize the responses I received in three main categories. First of all, there are those that have jumped in with both

feet and find themselves really enjoying the new modes. In many cases, it has allowed them to add some countries or band/ mode countries that they have had a hard time working on the CW and SSB. This group sometimes felt that it gave the “little pistol” stations a shot at some DX that would be much more difficult with the traditional CW and SSB modes. Members like Bert, WBØN have really jumped in with both feet and are really enjoying the digital modes. Glenn, WØGJ, brings up the interesting point that the digital modes have helped K9LA and others discover some new propagation modes particularly with very weak signals.

The second group, as Mark, WAØMHJ puts it, have somewhat “reluctantly accepted” the new modes. They still prefer the “traditional” modes such as CW and SSB but realize that the digital modes do allow them to work some band and mode countries that they might not otherwise be able to do. As something new to try, some have set some DXCC goals specifically for the new modes. Hans, KØHB points out that, for him, FT8 is kind of a “placeholder” until the sunspots return. Mike, WØVTT, reminds us that sometimes a DXer had to “go where the DX is”. Very few in the group have reported working an ATNO on FT8 yet.

The third group are those who have either not tried the digital modes yet or those who have tried them and just not found them much fun. Some have just not had the time yet to learn the new modes. Others have tried the new modes and just found them plain boring. WØFS struggles with just watching one computer work another computer over the air. Others, like NØKK, worries that these new modes are changing the nature of ham radio to the point of ruining it. Basically, this groups feels that just because a mode is innovative and effective at making QSOs with very weak signals, it does not necessarily mean it is fun.

What follows are comments from members on

how they have (or have not) embraced the new digital modes. I thought about trying to group them into categories but then thought it might be better to just present the comments in the order I received them from members. Before doing so, I would like to make clear that I value each one of these opinions. Sometimes it is easy to think that those who do not embrace the new modes are just resistant to change, stuck in the past, or just reluctant to accept the inevitable direction that amateur radio is heading. I do not believe this is the case. While I am excited for those who are enjoying the new modes and understand their appeal, I totally understand that the new modes simply may not be much fun for others. I have taken the liberty to edit some of the responses for readability and conciseness.

### **Scott, KØMD**

I am not using FT8 at all. Why not? I have not had time to set it up and learn to use it. I am busy enough with CW, RTTY and SSB. There is a lot of enthusiasm for FT8 but I have not tried it nor plan to try it in 2019.

### **Clay, WØFS**

Zero percent. I don't allow my computer to do phantom contacts.

### **Hans, KØHB**

I spend a fair amount of time on FT8, mostly “just to be on the radio”. I think it’s an impersonal mode, but since the other modes seem to be in a lull, it’s the most active game in town. To add some interest, I’ve been doing “a new FT8 DXCC” each of the past two years. Last year I worked 148, and so far this year I’m at 132. Doubt I’ll find any ATNO’s on the mode, but it’s fun to watch for new grid squares, so filling them



in has become a kind of “mini-goal”. In summary, I guess that I’d say the FT8 is a “placeholder” to keep me on the radio until the sunspots return and CW guys are active again.

### **Gary, WØAW**

I tried FT8 and found it boring. As a result, I haven't been using it. Over the winter we bought a home in an HOA controlled area (Gold Canyon, AZ - far east side of Phoenix), so I may need to come up with some clandestine antennas and try FT8 again, as low power will be key.

### **Dennis, KØEEO**

I have used FT8 to chase new band countries on 160m, 30m and 6m. If there was an ATNO on FT8 I would work it but that has not happened yet. I enjoy FT8 and find it very efficient and relaxing to pick up band countries this way. I see FT8 as a great way to work DX and I see it as equal to chasing DX on CW where all you exchange is 5NN.

I hope FT8 stays around a while unlike the other digital modes that seem to only last a year or two. I find FT8 very interesting in that you can work countries with signals below the noise level. Because of this I have been able to add lots of rare ones on 160m!

I have no FT8 goals, I mix my FT8 contacts with all the others. I already have RTTY DXCC and don't expect to do Digital or FT8 DXCC. Because all the countries I need are not on the air (330), I mostly do rag chewing on AM 160 – 6) or SSB on 40m. I use FT8 for band countries. Ten percent of my operation is on FT-8.

When there is DX I need (i.e. ATNO), I chase them on SSB, RTTY and CW on all bands 160m to 10m. Now I also use FT8. I have used the Fox/Hound mode on FT8 to work some of the latest DXpedition and that has been fun

and interesting but I have not done any FT8 contesting. I also enjoy CW and RTTY contesting from time to time.

### **Dave, WØZF**

For me, FT8 is a mixed blessing. Ducie was a new entity for me. I worked their FT8 robot in Fox and Hound mode to ensure the ATNO, but felt better once I followed up with CW QSOs on a couple bands. There's just something more personally satisfying about decoding the DX station by ear, even if no more information is passed than on FT8. So, I guess I'll use FT8 if necessary for the DX, but prefer CW or SSB. I certainly don't begrudge anyone for using it as a DXing tool, any more than I do those who cheat by using an amplifier (hi hi)!

### **Brian, NXØX**

Because of it being a new and very popular mode for everyone, it's somewhat easier to find and work DX trying out the new mode. Being I'm only down to about 15 countries left the chances of finding one for an ATNO is probably not going to happen. Any new country for me is pretty much going to be a DXpedition. But I've had very good success not only filling new mode (digital) contacts but bands slots too. Most of my FT8 operating time has been split between 17 & 30 meters. Those two non-contest bands are where I've done fairly well working fills. I sure wish 12 meters (and 10 for that matter) would be open as I could do well there also.

As of the last 8-10 months, 100% of my operating time has been FT-8. With that said, I'm not on the radio at all during the summer (have to enjoy the outdoors during our short season) and the six months prior to that I was enjoying a new mode and doing well working new country band and mode fills with my operating time.



I do enjoy FT8. It's another facet of Amateur Radio. I've been learning something new, picking up band / mode fills and having fun.

### **Vern, KØVG**

I'm mostly using FT8 to look for DX. On HF, working stateside stations isn't a real challenge. I may use it to fill in a few states for 5 band WAS since I can use JT alert to show me when those states pop up. Since my antennas are roof mounted and below 30 feet, it gives me a better chance of finding some new ones. On 30M, 17M and 12M, I have been only using FT8 for DX. I am running anywhere between 15W to 200W into a 9 band vertical. On 160M, it is about the only way I can work DX.

On 6M it has really changed things for me. It has increased the number of stations I can work by about 300%. There are many times when 6M has openings and most of the stations are -10 db and below. With 100W and a four element yagi at 20 feet, I managed to get my first JA on 6M. I never thought that would be possible without a much larger array and more power.

### **Mark, WAØMHJ**

"Reluctant Acceptance" is the best way I would describe how I feel about FT-8 mode. I use DX4WIN for all logging, and there is no interfacing to WSJT, JT-Alert, etc. I simply input my WSJT ADIF file periodically. Because of this I have no way of knowing for sure about new band or mode countries, until after I import. I currently have 1200 FT-8 contacts in the log representing just under 100 countries. I am guessing about a dozen new band countries, almost entirely on 17M, with a few on 30M and 6M. I have probably three or four new mode countries also.

In some respects, I prefer to work the DXpeditions on FT-8 vs. RTTY, because I can save

the wear and tear on my amplifier, but it is a bit concerning when DXpeditions are spending almost all of their time on this mode. It is very frustrating to hear a band open and full of FT-8 activity, and there is not a single CW signal on the band. Based on the number of SASE and Green Stamps I receive, I think that FT-8 is generally opening up opportunities for hams that were not there before. I prefer calling CQ, and handing out Q's that way. Without being able to log check back to DX4WIN easily, I avoid calling people because I have no way of knowing if I worked them yesterday. Pet peeve is calling CQ DX and getting stateside replies, but I answer them anyway.

### **Glenn, WØGJ**

Talking with K9LA & others, we have discovered some new propagation modes with FT8. Above the MUF, we used to think that there was just "straight line" refraction of signals out into space. We have found a lot of different scatter modes that make the higher HF & 6M bands productive almost all of the time! This has, of course, always been that way, but now we can "see" signals -24 to -27 dB or more below the noise floor that we never knew existed before! Now there is almost constant activity on 50.313 (6M) and before FT8 the band was dead.

PSKReporter has been VERY helpful! <https://pskreporter.info/pskmap.html> is an excellent resource! The MSK meteor scatter modes can be quite rewarding too! I've worked Europe and Asia on 6M and never in my life would I have thought that would be possible with my QTH and equipment!

### **Mike, WØVTT**

For me, FT8 is slightly more interesting than watching paint dry, but not as exciting as watching the grass grow. It just isn't any



fun. However, it has given me ten new countries on top band and a handful of new ones on 6 meters. Most, if not all, of these were not available on CW or SSB and FT8 was the only way to work them. I see FT8 as a useful tool for the serious DXer and it's one I will keep in my toolbox. A DXer goes where the DX IS.

### Gary, KNØV

Not sure how many, or what kind of responses you may have received, but I have absolutely no interest in any digital mode, FT-8/4 included. RTTY perhaps, but that is it. I really hope that the human element is never taken out of a DX-pedition.

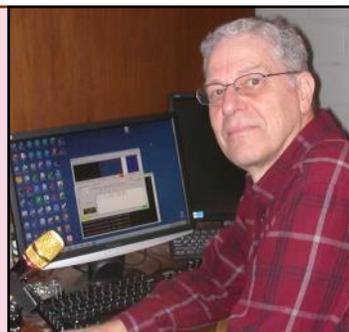
### Donn, KØQC

Here is a synopsis of my FT8 operating. It started with my talking to WBØN a couple of years ago and him trying to get me interested. My primary operating has been RTTY and CW for the past several years. I guess the DX FT8 bug bit when Bert was telling me about all of the DX he was working with his low power station and modest antennas. At one of the DX Club meetings there was a demo of FT8. That really peaked my interest, since I did not have a QSO with the South Sandwich DXpedition in 2016, much less a digital QSO. We were in Alabama for the winter and did have our K3 with a Buddistick antenna and operated from the 11th floor of a condo, facing the Gulf of Mexico, but never were able to crack the pileups.

With the upcoming 2018 Bouvet operation and the fact we were snowbirds in Arizona with low power and a Buddistick antenna, I thought maybe FT8 would provide me with a shot at a digital QSO. That is when I decided to give FT8 a whirl. I worked my first FT8 QSO on January 21, 2018. Since then, I have been primarily on that mode, given the over-

## What's FT-8?

FT-8 is one of a suite of communication protocols created by Dr. Joe Taylor, K1JT, a Nobel Prize-winning astrophysicist at Princeton University.



Joe Taylor, K1JT  
(ARRL photo)

FT-8 and all of its cousins, are “designed for making reliable, confirmed QSOs under extreme weak-signal conditions.” Different protocols are designed for use in EME, meteor scatter, VLF, etc. FT-8 is primarily for use on HF and 6 meters.

Amateurs are able to utilize all of these modes by downloading and installing a free computer program called WSJT-X, which is available in versions for Windows, Mac, and Linux. (<https://physics.princeton.edu/pulsar/k1jt/wsjsx.html>). Connection to the radio is similar to the sound card interfaces used for RTTY, Packet, and other AFSK modes..

WSJT-X is not a robot. The human operator must initiate a contact, and in many configurations, must also approve logging the completed QSO. There is a certain amount of operator skill involved in selecting the precise transmit frequency and timing the initial call.

## ... and FT-4?

FT-4 is a faster version of FT-8 that has been designed for contesting. It is quite new, just out this spring. **Dan, WØJMP, <dan.dantzler@gmail.com> solicits your comments for an upcoming article on this mode.**

— Mark Johns, KØJM



all poor band conditions. There is quite a bit of good DX available on the mode. I have been enjoying just seeing what is workable with low power. I still need Bouvet, Scarborough, Crozet, DPR Korea, South Sandwich and Syria on digital. FT8 might be the QSO ticket if they become active again.

### **Pat, KØPC**

My FT8 experience is certainly limited. I have less than 300 FT8 QSOs from home and four of them have resulted in new DXCC Digital confirmations for me. The four were all DXpeditions. I have worked 27 entities and gotten confirmation for 24 via LOTW.

In addition, I did operate a bit of FT8 from VP5 this year when I was there for ARRL DX CW. I had 75 QSOs in two one-hour sessions. I worked 16 DXCC entities from that effort (all confirmed on LOTW). This was done with normal FT8 mode but I had a "pileup" of calling stations due to my DX location. I was certainly learning as I went along.

We will use Fox/Hound mode during the VP6R Pitcairn Island DXpedition this fall. It will be interesting to experience that side of a Fox/Hound FT8 operation.

### **Kirk, NØKK**

I use FT8. In fact, I was ahead of most of the club in trying digital modes like Olivia, JT65, etc. when they were first being used as something to play with and marvel at how they could hear into the noise. But now my thoughts are that WSJTX has basically ruined ham radio as I knew it. It has created a new type of operating which I find boring as heck. I am seriously considering selling off most of my station as there simply is no

need for it now. I hear CQWW is considering using FT4! Really! I'm out.

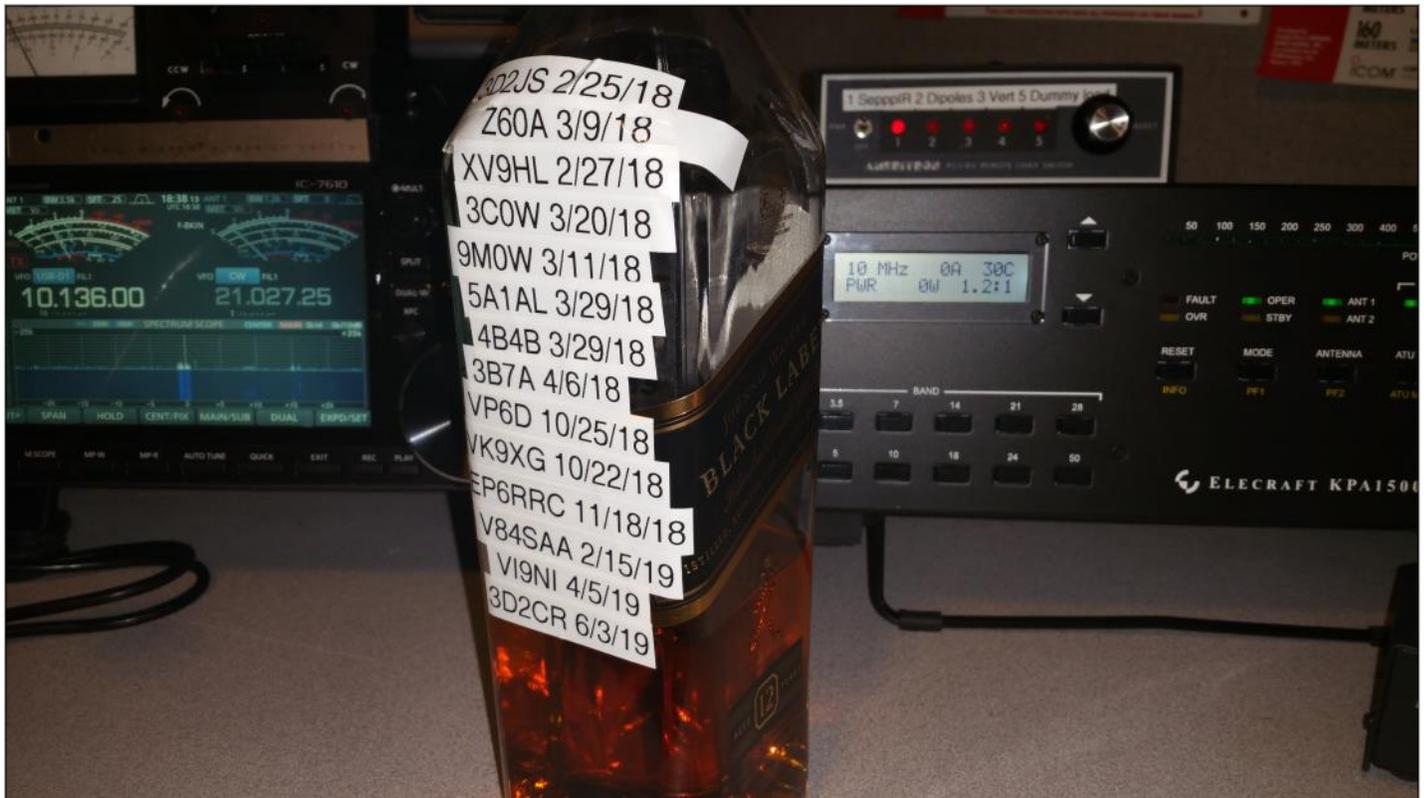
### **Dan, WØJMP**

Over the last two years, a bit over 80% of my logged contacts are on digital modes. Most of those are FT8 with a bit of JT65, FSK144, FT4 and maybe one or two others thrown in. A bit over 15% are CW and less than 5% are phone. I have been mostly a digital operator for nearly 20 years. I have 4,983 QSOs with PSK beginning in July, 2000. I started using JT65 on December 15th, 2011 and have 5,500 QSOs with variations of PSK. I started using JT65 in 2011 and have 5,500 QSOs in that mode. I have 1500 QSOs with JT9 with the first one in December, 2013. I have been on FT8 since the first day it was released and have 13,500 QSOs, probably about one third as many as Bert.

But what about DX you asked? Over the last 18 months, I have worked 15 ATNOs; Z60A, XV9HL, 3CØW, 9MØW, 5A1AL, 4B4B, 3B7A, 3D2JS, KH1/KH7Z, VP6D, VK9XG, EP6RRC, V84SAA, VI9NI and 3D2CR. Of these 13 of the 15 were worked with CW and 9 with CW only. One was worked with CW and FT8 (5A1AL), One was SSB only (4B4B), two with CW and SSB (3B7A and KH1/KH7Z), One with FT8, CW and SSB (VP6D) and only one with FT8 only (3D2CR). So without FT8, I would "maybe" have one less ATNO. To put this into perspective, I am not a big-time DXer. I have 286 worked and 284 confirmed at this moment. Many in our club have "worked them all". I will probably never get there but I keep plugging away.

I believe the easiest way for me to work an ATNO is with CW as my statistics show. If a new one is on, I try CW first. Why? It





WØJMP's most recent all time new one (3D2CR) is the only ATNO he has worked on FT8.

works better than SSB and is faster than FT8. DXpeditions are all about getting calls in the log. The fastest way to do that is with CW so they spend a large amount of time on CW. Someday there will be a digital mode that will be faster than CW for filling the log. FT8 with Fox and Hound mode comes close at least theoretically. But right now, CW is the “money mode.”

**Bert, WBØN**

I should have written this before I tried out FT4 as it will make FT8 a thing of the past very soon. It is faster and, from here, still decodes up to -20. The newest WSJT-X Version 2.1.0 has a 64Bit version which decodes faster.

Let's just talk about what all the Joe Taylor Digital HF modes have done for my DXing.

First of all, I would not have 8 Band DXCC without these modes. I would have the easy ones (10-15-20 and maybe 40M). However, there is no way I would have 12-17-30 and 80M and be half way there on 160M. In the pre digital days I got most of my DX from Contests or DXpeditions. I would occasionally check the DX cluster and if I saw something new I would turn on the radio and try for them. For me, it was usually pretty brutal in the pileups waiting and waiting.

Now with the digital modes, especially Fox and hound mode, I feel like I have as good a chance as the big guys.

NØKK did a talk on JT65 so I tried it and I was able to work DX much easier. The first thing I would do when I got home from work would be to fire up the radio and computer and see who I could decode. I would



start as always by calling CQ if nothing else to establish I had a good hole to work from. I would call DX stations I needed if I saw them and they didn't answer my CQ. This was all well and good as I gained quite a few "new ones" but man it was so sloooooow!

Next came JT9 with deeper decodes but still as slow so it never took off. FT8 came next and, wow, it was much faster and still weak signal capable. I was hooked! Now I turn radios on when I get home, check the bands, and dive in unless they are real dead. I do a lot of SO2R when the bands are hot. I get DX calling me all the time. I can't do that on any other mode from here.

And now we have FT4 which is even faster and I have still worked stations down to -20.

So, the bottom line is that these digital modes have gotten me on the air way more, gotten me way more DX than before, and (most of all) taught me so much more about propagation than I knew before. Now I know where to be and when to be there. If the bands cooperate, I can get some DX. I also strongly suggest getting JT alert 2.13.10 and using it with WSJT-X 2.1.0. It is a helpful addition.

### **Dave, KØIEA**

FT8 - what a timely subject. Like most CW ops, I check the bands for CW DX, but not hearing much I revert to FT8 (haven't tried FT4 yet). My goal was to work new countries on FT8. I'm up to 207 worked and I've lost a lot of interest in the mode. Now on the positive side, during the fall and winter months 160 meters FT8 has produced some new ones. 3B8XF, SV9CVY, HBØWR and 3V8SF

were new for me on 160. I could have never heard them on CW, but WSJT made it possible. Some of the purists wouldn't work a new one on 160 using FT8. But it works for me. Thanks, Joe Taylor.

### **Mike, NØODK**

I took a big step getting into FT-8 for I had done no digital at all before that.

I been doing WAS award and starting to do 30 meters DXCC. I'm up to 91 confirmed and about 110 worked. I did not operate April, May, and June but gotten back into it also trying FT-4. I like the speed better but will continue doing FT-8 for awards. I can't wait to try a contest for FT-4. With my work and the bands not so good on high bands I started seeing my operating time doing down. FT-8 really did help me get back into it. I still look for DX on high bands first then go to FT-8 to get contacts.

It took me a long time to get E4 as an ATNO but saw E44WE on FT8 and got him on the 3rd call while he was working EU. COOL! My goal is to raise DX numbers on 30M and 160M with FT-8. I am so close for 80M SSB (about 15 contacts) to get the 5band DXCC. It's fun operating digital but wished it was a little faster like FT-4. Last year and this year, a high percentage of my QSOs are digital due to band openings.

### **Fred, K4IU**

I've pondered the FT8/4 modes a lot. I've used them since release of the first RC FT8 versions and made 6183 QSOs. The mode is definitely a change agent with global appeal for modest stations during a sunspot low. On my Flex I can set up 8 slices but generally just watch 40-6 meters during the day for new ones. The biggest impact has been on 6 and



160. I need 60 countries on 160 for DXCC on that band. FT8 is not my major tool for working DX but is an important tool for me in working ATNOs. I've confirmed 103 DXCC countries and 34 zones on FT8. All confirmations are on LOTW. All QSOs were made with 100 watts and a wire. I spend 90% of my operating time on FT8 during the week but still use CW for major contesting. DX aside, there is a contest like feel to the brief exchange on FT8.

### Final Thoughts from KØAD

I am impressed by the quantity and variety of opinions about FT8 and the other digital modes from TCDXA members. Like I said before, I value all of these opinions. I guess I would put myself in that middle group who has tried FT8 (and now FT4) and, although impressed by it from a technical standpoint, really just do not find it very interesting to operate. I can see how the new generation of amateurs might be drawn to this technology. It does (as WBØN attests above) let that average and antenna challenged stations play with the big boys. That's a good thing. The argument that the mode does not allow transmissions to carry much information also does not really hold water for DXers or

Contesters. If you are a DXer or Contester, the amount of information you exchange is also very limited (e.g. "599", "599 MN", "599 4", etc.).

For me, it was fun to set up and watch it work the first few times. Once I had done that, however, it just was just not that exciting for me in day to day operation. I wasn't exactly sure why it was so boring to me until I read the comment from WØFS above. Basically, what I was doing was clicking a target on my screen and then sitting back and watching two computers work each other. I was basically a "spectator" in the QSO. Except for DXing, just about all of my operation is contesting. Contesting with FT8 (and FT4) is a whole new subject which I will cover later in in this issue.

Bottom line. The new digital modes are here to stay and they will undoubtedly draw many new people to our hobby. If operating these modes does not excite you, that's OK. There is plenty of spectrum for everyone.

## Join TCDXA

Our mission is to raise *Dollars for DX*, used to help fund qualified DXpeditions.

Our funds come from annual member contributions (dues) and other donations.

TCDXA is a non-profit organization, as described in Section 501 (c) (3) of the Internal Revenue Code. All contributions from U.S. residents are tax-deductible.

Becoming a member is easy. Go to <http://tcdxa.org/> and follow the instructions on the home page.

All contributions (including annual dues) may now be paid on our secure site, using PayPal or credit card.

## Have you tried FT-4 yet?

Dan Dantzler, WØJMP, is preparing an article on this new contest mode for an upcoming edition of *The Gray Line Report*. Send your comments on FT-4 to <[dan.dantzler@gmail.com](mailto:dan.dantzler@gmail.com)>

Gary Grivna KØGX

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# FT8

## WEAK SIGNAL DIGITAL MODE

by Jim Junkert, KØJUH

### INTRODUCTION

Joe Taylor, K1JT, announced on June 29, 2017 the availability of FT8, a new mode in the WSJT-X software program. FT8 stands for "Franke-Taylor design, 8 - FSK modulation" and was created by Joe and Steve Franke, K9AN. It is described as being designed for multi-hop Es where signals may be weak and fading, openings may be short, and you want fast completion of reliable, confirmable QSO's.

If you love information overload, you'll love reading the User Guide. It contains 94 pages!

<http://physics.princeton.edu/pulsar/k1jt/wsjsx-doc/wsjsx-main-2.0.0.html>

The following is for those who enjoy brevity and want a quick look at the mode and just enough information to get started. The user guide will come in handy when you run into complicated issues you can't intuitively resolve, and be assured, you will.

### WHO'S USING FT8

The mode caught on fast with the world wide Ham community, and without a question, has become the busiest mode on the bands! The FT8 frequencies are busy 24/7 with hundreds of stations operating in a very narrow segment of the band - a 2800 Hz window!

### WHY THE HUGE INTEREST

Stations running low power with modest antennas can enjoy the mode. Kilowatt amps and monster antennas are not required to be successful. Although the use of power has been inching up, many operators are still able to log rare DX stations running 50 -100 watts.

### HOW DO I GET STARTED

Download and install two programs. WSJT-X is the main program and decodes FT8 signals. JAlert-X is a utility program that interfaces with the main program and keeps track of all the log detail: stations worked B4, DXCC and WAS totals, and much more.

### IS LEARNING THE SOFTWARE DIFFICULT

Configuring the settings in the software can be challenging for some. Good computer and software savvy will definitely shorten the learning curve. Other Hams who've been there, done that, can also be a big help by sharing their settings.

### WHERE DO I FIND FT8 STATIONS ON THE BANDS

Standard FT8 frequencies: 1840, 3573, 7074, 10136, 14074, 18100, 24911, 28074. The majority of FT8 activity takes place here. The Fox and Hound frequencies are for use by major DXpeditions and are generally 1840, 3567, 7056, 10131, 14090, 18095, 21091, 24911, 28091.

### HOW TO MAKE AN FT8 QSO

Double click on a station call sign calling CQ, and WSJT-X does the rest without any further input from the operator. Each exchange (15 seconds) takes place automatically and looks like this in the software:

CQ K1ABC FN42 (calls cq)  
K1ABC G0XYZ IO91 (answers)  
G0XYZ K1ABC -19 (sends report)  
K1ABC G0XYZ R -22 (sends roger & report)  
G0XYZ K1ABC RRR (sends 3 rogers)  
K1ABC 73 (sends 73)  
G0XYZ 73 (sends 73)



Grab a Mouse and Join the Crowds!

**TOTAL QSO TIME: 105 seconds - less than 2 minutes!**





# FT8 DIGITAL

## MY SECOND LOVE AFFAIR

### CONFESSIONS & OBSERVATIONS

by Jim Junkert, KØJUH

LONG TIME CW JUNKY & EX-SPOOK



I must confess, I'm not a huge fan of FT8 due to my long standing love affair with CW. The affair began during the Cold War years back in the late 50's when I spent two years with the ASA at Herzo Base, Germany. Some of us were "ditty boppers", Morse Code intercept operators, that were in the business of eavesdropping on classified radio communications. Assisting us under the same roof were NSA field personnel. On my day off, I'd operate from the MARS station on CW with my German call, DL4WN. With the fall of the Soviet Union in 1991, much of what the ASA did during the Cold War years was declassified.



Many years later, CW remains my preferred mode for chasing DX. I'M pushing 84 now, an official old fart. The fire in the belly for chasing DX has died down to a few glowing embers. As they say, my get up and go has got up and went!

When I do get on, I seem to be spending most of the time on FT8 and not my first love, CW. That's probably because I only need P5 for "worked 'em all" on CW, so I've turned my attention to chasing DXCC on FT8. If nothing else, it keeps me off the streets and out of the bars. I'm up to 184 worked now and its slow going. New ones are far and few between.

When you tune the bands, you can't help but notice all the activity is on the FT8 frequencies. If the huge popularity of the latest digital mode is any indication, it's going to be around for awhile.

So don't procrastinate, grab a mouse, (hopefully not a 4 legged one) and join the crowds on FT8!



**GRAB A MOUSE**



**DROPPINGS ON YOUR DESK TOP ARE NOT A GOOD SIGN. YOU MAY HAVE GRABBED THE WRONG MOUSE!**



# HERZO BASE HISTORY

## Herzogenaurach, Germany



Herzogenaurach is a town in the district of Erlangen-Höchstadt, in Bavaria, Germany. Today, it's best known for being the home of the sporting goods companies Adidas and Puma, as well as the large car parts manufacturer, Schaeffler Group. Herzogenaurach was the location of a military airfield in the 1930s. It was originally designed for training German pilots, but was limited to training German youth by the Versailles Treaty after WWI. The Fighter pilots got around it by training in civilian clothing. The Luftwaffe controlled the airfield from 1936 to the end of WWII.



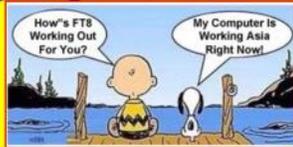
AN OLD PHOTO FROM THE 50'S TAKEN AT HERZO BASE  
SHOWING PART OF THE RHOMBIC ANTENNA FARM  
"Everywhere you looked were Rhombics"





# 3680 OLD FARTS NET Ladder Rankings for JTAlertX "Not Wanted" DXCC



	<b>DX HOG</b>  #1	
<b>KFØQR 210</b>		<b>NØODK 121</b>
<b>KØIEA 206</b>	<b>FT8 PILEUP</b>	<b>NØACH 91</b>
		<b>WAØMHJ 91</b>
<b>KØJUH 184</b>		<b>KCØSB 69</b>
<b>KØEOU 170</b>		<b>NØGRM ...</b>
<b>NØAT 133</b>		<b>WØZR ...</b>
<b>KJØB 125</b>		

Above pages supplied by Jim Junkert, KØJUH, as pre-formatted content for inclusion in Gray Line Report.



# FT8 Used By Many TCDXA Members on Field Day this Year

*Compiled by Al, K0AD*

**The following are some stories** of TCDXA member experiences in this year's ARRL Field Day event. As you will see, FT8 was a big part of many club member field day experiences this year.



Scott, KA9FOX works FT8 at Mississippi Valley Amateur Radio Association (MVARA) Field Day.

## **KA9FOX – 2A - WI**

I participated in Field Day with our small local club, the Mississippi Valley Amateur Radio Assn, here in La Crosse, Wisc. We had the pleasure of having Mike, K9NW, stop by on Sunday, on his way out of town, for the final 1.5 hours, and he ran 'em up till the end on CW.

The club setup operations on the top of a hospital/clinic parking ramp... pretty decent setup, despite being surrounded by "mall area" noise generators.

I had a last minute idea of bringing an old Win 7 laptop, my old MicroHam DigiKeyer, and my old IC-746 with which we got FT8 working for the six meter station. This turned out to be



a lot of fun, as most of the club members had not seen FT8 work, so it became a learning opportunity for many. We had decent six meter openings, enough to keep the guys interested in it all weekend. During some times when we didn't have enough HF ops, they took the 40m and 80m antennas and made some HF Q's as well on FT8.

3830 [score postings](#) show our score is pretty decent, although I don't know how many FD groups post to the 3830 page. We ended up with a total of **1078** QSOs.



MVARA Field Day set up on the top of a hospital / clinic parking ramp.

### KØMPH – 1B - WI

I again teamed with Jeff (NØNQN) at his brother-in-law's place near Baldwin WI. We arrived in the morning, set up the antennas, tent and generator with time to spare. The antennas tuned, generator ran with one pull, computer booted, and radio's came to life with ease. Some band interstation interference was acceptable with the pre-amps off. Low signal levels on 15M required that the pre-amps to be turned on however.

The band conditions were unsettled. It seems that propagation was very focused and QSB could easily make a QSO difficult to complete. There was also more QRM than I remember in a contest. Probably because a clear sounding frequency wasn't really clear. Other stations on the frequency were being

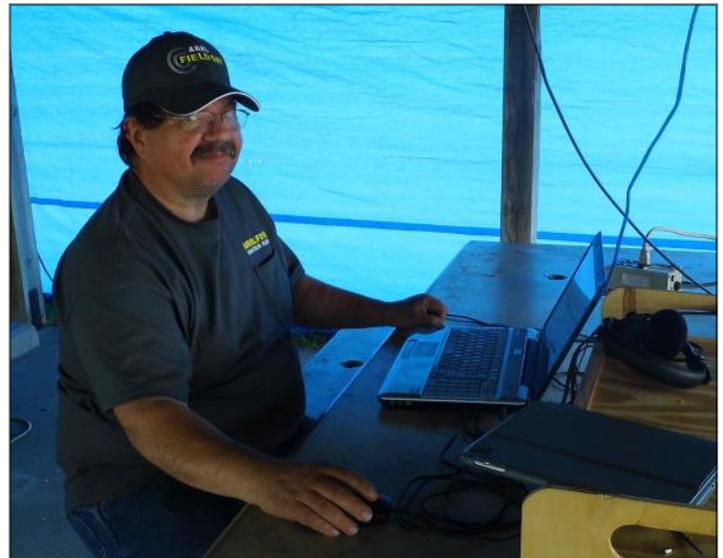
hidden by the focused propagation. I was booted off my run frequency several times. Jeff had fun working stations on 15 and 10 meters. Overall, we made a few less Qs than last year. We ended up with a total of **313** QSOs.

Before dark we packed it all up. No mosquitos. No rain. We had a good time, including the conversation in the car driving to/from FD.

### KØVG – 2A - MN

This is the second year I participated in Field Day with a group from the Red River Radio Amateur Club in Sabin MN, this year using the call WCØG. The other group from the club set up in West Fargo operating from their Emergency Service Trailer.

This year the Sabin group ran 2A again, plus a VHF station. Set up began with setting up a



Vern, KØVG working FT8 at Red River Radio Club (WCØG) Field Day.

triband beam and a 30' tower. Despite the rain it went up with only a couple of last minute adjustments. The other two HF antennas were a five band vertical and end fed wire. The end fed wire had to be modified some because a nearby radio station was able to be heard on all





Triband Yagi at Red River Radio Club Field Day

bands. After making the adjustment it seemed to work well on all bands. Late night on 20M FT8 we were able to work some DX including Samoa on the end-fed.

For the 6M station a tripod mounted Moxon was used. On 6M we were able to make 48 contacts using FT8. The only problem we couldn't fix was the networking of the stations. We were using N3JFP and the stations could see each other but couldn't get the log data to transfer.

Several visitors stopped by on Saturday between the rain showers. Sunday turned out to be nice once the fog cleared. The FD group included WB0BIN (Bob "Tiny"), NY0MN (Mike), KE0BFW (Vicki), WC0G (Pete), K0VG (Vern), ND0MN (Darcy), and several other guest ops including NK0A (Jerry). Meals were provided by the XYL of WB0BIN, Kathy.

We ended up with a total of **374 QSOs**. The emphasis was on having fun.

## NUIW – 2A - MN

The Twin Cities Repeater Club operated 2A again this year and I was the station "captain" for the CW/Digital station. I offer my observations primarily in the interest in the future of Amateur Radio as opposed to specific to Field Day.

The TCRC Field Day operation is not a competitive operation. The experienced members set up the station like a well-oiled machine but then leave the on-the-air operation to the newer operators under close supervision, of course. I estimate that more than half the hams at the TCRC event were licensed less than one year. This is a good thing to a large extent. What I observed is as follows:

1) Due to equipment limitations and propagation realities, the entire operation was a GOTA station. There was no opportunity to put the GOTA station on 15M or 10M because the propagation was simply not there...at least not on Saturday when we had the most participation.

2) When the new hams were seated at the phone station on 40M or 20M, they were pretty much overwhelmed. Let's face it, getting on the air for the first time during one of the most congested events of the year is very intimidating. The supervising operators had a difficult time getting the new operators to pull the trigger to make their first call.

3) The club had no serious CW operators on site. Other than Pat Cain's visit for about an hour, the station accumulated zero CW contacts. So, the second station was used primarily for FT-8 operation. I essentially ran a FT-8 clinic for the new hams. Interestingly enough, the same kids who would not pick up a mic had no problem trying FT-8 after a few minutes of instruction. I had two "newbies" get it and they each spent three or



four hours running the FT-8 station and getting a kick out of it. Despite the fact that the station was largely an instructional vehicle and operated by novices, it averaged over 25 QSO's per hour. I know this is not a record breaking record, but given the circumstances and the mode, I am not ashamed of what we did.

4) While the new hams were not much interested in the HF contesting side of Field Day, there were about six of them who stayed essentially the entire twenty-four period working on their SDR receivers and computers. They were having a great time working with each other getting their SDR dongles working with their computers.

I share this observation to highlight how the participants of this wonderful hobby are changing. This hobby will not be recognizable in a generation or two from how we old-timers view it today. We need to recognize this change and embrace it...not fight it.

### **NØAT – 2A - MN**

The NØAT Field Day operation took place again from the south shore of Blue Lake near Park Rapids MN. Operators were Chris KØAUG, Bill WØOR, Al KØAD, Kirk NØKK and myself (NØAT). KBØGII was also present.

Bill handled the media publicity providing an article for the local newspaper and a blurb on the local radio station. One of the ops, on his way to town to pick up supplies, heard the announcement on the local radio station. We had a number of visitors stop by this year, including K2PS, NØCIC and KGØMW.

The WX was perfect. A bit cool and cloudy during set-up and then sunny come Sunday. In fact it was a bit too



Six Meter beam at NØAT Field Day. Unfortunately, not many six meter QSOs this year.

cloudy as Chris had to charge his battery 3 times to complete the natural power QSOs.

Murphy decided to join us this year. We use pneumatic launchers to install our wire antenna farm. The red and white pine trees have grown taller since we began operating from this QTH (good), but they also have grown wider (bad). This makes it difficult to use the launchers to install the antennas. Maybe a drone is the way to install antennas in trees. Does anyone have experience using a drone to put up antennas?

One of the computers would lock up when running FT8. At first we thought it was due to RF, but it locked up even with the rig's power turned all the way down. When the computer was locked up one of the other computers would bog down due to it trying to reestablish the network. We tried using WSJT instead of DigiRite on the misbehaving computer; that helped a little, but still lock ups. From the cryptic error messages the problem may have been in the sound card interface to the radio. The laptop was also trying to install an update.

Field Day evolved into an FT8 event as time went on. Often we could make QSOs at a high-



er rate using FT8 than CW. And FT8 is easier, you just start it up and sit back and watch. It was a bit difficult to time sync the computers for FT8. We had to disconnect from the logging network and connect to a hotspot generated from a cell phone and then run Dimension4.

We talked about doing an all FT8 (or FT4) Field Day next year. The work is in the setup, then the computers make the QSOs. You just sit back and watch. With a couple of 40 inch computer monitors, a couple racks of ribs in a smoker, some beer, and you have a modern day field day operation.

*{Unfortunately, ARRL recently ruled that this type of automated operation will not be allowed in future contests. Although FD is not specifically a contest. I expect it will also not be allowed at Field Day.....Al, K0AD }*

Our group ended up making a total of **1289** QSOs.



NØAT helps his granddaughter through an FT8 Field Day QSO. KØWAG makes GOTA QSOs in the background.

## Op Ed

### Is it time to relocate Contesting from the Crowne?

*By Scott Wright, KØMD*

Dennis Egan, W1UE, asked in the recent YCCC newsletter, *Scuttlebutt*, if it were time for contesting activities to leave the Crowne Plaza hotel after the events of May 2019. It is a great question. The events of May 2019 included a young contester getting assaulted by men on the street as he returned to the Crowne because he did not have a cigarette. His “No, I don’t have one” reply resulted in a lip laceration and a visit to the ER locally. A second ham at the Crowne had driven his Corvette in from Virginia. The locals welcomed him by smashing his window while it was parked outside the Crowne in a valet spot.

In early August, there was a shooting in the Oregon restaurant and bar district adjacent to the Crowne. Many of us have dined at Jay’s seafood, which was two blocks from the parking lot/street outside the bar where the shooter killed at least 9 innocent people including his own sister.

I have been staying at the Crowne for 12 years or more in my regular trek to the Hamvention. That said, I have watched the area around the Crowne deteriorate and become less safe. I walked to Jay’s seafood on a Wednesday night in May 2018. The group I was with was approached by a man with a handgun obvious in his front, right pocket. My Texas friends describe him as “printing” with it visible. I asked the group to cross the street with me; we did, and the man walked on and left us alone.



The Crowne has seen its best days in my opinion. The remodeling of it did little to justify the nearly \$200/night they charge us for the week of Hamvention. The staff are friendly and service in 2019 was the best I have experienced. That said, the events of 2019 are the worst I have seen so in balance, I have found the Crowne lacking. A number of attendees were accosted on the streets surrounding it for handouts. Nearly everyone I know had trouble finding the entrance to the adjacent parking ramp and many could not find parking at all. Traffic back to the Crowne for the Saturday banquets is challenging to say the least.

I enjoy attending Contest U and have for a dozen years it seems. This year, I found myself standing for many of the sessions I attended. I don't know about you, but I don't typically pay tuition and then stand. CTU is good but not that good. I mentioned it to Tim; he reassured me it would be better next year.

I think it is time for Contest communities to think about the next year. Is it appropriate in 2020 to patronize a part of Dayton that has deteriorated to the point of being very dangerous and continue in a facility that offers little in amenities and comfortable classroom seating or lodging? Like Dennis, W1UE, I think we in MWA and the Midwest should ask ourselves why cannot the contest event organizers do a better job? Some might argue that no other facility exists. That argument is old and not true. There are a number of hotels around the Dayton area that have sufficient space for 300-400 attendees scattered across four classrooms. The QRP organizers of "Four Days in May" have found a place that accommodates 800 attendees.

What attracts you to the Crowne? Memories? None for me to speak of. The food? If that, why do we escape to restaurants when there is no banquet on a given night? The nightlife? Again, not my thing and this year I was asked by a lady on the elevator as I was going to check out "Why does your group seem to encourage so many young people to consume excessive alcohol and act like a frat party?" I had no answer except the traditional Minnesota expression, "I am sorry this happened to you. I don't know why."

If you feel as I do that the Crowne and its locale are not optimal for contesting and our personal safety, you have time to move with your feet and book another hotel. I have told its manager and K3LR I do not plan to attend events at the Crowne in 2020 unless the City of Dayton and its police department offer a strong plan to revitalize downtown and improve its safety. I commend K3LR for all of his organizational success to date with contest activities; I simply think it is time for his activities to be at a new venue.

Scott Wright, KØMD

NCJ Editor

[www.ncjweb.com](http://www.ncjweb.com)





Mark, WAØMHJ at his current station operating position.

## TCDXA Member Profile

*By Mark Endorf, WAØMHJ*

**My Elmer was Jim Gilbert, KØBFT.** Mr. Gilbert was my 7th grade Science teacher. Jim Gilbert is a Naturalist who is also widely known for hosting “Nature Notes”, a program run on WCCO AM radio on Sunday mornings, which just ended this year after a 42 year run. Mr. Gilbert decided to start an "after-school" Morse code training class at West Junior High School in Minnetonka. I recall that there were at least five of us; all who I believe eventually got licensed. By the summer of 1968, I was ready to take the Novice exam, (administered by KØBFT), and I passed the test! The beginning of the fall school year, we were able to use a school club station (WAØWVH). I don't remember the transmitter, but the receiver was an old SX-88. I recall after copying CW that you needed to set the pencil down gently, or the receiver would QSY severely.

I was ready to assemble my own station, and many of the old-timers said: "Sink your money into a good receiver." I went down to Electronic Center in Minneapolis and decided to buy a Drake-2B which proved to be a fabulous receiver. My transmitter was a Heathkit DX-20, and I was on the air with a 40/15 meter doublet! With four or five crystals and a logbook, I began



my efforts in October 1968 with the call WNØMHJ. My Christmas present from my parents in 1968 was an Eico 720 kit. After running 50 watts, I was now running 75 watts with the new rig. I upgraded from the novice license and retired WNØMHJ in May of 1969 upgrading to my current call. In the summer of 1969 I purchased a Galaxy 5 MKIII transceiver and was now running high power!

For some reason, on October 17, 1969, the DX Bug bit VERY HARD. Within a week, I had tripled my DX country count to up over 20, and from that point forward, there was no looking back. About one year later a Mosley two element Cubical Quad was installed on 50 feet of Rohn 25 tower and DXCC was achieved thanks to a QSO with 7Q7AA on 20M CW in October of 1970.



Station in 1971: Galaxy 5MK3 transceiver, a Ten-Tec QRP rig, and a homebrew two tube 4 watt transmitter. No money was spared on the fine operating desk!

I attended my first TCDXA meeting in 1971. As a teenager, I remember getting signed autographs from Minnesota Twins players Tony Oliva and Bob Allison. Long ago I lost those autographs. However I do remember standing

at the table in the TCDXA meeting and getting a signed copy of the DX'er magazine from famed DX'er Gus Browning – W4BPD. I still have that copy today! I entered college in the fall of 1972, attending Iowa State University, and ham radio became a very sporadic activity for the most part. I had joined the Minnesota Wireless Association in 1970, and was sometimes able to activate for Sweepstakes from either Ames Iowa, or at my home station. I was somewhat active from one of the college club stations we had. Our station had a tribander and dipoles on a ten story building, and with the advantage of also being an Iowa contact, it was pretty easy to feed my DX appetite. I graduated in 1977 with a degree in Electrical Engineering, and went to work for Sperry Univac commercial division in Roseville.

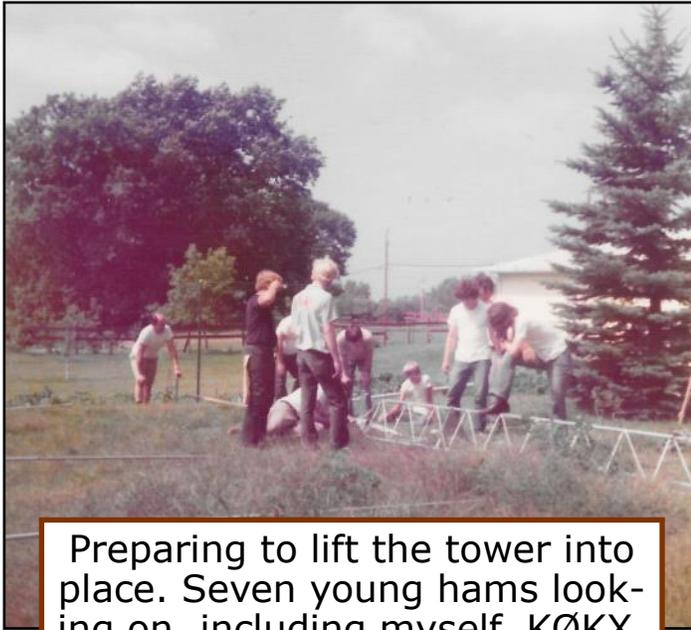
Sometime prior to 1975 at my parents' house, the Mosley two element QUAD had been replaced by a homebrew four element 20M yagi, erected on the same 50 ft tower. In 1975 this antenna system succumbed to a storm. (Probably due to the lack of performing any proper wind load calculations.)



4 element homebrew wide spaced 20M yagi that helped boost my 20M DXCC totals.

The next antenna was that same homebrew four element 20M beam on 70 feet of Universal tower in the back yard, but this time a bit further away from the neighbor's house.





Preparing to lift the tower into place. Seven young hams looking on, including myself, KØKX, and KØSF. Also a very wary next door neighbor is watching closely.

My station at home had not yet been dismantled, and I was apartment living, so I was basically off the air. I was able to work my DXCC country count up to about 250 by the mid 1970's from a bit of sporadic activity.

In 1981 I purchased my current house, situated on 2.5 acres in Ham Lake. I held off on the purchase agreement until I had talked with the City Engineer about permits, and it became clear he had no idea what I was even talking about. I felt comfortable to proceed, and by that fall I was back on the air. I finally ditched the old Galaxy, and upgraded the equipment to a Drake C-Line. It was especially nice when working split frequency DX operations that I did not have to spin that single VFO dial, and hope I returned somewhat close to back to the same spot!



Drake C-Line station in early 1980s



Dayton 1974: My one and only 2M contact ever made.

I attended the Dayton Ham-vention fairly often during the 1970s. Some great memories and crazy times occurred during those trips. "What happens in Dayton, stays in Dayton"? I was in Dayton in 1974, and I tried my hand at two meters. I have never so much as touched

a two meter radio since then.

I also put up a four element Cubex Quad on 80 feet of Universal tower. I think this antenna was probably the best performer I have ever used. In the spring of 1982, I lost my



4 element Cubex Quad.

tower and antenna for the second time to a straight line wind storm. It was time to consider a guyed; and not a free-standing tower. My Club Log information shows that for the next 15 years (1983 through 1998) I had virtually no QSO's!



I was married in 1986 to my wife Julie. There was just not much time for ham radio. I did manage to combine our honeymoon with a DXpedition, as my wife Julie and I spent two weeks at the “Last Resort” in Montserrat. This was a villa owned by Chod Harris -VP2ML. I think that Jules - W2JGR was there either the week before, or the week after we were. It was a real eye opener to come home from the beach, and generate a European pileup on 80M in the early afternoon daylight hours with just a dipole at 20 feet. I think that these two weeks did NOT rekindle a desire to get back on the air, but instead had the opposite effect of me not being very excited about the prospect of returning to the black hole.



The “Last Resort” in Montserrat operating a TS-120.

In 1988 the first of our two sons was born. Loren is an aspiring professional musician. He plays trumpet with the St. Cloud symphony, and gives private lessons through several area school districts. Our youngest son Timothy, also with a music performance degree in Trombone, is married, lives in Blaine, and is the manager of the Coon Rapids Erik’s Bike Shop. Both became fairly proficient in Morse Code by junior high school, but I could not convince them to take the final step of getting licensed. I still hold out hope. I recently

demonstrated FT-8 mode to my youngest son, and his reaction was: “That is ridiculous”. I think we are somewhat on the same page with that. We have no grandchildren yet, but if it happens soon enough, I will start all over with the Morse code training.

Julie works for Midwest Special Services, a nonprofit adult special needs day facility in Shoreview. Julie has been very accommodating in putting up with my hobby, over the years, beginning with me working the pile-ups on our honeymoon, and being my driver over many years of mobile Minnesota QSO Party operating. She has the ability to sense, when I am in the shack, of the relative importance of what I am chasing. Several times she has correctly commented from the other room: “*Must be an ATNO?*”

I was able to reach the “300 country worked” mark in 1990, but ham radio still remained on the back burner. In 1999 the interest was rekindled, and I sold the Drake C-Line, and a modern era radio (Yaesu FT-920) was purchased. I installed a 100 foot Rohn 45 tower with a KLM KT34-XA, and got back into ham radio, primarily beginning with DX contests.

I have almost achieved all of my goals for DX’ing. 5BDXCC was achieved in 2008, and I have since got endorsements for 9BDXCC. Top of the Honor Roll was achieved with my Heard Island contact in 2016. I have a 5BWAZ certificate for 199. I need just Zone 23 on 80 Meters for them all.

I am currently still running my Yaesu FT-920 (loaded with Inrad filters), a QRO HF2500DX (Which rarely gets turned on these days), the same 100 ft. Rohn 45 tower, now with a KT36-XA and a modified Cushcraft 2 element 40M beam above that. I shunt feed my tower for 160M, dipoles, 30M & HF2V verticals, and a 7 element 6M yagi round out the remainder of the antenna system.



# VP6D Ducie Island DX- pedition Project Completion Financial Summary August 4, 2019

(Provided by WØVTT)

**As with previous** Perseverance DX Group (PDXG) projects we are sending to our club / foundation sponsors this VP6D financial summary.

On 1 July, 2019 documents were filed with the Arizona Secretary of State to dissolve the “Ducie 2018, Limited Liability Company”. All project bills are paid in full and surplus money was divided across the on island team members.

The project cost estimate was ~\$185,000 (USD), with team members paying any shortfall or sharing any surplus. Most expenses are incurred prior to departure, so each team member made an up-front payment of \$16,000 - \$17,000(USD), which included the operators’ contributions to the expedition and their travel / living expenses to meet the Braveheart.

A summary of the project’s financial performance follows:

The team made 112,042 contacts with 24,935 unique call signs. Based on propagation forecasts our initial planning estimate was 60,000 – 80,000 QSOs.

Exceeding the QSO estimates by a significant margin resulted in higher than budgeted OQRS income. At this writing, 7,558 QSL card confirmation requests were processed via OQRS, (OQRS direct / buro) and direct mailed cards. Donations from a subset of the



My current antenna “mini-farm”. Kudos to Denny-KØTT for making this dream a reality.

I have experienced a true adrenaline rush three times in my life. The first was downhill skiing in waist deep snow in Colorado. The second was reeling in a trophy

walleye in Canada. The third happened sitting behind the microphone in 2011 operating VP5H in the ARRL DX contest. Thank you Glenn and Scott for allowing me that experience. I will never forget it.

I retired just about three years ago after a career at National Computer Systems / Scantron in Eagan. When not on the air, I enjoy summer activities of golfing, fishing, bicycle riding, and driving my Camaro. In the winter I enjoy downhill skiing, and building and restoring fishing rods. At last count I have approximately 60 fishing rods, ranging from ultra-lights to surf rods, all lying about the house and in my two boats. I am sure if radio conditions had been better over the last three years, then I would not have accumulated so many darn fishing rods!

You can find more information (albeit probably quite boring) at [www.wa0mhj.com](http://www.wa0mhj.com)

73 Mark – WAØMHJ



# Ducie Island 2018



24,935 unique callers, clubs and foundations also resulted in higher than budgeted income.

Income from all sources other than team members: \$122,985

- ◆ Clubs / Foundations
- ◆ Individuals
- ◆ OQRS / Direct Mailed Cards

Note: Major equipment was loaned or donated by our corporate sponsors, team members or other DXers, these in-kind acquisitions are not reflected in the budget.

Expenses: \$190,773

- ◆ Ship / Island Logistics
- ◆ QSL Printing / Postage
- ◆ Antennas
- ◆ Generator Fuel
- ◆ I/T
- ◆ Freight
- ◆ Bank / PayPal Fees
- ◆ Satellite / Internet Fees
- ◆ Insurance
- ◆ ATA Carnet
- ◆ Fuel Surcharge
- ◆ Misc.

At the completion of this twenty-one-month project the expense budget was 3.1% over plan, most expenses came in at, or slightly above plan. Significant expense misses were Freight, due to an unexpected return shipment surcharge, and a Satellite / Internet Services issue. Team member travel / living expenses were treated as a pass through, they are not reflected in the budget. Overall, the team's attention to detail and expense management produced an acceptable financial outcome.

We appreciate the generosity of manufacturers, distributors, clubs, foundations and the DX community for their support, making VP6D the success that it was both operationally and financially.

Our next project will be VP8/VP8DXU South Orkney Island, Feb/Mar 2020. We appreciate the support already received from many clubs/foundations and look forward to hearing from those organizations that have not yet responded to our fundraising appeal.

Original Signed by Gene Spinelli, K5GS

VP6D Treasurer



## Dollars for DX Report

Mike Cizek WØVTT  
DX Grant Manager

Greetings. Fiscal Year 2019 had more DXpedition funding than any of the past five years. This year we funded 12 of 14 requests, and it looks like we will vote to fund a 13th when voting ends



for 6O7O Somalia. Once again, we have exceeded our annual budget by using some of the money refunded from 3Y0Z Bouvet Island.

This quarter, we had three requests. D68CCC, Comoros Island is ranked #85 and we voted unanimously to give them \$250. D6 is a New One for 21% of those voting. ZK3A, Tokelau Island, ranked #40, was also a unanimous approval and is a New One for 25%.

By a unanimous vote, our club is giving a \$350 donation to Ken Opskar, LA7GIA, for his 6O7O trip to Somalia. This will be an all time new one for 29% of those voting. Somalia is ranked #60 on the Clublog global list.

As always, I encourage more people to participate in our online discussions and to vote on funding. The online discussions aren't nearly as much fun as our in person meetings, but not everyone is able to attend the meetings.

73,  
Mike, WØVTT  
mgcizek@gmail.com



*The Pitcairn Island DXpedition, VP6R, is scheduled for Oct. 18 – Nov. 1, 2019. TCDXA is a supporter of this expedition, and several TCDXA members will be on the team. By the time of publication of this issue, most of the gear should be already on the island and waiting for the team's arrival. Features of this expedition will be extensive 160m activity and the first ever EME operation from Pitcairn. See <https://pitcairndx.com/>*

— KØJM



**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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# Treasurer's Report *from Pat Cain, KØPC, treasurer*

## TOP LINE SUMMARY

### TCDXA OPERATING BUDGET FY 2019 (Sep 2018 - Aug 2019)

**End of Fiscal Year (2019)**



INCOME	ACTUAL	BUDGET	Actual 2018
Surplus from FY 2018 (balance 8/31/2018)	2945.79		2689.68
Member Dues 2019 by Cash/Checks/PayPal	5219.28	4500.00	4578.52
Door Prize Ticket Sales club share	602.00	500.00	723.00
Donatons (estates, wills, etc.)	0.00		
Refunds and Reversals	2400.00	2000.00	
<b>TOTAL INCOME</b>	<b>11167.07</b>	<b>7000.00</b>	<b>7991.20</b>
EXPENSES		BUDGET	Actual 2018
Member Recruitment/Retention	(35.00)	(150.00)	0.00
Website ISP & Domain Name	(84.69)	(70.00)	(65.69)
Office Supplies, Miscellaneous expenses	0.00	(50.00)	(23.27)
Flowers <SK> and Hospital gifts	0.00	(200.00)	0.00
Holiday Party 2018	(425.73)	(500.00)	(528.64)
ARRL Spectrum Defense Fund	(250.00)	(250.00)	(100.00)
NCDXF Donation	(250.00)	(250.00)	(250.00)
MWA Plaque	(75.00)	(75.00)	(75.00)
Dxpedition Contributions Total	(4,755.24)	(3500.00)	(4002.51)
#1 Dxpedition - TT8KO Chad	(400.00)		
#2 Dxpedition - TO6OK Mayotte	(250.00)		
#3 Dxpedition - XX9D Macao	(500.26)		
#4 Dxpedition - EP6RRC Iran	(250.00)		
#5 Dxpedition - T31EU Central Kiribati	(250.00)		
#6 Dxpedition - XR0ZRC Juan Fernandez	(250.00)		
#7 Dxpedition - VP6 Pitcairn Island	(750.00)		
#8 Dxpedition - VP8O South Orkney	(750.00)		
#9 Dxpedition - T30GC Western Kiribati	(250.00)		
#10 Dxpedition - VU7 Lakshwadeep	(204.98)		
#11 Dxpedition - D6 Comoros	(250.00)		
#12 Dxpedition - ZK3A Tokelau Islands	(300.00)		
#13 Dxpedition - 6O7O Somalia	(350.00)		
<b>TOTAL EXPENSES</b>	<b>(5875.66)</b>	<b>(5045.00)</b>	<b>(5045.11)</b>
NET	5291.41	1955.00	
Checking balance	5291.41		
PayPal balance	0.00		
Cash / Checks on Hand	0.00		
<b>NET BALANCE</b>	<b>5291.41</b>		

When required, Wells Fargo & PayPal online statements can provide detail not shown in this report.





## The MWA Contest Corner

By Al Dewey, KØAD



### Contesting with FT8

On Field Day this year, I had the opportunity to see what contesting with digital modes like FT8 might look like. I was both excited and concerned at the same time. As we have done in the past, Ron (NØAT), Kirk (NØKK), Bill (WØOR), Chris (KØWAG), and I set up for Field Day up near Dorset, Minn. Prior to FD weekend, Ron did some experimenting with FT8 to see what level of automation might be possible. He ended up with a software configuration that included a program called DigiRite, and the WriteLog contest logging program. DigiRite provided the user interface to make FT8 QSOs.

Originally, we were going to use FT8 primarily on six meters. With virtually no six meter propagation all weekend, we moved up to the HF bands and were amazed at the amount of FT8 Field Day activity we found. DigiRite allowed us to select the Field Day contest exchange rather than the standard Grid Square exchange normally used on FT8. Most of the stations we heard were aware of this and had their stations configured for the Field Day Exchange. Ron gave us a quick tutorial on how to use DigiRite and we all had a go at it. The detailed description of how to use the program is beyond the scope of this column. However, basically all you had to do in DigiRite for Search and Pounce CQs was to click on the stations calling CQ FD as they scrolled by. The program took care of the rest of it even including logging the QSO in WriteLog. Calling CQ was even easier. You just started the program calling CQ and sat back and watched it making QSOs. At one point, Ron started DigiRite calling CQ and sat back watching the program make CQs. One time, he left for a while to get something to eat and DigiRite continued to make QSOs. I happened to be on the CW station at the time and watched completed FT8 QSOs scroll by close to the rate I was making QSOs on CW! It was also possible to CQ with two “streams” although doing this meant that one half the power was used on each stream.

Although, technically, we were monitoring the operation of the “FT8 QSO Machine” while operating the CW station, it is not clear to me whether this type of operation is allowed during Field Day. I could not find anything in the Field Day rules about it. FT8 was also allowed in the ARRL RTTY Round Up this year but the revised rules said that automated QSOs were not allowed. Neither was Fox and Hound mode that has been used recently by DXpeditions. I suspect there is going to be some pretty heated discussions about whether this type of automation should be legal in contests. Over a third of our 1289 Field Day QSOs were made on FT8 this year.





Kirk, NØKK and Ron, NØAT are riveted with excitement as they watch FT8 QSOs being made on Field Day

What I described above got us to thinking about what future Field Days might look like. We asked ourselves whether we would be motivated to go to all the work of putting up a Field Day station with all the antennas and then just sit and watch our radios and computers make QSOs with minimum interaction from us. For the most part, I think we agreed the answer was “no.” Although FT8 operation was fun to watch for a while, I know I would tire of it pretty quickly.

Years ago, we used to talk about someone building an automated contest station that would be able to make QSOs on CW without any interaction by the operator. We would joke about being able to go out to dinner or drink beer someplace while your station operated the contest for you. I think there were even some halfway successful attempts at doing this. It is clear that with FT8 (and now FT4), the technology to do this has arrived.

The question for me is not only whether such operation will be allowed in contests going forward but, if it is, how enjoyable would it really be.

## The FT8 Roundup and ARRL RTTY Roundup

A couple major contests using FT8 have taken place over the last year. One was the FT8 Roundup last December sponsored by WØYK and AA5AU. I did not operate it but, from what I can see in the contest results, it was fairly successful. The top single op station made almost 700 FT8 QSOs in a 24 hour period. FT8 was also allowed in the ARRL RTTY Roundup for the first time this year. The final results are not out yet but the preliminary results show that, although FT8 was present and a lot of guys used it, RTTY was still the preferred mode. According to the preliminary results, approximately 10% of the QSOs made in the RTTY Round Up were made on FT8. Several of the top guns said that the QSO rate on RTTY was still faster. Of course, with the faster FT4 now available, things may be different next year. I should point out that unattended operation (like I describe above in our Field Day discussion) was not allowed in either of these contests. Nor was Fox and Hound mode.

## Final Thoughts

So, where does that leave us? Clearly modes like FT8 and now FT4 are here to stay. They are immensely popular in the general amateur radio community. As a younger generation of tech savvy newcomers enter our hobby, I can see that digital mode contests could become very popular. Nothing wrong with that. However, I hope that digital mode contests do not be-



come replacement for existing contests. For those who have grown up with CW, SSB, and RTTY contesting, there is something still “magical” about being personally involved with each QSO made as opposed to watching two computers talk to each other in modes such as FT4 and FT8. The FT8 only contests that have taken part so far have been reasonably successful. I do plan on trying these in the next contest season. I do think that adding digital modes like FT4 and FT8 to the ARRL RTTY Roundup is a mistake. RTTY and FT4/FT8 are two different animals in my opinion and should not be lumped together just because they are both “digital”

See you in the pileups (including a few digital ones) !

### Last Minute Update

After completing this column, I received information that the ARRL has made a decision to disallow fully automated contacts for its contest and awards including the DXCC program. What this means is that, when calling CQ, the operator must be involved in initiating the next CQ after completing a QSO. Automatically sequencing through a QSO will still be allowed but the operator must intervene to initiate the next CQ or S&P QSO. This seems to make sense and will alleviate some of my concerns about “automated CQ machines”. Still, I simply do not find these types of QSOs as interesting and fun as those in which the operator is fully involved in making the entire QSO.

## Backscatter: Miscellaneous, Assorted and Sundry Items of Note

*by Mark Johns, KØJM*

WELCOME ABOARD  
New members of TCDXA include:

Bob Puelston, NØBJV  
Brooklyn Park, MN

Nels Knutzen, WØPEC  
St. Paul, MN

Kari Gustafsson, SMØHRP  
Sollentuna, Sweden

Rex Greenwell, KØKP  
Duluth, MN

— ... — — ... — — ... — — ... —

The Chinese DSLWP-B (LO-94) satellite that had been in lunar orbit provided a profile of Earth’s HF spectrum as seen from the moon. This is rare DX, indeed! Read the full story and see the spectrum chart at:  
<https://bit.ly/31T0cFO>

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The Fall meeting of the Minnesota Wireless Association will be held Tuesday, September 24, at Broadway Pizza in Blaine. Social hour will start about 4:30 p.m. If questions, contact MWA President Bill Lippert, ACØW at [ac0w@charter.net](mailto:ac0w@charter.net)

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# TWIN CITY DX ASSOCIATION (TCDXA)

## CLUB FACT SHEET

### Who We Are:

The Twin City DX Association (TCDXA) is a 501(c) (3) non-profit amateur radio organization, whose members have an interest in DXing and in supporting the club mission: **Dollars for DX**. Bylaws and Articles of Incorporation govern the club's operation.

### Club Mission:

The club mission supports major DXpeditions with financial donations. The source of operating income for this activity is an annual contribution (dues) of \$25 from each member.

### DX Donation Policy:

The policy supports major DXpeditions that meet our requirements for financial sponsorship. All requests must be approved by the Board of Directors. Final approval is by vote of the full membership. Over 70 DXpeditions have been sponsored since 1997. Details are available on the website at: <http://www.tcdxa.org/sponsoredxpditions.html>

### Club History:

The club was formed in the early 1970s by a small group of DXers from the Twin City area. Over the years, the club has changed; most notably by opening its doors to anyone interested in DXing - from the casual to the very serious operator. Our membership now resides in numerous states and several countries.

### Requirements for Membership

We welcome all hams who have an interest in DXing and hold a valid FCC Amateur Radio License. It doesn't matter whether you're a newcomer, or an old-timer to DXing; everyone is welcome!

### Meetings:

The club meets on the third Monday of each month (except July & August) at PUB 42 Restaurant in New Hope, MN. Members gather early in the bar for Happy Hour, and move into a private room at 5:00pm for dinner and a short business agenda, 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 officers, plus one additional member make up the Board of Directors; currently: Bill Mitchell, AEØEE, President & Director, [wsmitchell3@gmail.com](mailto:wsmitchell3@gmail.com), Bert Benjaminson, WBØN, Vice President & Director, Pat Cain, KØPC, Secretary/Treasurer & Director, [k0pc@arrl.net](mailto:k0pc@arrl.net), Mike Cizek, WØVTT, Director & DX Donation Manager and Doug Arnston, KØPX, Director.

### Website:

We maintain a website at [www.TCDXA.org](http://www.TCDXA.org) that provides information about a variety of subjects related to the club and DXing. The site is maintained by our webmaster Pat Cain, KØPC.

### Newsletter:

The **Gray Line Report** is the club newsletter, which is published on a quarterly basis. We're proud of the fact that 99% of the content is "homegrown" – written by our members. Past issues are on the website at:

<http://www.tcdxa.org/newsletter.html>.

### How to Become a Member:

An application for membership can be completed and submitted online, or printed and mailed in. (See <http://www.tcdxa.org/Application.html>) Contributions may be made by check or via the PayPal link on the homepage at [www.TCDXA.org](http://www.TCDXA.org).

### Visit us at a Meeting:

You are most welcome to attend a meeting, and look us over, before joining. Meetings are held at the PUB 42 Restaurant at 7600 Avenue North in New Hope (<http://pub42.com/>). Join us for happy hour at 4:00pm with dinner at 5:30pm, followed by the meeting at 6:30pm.



VKØIR	K5D	AHØ/NØAT	3W2DK	K4M	XU7MWA
ZL9CI	VK9DWX	5X8C	FT4TA	TX3A	S21EA
A52A	FT5GA	K9W	VK9MT	KMØO/9M6	J2ØRR
T33C	3D2ØCR	XRØZR	VK9DLX	YS4U	J2ØMM
3B9C	E4X	T3ØD	VU4KV	YI9PSE	BS7H
TX9	CYØ/NØTG	3W3O	EP6T	ZL8X	N8S
CP6CW	VP8ØRK	3W2DK	VP8STI	4W6A	3B7SP
3YØX	VU4PB	FT4TA	VP8SGI	T32C	3B7C
K7C	STØR	VK9MT	TX3X	HKØNA	5JØA
5A7A	3D2C	VK9DLX	VP6DX	7Ø6T	K5P
VU4AN	3CØE	VU4KV	TX5C	NH8S	FT4JA
VU7RG	TT8TT	EP6T	9XØR	PTØS	PZ5W
VK9DWX	9M4SLL	3GØZC	9U4U	FT5ZM	ZL9A

## TCDXA DX DONATION POLICY

The mission of TCDXA is to support DXing and major DXpeditions by providing funding. Annual contributions (dues) from members are the major source of funding.

A funding request from the organizers of a planned DXpedition should be directed to the DX Donation Manager, Mike Cizek, WØVTT. He and the TCDXA Board of Directors will judge how well the DXpedition plans meet key considerations (see below).

If the Board of Directors deems the DXpedition to be worthy of support, a recommended funding amount is presented to the membership for their vote. If approved, the TCDXA Treasurer will process the funding..

### Key Considerations for a DXpedition Funding Request

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>DXpedition destination</li> <li>Ranking on <i>Most Wanted Survey</i></li> <li>Most wanted ranking by TCDXA Members</li> <li>Logistics and transportation costs</li> <li>Number of operators and their credentials</li> <li>Number of stations on the air</li> <li>Bands, modes and duration of operation</li> <li>Equipment: antennas, radios, amps, etc.</li> <li>Stateside and/or foreign QSL manager</li> </ul> | <ul style="list-style-type: none"> <li>Website with logos of club sponsors</li> <li>QSLs with logos of club sponsors</li> <li>Online logs and pilot stations</li> <li>Up front cost to each operator</li> <li>Support by NCDXF &amp; other clubs</li> <li>LoTW log submissions</li> <li>Previous operations by same group</li> <li>Valid license and DXCC approval</li> <li>Donation address: USA and/or foreign</li> </ul> |
|---|---|

To join TCDXA, go to <http://tcdxa.org/>.

