



# Bulletin



May 2020

## From the Prez



Dick K5TF

Mike's column represents my thoughts as well.

I hope all of you are staying safe and hope we can gather together soon, too.

73,

Dick K5TF ♦

## This Month's Meeting

The meeting for May has been **cancelled**.

## VP's Corner



Mike ND4V

Greetings. I hope you and your families have successfully sheltered in place and avoided the virus. I hope you will continue to practice safe distancing and be safe.

Six-meter season has kicked off. So far, I haven't heard, or should I say haven't seen (FT8) any EU openings. We have had several days of openings to the Caribbean, Mexico, the northeast and single hop out west. The magic band has a way of suddenly and dramatically changing, so stay tuned. If you haven't tried FT8 and want to test it out, there are usually several locals either lurking or CQing on 50.313.

The Georgia QSO party manager shortened the Easter Sunday operating hours and made up for the shortage of rovers by offering bonus points for working W4AN or W4NT. I thought the participation from out of state callers was as good as ever and judging from the number of logs received, the GA QSO party is still a popular and fun event. Thanks Jeff, KU8E for your efforts.

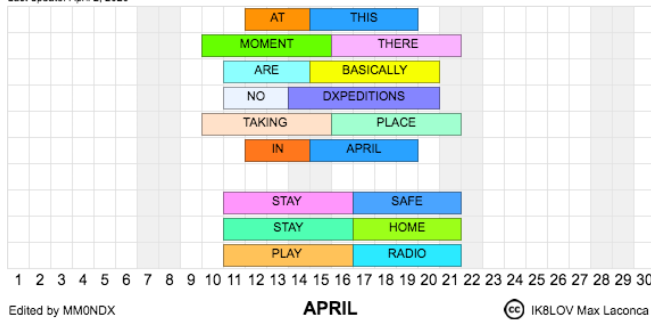
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**DXWORLD.net**  
**FEATURED DXPEDITIONS TIMELINE**

Last update: April 2, 2020



Edited by MM0NDX

APRIL

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## Around the Shack de N4GG



### Analog Has Its Place

*Around the Shack* for September, 2019 delved into the human-rig interface. I tried to make the case that a radio should be viewed as a back box with an analog input (antenna) and an analog output (audio). What happens inside the box is irrelevant as long as the box fulfills the purpose for which it is intended **and is easy to use.**

There are now digital modes however where the radio isn't communicating to our ears, it's communicating directly to a computer. The radio-to-computer interface can be analog or digital at this point in the development of technology – we are living at a time of transition. Most digital mode interfaces are still analog (analog audio from the radio to analog sound board input on the computer side) but that's changing. Purely digital interfaces will slowly replace analog interfaces and new radios are showing up with digital modes built in. I'm speaking here, of course, about the output signal of the receiver. The control signals for radios have been digital for nearly three decades. The protocol was RS-232 at first, now it's mostly USB.

Meanwhile we will always want to listen – at least a little. Your ears are analog – radios will continue to have analog audio outputs.

Besides listening to analog audio, there is a place where analog devices are superior to digital ones and sadly I see more and more of these analog devices being replaced by digital ones that don't do the job as well.

I'm speaking specifically about two pieces of ham shack test equipment: VOMs and Wattmeters.

What's the problem with a digital VOM you might ask? The problem is it can be between difficult and impossible to see an intermittent connection on a digital ohmmeter. Intermittent shorts, opens and changes can come and go quickly - sometimes in a fraction of a second.

Cont. p. 4

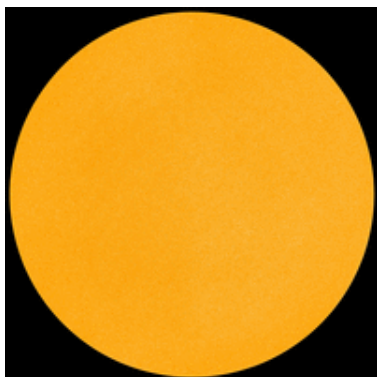
### THE GREAT GEOMAGNETIC STORM OF MAY

**1921:** 99 years ago this month, people around the world woke up to some unusual headlines.

"Telegraph Service Prostrated, Comet Not to Blame" — declared the Los Angeles Times on May 15, 1921. "Electrical Disturbance is 'Worst Ever Known'" — reported the Chicago Daily Tribune. "Sunspot credited with Rail Tie-up" — deadpanned the New York Times.

It began on May 12, 1921 when giant sunspot AR1842, crossing the sun during the declining phase of Solar Cycle 15, began to flare. One explosion after another hurled coronal mass ejections (CMEs) directly toward Earth. For the next 3 days, CMEs rocked Earth's magnetic field. Scientists around the world were surprised when their magnetometers suddenly went off scale, pens in strip chart recorders pegged uselessly to the top of the paper.

Read the entire story at <https://spaceweather.com/archive.php?view=1&day=13&month=05&year=2020>



*Sunspots on May 21, 2020. I know we all want more, but not like in 1921—Editor.*

## SEDXC OFFICERS

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## Club Communications

SEDXC Webpage: [www.sedxc.org](http://www.sedxc.org)

SEDXC Chat Room: details on webpage

SEDXC Reflector: details on webpage

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## VP Corner (cont.)

Did everyone successfully make the transition to the new reflector on groups.io? If you haven't got it going, drop Chaz or Al a note asking for an invite.

These are indeed interesting times. Mail service to some countries has been suspended. Dxpeditons are grounded. ARRL HQ is closed with most staff working remotely. DXCC field card checkers are now allowed to scan and e-mail the paperwork to the DX desk. Online DXCC applications are being processed; however, new certificates won't be printed and mailed until after HQ re-opens.

Here is hoping that the high humidity and summer heat will give us a respite from the virus and that we can meet up again in the near future.

Mike ND4V❖

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## Treasurer's Journal

Balance on hand as of March 31: \$11,861.  
Check's issued: \$27.49, website administration

73 and stay safe,

Jeff K1ZN❖

## Around the Shack (cont.)

Over my 59 years of antenna and circuit troubleshooting, I've seen countless intermittent connections. Outdoor antenna connections swinging in the wind, intermittent coax connectors, bad solder joints. They can be long-lived, in which case they will show up on a digital meter, but digital meters sample periodically and then display. Many of them average their periodic readings as well. If an intermittent comes and goes in between the sampling events of a digital meter, you will never see it.

Regarding wattmeters and VOMs, I look for needle twitches. Digital meters don't twitch. Things that come and go quickly are simply missed.

The above applies to all the VOM functions - voltage, resistance and current measurement. Wow, how many intermittent connections have I tracked down beginning around age 5 (1953!) when I was changing the plugs on toasters? Shorts and opens can be steady and easy to find, or intermittent and not seen with a digital meter.

Have you ever considered that the S-meter in your rig is analog? Well-made radios still have real mechanical meters in them. My FTdx5000 has a real meter. The latest top of the line ICOM radios have real meters. Mechanical meters are expensive. Drop down a notch and the S-meter in my FT1000MP has a bar graph for an S-meter. The signals to turn the bars off and on are derived digitally, but the display is set up to appear analog. The bars go from illuminated to dark FAST. There is very little averaging going on. Signal strength changes rapidly, and we would like to see the modulation on an SSB signal. An averaging digital meter reading out numbers provides you none of what you're looking for.



Fig. 1

As we move further into digital and SDR radio territory, such as FLEX radios, there are still displays on your computer screen that appear to be analog S-meters. Figure 1 (left) shows one of the many "S-meter" computer displays for FLEX radios. It should look very familiar. It looks about the same as the S-meter on an HQ-129X receiver from 1956. The signal for an S-meter is derived digitally in digital radios, but the S-meter reading is never displayed as a number. Why? It's simple. Sometimes you want to observe rapid changes and *digital displays simply don't do that*. If the display were numbers (digits), the numbers would be changing too fast to read them.

Digital wattmeters don't display rapid or intermittent changes in SWR or power, just as digital VOMs don't display rapid or intermittent changes in resistance, continuity, voltage or current. Figure 2 is a photo of the VOM in everyday use at N4GG. It cost \$9 at Lowes. Sometimes Harbor Freight gives these away for free! I prefer it to a \$200 DVM – it tells me more. Figure 3 is my best, high precision volt-ohm-milliamp meter. It cost nearly \$100 and is analog by choice. I bought it when I started restoring tube radios – I needed a meter that could handle 1,000 volts.



Fig. 2



Fig. 3



**Fig. 4.**

But, there is a place for digital “meters.” They are great for measuring things that don’t change. Figure 4 is a photo of the inductance/capacitance/resistance meter in everyday use at N4GG. These are often referred to as “LCR meters.” If I place a resistor across the terminals it tells me the resistance to several significant digits. I remember the color code for resistors, but it’s easier to put a resistor onto my LCR meter and read the value. Resistors change with age too. I can pick that up on the digital meter and I won’t see it by simply reading the color code. I’ve never quite figured out the color code for small inductors, but my digital LCR meter reads inductance for me just fine. Figure 4 shows it reading a 10 uH inductor...the color code on the part baffles me.

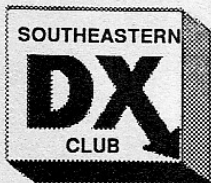
So, what’s the bottom line? Analog displays have their place as do digital displays. The best human interface for a given task might be either. Thinking through the role of the devices in your shack – such as a wattmeter – may lead you to the conclusion that the analog S-meter for a FLEX radio is trying to tell you something. Analog has its place.

As an aside, I need to mention a problem with digital LCR meters such as the one in Figure 4. Meters of this type typically measure capacitance and inductance using a test signal around 1 KHz. For air-wound inductors that’s fine but for toroid wound inductors you may get a value at 1 KHz that’s far from the value at, for example, 14 MHz. The indicated value may be worse than useless too. In addition to being off, sometimes off by orders of magnitude, it can be misleading if you don’t realize what’s happening. The ferrite core in an inductor has vastly different properties at 1 KHz than it does at 14 MHz. When we are working at ham frequencies, 1.8 MHz and above, inductors need to be measured at or near the intended operating frequency. That’s best done with an antenna analyzer such as an MFJ-259, or by building an LC circuit that you can measure with an antenna noise bridge or directly with a receiver. How to do that is a story for another day.

Hal N4GG

## ***DXpedition Funding Request***

*No requests this month -- Editor*



# SOUTHEASTERN DX CLUB W4NT

THE  
SOUTH'S  
PREMIER  
DX CLUB

May 1995

## NEXT MEETING TIME & LOCATION

Tuesday, May 16th, 7:30 PM, Old Hickory House in the Days Inn, Roswell Rd., just inside I-285.

## VEEP BEEPS

by Dick Bentley, K2UFT, VP

## PRESIDENT'S MESSAGE

**-Delaine McCarthy, KM4FV, President**

Greetings everyone! To all of those who went to Dayton, we will be anxious to hear about your visit at our May meeting. Mac and I were sorry that we couldn't attend, unfortunately other matters took precedent this year. I hope you were able to find all those little things you "just couldn't live without."

Hopefully, next week the nominating committee will be meeting to compile a list of candidates for next year's officers. If you are asked to serve in a position, please seriously consider it. Everyone needs to take part in one way or another; you may be a great leader, or your best participation may be in supporting your club with dues, attendance, and offering your help to the presiding officers. It takes a lot of support and dedication from all of us to make this club what it is and has the potential to be. Everyone can't be in office at the same time, but everyone can encourage and participate.

May the 16th will be our next meeting, please try to be there, we will have fun.

Remember, if we all carry a rock, we can move a mountain!

CUL, 73 Delaine - KM4FV

The SEDXC Newsletter is published monthly by the Southeastern DX Club. All opinions expressed by the contributors do not necessarily reflect those of the editor, officers, or club. We welcome your opinion.

You've heard of hands-on experiences, how about feet-on or ears-on experiences? Come to the May meeting, Tuesday, May 16, and learn more. 6:30 for supper in the Hickory House Gourmet Bar-B-Q, 7:30 for the meeting upstairs. You want more hints? This month's door prizes won't be left to chance, you're gonna have to work for them! See you at the Day's Inn, Roswell Road and I-285, just barely inside the Perimeter (404 area code.)

-73 Dick, K2UFT

## MINUTES SEDXC MEETING 4/18/95

**-Buddy Harrell, W4OUN, Sec.**

*(Buddy was out of town. I will publish April's minutes next month along with May's. -ed.)*

73's and DX

Buddy/W4OUN

## OFFICERS NEEDED, APPLY WITHIN

**-SEDXC Staff**

It's that time again! New blood (or some old blood) is needed to help guide the club through the next year. The current officers are asking that anyone interested please contact Delaine or Dick. Otherwise, they will be looking for "volunteers." Everybody likes to come and enjoy the meetings, please contribute your talents. Elections in June. CU there!

## TREASURER'S REPORT

-de John Tramontanis, N4TOL

Balance 4/1/95 (Checkbook)	\$2,499.23
Income	
(not specified)	710.00
Total Income	<u>710.00</u>
Expenses:	
Newsletter (Apr)	101.52
Hamfest Flyers	105.00
DX Breakfast	134.10
Raffle Prizes	68.04
QSL Bureau	14.08
Ham Radio Foundation	115.00
Total Expenses	<u>537.74</u>
Balance Checking 4/30/95	<u>\$2,671.49</u>

Of this ending balance, \$788.00 is earmarked for the cluster fund, resulting from voluntary contributions from the club membership at renewal time. The club is also holding \$800.00 for 160 meter award plaques.

The payment for the DX breakfast was to Shoney's from cash collected from members at the restaurant that day. The payment to Ham Radio Foundation was to reimburse for Ham Radio 95 tickets that were purchased by the club and subsequently sold to club members.

The income of \$710.00 is not detailed this month due to the difficulty of accounting for the breakout of the cash received at the hamfest. It does consist of receipts from the memberships, T-shirts, cups, raffle prizes, DXPO pins, breakfast cash, and hamfest ticket sales.

In summary, there was so much activity at the hamfest we could not account for the detail of the receipts, however I was pleasantly surprised as to how well the club managed to do in terms of new memberships and our bank balance. Thanks to all who manned the SEDXC booth.

- 73 de N4TOL John

## SECOND REQUEST!!!

Would the member of the club who borrowed my bow LAST year please contact me to return it. Thanks. -Neil Foster, KC4MJ, 449-3340

## FROM THE INTERNET

(excerpts)\*\*\* 4 2 5 D X N E W S \*\*\*  
#209 May 6, 1995  
edited by I1JQJ, IK1IYU, IK2ULV  
translated by I1-21171

**BV9P:** There is an opportunity of another activity from Pratas Island (AS-110) for ten days starting the 25th of May. The operations is expected from a group of BV and JA, joined probably by OH2BH.

**BY:** QSLs for BS7H operations from Scarborough Reef (AS-116) must be sent at this address: JA1BK, Kan Mizoguchi, 5-3 Sakuragaoka 4, Chome, Tama City, Tokyo 206, Japan. This address, already published in number 206, has been reported from Kan, JA1BK, himself, as he doesn't want to receive cards to his Callbook address.

**C2:** Ron, ZL1AMO, is actually portable C21. Ron reports that he has delayed the expedition to Tokelau.

**CY9:** From 27 July to 2 August, AA4VK, WA4DAN, KW2P and W5IKU will be active from St. Paul Island. QSL via WA4DAN: Adams Murray, 403 East 14th Street, Greenville, NC 27858, U.S.A.

**D6:** As published in number 206, Adriano IK2GNW, is active from Comoros (AF-007) using the D68NW call. Adriano has also used the D61NW call during the International ARI DX Contest.

**FW:** Following what published in previous number, the operations of FW/JA1WPX has started at 2145Z of the 1st of May on 17 mtrs CW.

Contacts before that time are probably pirates.

**GAZA:** From 14 to 18 May, seven JA operators will be active from this land as JA1UT/GAZA.

**H44:** Following what published in number 207, JA1OEM is still in Solomon Is. until the 20th of May.

**KC4:** Bob, K4MZU is the QSL manager of these Antarctic US stations: KC4USB, KC4USX, KC4AAG, KC7GJJ/KC4, KA7DHE/KC4, KH6JNF/KC4.

**KC6:** From 13 June to 25 August Ted, NH6YK, will spend his holidays in Palau where he will be active with the KC6YK call. All band operations, 6 mtrs and satellites included. QSL via homecall.

**OY:** From 10 to 27 July, Claus (DK9FE) will be active again from Faroe islands (EU-018) as OY/DK9FE, mainly in CW on 10 to 80 mtrs bands (WARC included). QSL via DK9FE, also via bureau.

**V8:** The club station V85BG is now active on 160 mtrs with a new antenna.

## EASTER ISLAND UPDATE

-provided by Bob Allphin, K4UEE

Planning is proceeding for the September 1995 expedition to Easter Island and Salas y Gomez. The purpose of the project is to develop new technology and techniques that will enhance DXing and Dxpeditiioning from rare and remote sites. We expect to be able to provide next-day public posting of logs on Internet servers, BBS, and packet clusters, and to send out QSLs within 24 hours of the QSO. EI/SyG is not a DXCC-rare country; rather the expedition seeks to find new ways for a DXpedition to serve the varied desires of the DXing community. We invite you to help us with this fun and interesting project.

The radio team includes the following: K4UEE, XE1XA, AH9B, XE1L, WT8S, GØLMX, W6MKB, W4ETO, WJ2O, KØIR, HB9AEE, KA3MUF, AA6TT, W3UM, PAØERA, W8FMG, W6YA, NP4IW, N1OCS, K9JSC, HB9AHL, KK6EK, WØZV, and KFØUI. The team will arrive on Easter Island 2 Sep. 1995 for a 3-week stay. Call signs will be XRØY (Easter Island) and XRØZ (Salas y Gomez). We will operate a beacon as XRØY/B.

In addition to the radio science, we will be using divers to explore undocumented areas around EI and SyG, and to search for archaeological evidence relating to ancient legends. A book, video, and CD-ROM will document the project.

We are seeking stations to collaborate with the expedition as anchors. We want stations with Internet, ham radio, and some digital capability (BBS, packet, etc.) to receive the logs and other data and post it to servers or pass it to other sites. This will be a developmental/debug phase. If it goes well, we will work with future expedition teams going to rare and remote locations to provide similar capabilities.

The project needs funds and equipment. If you can help, or would like to offer free advice, please contact us. Contributions are tax-deductible. Most of all, please plan to contact the expedition in September, to help DXing move toward the 21st century!

Robert W. Schmieder, KK6EK  
4295 Walnut Blvd  
Walnut Creek, CA 94596

Cordell Expeditions  
Explorers Club

May 1995

## DX TIDBITS

-Rick, N4XMX

QSL cards, you can't live with them (or get them) and you can't live without them! Actually received my SM card for 160 M on CW! Easy for the big guns but I was excited! Actually heard and worked over the big water and got a card to boot. Almost like being a beginner again.

Another good (?) QSL story involves the VP8SGP DXpedition. Sent for my card for a 20 meter CW in the usual fashion, got a NIL and a note to please check my times, etc. I did and didn't see anything obvious. Despair was setting in when I got a packet message from Paul, N4XM, stating he had my card! We are constantly getting each other's cards and each keep an envelope at the others for just such a problem. Sure enough, a few days later, there is my card. I made a comment on the DX reflector on the Internet about just checking generated mailing labels and heard from one of the QSL'ers. He was surprised that the logs hadn't been checked when I didn't show up. He promised to check it out. Oh well, you never know...

I noticed that the one card I have gotten from FR5DX quite awhile back, I had enclosed a postcard of Atlanta as well as the usual IRC's. Maybe I need to do that to get my 40 meter card back.

I'm sure everyone remembers the story about my D2ACA card found on the floor at Dayton a few years back by John, KI4XO. Thanks, John, that was a close one!

It just goes to show that QSL'ing and chaos theory have a lot in common! I would hate to figure out the probabilities of getting some of the cards I have gotten. My ET cw postcard QSL came direct complete with stamp!

On another subject, the beam is closer to being relocated where it can actually be rotated. Imagine that! Right now I can barely hear the ZL8 on because my beam is pointed almost directly north. I have to rotate each element upright to change the bearing. Not very fast, I'll grant you but I did get Conway. Too bad those trees were not looking very good and had to come down...

-CU in the pileups

Rick, N4XMX