Volume 9, Issue 3

11/2025

the exchange

SWODXA
WWW.SWODXA.ORG
SouthWest Ohio DX Association

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Why Join SWODXA?

- One of the top DX clubs in the world
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- Active, welcoming members
- Informative newsletters
- Great Meeting Programs
- All for $20!

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The Prez says…..

Happy Thanksgiving! I hope you had a restful November as we move in to the busy season for many of us.

Thanks to those of you who took the RIB survey. The results are on page 7. Interestingly enough, we had move participation from our DX friends (those that have been interviewed for the newsletter) than by club members. Our DX friends indicated that more of them would like “Unrestricted” usage of the RIB, but also more of them chose “Restricted”. Our club members were split between “Unrestricted” and “None & Restricted”. Some of the comments that were sent to me are also included.

We have new member information as well. Mike, W8HB, is our featured new member this month. He is an accomplished DXer and will be a real asset to the club. Drop him an email and say Hello!

Ralph, AA8P, sent along his appreciation to the club for the chimes that were sent last year when his wife passed. I think that is a great thing that the club does. I took down the chimes for my dad, K8DWE, cleaned them and stored them until the spring.

Finally, congratulations to Jason, WE8L, for earning the ARRL trident award. Well done!

73 for now!

AJ8B— Bill

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SWODXA 2025-2026 Calendar

December 2025
- 5-7 ARRL 160M CW
- 11 SWODXA Meeting
- 13-14 ARRL 10M
- 27-28 Stew Perry 160M CW

January 2026
- 3-4 ARRL RTTY Roundup
- 8 SWODXA Meeting
- 18-19 ARRL January VHF
- 23-25 CQWW 160M CW

February 2026
- 14-15 CQWW WPX RTTY
- 12 SWODXA Meeting
- 21-22 ARRL DX CW
- 20-22 CQWW 160M SSB

March 2026
- 7-8 ARRL DX SSB
- 12 SWODXA Meeting
- 28-29 CQWW WPX SSB

April 2026
- 9 SWODXA Meeting

May 2026
- 7 SWODXA Meeting
- 15 SWODXA DX Dinner
- 15-17 Dayton Hamvention
- 30-31 CQWW WPX CW

June 2026
- 11 SWODXA Meeting
- 14— 16 ARRL VHF
- 20-21 All Asian CW
- 27-28 ARRL Field Day

July 2026
- 4— 5 CQWW VHF (CW/SSB)
- 18-19 CQWW VHF (Digital)
- 11-12 IARU HF Championship

August 2026
- 8-Milford ARC Hamfest
- 8-9 WAE DX CW
- 22 Ohio QSO Party

September 2026
- 5-6 All Asian DX SSB Contest
- 10 SWODXA Meeting
- 12-14 ARRL Sept. VHF Contest
- 12-13 WAE DX SSB Contest
- 26-27 CQWW RTTY

October 2026
- 8 SWODXA Meeting
- 24-25 CQWW DX SSB

November 2026
- 7-9 ARRL SS CW
- 12 SWODXA Meeting
- 21-22 ARRL SS SSB
- 28-29 CQWW DX SSB

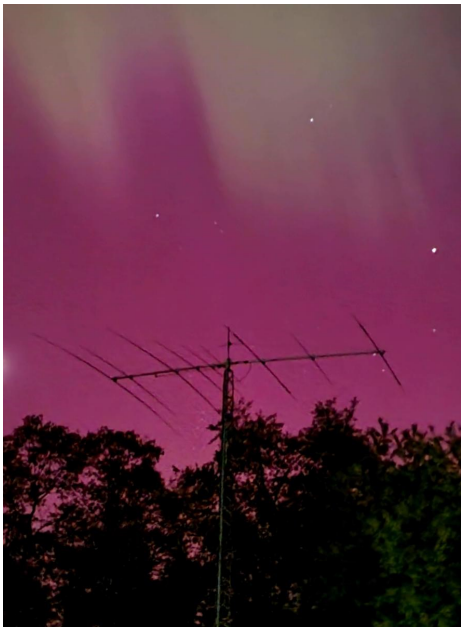
SWODXA Club News

Upcoming Club Dates and Topics

Meeting Date	Topic
Thursday, December 11th, 2025	FLEX Update VA3MW— Michael Walker
Thursday, January 8th, 2026	Intro to remote station design with the Sierra Radio Systems Station Controller - KJ6VU— George Zafiropoulos
Thursday, February 12th, 2026	DXPedition Video from Steve Coy — K8UD
Thursday, March 12th, 2026	DXPedition Video from Jim, K8FL, and Jack, N8DX

Club News

New Member Bio—W8HB—Mike Bailey—mbaileyw8hb@gmail.com



I was first licensed in 1978. My original call sign was KA8AVO. I also held the callsigns NQ8S, KD8ZD and N8GIG.

I am located in Weller Township in northern Richland County Ohio. (EN80su)

My HF station antennas consist of a Cushcraft X9 9 element beam mounted on a 60 foot Rohn free-standing tower and an Alpha Delta DXA sloper for 40/80/160 mtrs. Also a 2 meter, 440 and 6 meter antenna on another freestanding 40 foot tower.

My HF station transceivers:
Yaesu FTDX101MP / Yaesu FT1000MP / Yaesu FT101EE Icom IC-745.

My amplifier is a Commander HF-2500 by Command Technology.

The Microphone is a Heil PR40 .

Top of Honor Roll (350 countries confirmed) / Mixed - 350 / Phone - 344 / CW - 289 / RTTY - 50 / 160 - 198 / 80 - 185 / 40 - 165 / 30 - 70 / 20 - 194 / 17 - 129 / 15 - 187 / 12 - 107 / 10 - 202 / 5BDXCC+12,17 & 160 / WAS

I am a retired Firefighter (Fire Chief) with the Mansfield, Ohio Fire Department with 32 years of service from 1977-2009. I also served as the Richland County Emergency Management Director from 2013-2018. Also served as a Captain on Franklin Township Fire Department in Richland County from 2013-2023. My career path dealt with structural firefighting, emergency medical services, hazardous materials operations, incident command and emergency management.

My military service was in the United States Navy onboard the (USS Kalamazoo AOR-6) between 1973-1975 during the Vietnam era.

I am an ARRL LIFE MEMBER and a Live Member of the Mansfield Inter City Amateur Radio Club.

I have been married for 51 years to my wife Denise (WD8DB). I have two daughters which blessed us with 5 grandchildren and one great grandchild.

When I'm not on the radio DXing, my wife and I are on Lake Erie fishing for walleye or perch during the spring and summer. In the winter, we become Florida snowbirds occasionally.

Club News

New Member Bio—W8HB—Mike Bailey—(cont.)

I hold a lot of fond respectful memories of the ham operators that I have known throughout the years.

I'm looking forward to meeting many of you! Thank you for the invitation to be a member of SWODXA. GOOD DX!

Sincerely,

H.M Bailey (Mike) - W8HB

WE8L Earns Trident Award

Congratulations to Jason!

My Trident plaque showed up this week. Looks nice but I'm a little surprised that there isn't a trident graphic anywhere in the design hi hi.

I'm just happy to reach this milestone.

Jason, WE8L

Club News

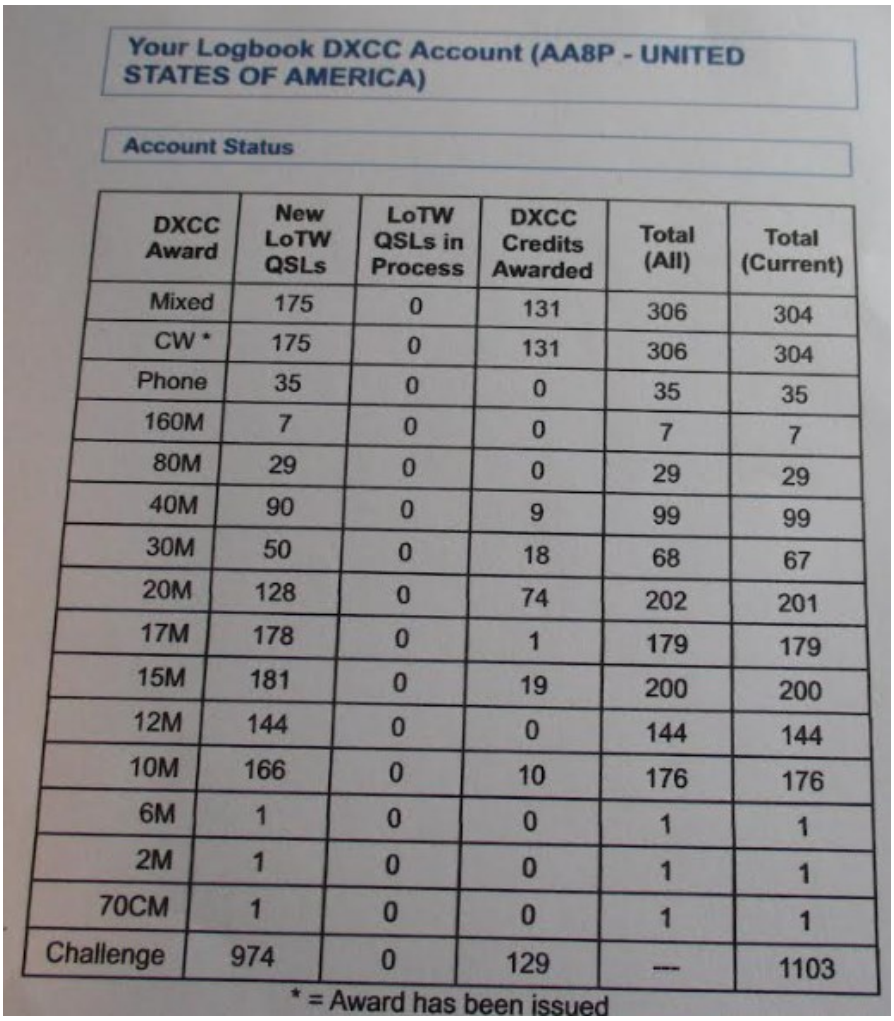
Thanks to the club from Ralph, AA8P:

Hi Bill, First off I would like to thank the club for the chimes the club sent when my wife passed away last year. I apologize not acting sooner but during that time, I was disgusted and had a very hard time for a long time. I gave up on working any DX and I am just now getting back into HF operation.

Last week I uploaded my contacts to LOTW for the last year, it was a total of 60 QSO's, most of those in the last month, that shows how little I operated.

I am including a photo of my logbook account for Member DXCC Standings.

73, Ralph Pamer AA8P



Your Logbook DXCC Account (AA8P - UNITED STATES OF AMERICA)

Account Status

DXCC Award	New LoTW QSLs	LoTW QSLs in Process	DXCC Credits Awarded	Total (All)	Total (Current)
Mixed	175	0	131	306	304
CW *	175	0	131	306	304
Phone	35	0	0	35	35
160M	7	0	0	7	7
80M	29	0	0	29	29
40M	90	0	9	99	99
30M	50	0	18	68	67
20M	128	0	74	202	201
17M	178	0	1	179	179
15M	181	0	19	200	200
12M	144	0	0	144	144
10M	166	0	10	176	176
6M	1	0	0	1	1
2M	1	0	0	1	1
70CM	1	0	0	1	1
Challenge	974	0	129	---	1103

* = Award has been issued

Club News— RIB Survey

I sent a poll out to our members and those DXers who have submitted articles or have been part of our interview series. The poll asked simply should Rig in a Box (RIB) (1) Be accepted at all times (2) Restricted to just a few entities or (3) not allowed at all. The results are below. Some comments are included on this page as well as the next.

"While the points made are valid, the option of using a RIB would seem a benefit to islands/areas that are culturally or environmentally sensitive.

I do think that there are ought to be some restrictions on use:

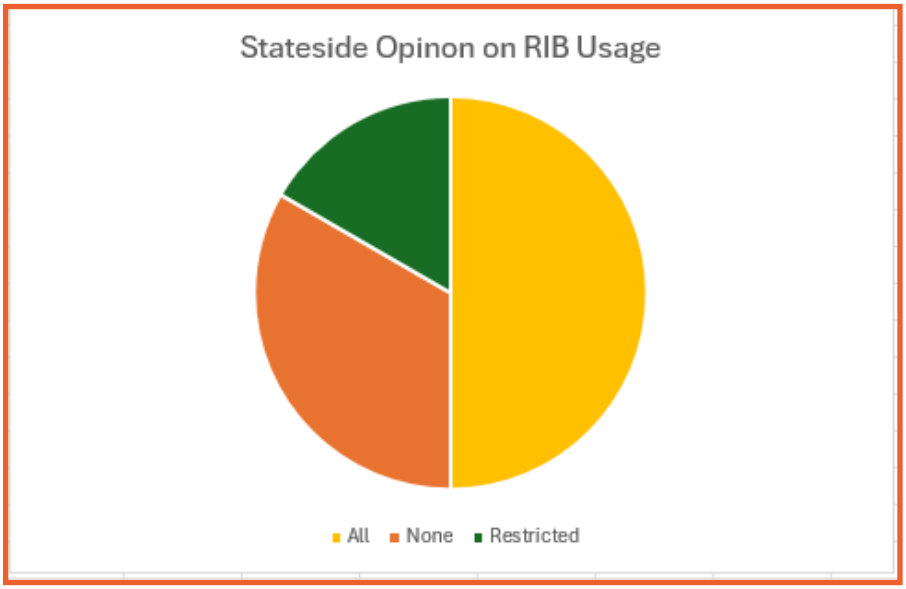
1. Use of the RIB should only be considered on sites where human presence would be detrimental to the site.

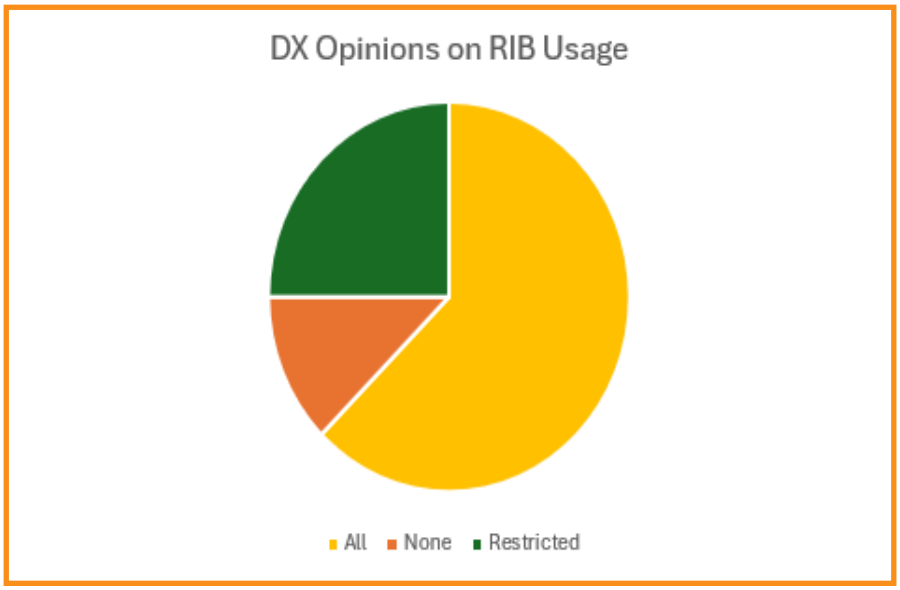
2. Specific restrictions on the radius of the operating team utilizing the RIB. There are specific requirements for operations on the specific site, those same limitations should be imposed for the RIB deployments.

The cost of these DXpeditions are not insignificant and deployment of RIBs would not really cause an economic savings. There are still permits, travel, and logistical support costs that are required.

Hopefully, the benefit would be more sites that can be activated in the future.

73 John McGrath
KF6EFG





Club News— RIB Survey (cont.)

Hey Bill, initially I was going to respond to permit RIB but then I couldn't answer how to do it. What is preventing a permanent RIB? Only have to go there when it needs maintenance like a repeater. That would make it easier for everyone to be in the 300+ club....and diminish past accomplishments and the prestige.

Larry N8QNM

Hi Bill.

I am always struck by the irony of Amateur Radio constantly portraying itself as leading in technological advancement of the radio science, while there is always a vocal minority shouting that any advancement is unacceptable because it is "not the way we have always done it". FT8 is a brilliant technological advancement but here comes the "FT8 is not ham radio" group – despite RTTY, which is the exact same concept (FSK transmissions which are only decoded by a computer, not by ear) being perfectly fine with them. And now RIB is an advancement which allows us to work DXCC's which are otherwise inaccessible, but somebody who probably already has that DXCC from 50 years ago says the rest of us shouldn't be allowed to get it because it's not the traditional way.

It's really very simple – if someone doesn't like a new approach, then don't participate but leave the rest of us alone.

Steve

Club News— RIB Survey (cont.)

My ha'penny input (not even worth 2 cents!)

Pros:

May facilitate access to entities that have near-impossible access today. Less physical and therefore less visible exposure, and where environmental concerns exist, less potential impact.

Depending upon how remote access is provided, it could allow participation by individuals who would not otherwise be able to be on the 'fox' side of the pileup. Here I am thinking of youth still in school who could not otherwise get the time away or have the financial resources to be physically involved. It could also allow those with physical limitations to experience the 'brick wall'.

There is also a financial aspect - While the transportation costs would not necessarily be impacted. (Still got to get there.) However, you would potentially have fewer boots on the ground. This means no need to provide shelter, sanitary and kitchen facilities or make as many replenishment trips to and from the island. (I assume the most likely deployment would be activation of island entities.) Fewer boots on the ground means smaller physical crew, which ***could*** translate to a smaller transport carrier. Implementation of RIB technology also ***could*** mean there would not be a need to involve pre-shipping large containers which would reduce overall costs. (Would not need to ship the current inventory of on-site support materials like tents, extra generators, extra fuel, tables chairs, lights, etc.)

Fewer people directly or physically involved would mean a smaller probability of injury or loss of live, especially accessing some islands due to weather, tides, coral, sharks, jelly fish, heat or cold exposure.

Cons:

Since there may not need to be as many people directly involved, there would be some loss of the "team experience."

Operator access could be a real can or worms. (Why can't I operate? I donated $100 and So-and-so is able to operate and I bet that person gave less. Only members of XYZ foundation are allowed to operate. And so on.)

Club News— RIB Survey (cont.)

Other comments:

There will be those who do not feel RIB activation is within the spirit of DXing. My comment is “Horse hockey!” Some real old timers did not think we should have progressed from straight key to bug to electronic keying. Some thought SSB should not have been allowed. Some do not condone any type of remote operation. Regardless, RIB ops have a more potential positive impact than FT8, FT4, JT65, etc.! (Tongue in cheek)

Jay, K4ZLE

Times are changing. In the past, going to a remote place was difficult because of the logistics involved. Today the technology allows you to get anywhere a lot easier: fast and large ships, airplanes, helicopters etc.

And yet, getting to some DX entities become even more difficult and not easier. Many of these entities are natural parks or similar nature protected areas such as the remote US possessions in the Pacific or the French islands in the Indian Ocean. These are very rare for ham radio and hard to get a landing permit.

The departments in charge of issuing a landing permit are not always friendly to ham operators and getting a permit is close to impossible. Sometimes they impose difficult demands: you cannot sleep on the island, you cannot have tall antennas etc.

So, for these entities the choice is either you follow the very restrictive rules or you can't activate them. No other choices available.

That's where the RIBs provide the solution: you setup all the equipment on the island and operate from the boat. You sleep on the boat and you visit the island daily to top off the fuel into the generators, repair antennas etc. So, there is a minimum human impact n the island, as required.

One such DXpedition, which made over 100K QSOs is N5J. More details and pictures here: https://jarvisisland2024.com/

The RIBs are a complex setup with computers, control electronics, radios, water cooling systems etc. and amateur radio should always embrace new technologies, otherwise we become obsolete. We already have a hard time attracting young people to our hobby.

Club News— RIB Survey (cont.)

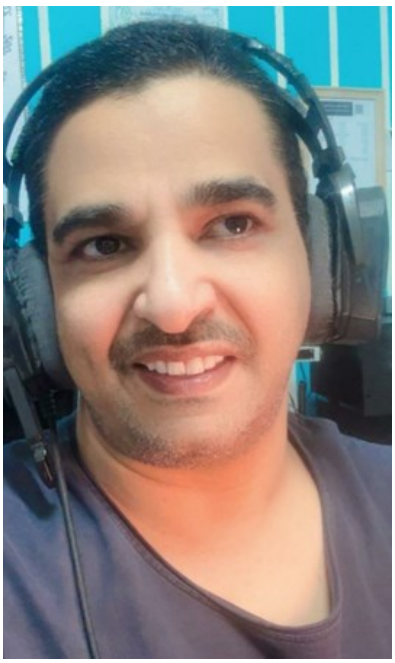
One of the great joys of our hobby is that amateur radio has multiple facets: you can still be the "boy and with his radio" and spend the weekend ragchewing with friends and that's fine or you can play with high tech technologies such as EME (moon bounce) or RIBs or the latest digital technologies. One aspect does not exclude the others.

73,

Adrian— KO8SCA

An Interview with 7Z1CY— Saleh

(sfmulla@hotmail.com)



AJ8B: How did you first get interested in amateur radio?
7Z1CY: My initial interest in radio communication and applied electromagnetics developed during my Computer Engineering studies at King Fahd University of Petroleum and Minerals (KFUPM) in the early 1990s. Beyond the required curriculum, I dedicated significant personal time to independent study, focusing specifically on antenna design and HF propagation principles. This early academic curiosity quickly translated into practical experimentation, including the modification of a low-power wireless device to enhance its operational range— a precursor to my later interest in radio systems. Following my graduation, I solidified this foundation by joining a major telecommunications firm as an Exchange and Transmission Engineer.

AJ8B: Do you have a favorite band or mode?
7Z1CY: My favorite band is 20m band and my favorite mode is SSB

AJ8B: What time of day and days do you like to operate?
7Z1CY: I operate at 10:00PM to 01:00AM UTC mostly during weekends

AJ8B: Any secrets to your success?
7Z1CY: Following the lead by experienced older operators and make use of the internet to learn.

AJ8B: Any tips that you can share?
7Z1CY: Use social media to impress the world with your creations, whether it's an antenna, a device, or an idea.

AJ8B: Describe what you are currently using:

7Z1CY: Radio: for HF Icom IC-7300, IC-706MKIIG and Hermes lite 2 for VHF, Yaesu FT-2980, Icom IC-2300H, IC-2730

Antenna : 3 Band Cushcraft A4S (20,15,10)

1 element Rotatable dipole for 40
7 Band dipole(80,40,20,17,12,10,6) Cushcraft a50-5s

An Interview with 7Z1CY— Saleh (cont.)

AJ8B: What advice do you have for those of us trying to break pileups to work DX?
7Z1CY: Get your station ready use better directional antenna and test your station using multiple online SDRs listen to yourself and make sure you have clear audio.

AJ8B: What is your favorite contest?
7Z1CY: **CQ World Wide DX Contest**

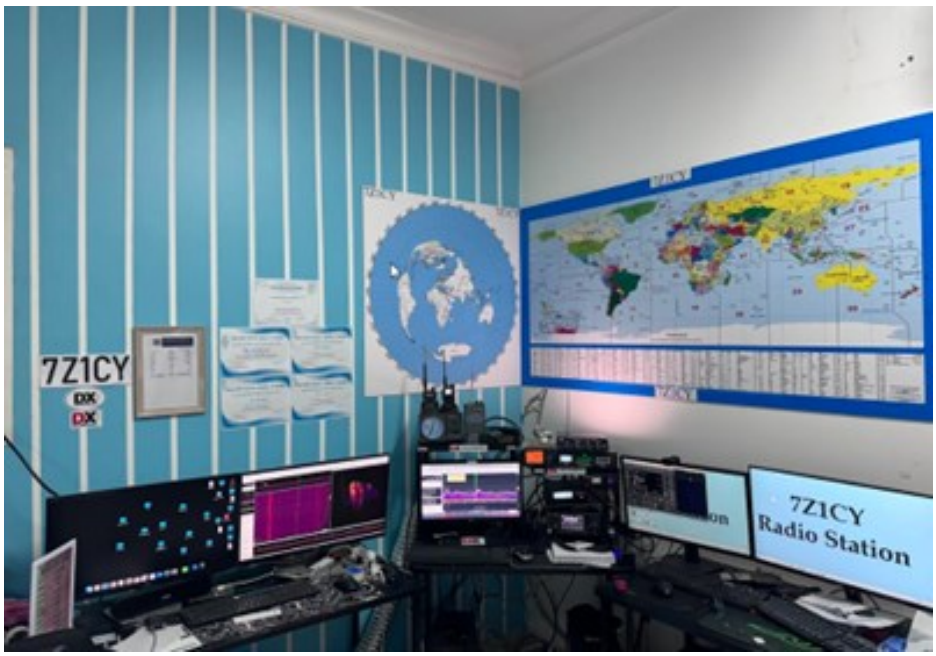
AJ8B: Any QSLing hints?
7Z1CY: Keep it short but complete and log it to QRZ and LOTW.

AJ8B: What coaching/advice would you give new amateurs?
7Z1CY: Start simple don't spend your money on expensive radios and antennas, wait for at least one year using simple equipment.

AJ8B: If I were to stop by for a visit, what local place would you want us to visit?
7Z1CY: Manart Hall : It is a scientific and educational research site specializing in modern applied technologies and includes the largest radio telescope in the Middle East with a diameter of 20 meters, belonging to the Saudi Amateur Radio Society.

AJ8B: What local food would you want me to try?
7Z1CY: You have to try Kabsa, the national dish.

AJ8B: Thanks for taking the time to answer my questions. Is there anything you would like to share with us?
7Z1CY: Thank you for giving amateur radio operators from around the world the opportunity to share their experiences and expertise.



The Story of the 3C3W and the 3C0W DXPeditions

The expedition had originally been planned for April of last year, but since an opportunity arose for ZS8W, it had to be postponed. The license was issued for one month only, so a new one had to be arranged.

On August 29, we flew to Malabo. There was no clarity about transport to Annobón Island. We had planned to wait for the ferry, but its schedule was not available. However, it turned out that air service had been restored once a week, so we bought tickets for September 6th outbound and September 29th return. We spent a week at Hotel Kolytero. (Below)

On the morning of September 6th, we went to the airport and paid an extra fee for 4 pieces of luggage. The plane departed on time, and by 1 PM we were already in Annobón. According to the license conditions, our equipment and antennas had to be inspected by an ORTEL representative before transmission, and a fee for this was included. We had planned to set up the antennas and equipment, and then the representative would fly in the following Friday, inspect everything within two hours, and return to Malabo the same day. There were no facilities for him to stay overnight, and there are no hotels on the island.

At the airport, we were met by Ernesto, who took us to the house where we planned to set up the station. It was the same house used in our previous expeditions in 2017 and 2018. In the meantime, a beautiful hotel had been built on the island (right), but it has not been opened for operation and cannot accommodate guests.

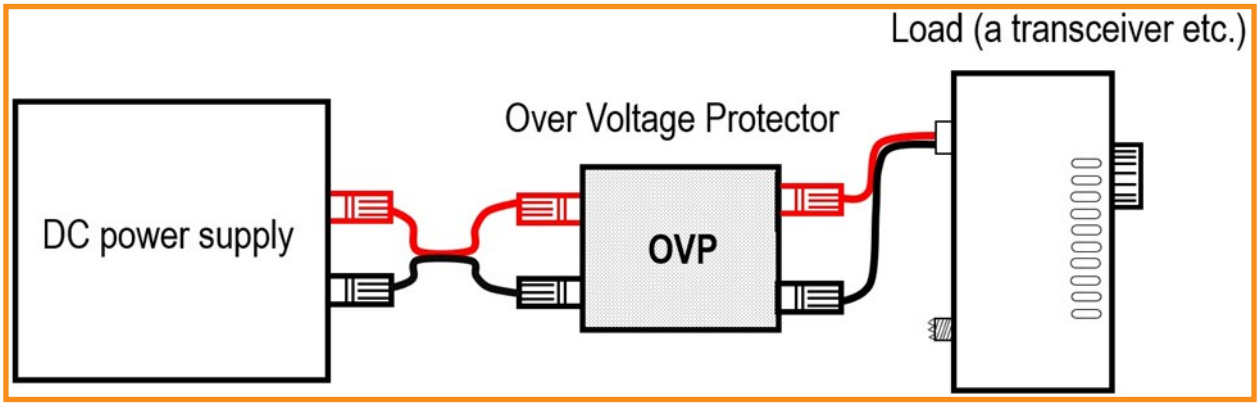
Here is an excellent winter project! Building an Over Voltage Protector

Part 1— About two years before the new coronavirus spread worldwide, at an amateur radio event held in Osaka, there were many junk items packed with operational amplifiers (Op-Amp) such as the LM358, 4558D and 5000-series ICs. I paid 300 yen (about 3 US dollars) for them. I just bought them on impulse, which is my usual habit. The 4558D requires two power sources for V+ and V-, but the LM358 operates with a single power source, and is easy to use. So, this time I built an over voltage protector (hereafter called OVP) using that Op-Amp.

The article about building the OVP is divided into two parts. The first one uses an orthodox mechanical relay for switching to shut off the power supply, while the second one uses a semiconductor which is slightly advanced MOSFET instead of the mechanical relay.

Overview of the OVP using a relay

Figure 1 (Below) shows the configuration of the OVP. DC power is supplied to a load through the OVP device. No modification is made to the DC power supply. It is simply an external device.



This OVP is a device that prevents unexpected overvoltage to the load if the output of the DC power supply exceeds the specified voltage for some reason. The device detects overvoltage using a comparator. Normally, the DC power simply passes through the OVP. But when the voltage of the DC power supply on the input side reaches around 16V, the relay turns ON and cuts off the power supply circuit.

Building an Over Voltage Protector (cont)

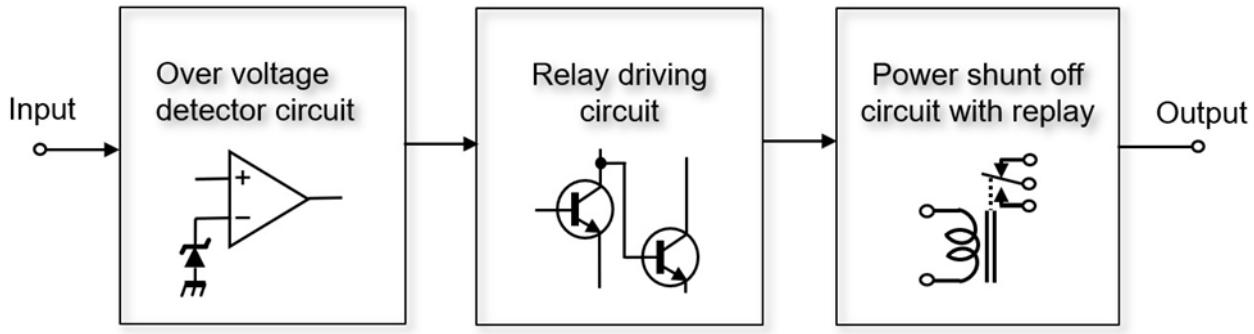


Figure 2

Two key parts used for the OVP

Figure 3 is a circuit diagram of the OVP. There are not many parts used, and there are no special parts. The circuit operation is relatively simple.

There are two key parts. One is the triangular part drawn in the center of the schematic diagram shown in Figure 2 above. This is the LM358 Op-Amp used as a comparator. The other is a relay with metal contacts. I selected a relay that operates at 12V DC. Since current flows through the relay contacts under normal conditions, it is necessary to select a relay according to its maximum current draw.

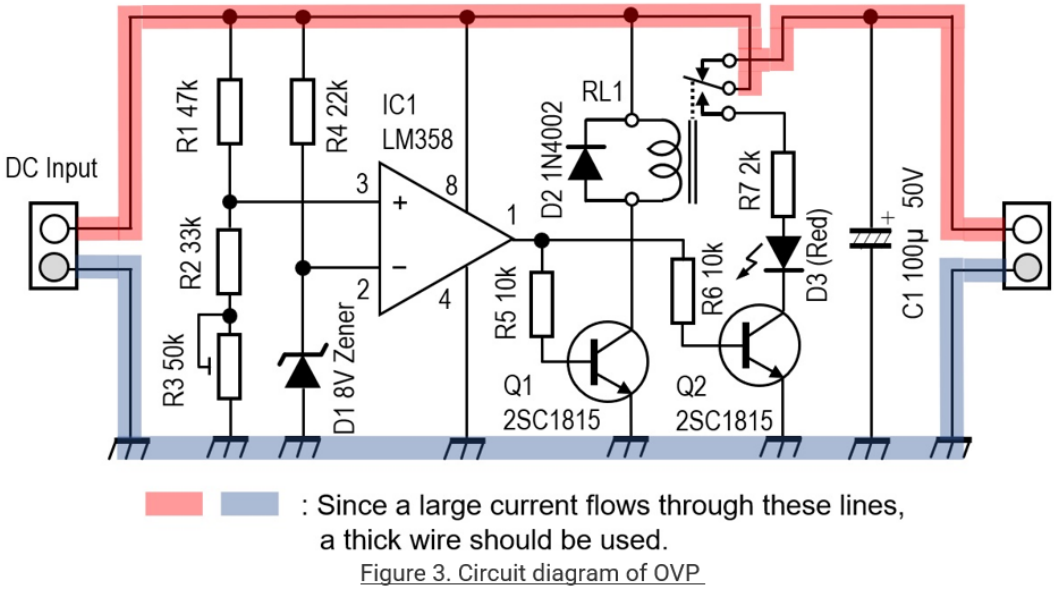


Figure 3. Circuit diagram of OVP

Building an Over Voltage Protector (cont)

Circuit operation description

Figure 4 is an internal block diagram of the LM358. Two Op-Amps are included in one package. An Op-Amp operates as an amplifier when a negative feedback is applied to the amplifier. When it operates as a comparator, no negative feedback is applied.

The comparator has a function that it compares the potential difference between the (+) and (-) input terminals, and the output terminal goes LOW or HIGH depending on whether the potential difference is positive or negative. I used this function to compare the reference voltage and the output of the DC power supply with the LM358. If the output voltage of the DC power supply is higher than the reference voltage, the output of the comparator becomes HIGH, and that signal drives the coil of the relay with a transistor and cuts off the DC power line, colored red in Figure 3.

The voltage supplied to the (+) terminal of the comparator is obtained from the voltage that will cause a malfunction to the external device if the output voltage of the power supply rises further. The voltage applied to the (+) terminal is calculated by dividing the voltage between R1, R2, and R3, but set it just above the (-) reference voltage.

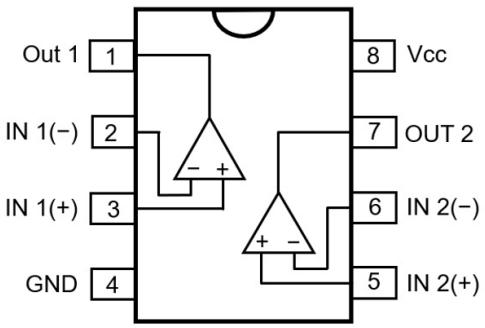


Figure 4. LM358 pin assignments

Specifications of the OVP

The output voltage of the DC power supply in normal operation is 13.8V. If it exceeds 16V for some reason, the OVP activates and cuts the circuit between the output of the DC power supply and the load with the mechanical relay. I built this unit as an external device without modifying the DC power supply.

Main parts used for the OVP

(1) D1— Determines the voltage to be applied to the (-) terminal, which is the reference voltage for the comparator. I used an 8V Zener diode for D1 from the parts I have in my parts box. Therefore, approximately 8V is applied to the (-) terminal.

(2) R1、R2、R3— Since the OVP must cut off the output voltage of the DC power supply if it becomes 16V, I calculated the voltage applied to the (+) terminal from the divided voltage of R1, R2, and R3 so that it became the reference voltage of 8V. R3 is a variable resistor, so the threshold voltage of pin 3 can be changed slightly.

When even Vcc becomes 16V, the voltage applied to pin 2 is the Zener voltage of 8V. It can be seen that the resistance value of the series connection of R2+R3 and the value of R1 are the same. Select the resistance value so that R1=R2+R3. If the variable resistor of R3 is adjusted under this condition, 8V is applied to pin 3 similar to that of pin 2.

Building an Over Voltage Protector (cont)

(3) D2— I used an 1N4002, which is a silicone diode, for rectifying because I have it a lot of them in my parts box. When the mechanical relay is turned ON or OFF, a counter electromotive force is generated at both ends of the coil, so a diode is connected in parallel with the coil as a countermeasure against this electromotive force surge.
(4) D3— When the relay is turned ON, the positive line (red) in Figure 3 is cut off by the relay. At this time, Q2 drives a red LED (D3) to indicate that the voltage has been cut off because of overvoltage.
(5) R3— I connected a 50kΩ variable resistor in series with R2 so that 8V is applied to pin 3 of IC1. The voltage applied to pin 3 can be changed from 6.4 to 9.4V by adjusting R3.
(6) R4— I selected a resistor that allows the 8V Zener diode to operate at a constant voltage. Here, it is set to 22kΩ.
(7) RL1— A mechanical relay that switches the DC line. I selected a relay according to the current capacity to be used. However, the electromagnet part of the relay must operate at DC 15-16V.

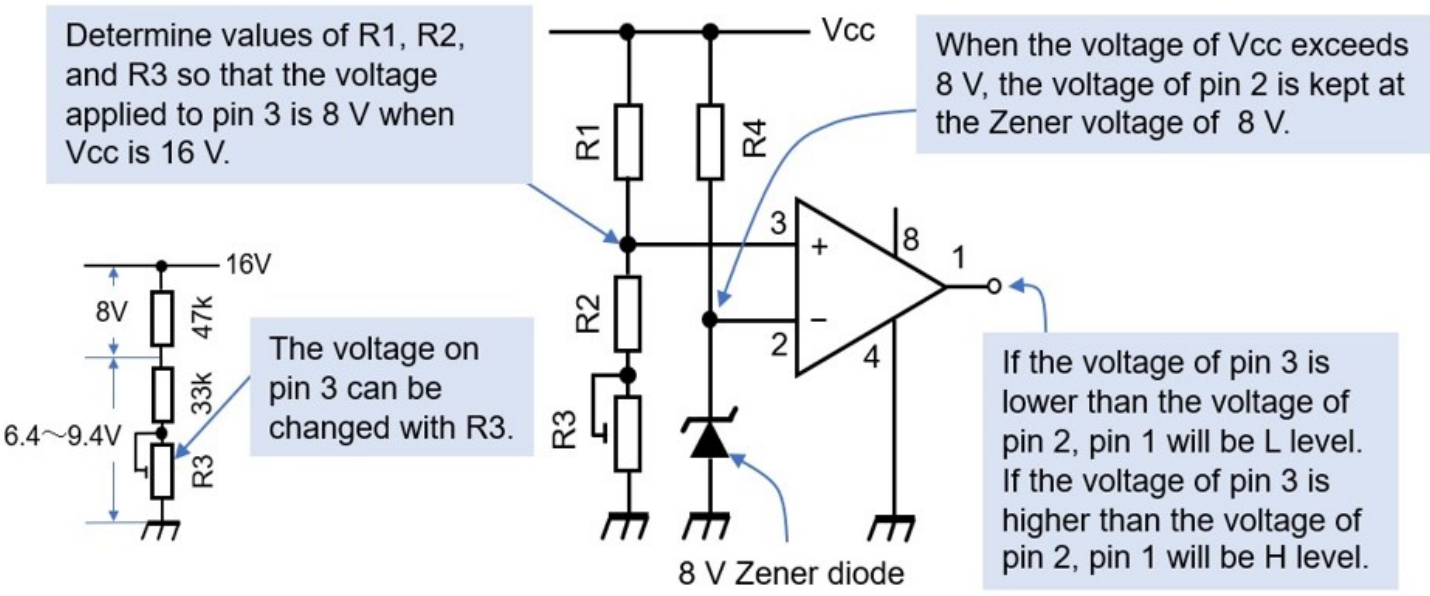


Figure 5. Comparison between the reference voltage and the set voltage

Assembling

I mounted the parts onto a universal board. As I had a DC 12V relay as shown in Figure 6, so I used it. The relay is selected according to the amount of current that flows. For the IC-705, the current flowing at 10W full power is about 3A. If you connect a 100W transceiver, a maximum of about 20A will flow, so it is of course necessary to select a relay that can withstand a large current.

Building an Over Voltage Protector (cont)

It is also necessary to use thick wire where there is a large current flow in wire that is used on the universal board.

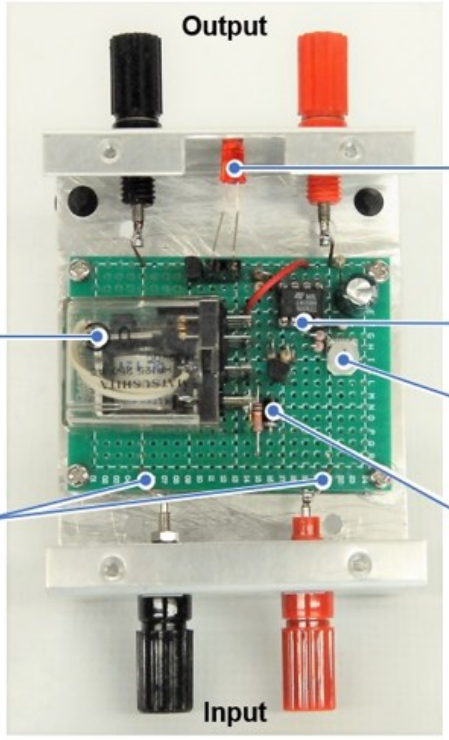
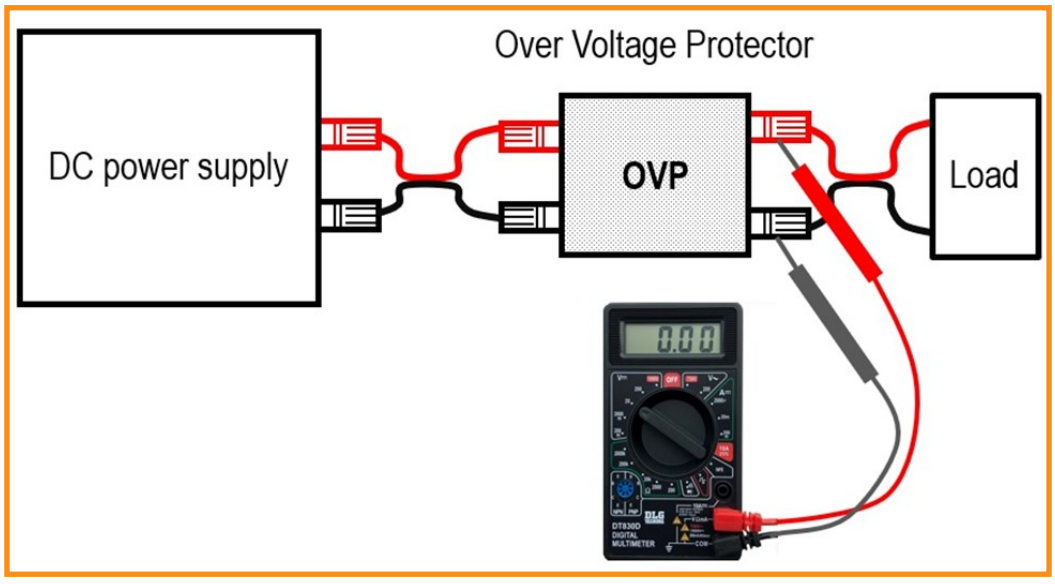


Figure 6. Inside view

Adjustment

Connect the DC power supply and a load to the OVP, as shown in Figure 7 below. Connect an appropriate load and voltmeter to the output terminal of the OVP. For this article, I used two 10Ω cement resistors connected in parallel as a load.



Building an Over Voltage Protector (cont)

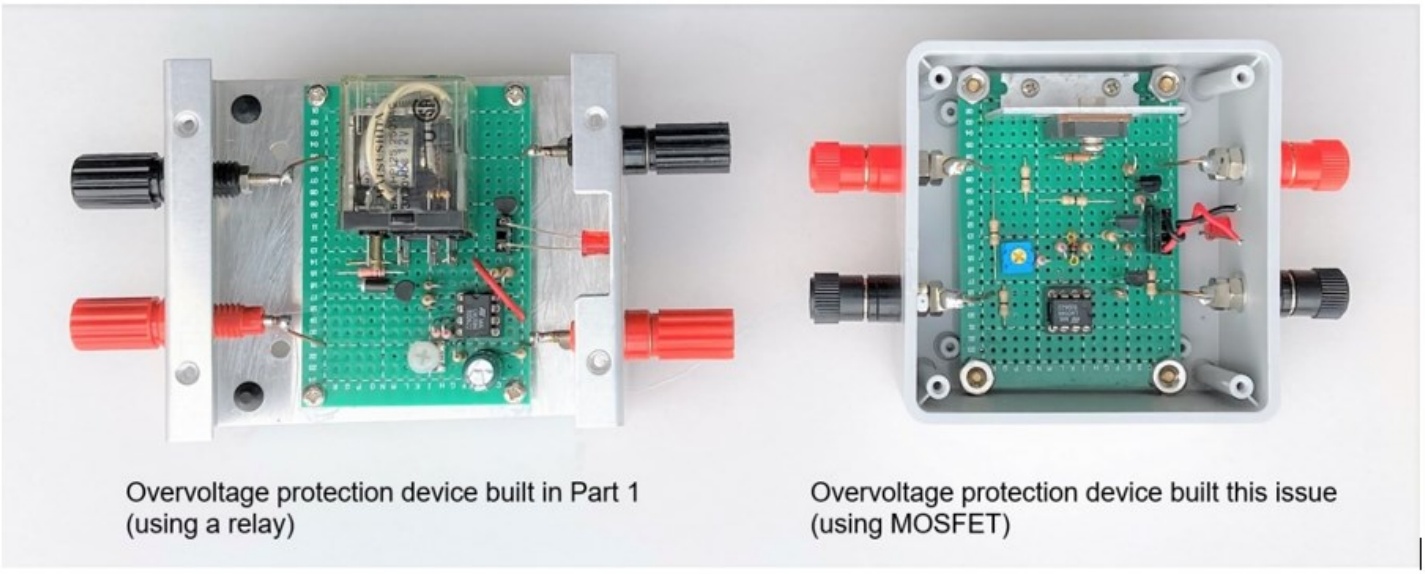
Set the voltage of the DC power supply to 13.8V. Make sure that the output terminal of the OVP has a voltage of 13.8V. Gradually increase the DC power supply voltage and stop it at around 16V or your desired cutoff voltage. Adjust R3 variable resistor to where the output of the OVP is zero. Since the comparator has a hysteresis characteristic, repeat this adjust R3 several times so that the relay makes a clicking sound and turns ON at around 16V. When the relay is turned on, the red LED warning lamp lights up.

About the LM358 as a comparator

The LM358 was originally an operational amplifier (Op-Amp), but this time I used it as a comparator. I will continue to use the LM358 for overvoltage detection next time, but I will build a device with a P-channel MOSFET for the switching part of the power supply cutoff instead of the mechanical replay.

Outline of the MOSFET overvoltage protection circuit

In the previous pages, I made a device that uses a mechanical relay to shut off the power supply line to protect the equipment connected to it from overvoltage when the voltage of the DC power supply increases above a set voltage. This time, in Part 2, the circuit that cuts off the power supply line will be changed from a mechanical relay to a MOSFET transistor to make it completely solid state.

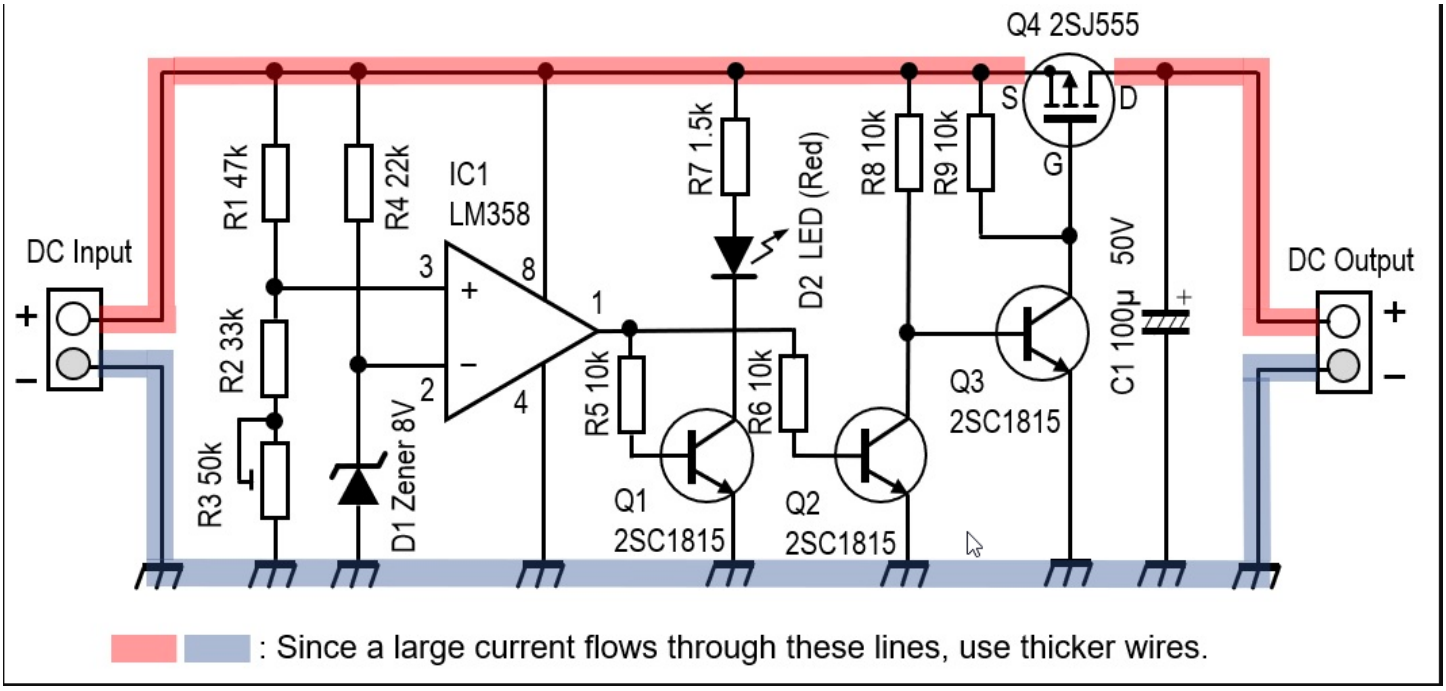


Overvoltage protection device built in Part 1 (using a relay)

Overvoltage protection device built this issue (using MOSFET)

Figure 1. Inside view

Building an Over Voltage Protector (cont)



The schematic above is a circuit diagram of an overvoltage protection device that uses a comparator and a P-channel MOSFET. There are not that many parts used, and there are no special parts. The electronic operation is relatively easy.

There are two key parts. One is the triangular symbol drawn in the center of the schematic diagram. This is an LM358 operational amplifier that is used as a comparator. The other is the P-channel MOSFET used for Q4. I had a 2SJ555 P-channel MOSFET manufactured by Renesas on hand, so I used it. According to the data sheet, the resistance (RDS) in the ON state is very low at 0.017 Ω, and the drain current (ID) can be as large as 60A. I used this 2SJ555, but I think that any FET will work as long as it is a P-channel MOSFET. Please choose the one that suits you.

Building

Mount the parts onto the universal board. The MOSFET was attached to a small heat sink, as shown in Figure 6. But in the experiment, the current was about 5 A at 13.8V, the on-resistance (RDS) of the MOSFET was as low as 0.017Ω, so almost no heat was generated. If you connect a 100 W radio, the maximum flow is about 20 A. In this case, it is 6.8 W from P = I2▪R in the calculation, but it was actually a little warmer. Even so, a large current of 20 A flows through a part of the internal wiring, so it is necessary to consider using thick wire for the wiring.

Building an Over Voltage Protector (cont)

Adjustment and operation check

Connect the output terminal of the DC power supply and the input terminal of the overvoltage protection device as shown in the previous pages. Connect an appropriate load, such as a radio and voltmeter, to the output terminal of the overvoltage protection device.

Set the output voltage of the DC power supply to 13.8 V. At that time, check that the output terminal of the overvoltage protection device is 13.8 V. Gradually increase the voltage of the DC power supply and stop it at around 15.87 V (13.8 V + 15%). Adjust the R3 variable resistor in the schematic diagram in Figure 3 to where the output of the overvoltage protection device is zero.

Since the comparator has a hysteresis characteristic, repeat this adjustment several times to adjust R3 so that the output voltage becomes zero at around 15.87 V. When the overvoltage protection device detects overvoltage, the red LED lights up.

Handing Your Own Pileups

By HK3C— John (hk3canada@gmail.com & www.hk3c.ca)

We had several articles from John in our first 2 editions 7 years ago. I heard a POTA operator on 20M discussing his frustration with not being able to handle a pileup. I thought this excellent article would be a good refresher for all of us!

Critical Success Factors

Few will ever have opportunity to operate as “rare DX” and experience the deafening roar at the DX-station-end of a phone pileup. Should we be so blessed, it can be both heart-stopping exciting, and mind-numbingly intimidating. But once we get rolling and contacts begin to fill the log, there is no greater thrill!

Whether we’re planning a one-week vacation trip to an island in the Caribbean, armed with your IC-7000 and enough coax and wire for a simple dipole, or we live in a semi-rare or somewhat exotic country in South America, the following list of considerations may help us handle your pileups more efficiently and effectively, resulting in more contacts - and ultimately a more satisfying experience.

These are referred to as “critical success factors”. They are not all encompassing and are meant only as a sort of “Guide for Beginners” for those who have interest in, and a passion for, the adventure of DXing and handling pileups.

Awareness and Support

Successfully handling a pileup requires knowledge and understanding of current and changing band conditions, an appreciation of propagation patterns, as well as feedback from trusted sources.

Knowing where, and how well we are being heard, and how propagation shifts over time, will help us more effectively manage your pileups, especially if we are operating from a rare, exotic or much sought-after call area. Awareness will help us understand caller behavior - how eager or excited callers can be to make the contact - especially if our operation is for a very brief period. Awareness can spell the difference between an orderly, well orchestrated undertaking with good pace and rhythm, versus sheer band chaos and pandemonium.

Handing Your Own Pileups (cont.)

Understanding our station limitations will enhance our approach, attitude and level of professionalism as we conduct business. For example, should we be plagued with local power line, atmospheric noise, or other severe receiving limitations, being aware of our station's true capability is vital.

Independent of our operating skill, ability and experience, or our station equipment and antenna system, our general awareness is a critical success factor governing our pileup handling success. The "who, what, where, why and how" of our operation, for example - propagation, where we are on the band and other activity around us, our operating schedule, our support network (access to the Internet, key stations in strategic locations who may be able to help control or manage in case of difficulty, etc.), will all contribute to our level of awareness and support, to make the experience pleasurable for all and a successful undertaking for us.

Control

Given the vagaries of propagation and the unpredictable nature of callers, one rarely is ever in complete control, however certain operating techniques and practices will help us maintain control in handling our pileups.

For example, should the number or behavior of callers begin to negatively impact or significantly slow the orderly flow of contacts, consider changing from simplex to split operation. Before we do however, understand the impact on others on the band around us, since our operation will now consume greater bandwidth. Weigh this against the potential increase and improvement in contact flow, and evaluate our knowledge and experience of operating "split". Ensure we have a good understanding of how to set your radio in the split mode - ahead of time.

And before we get started, have a game plan on how to proceed. How effectively we control the pileup will have a significant impact of the orderly and efficient flow of contacts. As the DX station, we set the standard.

Handing Your Own Pileups (cont.)

For example, while it may be tempting to provide our name and location information on every contact, know this will slow the process, since callers will be similarly motivated. If the volume of callers is large, stick to call sign and report (usually 5-9), then move on. Once we achieve a rhythm, pace and contact flow, taking into consideration caller volume, propagation, our comfort and ability, etc., our degree of control will increase to the point where we can communicate instructions as required, and/or adjust our contact handling style on the fly.

Setting a good example is important, so remain calm - and be humble.

Don't ignore strong stations: handle them first - get them out of the way - rather than having them call back again and again, blotting out weaker stations in the pileup. And, depending on our ability, knowledge or experience, demonstrate a spirit of fair play in maintaining control, avoiding a collapse into disorder. Don't be afraid to say what call or call area we're listening for. Conversely, avoid favoring any one continent, country or call area unduly - unless there's a good reason to do so.

Decide early and show consistency in how we respond to callers (first station heard, last one heard, partial call signs, etc.), if only to establish a pattern. This will help improve the rhythm, pace and flow. If we set the standard early, and are consistent, the pileup can be better controlled - with more contacts in our log, and a higher level of satisfaction - by all. Do listen for QRP stations - and avoid rewarding bad behavior.

Handing Your Own Pileups (cont.)

Management

Most DX stations at the epicenter of a large pileup will face completing objectives best described as “quantity” versus “quality”. Irrespective of operator knowledge, experience or ability, pileup management will always be critical. How well we perform will ultimately have a huge impact on results.

For example, taking-in what we hear (and feel), and adjusting our style as required to improve the pace and rhythm of contacts, is a prerequisite to handling a pileup effectively and efficiently. Practice does indeed make perfect, but nothing trumps smart listening with immediate remedial action. Let our personality, passion and versatility guide us in this regard - and have fun.

Always show respect, be courteous, and have empathy for callers who may exhibit varying levels of operating experience and skill, or language comprehension, not to mention station equipment and propagation conditions. Remember to use standard phonetics and enunciate our call sign and signal report clearly. An appropriate microphone feeding a properly adjusted transmitter - mic gain, compression level, treble and bass settings for good articulation, will contribute to successful pileup handling.

Managing our pileup handling performance intelligently is a critical success factor.

Playing to the Strengths of Propagation

Many new DXPeditioners or Hams vacationing outside North America who operate as “rare DX” may fail to appreciate propagation often determines who they should be listening for as a priority in pileups. The bands close earlier to Europe than to North America, when operating from the Caribbean or from Latin America.

So, we should listen for, and aim to work, stations in eastern Europe and Russia first, saving western and southern Europe for late afternoon.

Handing Your Own Pileups (cont.)

Once the sun has set in Europe, we should turn our attention (and our beam antenna, if we are so lucky) to North America and repeat the strategy. Start with eastern USA/Canada and recognize when the band shifts, to the mid-west and eventually to the west coast.

Remember: the terminator line is our propagation enhancer for weak stations, especially across the poles to certain parts of Europe, Asia and the Pacific. Periodically ask stations to stand by as we listen for them. They can be worked if they are on frequency.

The important thing is not to forget to ask for them.

Miscellaneous

This final critical success factor deals with things largely beyond our control, viz., interference and misbehavers, nevertheless how we handle these will set us apart from the crowd - as a pro.

Interference, accidental or intentional, is a reality of pileups. Some may not like DXing (or contests) and they may show their displeasure by deliberately interfering with our operation. On the other hand, propagation may have changed such that stations previously out of our skip zone now become clearly audible, resulting in interference to our pileup. No matter the circumstance, it's important to remain calm and avoid voicing anger or disrespectful language. Simply ask the pileup to standby while the situation clarifies itself and we can determine more clearly what we up against. Derogatory comments being addressed our way are best ignored. At worst, changing skip conditions may necessitate a change in our calling or listening frequency.

On the other hand, we may not need to do anything, as members in the pileup may already have identified the source of the interference and may have undertaken "police action" to dissuade the interlopers. Soon the frequency will likely be clear again, and we can resume as if nothing had happened. Above all, do not engage with or acknowledge intentional interferers. Stick to the high road - we will likely find we have more supporters than we imagined who will rally to our defence.

Should the interference situation become explosive or unpleasant, simply QSY. If this is not practical, take a break and come back to it later.

Regarding "misbehavers" - those who make a general nuisance of themselves by calling out of turn regardless of who we say we're listening for, or those who call continuously over everyone else, it is best to ignore these callers (if possible). If we ignore them long enough, they may cease and desist - and simply go away.

Handing Your Own Pileups (cont.)

Avoid any display of displeasure and avoid mentioning their call sign. Instead, remain calm, proceeding as best we can, to work the pileup professionally. As mentioned earlier, we may not need to take any action – others may do it for us.

Maintaining proper balance and a positive attitude is key, when and if things turn nasty. Remember, a pileup is far from being a matter of life or death – so keep cool, stay focused and be professional.

Finally, don't forget to post QSL information via QRZ.com, our personal website, DX Coffee, Daily DX Bulletin, or on one of the many other Internet resources.

Enjoy your pileups – and good DX!

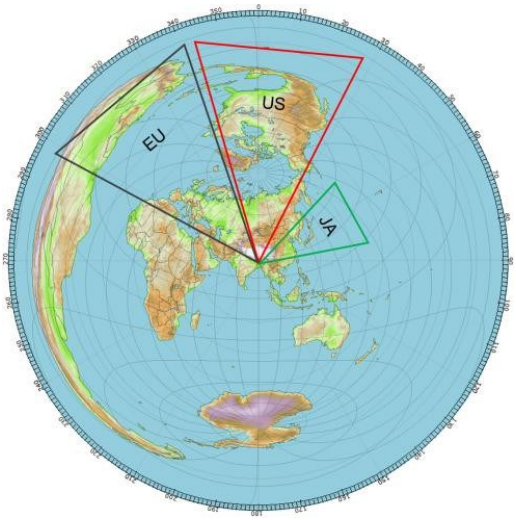
A52G, a Great Experience

In the late 1970s, I had a QSO with Pradhan (A51PN), which initiated a series of written correspondences in the absence of email or internet. My interest in Bhutan, with its rich culture yet relative inaccessibility to tourists, began at this time. However, it was not until forty-five years later that I was able to visit Bhutan in person.

To prepare for my DXpedition, I consulted Yanusz (SP9FIH),who had previously undertaken radio operations in Bhutan. He generously provided practical information regarding his stay and additional recommendations. With this insight, I worked closely with a travel agent to finalize arrangements.

Mode	EU	US	US-East	US-West
CW	95	28	32	33
SSB	120	47	55	50
Digi	134	62	65	69

Figure 1 - Noth America high in the Most Wanted List



Once the timeframe was established, I collaborated with Ugyen from Uhidey Bhutan Tours & Treks, who efficiently coordinated visa procurement, hotel reservations, flights, and the radio license.

The selected hotel was situated near the Dochula Pass, 3,100 meters above sea level, offering optimal transmission conditions across the Himalayan range to North America and Europe, and permitting unrestricted antenna installation. Visitors to Bhutan are subject to a USD 100 daily sustainable development fee and must be accompanied by a guide, including arrangements for transportation. All visa and license formalities were completed without difficulty.

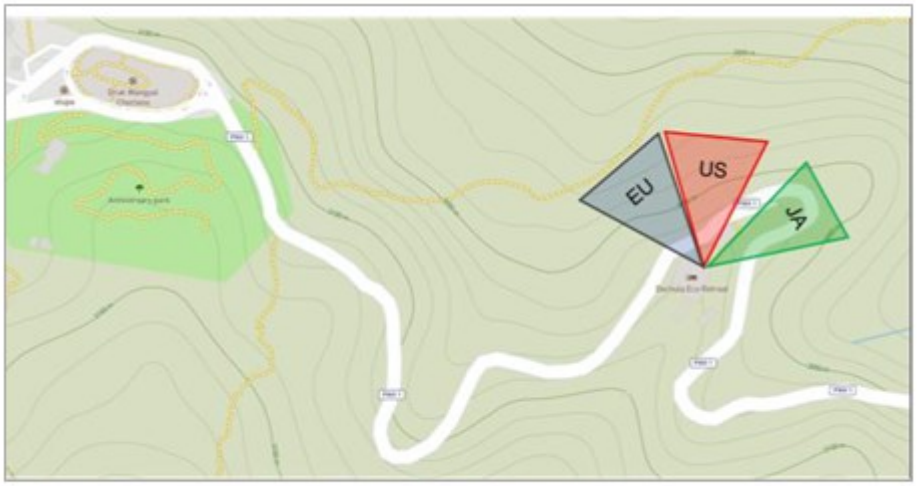


Figure 2 - Free radiation towards EU, US and JA

A52G, a Great Experience (cont.)

My journey commenced with a flight from Amsterdam to Dubai, followed by Drukair from Dubai to Paro. Landing at Paro Airport is renowned for its challenging approach between mountains, navigable only by specially trained pilots— a process well-documented on YouTube. Upon arrival, I purchased a local SIM card, ensuring consistent internet connectivity throughout my stay given concerns about hotel Wi-Fi reliability.

Preparation for antenna installation involved extensive communication with Ugyen regarding suitable mast materials for the Hexbeam antenna. Though initial options were inadequate in diameter, we sourced a compatible tube at a hardware shop in Thimphu during our transit from the airport. Upon reaching the hotel, site limitations necessitated use of only the terrace at the hotel front for antenna setup due to ongoing construction.

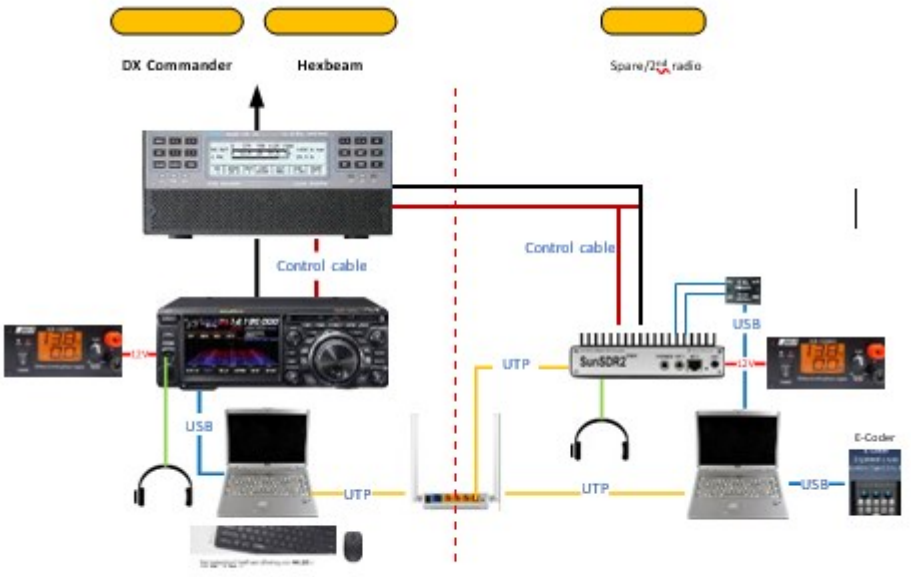


Figure 3 - Station setup, now with my new FTDX10

Assembly of the DX Commander antenna proceeded smoothly prior to nightfall, allowing for immediate operation. The station was established in my room, where sufficient workspace existed. Despite fatigue from travel, I commenced operations after sundown, making my first QSO with 9A2DS on 30m on September 30 at 17:29 UTC.

The Hexbeam and DX Commander on the terrace in front of the hotel. This view is towards Japan

A52G, a Great Experience (cont.)

The following morning, I assembled the Hexbeam antenna with substantial support from Ugyen, especially in mounting and securing the mast. Outdoor setup concluded, I shifted focus to radio operations. Propagation conditions were initially poor, but improved over subsequent days, resulting in successful pileups particularly with Japanese stations.

Contact with the East Coast of the United States was challenging due to the trans-polar path, with opportunities typically arising around 06:00 local time on 20 meters. Signals exhibited characteristic flutter, with openings lasting approximately 1 1.5 hours. The expedition concluded with extended activity into Europe on 10 meters. While I operated without geographic preference, the majority of QSOs were with European stations. The final QSO occurred with RZ3DJ on October 8 at 11:19 UTC on 10 meters.

During my stay, the hotel was undergoing complete renovation, and I was the sole guest. Meals were served on a set schedule, and I negotiated menu options with the staff. Beverage availability was limited; however, coffee and tea facilities were provided in-room. Due to the hotel's isolation, procuring additional supplies was impractical. Heating was traditionally via wood stoves, though electric heating was available in my room.

Figure 5 - My comfortable operating position

A52G, a Great Experience (cont.)

On October 3, I visited Thimphu with Ugyen, coinciding with the annual Thimphu Tshechu festival at Tashichho Dzong. This cultural event, attended by thousands in traditional attire, was a highlight of the trip. During my visit to Punakha, I toured the historic Punakha Dzong also known as Pungthang Dewa chhenbi Phodrang (meaning "the palace of great happiness or bliss"), constructed between 1637 and 1638 and second oldest and second largest dzong of Bhutan. The Punakha Dzong is depicted on my QSL card.

On October 7, I met Tshering Tashi (A51DX), an enthusiastic amateur operator recently licensed and eager to expand into HF bands and CW. Our discussion was engaging and productive. That day, Ugyen departed due to a family bereavement, and Sonam assumed guiding responsibilities

Figure 7 - Tshering A51DX in his shack at Paro

A52G, a Great Experience (cont.)

Figure 8 - My guides Ugyen and Sonam

Anticipating rain, I began dismantling antennas on October 8 to avoid damage. Equipment was systematically packed, and, on October 9, we travelled to Paro for sightseeing. In the afternoon I was picked up by Tsering to visit his house in the mountains. We discussed how he could install an antenna for the HF bands. I gave him my 30 meters long ExtraFlex bury 7 coax, to be used for his future HF antenna and gave him also a small multimeter.

I'm currently preparing a 10/(15)/20/40 EndFed antenna for him which I will mail to him in the coming days. With that he should be able to make his entry into our Ham world. Tsering is also interested to establish a kind of club station that can be used by other interested Bhutanese radio enthusiasts.

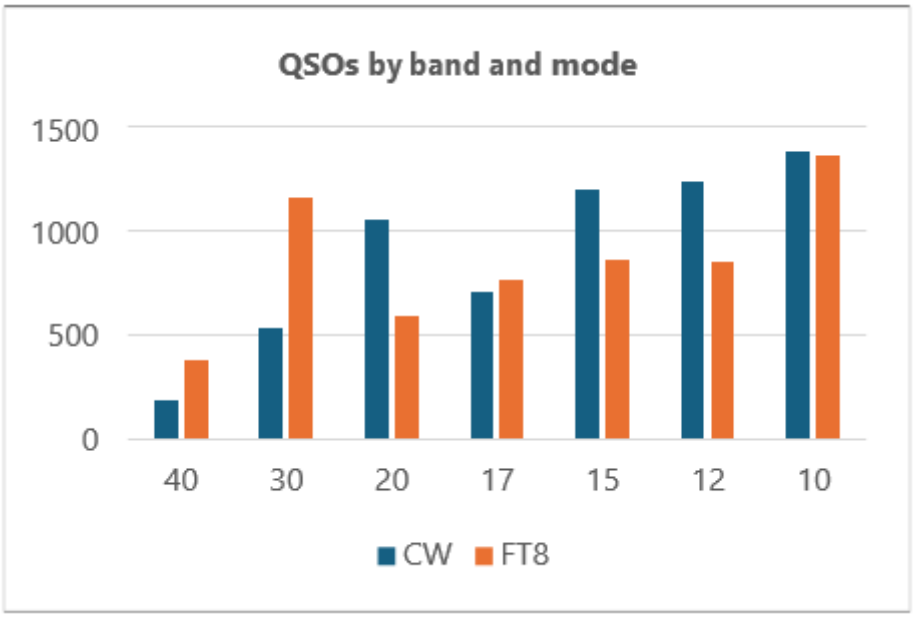
After an overnight stay in Paro and a smooth check-out process, I departed Bhutan via Dubai, returning to Amsterdam following an eleven-hour layover.

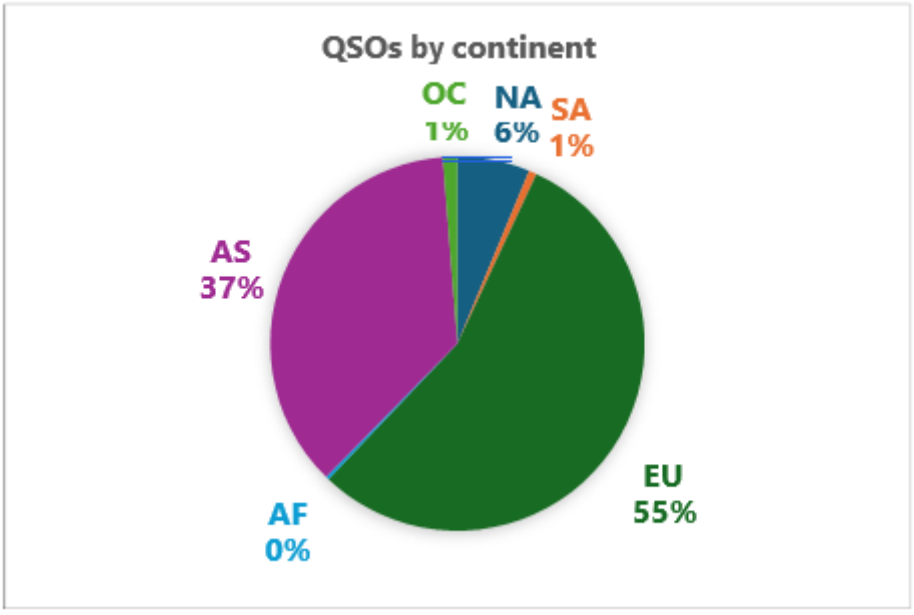
Results

Operations covered 40–10 meters using CW and FT8 modes. Because both antennas were close together on the terrace, which prevented running two radios simultaneously. The noise level was extremely low which allowed me to work pile ups with very low signal strength, sometimes just about the noise level.

Despite variable propagation and early inclement weather, I logged 12,278 QSOs, exceeding my target of 10,000. Later in the expedition, both propagation and weather conditions improved, providing clear views of the Himalayas, having good weather conditions during my trips to Thimphu, Punakha and Paro and great operating conditions.

A52G, a Great Experience (cont.)





I sincerely thank my sponsors for once again supporting me. With their commitment and help I can recover part of the costs.

73—Gerben—PG5M

NEW

ID-52A

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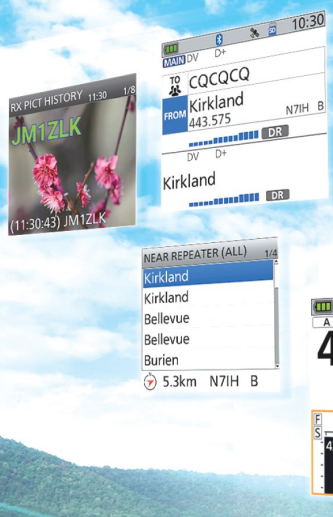

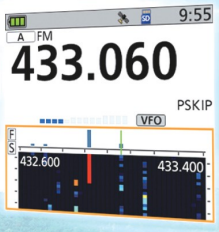

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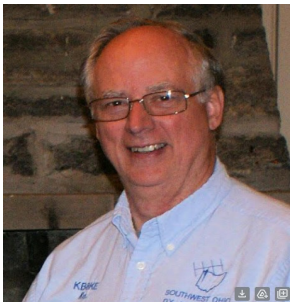

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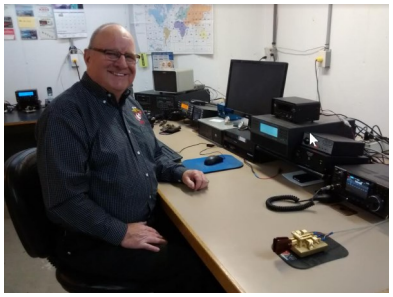

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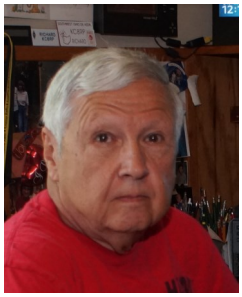

SWODXA Station
TrusteeW8EX

—

KC8RP—Richard Pestinger
rpestinger@gmail.com

SouthWest Ohio DX Association (SWODXA)
Club Fact Sheet

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

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

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

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

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

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

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

SouthWest Ohio DX Association (SWODXA)
DX Donation Policy

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

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

Factors Affecting a DXPedition Funding Request Approval

DXPedition destination	Website with logos of club 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
6O6O	VP6D	TO4E	XR0ZR	VP8STI	VP8SGI
W1AW/KH8	K1N	3D2C	VK0EK	S21ZBB	E30FB
ST0RY	TI9/3Z9DX	VK9MT	K5P	9U4M	TX3X
VU7AB	3Y0Z	3C0L	TX7EU	CE0Z	3C1L
TI9A	3D2CR	3B7A	K9W	VU7RI	6O7O
C21WW	CE0Z	T30GC	T30L	D68CCC	W8KKF/WP5
K5D	3Y0J	T33A	3Y0J	CY9C	