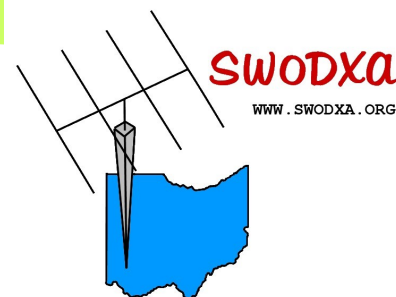




the exchange



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Club Call : W8EX

The Prez says Tom, NR8Z

Happy almost spring! There's an inch or so of snow on the ground as I write this but, before we know it, the weather will break and outside projects will look attractive again. I'm looking forward to getting out in the field and making some QRP contacts. Nothing like low sunspot numbers to add to the QRP challenge.



Well, this winter I finally finished 80M DXCC which gives me 5BDXCC. Even with LoTW it seems like crossing the finish line was more of a QSLing than QSOing effort. On to 30M to add another DXCC band. I'm hoping FT8 and LoTW make it easier to wrap it up this time around.

I did a casual operation in the ARRL CW DX Contest. There were a few other SWODXA members on but only Dwight, K4YJ and I submitted logs tagged with SWODXA. First, I hope more of you participate in DX contests; there's always a band/country to work or propagation to learn about. Second, if you do get on, don't forget to list SWODXA in the club line. We can use the publicity!

In March we switch meeting locations to the Marion's Piazza at 8991 Kingsridge Dr. in Dayton. We will be at this location through June.

This month we have an informative newsletter. There is a balance between "How To" articles and what it is like from the other side of the pileup. It is nice to see so many articles from SWODXA members, keep up the good work!

Stay safe out there and Good DX.

Tom, NR8Z
President, SWODXA

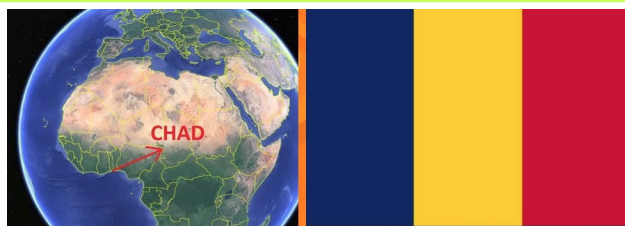
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Chad TT8KO DXPedition—Part 2

By Ken, LA7GIA

(Reprinted with the permission of Ken, LA7GIA. Originally appeared on the TT8KO website. Part 1 appeared Vol 2, Issue 3)



I had rested for about 5 min before the receptionist called me again and let me know I had some guests waiting. I went down to the reception area.

In the reception area I met several men asking for my name – they were the national security police. We went to the room, but it was soon clear I could not discuss with them in French. So they called for an interpreter assisted by hotel security people, and soon the room was packed with people. The security police started the interrogation. Their questions were all related to

- Why I was in Chad. What the purpose of my trip was
- If I was working for the Norwegian government. And if I was a telecom engineer
- Why I had all this equipment. Who I had been in touch with prior to coming to Chad
- If I had an invitation to come. If I had a VISA, and who had issued that.
- If the equipment had been shipped or brought into Chad by others
- Who brought the equipment from the airport to the hotel
- What persons I had contacted in Chad after arrival
- Who had issued the authorization. If I had a copy of all my documents, including my LA license



All these questions were answered with: no, I am not a telecom engineer working for the Norwegian government. I work as an electrical power engineer, and I am in Chad on vacation as a tourist.

After that the questions turned into: what I was transmitting, who I contacted, what we were really talking about, how long our conversation lasted, if this was a commercial business or broadcasting. We went through the N1MM log and I patiently explained how we did the transmission, the logging and so on. The 1h interrogation concluded when the police claimed that my radio could be controlled by others even from abroad. I was told to stop transmitting, and that they would return next day. All this in a friendly matter. I caught up with some sleep, and next morning I decided to fix the beam by replacing the failed inductor with a spare part. At 11:00am the national security police arrived in the hotel. It was a brief meeting, and they explained that all equipment should be disconnected, and the antennas would be locked down at the roof with no access. I was clearly told that everything should remain as it was, in the same position, nothing was to be touched or altered. I was not allowed to maintain the antennas at the roof, not even for visual inspection.



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Chad TT8KO DXpedition—Part 2 (cont.)

I was told that the equipment was going to be checked for compliance with documents. The chief of the national security police had decided that he and his technicians together with ARCEP who issued the authorization would perform the inspection. I showed them the documents and the radio to convince them about the compliance. But it was not their decision, but an order from the Chief himself. At that time I was convinced it meant TT8KO would be temporary QRT until they actually had checked the documents and the equipment the following days. Unfortunately, Chief of security police was a very busy man.

At that time he was travelling together with the President Idriss Déby and they were supposed to return from abroad the next day (Friday).

While waiting for the big boss I went to see ARCEP on Friday to have their explanation. It was nice to see the city and the daily life while driving there for a short sightseeing. The traffic was chaotic, cars and people everywhere – still no accidents – quite different than Los Angeles which I visited the previous month. In the small office 7x7 feet there were 3 people sharing one desk, where the manager had 90% of the space and the two others 10%. After talking to ARCEP it was clear that even with the authorization they could do nothing if the transmission was stopped by the security police for any reason. I realized after waiting for 3h that I had to spend the weekend in the hotel doing nothing.

Police order

The hotel was reasonably well protected behind concrete walls. There were about 15-20 armed guards on duty 24/7. It had a perfect river location very suitable for amateur radio transmission. They also had a strict procedure to check all cars and people entering the compound. They used metal detectors, and all weapons and machetes were taken from the visitors and returned when they left the hotel. During the weekend I looked after my antennas. At Saturday night there was a Chadian party at the hotel,

with music and happy people. Hundreds of persons in the hotel and garden. No wonder some of them got entangled in the 80m vertical antenna guy wires. Next morning, I found the 80m vertical collapsed on the grass. But because I was not allowed to touch anything, even after it fell down, I could only look at it - doing absolutely nothing. During the weekend I realized nothing was going to happen. I tried to gather more information about what was really going on. It seemed that the first security police men filed a report about my massive equipment, coax and antennas to their boss. When they interrogated me, they had confirmed the impression that I had a lot of communication equipment with me without (for them) a reasonable explanation about what we were really talking about. This report went all the way to the top Chief of the security police next to the President. It was also clear that the national security police after a few days' investigation said my documents were ok. However, they had not been informed about the authorization by ARCEP. The national security police do not issue authorizations, but they supervise security issues.

Monday morning, I decided to again go to ARCEP and talk to the Director. Another sightseeing trip, I really enjoyed seeing the city. Luckily, we managed to get an appointment with the Director. There was a brief meeting and discussion about my authorization and the purpose of applying for a permit. I was quite surprised about the questions as they apparently had no idea what amateur radio was all about. They said usually the tourists did not bring their own communication equipment but used the commercial mobile network to contact their friends. After a while I kindly asked ARCEP to come to the hotel to verify the equipment. They agreed to come to the hotel at 16:00 local time that day to do the inspection together with the police, and it was clear that a decision would be made that evening. I was not worried about the inspection because I had the authorization and equipment certificates in order.

(cont. on Next Page)

Chad TT8KO DXpedition—Part 2 (cont.)

By late Monday evening, at 20:00 no person had arrived. I was truly disappointed when I realized the deal. The faces of the hotel staff that used to be happy when I arrived one week earlier had turned into sad and worried faces. Many of them expressed their concern and supported me. Wednesday morning, after waiting one week - I decided to change my return ticket back home to Norway, so I would leave the following day. I was hoping that they finally would arrive and do the inspection of the gear and let me continue. And this was definitely not a question about bribe or paying a fee to be allowed to continue transmitting. We had a meeting with the national security police and I informed them about the flight change and asked for permission to disassemble the gear as everything was still locked down. I was still not allowed to touch anything but after the inspection had been done. By late Wednesday evening I contacted the Hotel management to prepare for departure the following day as the police never came during the day. We had a very rough meeting with the national security police. After a heated discussion I was informed that a police order had been issued preventing me from leaving Chad even without the equipment. I had to stay until the inspection was performed, and they had concluded about my equipment was legal or not. I was truly shocked about this dramatic change in situation which I never saw coming. I was told that the security police would arrive at 10-11:00 next morning to check the station just prior to my departure at 11:30. That would give me 30 minutes to pack all my gear before I had to go to the airport! It was an impossible task, it meant I would have to leave a lot of gear behind. That night I headed straight to the bar to calm down. Thursday morning I woke up early, I did not sleep much at all that night. By 12:00, two hours before my flight, I had to call Ethiopian airlines to cancel my flight ticket and the status of my return flight changed to "open" as the police never showed up. I was warned not to challenge the police order and go to the airport, even without

equipment.

I had a busy Thursday as I started to contact the Foreign Ministry in Norway and the Norwegian Embassy in Chad. I definitely needed their assistance in this case. After sending all my documents to them, I received a letter with the top 10 Schengen lawyers in Chad. As they said, "in case you need it".

Friday morning was no change in situation. I did not care about my equipment anymore - if the antenna fell down 25 meters because I was not allowed to maintain it - nobody would care. I had several expensive phone calls to the Embassy.

Saturday was another big event scheduled at the hotel. A fashion show or beauty pageant. The hotel was packed with young women (and men..) - most of them smiling when taking selfies. So many happy people! In the evening it seemed like the whole city joined the party, even the national security police were busy. After

so many days I had learned a lot about the national security police. There were 4-5 security police on patrol in the hotel every day, they were dressed like civilians, and if you did not know them you would think they were regular guys.

By the weekend arrived several hams had started donating "beer money" to my PayPal account which was very much appreciated. In fact, a few people also made a refill on the beer account! Lots of people expressed their support and prayers for me. Fantastic ham spirit! I had received hundreds of emails from all over the world, especially from NA.

(cont. on Next Page)

Liste Avocats

Les listes sont communiquées à titre d'information par ordre alphabétique et n'engagent pas la responsabilité de l'administration, tant sur la qualité des prestations fournies que sur le montant des honoraires réclamés ; le choix est libre.

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Chad TT8KO DXpedition—Part 2 (cont.)

All this really kept my spirit up, and the support was very much appreciated in a difficult time! The days went along, I spent much time chatting with people all over the world from 5 min to hours. I really had no clue when the saga would end, if it would take days or weeks. I started worrying about my daily life back in Norway, my family, my business and so on (also VP6D .. which was an ATNO). By Saturday the Hotel management also clearly stated that they had to withdraw from the situation.

Sunday I was informed that the Chief had decided to visit hotel on Monday. However, it turned out to be fake news. Yet, another disappointment.

Monday I had further discussion with the Embassy and the management to try to get in touch with the Chief of security police. No success, but the Embassy understood it was mentally difficult to stay there alone, so they put even more effort into the process. By Tuesday at lunch time I was informed that there would be a presidential event at the hotel starting Tuesday evening and the hotel would be occupied from then on. Because of this event the Embassy really pushed for a solution. If we could not obtain a quick solution, I would have to stay at least another week.

By lunch time Wednesday – 2 weeks after they stopped my transmission - I was informed by the national security police that I had to leave Chad by next morning prior to the event. The Norwegian Embassy had managed to get in touch, and situation was finally resolved! They said all gear had to be taken down before sunset as the hotel would be filled up with police, VIPs and in fact Presidents from other countries in Africa. They were all going to attend the meeting at the hotel. All rooms were checked, there were police all over the hotel. I was allowed to leave the country with my gear, but I was not allowed to transmit. It was an emotional moment. After that I quickly called the airline to change my flight ticket – I complained about the change fee, but really had no choice. After that, It took me only 2.5 hours to disassemble all gear and pack everything.



Leaving Chad

I was also informed that because of the Presidential event all roads out of the hotel would be closed, and it would be very difficult for me to leave. However, I had the hotel management promises that they would assist me. By Thursday morning, hotel was packed with even more VIPs. In the morning I was escorted out of the hotel – it was fascinating to have a glimpse of the event, the ceremoniously preparations, the military road blocks, the machine guns and so on. I was relieved when we were allowed to leave the hotel gate after they checked all papers. At the airport it was the same procedure, because a lot of VIPs and Presidents would arrive that morning from all over Africa, there was a very strict security measure.

Guess who I met at the airport? I will tell you some other time. I was truly relieved when we finally headed for the runway. Not to say when I landed in Oslo the following day! Despite all my papers were good, still I faced all these problems. I will never know for sure why the security police did not want me to transmit. But I don't think this would have happened to a larger group.

I want to thank each and every one who supported me – it really meant a lot to me! You really kept my spirit up. I also especially want to thank those 40 persons who donated 1500 USD out of 2500 USD extra expenses I had due to changing flights twice, paying additional accommodation and expensive phone calls. Thank you!

So, where next?

73 Ken LA7GIA

60 Meters—The Channel Band

By Joe, W8GEX

Working an all time new one (ATNO) with the Gray Line

Anyone who knows me, knows I am a 60 meter DXer. There are 200 countries that are on, or have been, on the band. My country total is at 172 and I am in fourth place. Working DX is not an easy task on this band. The low power limit, in our case, is 100 watts. Most other countries can only run 15 watts. Most antennas are verticals or inverted vee's.

I like working the both gray line and getting the advantage of the gray line enhancement. I try to be on at least 30 minutes before either sunrise or sunset, sitting there like a cat waiting for the mouse, patiently waiting for the new one to appear. I have a monitor that shows the gray line 24/7 to assist me.

I get two bulletins, one daily and the other weekly, or I get an email to alert me that a new country is ready to come on. I always get up early so the morning gray line is not a problem for me, but the late afternoon gray line can be problematic as I might be running errands, or out for dinner etc.



At times it will days or even weeks to get the right conditions to work an ATNO. Obviously, patience is in order here. My most recent QSO's doing this were with YB9QP, UT7IS, and YJ0AFU.

Most of the time I can decode them on FT8 because of all of my receive antennas. In many cases the DX station can't hear well because of their local noise or the OHR (Over horizon Radar from China, if they are in the Pacific region). So it becomes a huge cat and mouse game. The nice thing about FT8 is the program can decode signals down to -24 db below the noise.

As I decode stations to my east, such as Virginia, I know my chances are getting better as the gray line is moving west in the mornings, and my cat and mouse game is about to play out.

Please consider working the gray line.

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How Well do you Know your Club Members? (Answer on last page)



I was born in Cincinnati – I have lived in Hamilton or Butler County my entire life. My main occupation is/was Domestic Engineer - Office/Secretarial work – Business Owner

My other hobbies include watching OLD TV game shows...Match Game 74, \$25,000 Pyramid, Hollywood Squares, etc. I also have my CCW and enjoy going to the range. I have 3 rescued cats – Olivia, Wall-e and Eva.

Something that will surprise you about me –We owned a house and boat on Lake Williamstown in Kentucky. We were there every weekend of my life until we sold it in the spring of 2001.

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WB8ART— Randy : Well this Fall/Winter I have been playing a lot of 60 and 160 meters which I haven't spent a lot of time on due to lack of antennas which still is a bit of an issue but I do have a sloper on 160 and on 60 I have added a fan on the 80 inverted vee. Also have a Steppir big IR which will also cover 60 meters. So have got my worked totals up to 75 DXCC's on 60 and 43 DXCC's on 160. A lot of this has been on FT8 but not all. State wise have got 49 states on 60 meters and 48 on 160. I worked Japan on 160 in January and Fiji on 60 so a good day. Did see Alaska on 160 this AM as well but didn't get him.

We are proud to announce the creation of a new website for DXpedition enthusiasts—more than a website, it is a real calendar dedicated to DXpedition hunters.

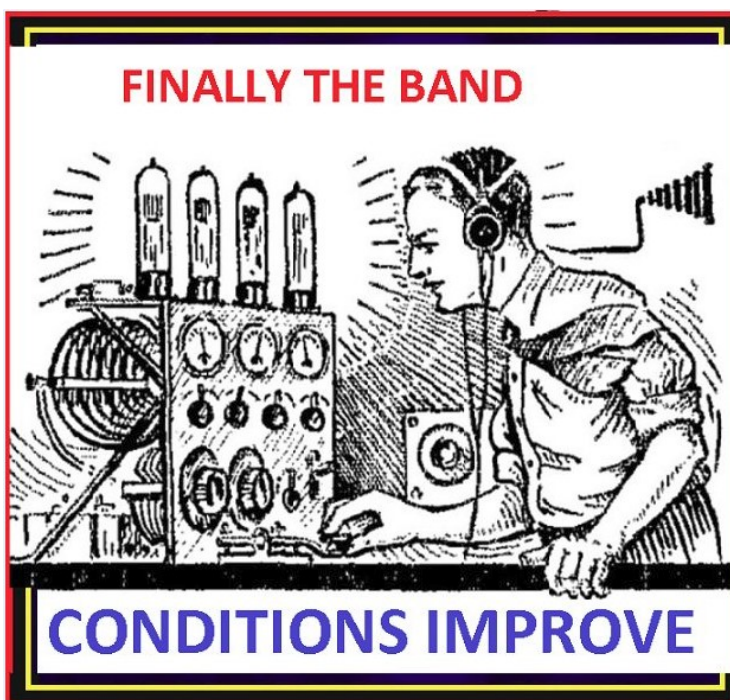


From a small idea was born DXcal, what we hope will soon become a point of reference for hunting the DX, to follow the various teams around the world, to look for the ATNO or just to travel with the imagination and curiosity in remote islands. We hope you like it.— *DXcal.info Team*



From John – K8BA : **G3TXQ** became a silent key. Steve was instrumental in redesigning the Hexbeam wire configuration to what we know today as the Broadband Hexagonal Beam that has become so popular worldwide. He will be sadly missed by all that knew him.

Condolences to his family and Friends



Interview with UA4CC—Arkady

After working UA4CC and reviewing is QRZ.com webpage, I knew he would be an interesting ham for our newsletter. He can be reached at ua4cc@remolltd.com

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

UA4CC: My father was an engineer by education (not radio), he liked to design things. He made transistor receivers. I loved to be around, ask questions and ask more questions. Soon I became involved in the process and had assembled my first super regenerative receiver for the MW band. Dad had collected all the magazines "Radio" since 1962. I looked through them with interest. Most of all I was interested in notes about short-wave radio amateurs, rivalries, expeditions. Gradually, the dream itself appeared on the air. It's good that the dream came true!

AJ8B: When did you get on the air?

UA4CC: In our city there was a section of short waves at the Palace of Pioneers. Something like scouts.



There was a local radio station, UK4CAS. Her boss was Valery UA4CM (ex UA4DK). I started going to classes somewhere around 1971. The group studied Morse code, the basics of radio engineering, and the rules of radio communications. We observed how senior interpreters and Valery made connections in the air. Soon, having checked my knowledge and skills, the manager allowed me to make my first QSO. It was evening time on of 20 meters. I heard the CW CQ Swedish amateur radio (unfortunately, forgot the call sign) and called it. The first QSO took place! My happiness knew no bounds! Soon I received my first individual license, in December 1975. This was UA4CDC. At that time, I was still in high school. In the early 1990s, I received a category 1 license (similar to Extra Class) and changed my callsign to UA4CC. Since then, this call has not changed.

AJ8B: Do you have a favorite band or mode?

UA4CC: Of course, preferences change. But I always loved CW the most. For the last 10 years I have been living in a country zone, in an individual house. Here we managed to create quite good antennas on the low bands, especially receiving antennas that are inaccessible in the city. Since then, I have been focusing on the most difficult for DXing band - 160 m. Progress cannot be stopped. Recently, I began to actively use digital modes of communication, mainly FT8. Generally, I believe that Mr. Taylor made a revolution in amateur radio and is ready to talk about it in more detail, but this is beyond the scope of this interview.

(cont. on Next Page)



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

Interview with UA4CC—cont.



AJ8B: It would appear that you have an excellent location to work DX when you are home. Close to the Ukraine, Georgia, Azerbaijan, The Black Sea and the Caspian Sea along the Volga River. Looks terrific! How is propagation from this excellent QTH?

UA4CC: So, maybe we are close to the places you mentioned. But we are very far from DX of Central America, the Eastern Pacific. I do not think that there are any particularly winning QTHs. My QTH is far from the seas and oceans, I think it negatively affects the conditions. Often we hear stations from Scandinavia or, on the contrary, Italy, DX work, and we don't even have any traces! In Russia there is a saying "good where there are no us." I think this is about the propagation!

AJ8B: In reviewing your QRZ.com page, I see that you have been very active from various locations. What is your favorite location and why?

UA4CC: I am not an DX-expeditioner in the full sense of the word. My friend Arunas LY2IJ from Lithuania and I go to various exotic places with our spouses, taking the radio with us. This is the format that I call "transceiver-chill". Despite this "light" format, we take with us everything necessary for actuality on the low bands, especially at 160 m. In this format, we have visited in recent years, FS, J8, 3DA, C9, 9Y4. I like every place where we have not been. I would not allocate any of these locations.

AJ8B: The pictures on qrz.com show that you have many excellent antennas. Can you describe your antenna farm?

UA4CC: I do not think that I have very good antennas. Many colleagues from Russia, the former USSR have much better setup. Today I have db18e from SteppIR 3 ele YAGI, also the "old" 3 ele SteppIR fixed to 300 deg. I have a vertical for 160 and 80 m in height a little more than 30 m with a large number of buried radials up to 42 meters long. In addition, I

have a backup vertical antenna for 160 and 80 meters with a height of 25 meters. The VHF / UHF mast with a height of about 20 meters has 16 yagi elements per 2 meters with a traverse length of 9.5 meters, 25 elemental yagis for a range of 70 cm and 2x67 yagi elements per 23 cm. I don't have a setup to work EME. In general, I am not very active on VHF / UHF, although I have antennas. You can see another 7 elements of the yaga on the range of 6 meters, however, so far this range, to our great regret, has not been approved for use by radio amateurs in Russia. This year, the country is giving up analog TV and we all hope to start working on the magic band.

(cont. on Next Page)



Interview with UA4CC—cont.

AJ8B: What equipment do you use?

UA4CC: I use the YAESU FTDX9000D and FTDX5000 transceivers on HF. On VHF, I use a KENWOOD TS2000X. Various amplifiers are available from YAESU, OM-POWER, IOJXX. I use a K3 Elecraft transceiver at my remotely controlled station in Montenegro 407CC. In addition, there is the Elecraft K3 for travel and the SPE 1,3KA-FA amplifier.

AJ8B: Do you take your equipment with you when you go on these DXpeditions?

UA4CC: Yes, almost always. Only in the Palau T8CC did I use a rented on-site transceiver and amplifier. With us we take the antenna. When traveling, the Elecraft K3 transceiver and an amplifier from Italy SPE 1.3KA-FA are used. In addition, we carry a lot of auxiliary equipment (transceiver interface, filters, cables, wires, insulators and antenna ropes, telescopic fishing rods, devices for mounting receiving antennas, and much, much more! In most cases, they have to strongly overpay for the extra luggage.

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

UA4CC: The format of the interview will not allow to describe in detail the methods of "calling DX" in the pileup. Briefly:

- if after the first 1-2 calls you have not been answered, call again, your chances increase.
- Try to listen more.
- select the most free frequency in the file.
- try to understand the logic of DX forwarding in frequency and predict where its receiver will be in the next second.
- Do not repeat your call sign if DX has received you correctly. You just mislead the operator and he doubts the correctness of your call sign.

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

UA4CC: The main rule of a novice operator is to listen more than transmit! When working CW, choose the speed with which your correspondent transmits. If you have not accepted something - do not hesitate to ask again. Do not be afraid, experience will come with time, no one will judge you for mistakes.



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

ARRL OH Section Updates

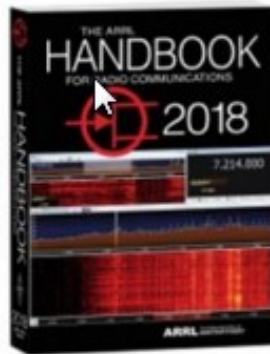
From our ARRL Section Manager,
Scott, N8SY

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

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

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

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



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Short Overview Course on Radio Propagation—Jay, K4ZLE

Several months ago the **ARRL Contest Update** newsletter mentioned a short overview course on radio propagation which can be found at:

https://www.meted.ucar.edu/oceans/radio_waves. The course itself takes between one hour to one and a half hour and is free. You will not be an expert in propagation upon completion of the course, but it will familiarize you with the basic concepts and nomenclature associated with "propagation speak." Even if you think you are above average in knowledge of the subject, it does provide a nice refresher.

By the way, even if you are not a contester, I highly recommend subscribing to the **ARRL Contest Update**. It is published every other Wednesday and is sent to you via email. It is free to ARRL members and you can sign up for it on the ARRL website. As I said the newsletter contains information that is not limited to contesting, but it just might spark you to spin the dial and give contesting a whirl. More info can be found at: [The ARRL Contest Update](#).

5W0GC & YJ0GC 2018 DXpedition—Part 1

Stan—LG1GC

The 2018 DXpeditioner of the Year award winners keeps going and going and going.. Here is part one of our exclusive scoop on his most recent DXpeditions.



The idea of activating Samoa (5W) and Vanuatu (YJ) occurred to me immediately after the end of the H40GC DXpedition 2017. I had other plans, but in February, 2018, I decided to activate these two destinations. At that time, Samoa (5W) was 127th in the CLUBLOG ranking as the most wanted country among the amateur community and Vanuatu (YJ) was number 75 in the same ranking.

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

5W - Samoa—Samoa, know as Western Samoa consists two main islands Savai'i and Upolu, account for 99% of the total land area, and eight small islets. Samoa has total area 2842 square km. Samoa located south of the equator, about halfway between Hawaii and New Zealand in the Polenesian region of the Pacific Ocean. The capital city of Samoa is Apia, located on the main island of Upolu.

Samoa has a population around 194,000. About three - quarters of population live on the

main island of Upolu. 92% of the population are Samoans, 7% Euronesians - people of mixed European and Polynesian ancestry and 0.4% are Europeans.

The organization and preparation for the 5W0GC & YJ0GC DXpedition 2018 took 7 months - a time of hard work involving almost of all my spare time. After a successful initial re-search on these two destinations regarding travel, visas and accommodation, I decided to carry on.

5W0GC activity from September 28, 2018 to October 14, 2018, and YJ0GC activity from October 15 to November 4, 2018.

In March 2018 after contacts with the government officials responsible for radio licenses at the Telecoms of Samoa and Vanuatu, I was able to get the necessary licenses quickly. I received permission to use the call sign 5W0GC from Samoa and YJ0GC from Vanuatu.

The next step in the preparing for this DXpedition was to buy the necessary airline tickets and make reservations for Samoa and Vanuatu accommodations. During this time I received a nice invitation from Atsu, 5W1SA to visit him and activate 5W0GC from his home. His hospitality was most gracious and made it easier for me to optimize my station setup and location. I am grateful to Atsu for the invitation, hospitality and help which he provided me during my stay in Apia, Samoa. Thanks, Atsu!

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5W0GC & YJ0GC DXpedition (cont.)

For choosing a place to stay at Port Vila, Vanuatu, I received assistance from Chungki, VA7YM (YJOYM). The proposed location was the Blue Pango Motel in Port Vila. I had another backup motel option, but it did not have to be used as the Blue Pango Motel turned out to be a very good place for YJ0GC activity.

In May 2018 I had a conversation with Lubo, OM5ZW, a good friend from our T2GC DXpedition in 2015. He expressed a desire to participate as an operator at YJ0GC. He further recommended Karel, OK2WM to join our team. Now, the composition of the upcoming DXpedition to Vanuatu grew to 3 operators.

The months from May to September 2018 passed with preparing and testing the radios and antennas to be used on the DXpedition. During these months I also sought sponsors for the upcoming 5W0GC (Samoa) and YJ0GC (Vanuatu) activities. To all the radio amateur Associations, Foundations, Club and Individual Sponsors who responded to my requests for support to this DXpedition, I give my wholehearted "Thank You".

The day is 26 September 2018.

Again, I am on my way to the Pacific Ocean! Far from the Motherland. This time my goal is Samoa (5W) and Vanuatu (YJ) - two island countries located thousands of kilometers from Bulgaria.

After three flights, two of which were about 11 hours (each one!), I arrived in Nadi, Fiji, in the early morn of September 28. The same day at 13:40 local time followed another flight to Apia, Samoa.

According to plan, at about 5 PM local time, I was in the passenger arrival area of Faleolo International Airport (Apia), where Atsu, 5W1SA, was expected to meet me.

I was quickly recognized by Atsu, 5W1SA. With so much luggage and with an ACOM sign on one of my boxes it was impossible not to recognize me from the other arriving passengers. We met for the first time! After a short conversation

we boarded his Jeep and headed to his house, Located near the highest point of a mountainous area and about 700 meters above sea level.

Arriving at Atsu's home, I immediately installed my radio equipment. It was dark outside when I began to work on the air with Atsu's dipole antennas at 40 and 80 meters.

During the first night I worked cw on both the 40 and 80 meter bands. The tempo was good, and I stayed committed to the big pile up. I was so energized I operated throughout the night. At dawn, I shut down the station and began to prepare for the raising the vertical antenna for the 160/80/40m bands. This is the same antenna I had successfully used on my prior DXpeditions.

Next to Atsu's property, the 5W1SA QTH had plenty of empty space, and though overgrown with grass and other vegetation, it was possible to install numerous antennas without any problems.

About 11 AM local time on September 29th, Atsu and I prepared and raised the 160m/80m vertical. That same day I began making 160m CW QSOs. During my time as 5W0GC, I tried to make the most of the windows of good propagation for the different continents. Despite the poor propagation, the rate of the contacts was good.

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5W0GC & YJ0GC DXpedition (cont.)

Samoa is known for its daily rains in October. Indeed, during my entire stay in Samoa, there was rain every day, often accompanied by a strong wind. This interfered with the installation of my second antenna – a multi-band GP, designed to work 10-40m. It was on the 3rd day of my arrival on Samoa that I successfully erected this antenna.

Although the focus of this Dxpedition was on the low bands, I was very active on the other bands also, often including CW, SSB and RTTY.

5W0GC activity occurred from late afternoon on September 28 to early morning on October 14. During the night I was active at on 160/80/40m, and during the day on 30 to 10m. Daily pauses were no more than 3 to 4 hours for sleeping and antenna repair. After two weeks, 14,094 QSOs were logged on all radio bands using CW, SSB and RTTY. I am delighted that from Samoa (5W) I gave a new one to many radio amateurs, not only on the low bands but also the high bands.

Here are the statistics from CLUB LOG for 5W0GC activity:

Band	160	80	60	40	30	20	17	15	12	10	Total	Total %
AF	0	4	0	16	10	12	11	4	0	0	57	0.4%
AN	0	0	0	0	0	0	0	0	0	0	0	0.0%
AS	116	536	3	994	708	804	915	727	401	135	5339	37.9%
EU	135	335	9	838	646	1478	82	4	1	0	3528	25.0%
NA	236	453	0	933	171	425	1243	835	241	3	4540	32.2%
OC	19	47	0	114	47	72	51	35	15	0	400	2.8%
SA	3	8	0	59	25	27	42	42	17	7	230	1.6%
Totals	509	1383	12	2954	1607	2818	2344	1647	675	145	14094	

The 5W0GC operation by Stan, LZ1GC ended at 02:00 AM local time on October 14. After I went QRT, I disassembled and packed the technical equipment and prepared for a late afternoon departure. At dawn, I began dismantling and packing the antennas.

The flight to Nadi, Fiji was at 17:40 local time. However, on arriving at Apia's Faleolo Airport with Atsu, 5W1SA, we found that the flight would have a delay of 2 hours. Due to the announced delay of my flight to Fiji, Atsu

returned to his home, and I stayed at Faleolo Airport waiting for my upcoming flight.

Time was passing, and I was already thinking about the upcoming activity at Vanuatu. Then, just when I was expecting information on the flight departure to the intermediate stop in Fiji, I heard the announcement that flight FJ 254 from Apia, Samoa to Nadi, Fiji was canceled. This was very unpleasant news to say the least!

During the preparation of my DXpeditions, I always prepare for any problems. I usually have solutions for them, but in this case I was unpleasantly surprised and could do nothing. I had previously arranged with Lubo (OM5ZW) and Karel (OK2WM) to meet on October 15 at Nadi Airport, Fiji. They were to arrive at Nadi Airport at 08:35 local time on October 15. I would await for them in the passenger arrival area, and then we would travel together in the early afternoon to Port Vila, Vanuatu.

Now, everything was messed up ... the meeting as planned was not possible! After an initial confusion among the passengers of the canceled flight, things started to work out - some of the passengers sought to rebook new round-trip flights. Others like me were informed that the next flight to Nadi, Fiji would depart the next day at 17:00 local time. So, that evening (on the 14th) I stayed at the Sheraton Hotel in Apia.

The first thing I did from the hotel was email Lubo (OM5ZW) and Karel (OK2WM) about my canceled flight, and that our meeting would have to be rescheduled. Fortunately, they were traveling with their own equipment they could use to get on the air quickly – Two transceivers: a Yaesu FT 991 and an Elecraft K3 and two amplifiers: an ACOM 700S and a SPE Expert 1.5.

They traveled with extra luggage, which included two vertical antennas from 10-40m and a low frequency receiving antenna donated by Array Solutions. I asked them to activate the bands immediately on their arrival at the motel in Vanuatu.

(cont. on Next Page)

5W0GC & YJ0GC DXpedition (cont.)

I told them that I would join them as soon as possible once I confirmed the flight from Fiji to Vanuatu. The masts and antenna equipment for the 160 and 80 meter bands were part of my extra baggage. Those bands would be activated later.

On October 15 after the flight from Apia, Samoa I arrived at Nadi, Fiji airport at 18:30 local time. After passing through Fiji customs, I checked for the first flight to Port Vila, Vanuatu. It turned out that the flight will be at 09:00 on October 17, the day after tomorrow.

As compensation for the missed flight to Vanuatu I got a courtesy stay at Nadi's Flamingo Hotel thanks to Fiji Airways. From the hotel, I e-mailed Lubo (OM5ZW) and Karel (OK2WM) that I would join them soon after my arrival time of 11:30 AM on October 17 at Port Vila, Vanuatu. Opening the Dxsummit website, I was happy to see YJ0GC was already on the air. Kudos to Lubo and Karel on their success! That really settled my nerves. YJ0GC was making QSO's on 20 and 40m!

The next day, October 16, I tried to rest after the exhausting 5W0GC activity and the psychological stress caused by the canceled flight. The time had passed slowly over the two

day delay, knowing all the while that I needed to be in Vanuatu.



5W0GC's Vertical antenna on 160/80/40m during a windstorm

(Part 2—Vanuatu in our Next Edition)

Remote Operation Overview (cont. from page 27)

AUDIO

I have played around with several IP audio systems and am now back to using Skype. It has the best latency to operate CW and SSB. Others I have tried are Remaud and IP-Sound. Audio ports used are normally the same ones selected for digital operation locally. On the remote laptop I use a Yamaha headset for SSB and CW operation.

Remote access works very well for the digital modes such as FT8 and RTTY. Just run your normal digital program. No audio exchange between computers required.

FINISH

This is an all in remote station description. Much simpler approaches can be used. With this system, I have spent a couple months getting it all to run in testing at home. The first year I had a few stoppers but following years have generally been fault free.

Product Review—IC 7610

Dr. Scott Wright—K0MD

I have been fortunate enough to know Dr. Scott and have learned much from him. He answered the call to submit an article and he has me thinking about



I purchased the new Icom 7610 last March. I started vigorously testing it in contests and hunting DX in late May around the CQ CW WPX contest. I put the radio through its paces - and discovered it is a gem. I could copy (meaning hear) signals which were so WEAK that they did not appear on the panadapter. Yes I could hear them but not see them. I was impressed. I made a number of 40 meter QSO's in our Summer season and began posting the data on Twitter.

Second, the rig has an amazing panadapter. It is the best panadapter Icom makes. I believe Flex has the industry leading panadapter - at least in my opinion and use - but the Icom one is very good and I have used it to spot weak DX signals and to find open spaces to start running in a contest. If adjusted properly, you can really tell who the DX has responded to in pileups like the Flex panadapter, which makes hunting the rare one a lot easier (and quicker).

Third, the receiver is QUIET. It is the quietest receiver I have ever operated - among many others. It is a perfect rig for 160-40, where QRM and LO noise can make copying any marginal signal tough. I do engage the NR feature on the rig and it is the least fatiguing contest radio I have used.

Fourth, the audio peaking filter (APF) is amazing - It allows up to a 6 dB boost in signal strength, it allows a variable passband for tuning around

noise and it has multiple peaking audio frequencies to

choose from - you simply rotate the dial. When engaged, the weak DX sounds almost like a station in close proximity.

Fifth, I have always struggled with setting my radios up to computer interface. I have used MicroHam equipment to do so with some success. I have never mastered the RTTY set up for my Icom radios with a MicroHam device. The 7610 allows USB to PC direct connection for rig control, CW transmitting, digital transmitting and SSB. It is nice not to have to use an interface box. It took me 5 to 10 minutes to set up the rig for CAT initially - quick and easy. I use n1mm+ for my logging and contesting. I intentionally stay with n1mm+ to remain facile with it so that I don't forget how to use it between contesting. N1mm+ has its own built in panadapter and spotting cluster with the 7610. I have a second bandmap/panadapter with the callsigns of the stations I am actually receiving, along with a color code as to whether they are a single or double multiplier!

(cont. on next page)



Getting on 160 Meters

Mike Suhar—W8RKO

I knew Mike at UD when we tried to get the radio club going again...He was WB8GXB at the time, but, no less the excellent op he is now..enjoy..

In the past I have never thought much about 160 meters. A few years ago I thought I would give it a try. For an antenna I have a 90 foot tower so an inverted-L looked possible. A couple of 70 foot trees on the corner of the suburban lot would provide an anchor for the horizontal part of the L. I ran about 80 feet up the tower and the remainder of the 134 foot wire went to the tree. I don't climb trees so the best I could do for an anchor point was a 20 foot extension ladder into the tree. I ran a rope through a pulley and out to an insulator supporting the wire. The horizontal part of the wire would be sloping down from 80 feet at the tower to about 25 feet in the tree. Fortunately the tree was far enough away that the wire insulator ends before reaching the tree. That insulator might be 30 feet above the ground. That would have to do for now. The wire is 5-feet off of the tower. I planted 11 radials at the base. Because of the house the radials span 180 degrees east, through south, to west. Based on my examination of velocity factor of wire in the ground I made the radials 67 feet. I never did much with that antenna for a couple of years.

Now that FT8 is the hit of

the bands I fired that up this winter. The inverted-L works great on transmit. On just about any night PSKREPORTER indicates I am being heard in Europe with good reports. Strong signal reports all over the US. As for receive, well that is a problem. I hear hardly anything out of Europe. Maybe three decodes on FT8 vs triple the reception reports of my transmissions out of Europe.

I have one particular problem at my QTH. I live within 2 ½ miles of WHIO, WING, and WONE AM transmitters. Measuring signal levels on the inverted-L using a Frequency Selective Level meter shows WHIO and WING both at +10 DBm during the day when they are on their omni pattern. At night they drop under 0 DBm. At those levels the radios get overloaded. An LED lights up very bright when I place it across the coax line in the shack. I have put BCB filters on the receive lines which helps the situation.

(Cont. on Next page)



IC-7610 Review (cont.)

I purchased the RC-28 remote VFO to go with my 7610. It makes the 7610 a two VFO radio, which I think is an essential as the radio has two separate independent receivers. Yes, you can be listening on two distinct bands with two distinct antennas simultaneously! In that regard, the 7610 is like my 7851 except it lacked the second vfo knob. Now, with the RC-28 VFO, I have two VFO knobs, one for receiver A and one for Receiver B. It makes working split and doing so2v contesting much easier.

I have owned a large number of Icom radios – the 775dsp, the 751, 735, 756 Pro II, 756 Pro III, 7600, 7800 and the 7851. This one is among the best – very close in performance to my 7851 but not as ergonomically facile as the 7851. But, for 1/3 the price of the 7851, I can live with a few menu buttons and a receiver that is world class.

Getting on 160M (cont.)

Trying to use an antenna analyzer is impossible under those conditions. My Array Solution analyzer allows for calibration at the measurement plane so I build a custom 3-notch filter and was able to calibrate it out so I could measure the inverted-L. Resonance (phase 0 crossing) is around 2 MHz. The "R" value is around 20 ohms so SWR is high even at resonance. That is OK as I can use a shunt coil to get where I need to be. I like shunt coils as gives me a DC grounded wire. At this time I am doing only FT8 so a single coil works. Eventually I will put a remote controlled roller inductor out there so I can cover the entire band.

At the W4DXCC SEDCO conference it was suggested I use a different solution for receive. I built a K9AY loop system. I had my doubts that it would perform as it is built on a suburban lot with the tower and inverted-L nearby. Power lines are on the south and east side of the property. The first night playing with it I was listening around on the top end of the broadcast band. I noted some directivity between the two loops. I was able to null out one station replacing it with another on the upper end of the broadcast band. Below 1 MHz performance appeared to drop off but I did copy many WSPR stations on 630 meters as well as several aircraft non-directional beacons.

As for directivity in the 160 meter band I need to experiment with the terminating resistor. I have a 1K pot out there for that purpose

but recent weather has not allowed me to make changes. At the moment it is set to 450 ohms. Listing to SSB or AM QSOs it appears I get around 2 S-units of directivity. As for background noise I see no reduction. All my noise is equal in all directions. Nothing there to null out. On the inverted-L my S meter idles at S9. On the K9AY it sits at S5. All that really means is the inverted-L picks up more signal (noise and signal) where the loop hears less noise and less signal. Overall the Signal to Noise Ratio (SNR) is the same. I am interested in improved SNR. For this test I monitored several voice QSOs. While I could peak on a particular station by switching loops I don't think I really observed better SNR. A typical example was a voice round table of three ops. Two had strong signals. The third was right at the noise on the Inverted-L at S9. On the K9AY, the station was around S5 but still right in the noise. No real SNR improvement. I think objects on this suburban lot is reducing the performance of the loop. I still switch back and forth between the inverted-L and the K9AY loops taking what sounds best. Depending on the signal one may slightly outperform the other. If I had a noise source in one direction I suspect the K9AY would show an SNR improvement.

My next experiment will be to build an 8-foot tuned loop for receive and compare that to the K9AY loop. With that information I will decide if the K9AY, 8-foot loop, or just the inverted-L are used next winter.

Gary was listening around last fall and decided to call CQ—The QSL shows who answered!

Pays to listen and be ready!

Thanks Gary

SV2ASP/A
Mount Athos - Greece
Monk Apollo
Dochiarion
monastery
GR-63087
Mount Athos
Greece - Europe

ITU:28 WAZ:20
10K2
N1KA

To Radio W8PU QSL via

Day	Month	Year	UTC	MHz	QSO	RST	Remarks
12	10	18	1309	14	CW	599	[Signature]

TKS / PSE QSL 73 de

Modest Stations and 6 Meters

Rob Lyndsay—W8MRL



As we enter the bottom of the solar cycle, I challenge you to explore the higher frequencies. With a modest station like mine, I've found the challenge and excitement of chasing 6 meter contacts as a great compromise to chasing DX in this season of solar minimum. When I mentioned a modest station I do mean simple. I have a 100 watt transceiver (IC-7300), a 4 element 6 meter yagi from the Arrow Company, a 30 foot telescopic pole and I use a TV antenna rotor that I picked up at Hamvention for \$25.00. I can also "tune up" six meters on a fan dipole. With this simple arrangement I have worked 400 stations since May of 2018. Most of these contacts are in the continental US, as you might expect. But when the "magic band" does it's magic I've made contacts across the Atlantic into the Canary Islands, central Europe and south into the Caribbean and South America.

Six meters can be enjoyed using phone, CW or digital modes. 50.125 Mhz is the calling frequency to monitor for phone activity. Many people will leave their rig on, with the squelch set to keep it quiet, until an opening appears. 50.090 is the calling frequency for CW. Lately, I've been enjoying two digital modes - MSK144 and FT8. MSK144 is geared to work meteor scatter and I find that fascinating. I have made over 120 contacts this way! FT8 will let you take advantage of sporadic E openings. You'll find MSK144 and FT8 modes in the WSJT-X software from Dr. Joe Taylor, K1JT.

All of this is available to you with a modest station on six meters. My yagi is approximately 20 feet high. I used a simple TV mast bracket to attach it to the patio awning, a bracket at the bottom to prevent kick-out and I have three simple guys providing additional support. Guying is a necessity! Last summer, I changed the location of the telescopic pole so I could better position a microwave dish to access a remote site. Having worked all morning by myself, I had the pole in position and the top bracket

in place but I didn't install a bottom bracket as I was totally worn out. It appeared to be secure enough to stand until the following weekend. Well, during the week a storm moved in and the 22 mph wind gust proved that it was not "secure enough". The antenna was trashed but the rotor and the microwave dish were fine. When the antenna was replaced (Thanks Dave, K4SV), I committed to securing it properly and I've had fun ever since.

To get started, you can find three or four element 6 meter yagi antennas starting at \$125 and up. The higher your antenna is the better, but modest heights work quite well. Most modern transceivers have 6 meters sitting there, just waiting to be used. So, I encourage you to explore the fun and excitement of making contacts on 6 meters!



I think this is Rob adjust an element....

MESH Update

Kevin Jones—W8KJ

In September I gave a general presentation on MESH networking at the SWODXA meeting. Here is an update on the network in our area as of January 2019.

As you might recall, MESH is a high speed data network linked via 2, 3 or 5 GHZ RF nodes. The nodes are repurposed "wireless" wi-fi routers flashed with ARDEN firmware and programmed to Amateur Radio frequencies. 10 or 20 GHZ connections can pass data, documents, pictures, video and voice over IP...ideally all at the same time! Generally, the transceiver and antenna are made into one unit and it mounts up high and is fed with CAT 5 or 6 cable powered using a POE (power over ethernet) unit.

Ecomm is the primary purpose of a MESH network. However, it is just like the World Wide Web, so any digital/data info can be exchanged.

The node antennas do need to see each other, line of site to function properly.

The Dayton based Miami Valley MESH Alliance (MVMA) has many home nodes, and backbone nodes in operation. They set up 5 GHZ nodes between backbone sites (water tanks, tall buildings etc) allowing 20 MHZ thru put. Then home or portable nodes connect via 2 GHZ units at 10 MHZ.

The Southwest Ohio Mesh Network is in its infancy and currently uses 2 GHZ only until more backbone sites can be obtained. MESH has been tested in Butler and Hamilton County linking the BC EOC with a Backbone in Pleasant Run. Also portable point to point links have been made. There are currently 3 MESH stations in operation: Trenton, Monroe, Fairfield Twp. and Pleasant Run (backbone link).

AREDN firmware/software is used. It is the OS "or browser" for MESH. It has functionality on its own, but one can add a switch and expand its capabilities.

You can learn more at:

www.miamivalleymesh.org

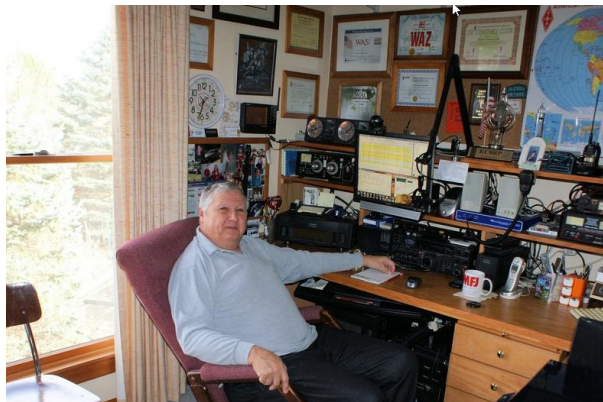
www.arednmesh.org



The Good, The Bad and The Ugly of antenna building or what can go wrong will “Murphy’s Law”

Richard Pestinger—KC8RP

We can all learn from Richard...but I probably won't!



When we moved to our new home in Fairfield it was a few years later I put up a Cushcraft MA5B on my chimney turned by a Yaesu 450 rotator. I worked a lot of countries with it despite it being only 30' up. Along came an opportunity to get a 50' aluminum tower and a Mosley S-33 antenna for free, just take it down. I hired a guy with a bucket lift and we took it down. I had 5 sections of 10' tower and two 12' sections of boom and a pile of aluminum in the back of my Mazda 4x4 truck, I looked like Sanford and Son coming back into Ohio from Kentucky.

Let me preface this by saying it is hard to admit so many mistakes but hopefully it will serve as a lesson to others. A cartoon in Popular Electronics in the late 50s was about this character Cornelius Cathode who was always making mistakes, There was this poem about him that may fit my situation to a T.

Cornelius Cathode an electronic misfit
saved up his dough and bought him a kit
threw away the instructions, no beginner am I
just watch and see and I will show you why
He wired it and soldered it all in jig time
but much surprise to him but not to mine
a big puff came out and burned off his smug
grin!

I was granted a permit to put the 50' tower in and proceeded to dig a 5'x5'x6' deep pit, pour almost 6 yards of concrete into it that I had to haul $\frac{3}{4}$ of a yard at a time in a cement buggy. I live in a cul-de-sac and access to my back yard is extremely limited. The build went well and it came time to reassemble the S-33 with a 24'

boom
and 3
ele-

ments ranging from 44' to 42' approximately, 94 pounds total weight. We tilted the tower up about 20 degrees and the crew lifted the antenna over to the mast and I bolted it on. Above that was a 5 element 6M antenna. All the wiring was in and time to tilt it up. There are no trees to use to help in raising the tower so it was pure manpower, not going to happen, 45 degrees was as far as we got it. I decided to rent a 50' bucket lift, get under it and push it up. This bucket lift worked well despite the fact that it's 23,000 pound did damage to the yard. It left depressions that took about 2 years to go away.

I looked with pride at my engineering marvel but there came the problem. Early in the assembly when I inspected the traps I found the 2 inside coils on the driven element traps were cracked so I ordered 2 new coil assemblies for those 2 traps, the inside and outside coils are the same or at least I remember something about the manual stating the traps fit either direction, I should have read farther. When ordering the new traps I inadvertently used the wrong part number for the outside traps.

I did not have any trouble at first with power under 500 watts but when I got my KW linear I started to have high SWRs especially on 20M, what could I have done wrong. How hard can it be to put a bunch of aluminum together, I had marked it well when I disassembled it. The reason for the high SWR did not dawn on me till much later but despite the problem it worked well on 40 & 17M.

(cont. on Next Page)

Antenna building (cont.)

A few years later I took the MA5B off the chimney and built a 40' tower next to the house and mounted my MA5B back on it, this antenna was my 20M workhorse.

In late 2017 I was granted a permit to raise it to 50' which did not happen until November 2018. My wife had been fighting Leukemia and she took a turn for the worst. Totally distracted and emotionally distraught, I spent the remaining months by her until she passed on Easter 2018.

I should never have attempted a major project thinking it would be a good way to keep busy and not get depressed about my loss, from here on out bad turned to worse.

I did have the good fortune to see a Pro67C3 on QRZ new in the boxes for \$2500, I negotiated a \$2200 cash price and Rick, K8WWA, and I headed to Kentucky down by Lexington to pick it up. We brought it home and stored the 4 boxes in the garage, one being 12' long. I opened the "open me first" box and took out the instructions, I wanted to be fully knowledgeable about assembly before starting, something I should have done with the S-33. If I can alibi at all about the S-33 was that most, if not all, the color coding was gone after years in the air and the original manual did not show the turns for each trap coil like the new manual did.

As I was reading the instructions it stated, as it did in the S-33 manual, the traps will fit both ways and make sure the color code goes toward the boom. A little further it stated "failing to do so will result in high SWR", GRRR!!! Well, now I know what went wrong with my S-33. I can only imagine what I could have done if I had paid attention to detail.

Its a new day and I have a bigger and better antenna. Bigger by the number of elements but the foot print is identical. The new antenna is 134 pounds, 40 pounds heavier than the S-33

I decided to try and get a variance for 70', 66' is the maximum under current zoning, why 66' no one knew. I was denied the variance so instead of fighting it I went for 66'. I

had purchased a 30" 10' section of tower from a friend so I was ready to go. We took down the S-33 and the tower and I reassembled it with the new section. I decided to take my Yaesu 2800 rotator apart and re-grease it, how hard can that be? When I reassembled it I got the stop on the wrong side of the reversing lever and I stripped the nylon gear that turns the positioning pot. I called Yaesu about the part, good news only 40 cents, the bad news 4 to 6 weeks delivery. I had 2 Green Heron controllers so I emailed them and bought a new rotator, winter was coming on, can't wait for the parts, after all that the parts came in a week before the tower was to go up.

I had also bought some 7/8" hard-line from the same friend I bought the tower section from. It turned out the hard-line was a little over 10' too long, no problem buy parts cut the cable and reassemble it, wrong again, parts for the Anderson connector and cable are not made anymore. After endless searching I found, on eBay, a company in England who had 5 of the connectors at \$45 each. After a few exchanges he gave me a good deal and I bought all five. I cut and reassembled the cable with a brand new connector, loaded it up and tested it at 100 watts, perfect SWR. With the first 40' of tower assembled on the ground we fed the rotator cable and hard line up the middle a little above 40', and the 4 of us tilted it up and locked it in place. Next we gin poled up the last 2 sections, mounted the rotator, mast and checked the mast bearing for good alignment. The rotator was connected and the hard-line pulled up and strapped to the top tower section via a grounding strap I attached earlier. All the cables were ty-wrapped and taped to the tower sections.

Now is time to build this new antenna. I decided to build it on a spare 10' top section of tower and 2" mast I had. It turned out to be more difficult than I expected when it came time to get it off and move it to the tower.

(cont. on Next Page)

Antenna building (cont.)

All went pretty smooth, being very careful to check and double check and triple check everything. I put the antenna analyzer on it and it responded as expected but I also knew 10' was not far enough above the ground to be real accurate but it was close enough.

Time to call in the climber and crew and put this antenna where it belongs, 60' up. My intention was to put the new 6 element 6M antenna above it, Mosley said that would be okay as long as there was 10' or more of separation, I only had 6'. Plan B, Put the 6M on top of the new 50' tower I would also be raising and use the MA5B for field day. The tower climber put the gin pole on the tower and everything was rigged. The pulling began but the antenna was not moving much, when I looked up the aluminum gin pole was bowing, it was not able to take the weight.

Time to go to plan C, order in a bucket lift. They delivered the bucket lift on Friday November 30th. I drove it into the back yard, the ground was not that hard so the ruts were a little messier but nothing 50 or 60 bags of top soil would not fix. The tower guy is coming Sunday so I had a chance to lower my 40' tower on Friday, add the extra section and the new 6M antenna I built the day before, in a hurry! You can build it for best SWR in 3 frequency ranges, of course not thinking clearly I built it for 51 – 53 MHz range not the 50 – 51 where I normally operate. I had it all together and back up by late Friday but it was several days later I realized my mistake.

We had a 40 percent chance of rain Saturday but rain almost always goes around us, not on December 1st, my birthday, it rained all day, 1.75" to be exact. Sunday came, the tower guy came and the ground had thawed out and was soggy. I started the 23,000 pound behemoth and as I moved the tires started spinning and I was digging my self a hole. There is no way I could turn the unit in the yard, it was stuck up to its belly. Monday morning I called for an extraction tow truck to pull this beast out of the back yard. As a result of the pulling it out, with a

huge long cable, we managed to destroy my side yard and a good part of my neighbors. I had ruts over a foot deep and a couple feet wide. I searched around for a landscaper to help me repair the yards I had destroyed, no response. I found a couple of companies called hardscapers, they basically regrade a yard etc. Despite my reference checking I got the worst of the worst. It took this guy about 2 hours to finish destroying my side yard and a week to fix it. \$2600 later I have partial sod up front, seed and straw over the rest.

Its getting cold and I need an antenna, the big boy isn't going to make it up this year. I did a careful partial disassembly and stored it in my garage till spring, maybe? I decided to put the trusty 25 pound MA5B up for now, the hard-line cost more than the antenna:) The tower guy came over and in about 1 ½ hours it was done, tested and working well. I am set for the winter, 10-20M MA5B and a 6 element 6M tuned to the wrong frequency, fortunately my auto tuner compensates. I spent some time on FT8 and made a 17M contact with Rodriguez, St Helena and French Guiana, I'm good to go.

It is a nice day, sitting on my back porch looking up at my effort and something did not look right. I went in and got my binoculars to verify what I feared, the balun was on top of the antenna, the antenna is up side down, all the trap holes are pointing up!!! I called the tower guy but before he could get to me we had 2 all day rains. When he arrived it took less than an hour to flip it over and let any water drain out but I did not see any. I decided to let it set for a few days that way it should be okay. Three days had gone by and that night I put my analyzer on it, great SWR but I decided to wait until the next day to operate. The following day before hooking it to my tuner I gave it a final SWR check, all SWRs were above 2, nothing was tuning. That night I checked it and the SWR was great, the next day above 2. For over 2 weeks the SWR at night was great and the daytime SWR was horrible. It makes no difference the temperature, if it is cloudy or sunny.

(cont. on Next Page)

K4ZLE Featured in Podcast

I am not how many amateurs listen to Podcasts, but, if you don't, you should start! Jay, K4ZLE, was the feature of Eric Guth, 4Z1UG / WA6IGR. Eric has 239 podcasts available for listening to and most are informative and entertaining. I listen to this podcast via Stitcher.

There will be an article in our next issue about Podcasts. Jay represents himself, the hobby, and the Marines very well. (As you would expect!)

Perhaps Jay will write something about his experience?



Antenna building (cont.)

I am calling it my vampire antenna since it only works at night. I have not put any power to it for fear of burning up the traps.

I have an 80 thru 6M vertical that I could have used if I had not mistakenly put 900 watts of FT8 thru it. I was chasing 80M SSB and saw a rare 80M entity on FT8 come up, I quickly loaded up WSJT but forgot to bypass my amp, the balun did not last through the second 15 second transmission.

Concentration is everything when doing a projects this complex and costly. Donna, my wife, was my mediator and moderator. We talked things over and even though she was not technical she made comments that made me think. She supported my hobby with enthusiasm and I'm sure she is shaking her head in Heaven at my follies.

You can see pictures of my earlier antenna tower installation at my web site plus some of my folies. <http://www.pestingers.net/pages-images/ham-stuff/antennas/radio-antennas.htm>



Remote Operation Overview

Ron Schuster—N9RC

Mywife and I have been spending winters in Florida for 16 years. Many major DXpeditions and new countries occurred during the time we were in Florida each year. For many years I hauled a rig down to operate locally. This included an amp and different antenna options which were covertly installed each year. I had moderate success but three years ago I decided to try remote operation.

For remote operation I wanted to control most equipment and antennas in my home station in Cincinnati from Florida. I wanted to keep costs down and have a flexible reliable system. There are some must have requirements that surface.

1. Broadband internet
2. Moderate performance computers on both ends
3. Two way audio
4. USB control interfaces for equipment
5. Software to the equipment to be controlled
6. Overall integration. (Remote Desktop)

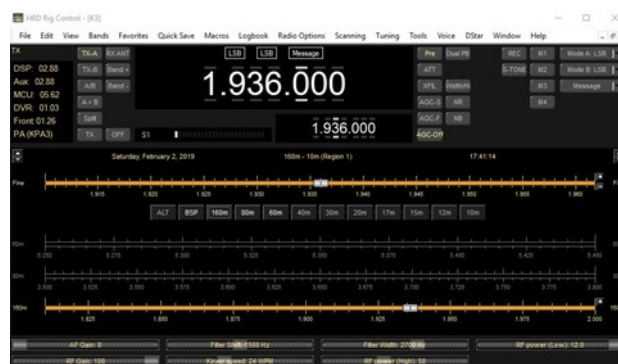
There are several strategies to operate your home rig remotely. I settled on all software in the Cincinnati computer, a remote desktop access, and Remoterig digital output modules for special functions and antenna switching.

REMOTE ACCESS via INTERNET

For remote access to the Cincinnati computer I used Microsoft Windows Remote Desktop. It requires Windows PRO in the Cincinnati computer. A similar remote desktop that a lot of hams use is TeamViewer. It is a commercial package free for personal use. Remote desktop operation is more than just desktop access. You have complete access to anything you can do sitting

at the local keyboard. It is very transparent.

When you log into the remote computer your remote computer effectively becomes the host.



(Picture 1) HRD K3 Control Screen

USB Control

There are five pieces of equipment controlled via USB ports:

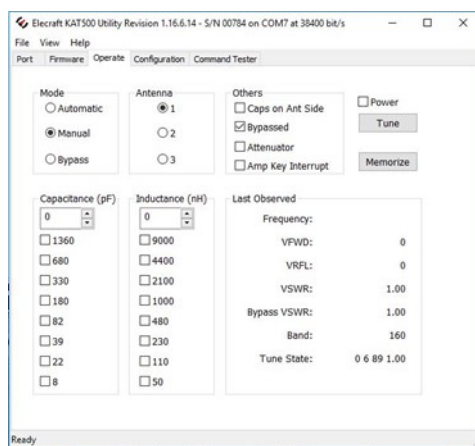
1. Elecraft K3 Transceiver: Via customized HRD. There are several other choices for rig control. (Picture 1)
2. Elecraft KPA500 Amplifier: Via Elecraft KPA500 Utility program. (Picture 2)
3. Elecraft KAT500 Tuner: Via Elecraft KAT500 Utility program. (Picture 3)
4. Green Herron RT-21 Rotator Control: Via YO3DMU PSTRotator (Picture 4)
5. LP-100 Wattmeter: Via LP Utility program. (Picture 5)

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Remote Operation Overview (cont.)



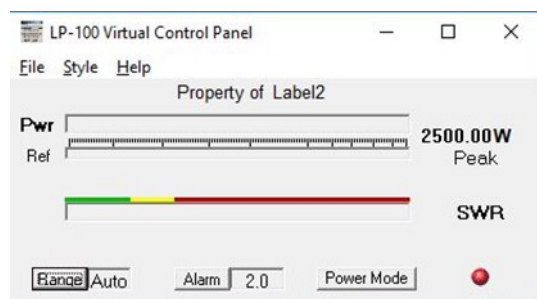
(Picture 2) Elecraft KPA500 Control Screen



(Picture 3) Elecraft KAT500 Control Screen



(Picture 4) Elecraft KAT500 Control Screen



(Picture 5) LP-100 Monitor Screen

REMOTERIG MODULES

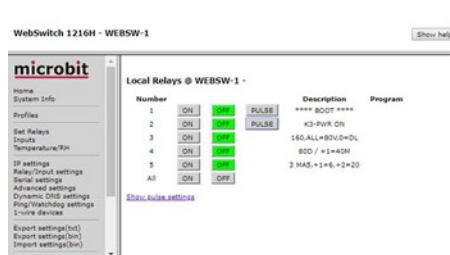
I use two Remoterig 1216H digital output modules with 5 outputs each. They are available from HRO. They connect to my router via Ethernet and are each mini Web servers with embedded software. They can be accessed through web browsers or via a Remote Rig app by phone.

⇒ 1216H Module 1 (Picture 6)

Bit 1: Boot Computer(pulse)

Bit 2: K3 Power ON(pulse)

Bit 3,4,5: Antenna Selection via Ameritron RCS-10. (7 antennas and dummy load.)

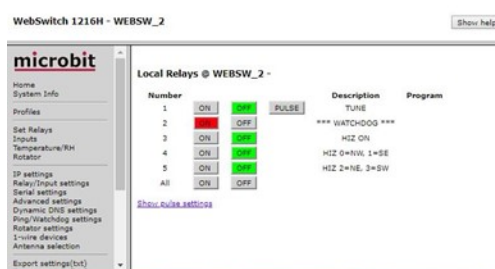


⇒ 1216H Module 2 (Picture 7)

Bit 1: Tune Pulse 10 seconds. This avoids problems of a system crash when in tune

Bit 2: Watch Dog Timer. This contact turns off rig power if internet/control is lost.

Bit 3: HI-Z power ON. HI-Z four square receive antenna system.



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SouthWest Ohio DX Association (SWODXA)

DX Donation Policy

The mission of SWODXA is to support DXing and major DXpeditions by providing funding. A funding request from the organizers of a planned DXpedition should be directed to the DX committee by filling out an online funding request.
(<https://www.swodxa.org/dx-grant-application/>)

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

Factors Affecting a DXpedition Funding Request Approval

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

H40GC	H44GC	ZL9HR	XX9D	HK0NA	FT4TA
KH1/KH7Z	EP2A	FT5ZM	C21GC	VK9WA	NH8S
K4M	CY9C	VK9MA	PT0S	FT4JA	YJ0X
6060	VP6D	T04E	XR0ZR	VP8STI	SP8SGI
W1AW/KH8	K1N	3D2C	VK0EK	S21ZBB	E30FB
ST0RY	TI9/3Z9DX	VK9MT	K5P	9U4M	TX3X
VU7AB	3Y0Z	3C0L	TX7EU	CE0Z	3C1L
		3B7A	K9W		

SouthWest Ohio DX Association (SWODXA)

Club Fact Sheet

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

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

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

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

Meetings: The club meets on the second Thursday of each month alternating locations between at Marions Piazza on Kingsridge Dr. in Dayton, OH or Marions Piazza in West Chester. (Check the website) Members gather early in the private room for dinner and then a short business agenda at 6:30 PM, followed by a program. If you enjoy a night out on the town with friends, you'll enjoy this get together. Meeting attendance is NOT a requirement for membership.

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

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

Who Am I #1—Mindi Jones—KC8CKW