SOUTHEASTERN DX CLUB

Bulletin

DX CODE OF CONDUCT

April 2022

Founded In 1958

Our Next Meeting & Speaker

Date & Time: Thursday, April 21, 2022, 7:00 PM
Location: Via Zoom (see www.SEDXC.org/Zoom for details)
Theme: ***A Club Log Update for SEDXC***
Dick Hattaway, W4PID

Dick Hattaway lives in Salisbury NC. He earned his Novice class ham license at age of 13 with the call KN4PKV. By age 21 he had his Extra ticket. His call now is W4PID, which was the call of his mentor, the late Roy Hill. He has been licensed for over 62 years.

Dick is a graduate of the University of Tennessee and is a Professional Engineer. He spent most of his work career in North Carolina designing automation and machine control systems.

His ham activities have included interest in VHF/UHF frequencies, using moon bounce, meteor scatter, and other weak signal modes. His main interests in retirement are chasing DX on the HF bands and employing microprocessor devices in his station. In addition to ham radio, Dick's hobbies include sailing and fishing.

His Club Log Help Desk involvement began in late 2019 and he became a member of SEDXC within the last two years. According to Dick, “The presentation is built a bit on the talk that Michael G7VJR did for IDXC last year... but was directed more toward the home user. There are an awful lot of cool tricks on Club Log that are fun to use. I think more folks should take advantage of them”.

From the Prez *(de Chuck Catledge, AE4CW)*

April has been a busy moth with lots to talk about. As DXers, maybe the most interesting thing was the big jump in propagation that began on March 27th with a rapid rise of the solar flux into the 150's along with 125 sun spots. The solar flux stayed above 130 until April 3rd and gradually drifted down into the high nighties where we are now (April 14th). Here's what Mike K4PI posted on March 28th:

"The flux has jumped to 156 and 10,12,15 hot this morning on FT8. Flux has not been this high since the last cycle. Both long and short path open. I have worked several Chinese and Hong Kong stations already on Long Path and just got on the air a few mins ago. Now 8:50 local. Open to EU/ME/AF/SA on short path."

I think this is really encouraging evidence that Cycle 25 is moving upward faster than expected. Here's a link comparing Cycle 25's actual performance vs. the official forecasts: Cycle 25 Performance vs Forecast.

The Georgia QSO Party had a good turnout of in state and out-of-state participants. As the SEDXC is a co-sponsor with the SECC it was great to hear a lot of our members on the air. Overall propagation was not as good as earlier in the month. Nevertheless, there were some impressive scores posted by SEDXC members including: AA4LR, AA5J5, K5JR, KN4TCE, KR4AE, N4TOL, NJ8J, NV4C, NN4K, W4DD and W6IZT. Congratulations to all!

The SEDXC CQ DX Marathon team also posted some very impressive results for the first quarter. Jeff K1ZN led the Unlimited category with an amazing 226 countries and all 40 zones, all worked in three months! Clark WU4B led the Limited category with 142 counties and 36 zones. And, Scott KB4KBS led the Formula (100w) category with 110 countries and 28 zones. Overall, the team posted 1,624 countries during the first quarter. Kudos to the leaders and each of the team member!

The primary purpose of the Marathon is to get hams on the air by setting a one-year goal to work as many countries and zones as possible. It's never too late to join the SEDXC team. All the countries you've worked so far this year count toward your score. Just contact Andy AA5JF (amgoss05@yahoo.com) and ask him to put you on the roster; it's that easy!

DON'T FORGET! The SEDXC spring Barbeque is Saturday, April 23 from 4:00 PM to 7:00PM. Not registered? No problem. Just send a text to our host Paul Kelley W4KLY at this number: (404) 358-1655. Let him know the number of folks coming and bring along a lawn chair or two if you can. This will be some of the best barbeque and sides

that you will find anywhere! The address is 3606 Juhan Road, Stone Mountain, GA. Here is a link to a detailed map that will help find Paul's QTH.

THIS MONTH'S Program. Many of us use Club Log. But are we using it to the fullest extent of its capabilities? I discovered that I was missing a wide range of tools that could make DXing more efficient, effective and fun. Our speaker this month is Dick Hathaway W4PID. He is the US representative for Club Log which is based in the U.K. Check out Clark's article for more about Dick and his presentation.

73 es gud DX,

Chuck, AE4CW

Update On the Bouvet Funding Request *(de SEDXC Board)*

Bouvet Island is the second most needed DXCC entity. The last DXpedition with a significant presence on Bouvet was in 1989-1990. The majority of SEDXC members need this entity as an ATNO.

At the October 2021 SEDXC club meeting the members present approved a funding request for the 3Y0J DXpedition to Bouvet in the amounts of $2,000 to be funded immediately with an addition $1,500 to be funded when the DXpedition set sail to Bouvet in late 2022 for a total expenditure of $3,500. The membership agreed to consider additional funding based on increased confidence in the likelihood of a successful DXpedition.

The SEDXC Board now believes that the DXpedition leadership and team have demonstrated a level of experience, preparation, training, logistics and commitment to success that merits an increase in funding by the SEDXC. The Board recommends that the SEDXC increase its total fiscal 2021-2022 funding to the 3Y0J DXpedition to $6,000 with the outstanding balance of $4,000 payable by June 30th 2022. The "set-sail" funding is now included in the outstanding balance of $4,000.

This funding recommendation will be presented to the members present at the April club meeting.

VP's Corner *(de Clark Macaulay, WU4B)*

Begin with the End In Sight

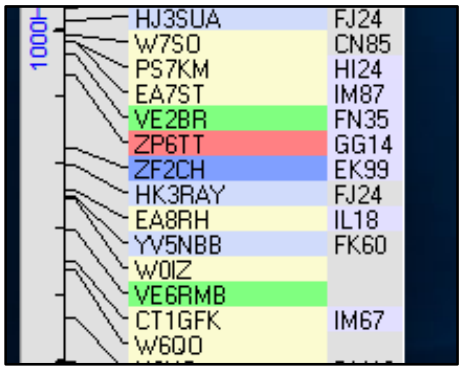
Stephen Covey, in his best-selling book *7 Habits of Highly Successful People,* described Habit #2 as "Begin with the end in mind". It's very easy to busy ourselves with no particular goal in our sights and find ourselves at the end of a quarter or year with nothing accomplished that is – in hindsight – important to us. Highly successful people (based upon his many years of observation), set goals for the important parts of their life: family, recreation, financial, etc. Plans were then written to accomplish those goals.

Goal setting is not new to DXers. There is that ATNO ("All Time New One") just waiting to be snagged or band-fill for the next award or sticker. Sometimes the goal can be just to have fun with no other 'end in sight'. That's the way I was starting off this year: just have fun making contacts with no particular goal. I would sit in front of the rig and look for contacts to make. With 13 DXCC certificates, except for an ATNO, my operating time was unfocused, haphazard, and not particularly satisfying.

Then **CQ DX Marathon** entered the picture late last year. Much has been written so far about the Marathon being a SEDXC activity to give us a motivation to turn on the rig and make contacts. For the Marathon, we had to start over from zero entities worked and then work as many countries in as many zones as possible by the end of the year. The past was no predictor of the future. I'm not particularly competitive so my goal became: "Be an active participant in the Marathon and score as high as I can".

With a goal set, I needed to have a way to keep track of the entities/bands worked **since 1/1/2022.** My logging program is ***Logger32*** (https://www.logger32.net/), which contains **all** of my QSOs (all modes) to keep track of award chasing like DXCC, DX Challenge, and even WAS. I checked with the reflector for **L32** about keeping stats for Marathon and could find nothing. Changing to another logbook just for Marathon was not an option for me. So, I used the manual process described on the Marathon webpage involving exporting an ADIF file, running it through a conversion app, and—voila!—I had my numbers for the first quarter. I worked a lot of DX as I didn't know what I needed for Marathon.

A few weeks ago, in an email exchange with ZL2iFB Glen who has written a superb manual on FT8, I was directed to a place in the Logger32 manual that discussed how to keep stats for DX worked in the current year. Great! What I wasn't expecting was a feature that would show me, real-time, exactly what entities I needed for Marathon when running JTDX. The picture below shows the L32 Bandmap that color codes the entities (e.g. ZF2CH) I need for Marathon even though have I have worked that entity in previous years. What makes this useful for me is that it checks the database for any QSO (CW) before color coding it dark blue that lets me know I need it for the Marathon. This lets me the focus my limited operating time on those entities needed for support the goal: the best possible score in the Marathon. BTW: L32 also notifies me in another panel CW entities I need for Marathon.

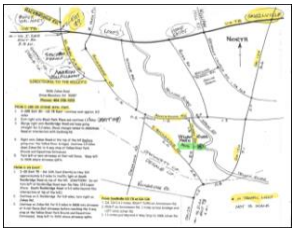


I know there are many good logging apps that can probably do the same. This is what is working well for me and is keeping me focused on the end in sight: the best score possible from my modest station and limited operating time.

73 es gud DX,

Clark, WU4B

SEDXC Barbeque *(de Paul Kelley, W4KLY)*



All of us have been longing for a real (sans Zoom meeting) or other opportunity to get together, so to accomplish this SEDXC is planning a barbeque for Saturday, April 23 from around 4:00 PM to 7:00 PM at my home QTH – Paul Kelley, W4KLY. My QTH is located about ten minutes beyond the main entrance to Stone Mountain Park. The main course will be fresh pork shoulders and chicken cooked (barbequed) for several hours over oak and hickory coals. The club has previously held similar events here that were very popular.

This is the last bulletin before the big day! You will find a map attached, or click on the map in this section of the Newsletter, and it will connect you to the SEDXC website for a copy of the map. We hope to see you there!

73s,

Paul, W4KLY

Treasurer's Journal *(de Jeff Cantor, K1ZN)*

Greetings, Fellow DXers! Here are our disbursements to report this month:

Purpose	Amount
Donation to the Austral Island DXpedition (FO/SP5EAQ)	$205.00
Payment to GA QSO Party to Sponsor Mixed Mode/Low Power	$30.00
TOTAL:	***$235.00***

Our Account Balance is $15,577.85, as of April 13th.

At this month's meeting, we will consider additional funding for the 3Y0J DXpedition to Bouvet Island.

Gud DX & 73,

Jeff, K1ZN

Around the Shack *(de Hal Kennedy, N4GG)*

FT8 Signal Reports

I started into FT8 as I do many things. I ignored the manual, set all the knobs to 10 and turned it on. Downloading and running WSJT-X for the first time I was startled to see the computer immediately decode signals – without being connected to the radio! WSJT-X had turned on my computer's microphone and was picking up enough audio from the rig's speaker to decode signals with 100% accuracy. That was encouraging!

After connecting the radio to the computer, I noticed the minimum signal report from FT8 was -24 dB and my ears could hear FT8 signals down to about -15 dB *as reported by the program*. Well, okay, obviously the -15 dB signals were not 15 dB below the noise floor as I perceived it; I could hear them after all. If -15 dB wasn't 15 dB below the noise floor, then -24 dB wasn't 24 dB below the noise floor either. That's when I realized I had no idea what FT8 signal reports were. *A persistent misunderstanding about FT8 is it can decode signals 24 dB below the noise floor (as you hear it). It can't*. So, what do the numbers mean?

Unfortunately, a complete answer to that question leads one into the complexities of digital signal processing. Most of us don't understand forward error correction, symbol rate, sync energy fraction, or 7 x 7 Costas arrays. The good news is,

understanding FT8 at that level isn't necessary to run the program and appreciate what the signal reports mean.

If proceeding without a complete understanding of FT8 bothers you, it's worth noting that FT8 was invented by Joe Taylor, K1JT. Joe was awarded the Nobel Prize in physics. A lot of the signal processing he used in his ground-breaking astrophysics work is in his ham radio software. No wonder I only half-understand it.

Author's note: This is, by far, the wonkiest Around the Shack column to date. Also, it was by far the most difficult to write. It took four days of study before I felt I understood FT8 well enough to explain it in terms a non-technical ham might understand. I may have fallen short. If you stop reading a paragraph or two from now, I understand.

A "Basic Description" of FT8

Understanding enough about FT8 to appreciate what the signal reports mean requires an understanding of several concepts. Here they are:

The first is signal to noise ratio (SNR). Decoding the information content in a signal, whether by your ear (SSB and CW) or by computer (FT8), requires processing the signal that resides within the noise. More signal level for a given amount of noise improves SNR and decoding accuracy. Decreasing noise does the same thing. Only the ratio matters – one divided by the other. In all communications systems, not just ham radio, we strive for the best signal strength we can get, but also for the lowest noise level we can get, to improve SNR. SNR is all that matters.

Next comes a rudimentary understanding of dB. The ratio of two numbers (read: SNR) can be expressed simply as the result of dividing one number by the other, or, using a mathematic conversion (logarithmic), as dB. The denominator in the ratio can be another signal, but FT8 decoding probability is based on the "other signal" being the noise level over an assumed bandwidth. That noise level is the "N" in SNR. Working in dB allows us to calculate and assess SNR in a meaningful way using only addition and subtraction. That might not seem particularly helpful, but an example will illustrate that it is.

Using dB, signals that are 1000 times stronger or 1000 times weaker than the noise are calculated to have SNRs of +30 dB (stronger) or -30 dB (weaker). How about a signal that is 100,000 times stronger or weaker (0.00001) than the noise? The numbers start to lose meaning as the zeros increase and our eyes strain to count them. How much *is* "100,000 times stronger" and what exactly does that mean? I don't know. In dB, a signal strength 100,000 times the noise is +50 dB. The difference in SNR between two signals 100,000 and 1,000 times the noise is 20 dB (+50 minus +30) which is a factor of 100. I know what that means.

Because of the way logarithmic math works, every signal increase by a factor of 10 adds 10 dB. Every signal increase by a factor of two adds three dB. If FT8 reports two signals, one at -24 dB and the other at -21 dB, that 3 dB difference is a factor of two in signal strength, or more correctly, signal to noise ratio. One signal is twice as strong as the other.

The last concept is frequency shift keying (FSK). Most of us first encounter FSK when starting into RTTY. A RTTY signal is a CW carrier that is shifted back and forth between two frequencies (sometimes called tones). The shifting superimposes information onto the carrier. Early RTTY used 850 Hz shift. Modern RTTY uses 170 Hz shift. Note that the noise within 850 Hz of bandwidth is five times the noise within 170 Hz of bandwidth (850/170). That's a SNR improvement of 7 dB.

Now, finally, on to FT8.

In FT8 we set our radios to USB and send roughly 2.5 KHz of audio to our computer. That's the bandwidth of one SSB signal, give or take. Every 15 second cycle the FT8 algorithm searches the entire 2.5 KHz for every signal it can find and lists them together with a signal report. That report is the SNR of the signal compared to the total noise detected, across what is assumed to be 2,500 Hz of bandwidth.

The FT8 signal is FSK, just like RTTY. Unlike RTTY, FT8 shifts between 8 tones, not two. The modulation scheme is called 8-FSK. In FT8 the frequency shift (tone spacing) is 6.25 Hz. Figure 1 shows the spectrum of an FT8 signal. Eight tones spaced 6.25 Hz apart occupy 50 Hz of total bandwidth (8 X 6.25 Hz = 50 Hz).

Fifty 50 Hz wide signals will fit into 2,500 Hz of bandwidth (2500/50 = 50), hence 50 decodes per cycle is the most we should see. The most decodes I have seen is 55. What's happening? Ah, the magic of advanced signal processing is happening. The FT8 decoding algorithm can correctly decode stations that are on top of each other. Its ability to do this greatly exceeds that of a human. Fifty-five or more FT8 QSOs can fit in the bandwidth of one SSB QSO. If nothing else, FT8 is spectrum efficient.

Thank you for your patience – We are near the end! If we assume the noise from our receivers is flat, then to consider how much narrow filtering reduces noise simply requires comparing bandwidths. FT8 uses an assumed bandwidth of 2,500 Hz (typical of SSB). By comparison, the noise in 6.25 Hz (the FT8 computer-based decoding filter) is 6.25/2,500 or .0025 (-26 dB). 26 dB is the theoretical SNR improvement FT8 can achieve by filtering alone. This does not include improvement from advanced signal processing.

The noise floor is, by definition, a SNR of 1, which is 0 dB. If the narrow decoding filter in FT8 (6.25 Hz) contains 26 dB less noise than the wide bandwidth FT8 uses as

a reference (2,500 Hz), FT8 should report signals down to -26 dB and it doesn't. FT8 quits at -24 dB. We have left 2 dB on the table somewhere.

Okay, here's the last question. Why is that? We exult advanced signal processing for its ability to see (hear?) into the noise, only to discover FT8 doesn't work lower than 2 dB above the noise at its decoder. You might have believed FT8 could see 24 dB below the noise before you read this.

The 2 dB discrepancy is caused by many things unrelated to the advantage of narrow FSK. For example, the filters in our radios do not have steep skirts. Also, the noise from our receivers is not constant across 2,500 Hz of bandwidth. FT8 assumes it is, but to a dB or two it isn't. Then there is the as-yet unmentioned elephant in the room – the probability of correct decoding. Correct decoding requires more SNR than detection. "I can hear the voice but can't make out the words." A full understanding of the effects of factors other than bandwidth requires a dive into the deep end of the information theory pool. Let's not go there. Suffice it to say K1JT and company designed FT8 to produce a very high probability of correct decoding and put a hard lower limit on reporting at -24 dB. FT8 messages virtually never contain errors.

Having no message errors comes at a price. There are other programs that decode FT8 and work with weaker signals than WSJT-X. If you use them you will notice they sometimes produce decoding errors. You can have a few extra dB if you are will to accept mistakes. There is no free lunch.

What can you hear?

It's important to realize that the signal reports from WSJT-X (SNR in dB referenced to an *assumed* bandwidth of 2,500 Hz); S-meter readings (an S-number up to S9 then dB above S9) and what you can hear are three different things. As I mentioned, I can hear FT8 signals down to around -15 dB as reported by WSJT-X. Many factors determine what I can hear. For example, my hearing is poor and partially corrected by hearing aids. On the plus side I have been operating CW for over 60 years. The rule-of-thumb for good CW operators is they have a bandwidth of around 50 Hz due to "ear-to-brain" filtering. If you are not a CW op, your internal filtering may not be that good. Or, it might be as good or better if you have music as a profession or avocation. We are all different and our hearing perception varies considerably.

What do the signal reports mean?

The preceding paragraphs only take us so far. They describe what the WSJT-X signal reports are, but not what they mean.

In my view, WSJT-X signal reports do not have meaning in an absolute sense. Yes, the SNR of a given signal is 26 dB better in a noise-bandwidth of 6.25 Hz compared to a noise-bandwidth of 2,500 Hz, but do we care?

The value I see in assessing WSJT-X signal reports is in a relative sense, on both an immediate basis and over time. A -24 dB signal is half the strength of one that is -21 dB. A -14 dB signal is 10 times the strength of one that is -24 dB. That's useful to know. With a better antenna I can improve those reports, independent of the absolute values.

If the band is full of signals between -24 dB and -15 dB, the band may be opening or closing. If signals are around -24 dB from Asia and 10 dB better from Europe, the band may be about to swing from Europe to Asia. That thought is confirmed if the Europe reports are going down as the Asia reports are coming up on a relative basis. This is actionable information. Maybe it's time to point the beam toward Asia.

If a signal report that has been consistent on a day-to-day basis changes, there may be a solar storm, something may have raised your local noise floor, or your coax or antenna may be deteriorating. Once again, the WSJT-X signal reports are informative and actionable when viewed on a relative basis.

Summary

I hope you made it to the end! In summary:

- SNR is what counts. As we narrow bandwidth the signal remains constant but the noise is decreasing, hence the SNR is going up.

- FT8 reports SNR in dB in an assumed bandwidth of 2,500 Hz but decodes in 6.25 Hz of bandwidth. Our ear-brains hear CW in about 50 Hz of bandwidth. There is 26 dB less noise in 6.25 Hz of bandwidth than there is in 2,500 Hz of bandwidth.

- To yield error-free decoding (and for many other reasons), the WSJT-X FT8 decoding algorithm operates above its noise floor. *Not 24 dB below the noise floor!*

- Programs other than WSJT-X will decode weaker signals at the expense of accuracy.

- FT8 is spectrum efficient. More than 50 QSOs will fit in the space of one SSB QSO.

- Last but not least, FT8 signal reports have useful meaning on a relative basis, but, in my opinion, little utility on an absolute basis.

Further Reading

The WSJT-X help files are a good place to learn about FT8, its modulation characteristics and signal reporting.

Joe Taylor, K1JT; Steve Franke, K9AN; and Bill Somerville, G4WJS published a valuable two part article in QST in 2017: *Work the World with WSJT-X, Part 1: Operating Capabilities. QST* October, 2017.

Work the Word with WSJT-X, Part 2: Codes, Modes, and Cooperative Software Development. QST November, 2017.

The above articles are in the QST on-line archive.

There is an excellent slide presentation explaining FT8 signal reports - authored by Jim Frazier, KC5RUO. It can be found on-line at:

https://tapr.org/pdf/DCC2018-KC5RUO-TheReal-FT8-JT65-JT9=SNR.pdf

Warning: Jim's slides and Part 2 of the QST article are a level deeper than this column.

If you wish to gain a complete understanding of FT8, I recommend: *The FT8 and FT4 Communications Protocols*, by Joe Taylor, K1JT; Steve Franke, K9AN; and Bill Sommerville, G4WJS. *QEX Magazine*, July/August, 2020.

QEX is available in the ARRL's on-line archives. Bring your best math.

73,

Hal, N4GG/4

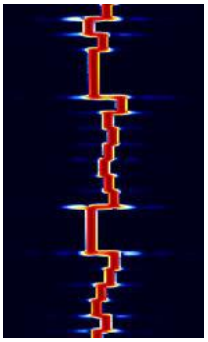
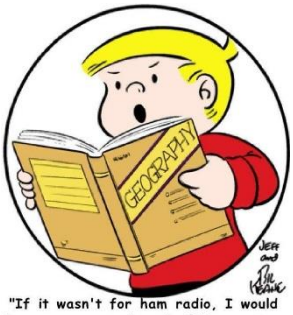


Figure 1. The FT8 waveform. FSK steps are 6.25 Hz

25 Years Ago... *(de Bob Sarnecki, NF7D)*

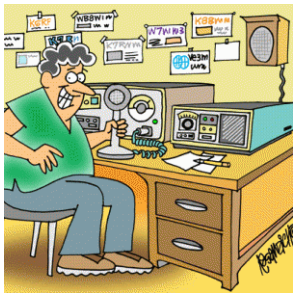


"If it wasn't for ham radio, I would have never even heard of Kyrgyzstan, Brunei, Kiribati, Djibouti, Malta, Nauru, Azerbaijan, or Burkina Faso!

The April, 1997 Newsletter is attached for your entertainment. The newsletter pays homage to "100 watts and a wire", as then president Steve Schmidt (K4WA) talks through the "temptation" of putting up a G5RV off-center dipole like he had "back in the day", before putting up a 41' tower and a TA33Jr and then a TH5MKII… Ah, you "tower guys"! You've got it good!

In the following pages, enjoy "all the news, fit to print" from the *SEDXC Bulletin*, 25 years ago!

SEDX Officers & Positions

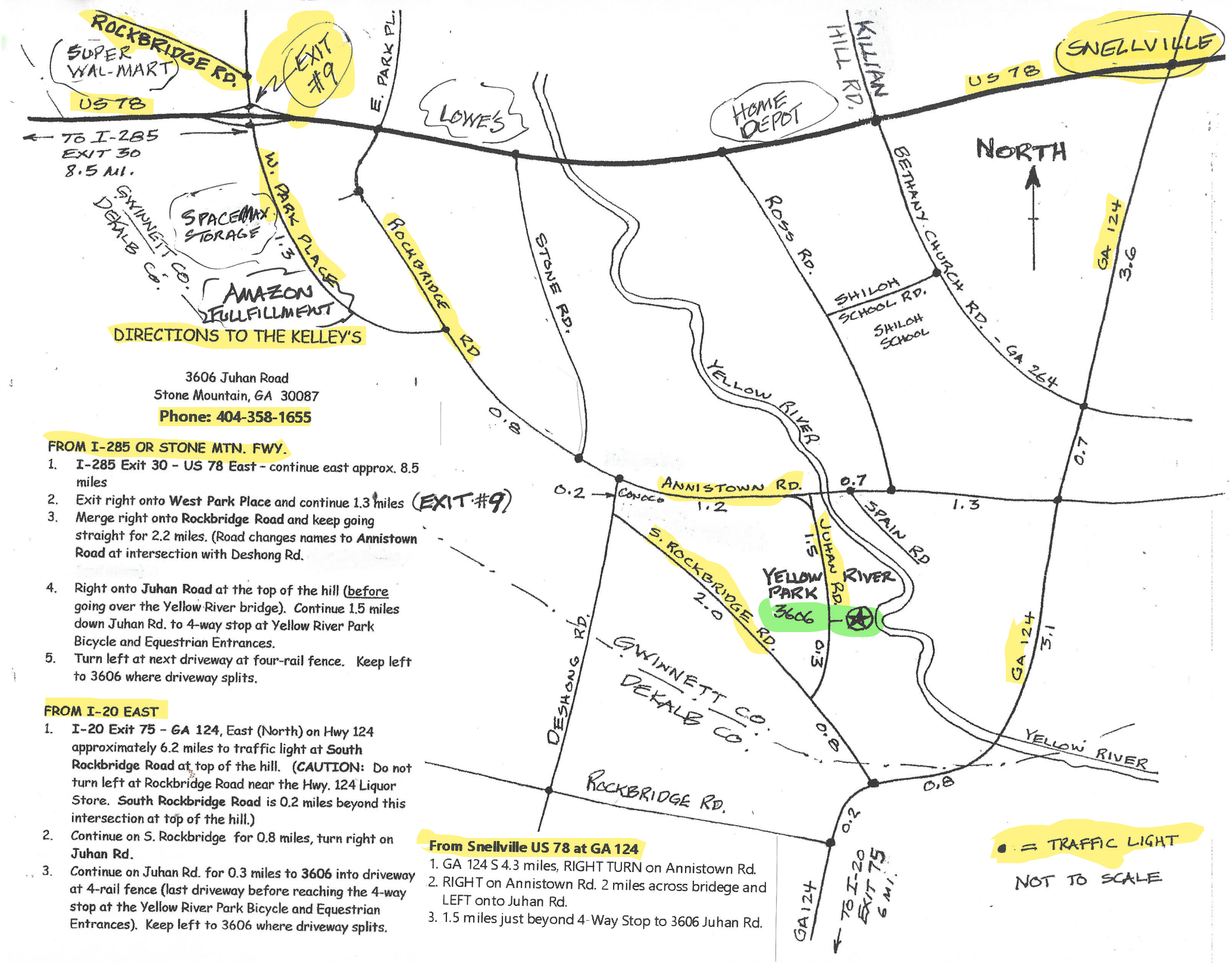


SEDXC Officers:

Chuck Catledge, AE4CW – President – c.catledge@gmail.com
Clark Macaulay, WU4B – Vice-President – macaulay@gmail.com
Paul Kelley, W4KLY – Secretary – w4kly@bellsouth.com
Jeffrey Cantor, K1ZN – Treasury – jacantor9@gmail.com
Norm Schklar, WA4ZXV – wa4zxv@arrl.net

SEDXC Appointed Positions:

Bob Sarnecki, NF7D – *Bulletin* Editor – bob.sarnecki@gmail.com
Bill Barr, N4NX – Membership Committee Chairman – n4nx@arr.net
Chaz Cone, W4GKF – Webmaster – w4gkf@chazcone.com



DIRECTIONS TO THE KELLEY'S

3606 Juhan Road
Stone Mountain, GA 30087
Phone: 404-358-1655

FROM I-285 OR STONE MTN. FWY.

1. I-285 Exit 30 – US 78 East – continue east approx. 8.5 miles
2. Exit right onto **West Park Place** and continue 1.3 miles (EXIT #9)
3. Merge right onto **Rockbridge Road** and keep going straight for 2.2 miles. (Road changes names to **Annistown Road** at intersection with Deshong Rd.
4. Right onto **Juhan Road** at the top of the hill (before going over the Yellow River bridge). Continue 1.5 miles down Juhan Rd. to 4-way stop at Yellow River Park Bicycle and Equestrian Entrances.
5. Turn left at next driveway at four-rail fence. Keep left to 3606 where driveway splits.

FROM I-20 EAST

1. I-20 Exit 75 – GA 124, East (North) on Hwy 124 approximately 6.2 miles to traffic light at **South Rockbridge Road** at top of the hill. (**CAUTION:** Do not turn left at Rockbridge Road near the Hwy. 124 Liquor Store. **South Rockbridge Road** is 0.2 miles beyond this intersection at top of the hill.)
2. Continue on S. Rockbridge for 0.8 miles, turn right on **Juhan Rd.**
3. Continue on Juhan Rd. for 0.3 miles to **3606** into driveway at 4-rail fence (last driveway before reaching the 4-way stop at the Yellow River Park Bicycle and Equestrian Entrances). Keep left to 3606 where driveway splits.

From Snellville US 78 at GA 124

1. GA 124 S 4.3 miles, RIGHT TURN on Annistown Rd.
2. RIGHT on Annistown Rd. 2 miles across bridege and LEFT onto Juhan Rd.
3. 1.5 miles just beyond 4-Way Stop to 3606 Juhan Rd.

● = TRAFFIC LIGHT

NOT TO SCALE

SOUTHEASTERN DX CLUB

SOUTHEASTERN DX CLUB

W4NT

THE SOUTH'S PREMIER DX CLUB

April 1997

NEXT MEETING TIME & LOCATION

Tuesday, Apr 15th, 7:30 PM, Old Hickory House in the Days Inn, Roswell Rd., just inside I-285.

PRESIDENT'S MESSAGE

-Steve Schmidt, K4WA, President

I'm ready for some sunspots. When I first started DXing, on the downslope of the last sunspot cycle, it seemed I could work anything I wanted on a G5RV. I worked some long-haul DX with that antenna, even on 10 and 15 meters. Then I got a modest tower (41') and a TA33Jr. It seemed I had a whole new weapon to methodically eliminate my DX requirements. As the cycle fell, it appeared to be less effective. So I bought a TH5MkII for five elements on 10, 15 and 20. I also installed a longer mast and stacked an A3WS, with 30 meter kit, ten feet above the TH5. For a while, I had some effective DX weapons again. The solar flux continued to fall; after a while, even my new array seemed inadequate for serious DXing. On occasion, I've even considered putting the G5RV back up to see if it really might outperform my tower. Common sense tells me it won't, but my heart remembers those great times when I could work the world with a wire and an inexpensive radio.

Perhaps it has something to do with the fact that I've worked all the easy ones. The T5, VK9's, and FR/whatevers I need now are tough to get in this stage of the sunspot cycle. I didn't hear the two folks on Spratly, working with 100 watts and a vertical; I haven't heard the VK9 on Campbell Island yet. Oh I know they've been there, thanks to the new Mega Cluster that lets you see what everyone else around the world is working. I just can't hear 'em when I turn my modest little beam in their direction. With solar flux levels in the low 70's, and the few active stations I need for new ones operating only on twenty meters during our night (long after that band has closed for us), I suppose I can't blame some of the old timers for taking a hiatus from their radio activities. The most fun I've had with a radio lately was taking it out of the country. I'm looking forward to the IOTA contest, hoping to line up some semi-rare IOTA for a less-expensive domestic "DXpedition."

I'm also looking forward to more of the magic returning. Being able to tune twenty meters at night and finding rare Asian and Indian Ocean tickers that help me with my totals. Being able to work fifteen, and even ten meters for some long-haul, east-west DX paths. Getting cards from the bureau that don't start with "I"... Hearing that the solar flux rose above 100 would be music to my ears. Lately, I heard it dropped back below 70. Not exactly the direction I was looking for. It seems we're going backwards again. What would it take to get this thing going in the right direction? Should I buy an older radio? Perhaps I should burn my rotator as a sacrifice to the DX gods? Maybe I should just put that G5RV up again.

Hope to see you at the meeting. It'll be interesting, and may even remind us of those not-so-distant golden days of DXing.

73, Steve K4WA

FROM THE VP

-Paul Pescitelli, K4UJ, VP

This month Bob and Wes (if he can make it) will be giving a presentation on the Heard Island DXpedition. There will be video and slides. If you have ever seen these two together it will be fun filled with lots of humor and very educational as well.

I would like to thank everyone for the support that was received last month. I will be giving a brief update as to the status of the Southeast MegaCluster at the meeting. Good news is on the way!

73 - Paul K4UJ

TREASURER'S REPORT

-Nancy Draheim, NK4U

Balance 2/28/97 (Checkbook)	$1937.99
Income:	$126.00
Expenses:	
Bank Charges	10.00
March Newsletter	61.02
Atlanta Radio Club (Hamfest table)	70.00
K4UJ Megacluster	150.00*
SEDXC badges advance	158.00
Stamps, 160M plaques, and tresurer	19.20
Balance Checking 2/28/97	$1595.77**

* This amount is from the Cluster fund

** This amount includes $840.15 (packet cluster account) and $120.08 (160 M CQWW plaques account).

The new badges are in and really look great. Paul, K4UJ, has them in his hands and promised a speedy delivery to those who got in on the first order. If you want your city/state added to the badges, just catch Dale (Cap and Badge Man) at any hamfest and they will be added at no cost.

If you would like a new badge with the SEDXC logo, the cost will be $7 (for regular pin backing) or $8 (for pocket holder). This amount includes postage. The badges can be ordered from:

The Cap and Badge Man
P.O. Box 652
Fairforest, SC 29336
800/579-3039 (for credit card orders)

I have taken over the role of membership lists, so send any changes to me instead of Paul. My antennae are still down but I can be reached at home in the evening or via E-Mail at NK4U@Juno.com

73, Nancy, NK4U, Treasurer

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.

SEDXC MINUTES 3/97

-Randy Tudor, K4ODL, Sec.

The meeting was called to order by K4WA Steve. Introductions were made and the guest list was passed for everyone to sign. Minutes approved from the last meeting. Steve ask if anyone has worked any thing good? Steve worked 8Q for a new one, ZS8 has been a good one.

Old business - The new SEDX badges have been ordered from the Cap and Badge Man. The cost will be about $6.30. Call Nancy to get on this order.

We will have a booth at the Atlanta Hamfest June 21 and 22. We need to have some people to work the booth. The ARRL will have a rep there to check cards. The Atlanta HamFestival will be at the City Hall East Exhibition Center (the old Sears building on Ponce de Leon). Check out their web site http://www.saf.com/arc.

The 160 Contest results were reported in the last news letter. We are currently in 5th place. We expect that our results will improve as more people submit their score. Nancy ask if anyone would like to help with the delivery of the 160 Meter plaques, please call her.

New business - We need people to work on the committee for the slate of officers for next year. Please let Steve know if you would like to help.

Paul K4UJ gave us some information about a Mega Cluster that would provide packet spots from the Internet. Paul is currently working on a Packet Node 145.67 for the Mega Cluster. You can connect to K4UJ. You can get Internet spots via Telnet to 205.217.100.91

We had a discussion on the use of the cluster funds to help with this Mega Cluster effort. A motion was made for a one time donation of $150.00 for the Mega Cluster.

Announcements - A B-17 will be at the Lawrenceville Airport April 25-27. The plane will be open for those that would like to visit.

Frank- WB2HMG- made an announcement for anyone that may be looking for a job in the Field Service work for mobile data service, please give him a call.

The DXCC desk did not approve the 7O1A.

Program - We had a general discussion about any and every thing.

-Randy, K4ODL

BEEPS DE K2UFT

-Dick Bentley, K2UFT, Activities Director

My apologies to Ron, AA4S for goofing up his call sign last column. That fine score did indeed belong to him. Other scores : K4TEA: 160 CQWW CW - 79 Qs 36 Mults Score: 8064 ARRL DX Test CW - Single Band 160 - 111 Qs 52 Countries Score: 17,316 KE4LDJ: 160 CQWW SSB - 149 Qs 50 Mults Score: 17,850 K4BAI: CQWPX SSB - 205 Qs 452 Q pts 134 Pref. - Score: 60,568

In case you haven,t seen it elsewhere, here,s the story on the rejection of 7O1A: The following was received today from the League addressed to members of the DXAC..... de Tedd KB8NW (DX Advisory for the Great Lakes Division)

To: DXAC Fm: K8CH & K5FUV

You may be hearing questions about the recently announced decision of the DXCC Desk regarding 7O1A documentation. We are planning to provide some additional background on the situation in Yemen in the "How's DX" column of May QST. In the meantime, here's some background for you. Please feel free to share this with ARRL Members in your Division. 1. We have been following closely developments in Yemen for more than three years. Several groups have been working independently in efforts to obtain a ham license. Most of them have been in contact with DXCC, informing us of their progress. All of them have sought avenues for licensing in the north and the south. All of them have been there several times. All of these sources agree that administration of Amateur Radio is under the Ministry of Communications (MoC) in Sana'a. 2. During the operation of 7O1A, we received contacts from several of these people, each independently. One of them called Sana'a several times, and told authorities about the operation after it was over. Sana'a authorities requested that further information be faxed to them, as they did not know of any such operation. The authorities went on to say that at the very least, they should have been advised, and should have approved any operation. 3. (We also received a letter from well respected European who was actually in the MoC offices in Sana'a at about the time of the operation. He also requested that we "check it out.") 4. Bill Kennamer faxed MoC in response to their request. Bill received the following reply:

Dear Sir,: Thank you for your fax message of FEB.07, 1997 on the issue of the Amateur Radio License NO. 1 from our Aden office. Please note that the applicant had previously approached us in the Ministry of Communications-Sana'a and was advised that it is not possible at this time to issue any license for the Amateur Radio as the ministry is still under the preparation stage for the relevant regulatory documents & procedures for this activity. Therefore the ministry of communication in the Republic of Yemen, as the main body responsible for this activity, till this moment had never issued an official authorization for the RADIO AMATEUR. We will let you know when we shall issue such licenses in due time and to whom the first license will be granted. Please be advised and act accordingly.

Best Regard MINISTRY OF COMMUNICATIONS-SANA'A

5. An MoC official followed up this fax with a telephone call to be sure that Bill understood that the license should never have been issued, and that we should not consider it as an acceptable license. 6. The union of North Yemen and South Yemen (aka Aden) has not been entirely smooth. The administration of both halves has been united over a period of time. Some folks in the south have not been entirely happy that the administration now resides in Sana'a. 7. In 1990, the two countries merged. At that time all functions were duplicated, north and south. This is when the two previous licenses were issued—all from Aden. 8. In 1991, the country began a 30-month program to merge all government functions. Since the conclusion of the civil war in 1994, the MoC is one agency. 9. How does 7O1A documentation compare with 7O1AA and 7O8AA documentation? The 7O1AA and 7O8AA licenses are signed by the same person. However, this is not the signature on the 7O1A document. 10. Both 7O1AA and 7O8AA are issued on paperwork which is marked over or crossed out PDRY paperwork for the Ministry of Communications, Yemen Telecommunications Corporation. This is as we would expect, since one operation took place within days of the unification, and the other occurred within two months. 11. 7O8AA operators were told by the people that issued their license that their's was the first issued. In fact the 7O1AA license preceded it, and was signed by the same person. 12. The seal of the country is different on the later paperwork. 13. The letters of correspondence from Aden are on the stationary of the "Ministry of Communications, Aden Branch". Stationary from the Sana'a office says, "Ministry of Communications, General Directorate of Telecommunications." 14. A letter to the DXCC from an Arab DXer, dated 19 January 1995, contains the following: "I was going to get my own personal callsign in the 7O land but the war [in 7O] started and after the end, everything was controlled by the north, and they do not allow the Ham operation." In his letter he states that two people are members of a ham club at the Ministry in Aden. One of them appears to be the frequency manager of the MoC. It is strange they do not operate from a club station at MoC... Later skinny on the Internet said Carl, WB4ZNH provided ARRL with the phone numbers and identities so that the DXCC folks could contact knowledgeable people in Seven Oscar.

Late breaking news as I write this is that FCC will now only allow 1 x 1 call signs to be issued if the supporting organization or ham running the event identifies with his/hers/its "real" call sign on a regular basis. Guess that gives a 1 x 1 a non-call sign status. The 1 x 1,s will not be issued by the FCC but a third party. I suppposed their real problem is that their XT can't handle the load!

It's election time again - we need candidates for the office of President, Vice-President, Secretary, Treasurer and Activities Manager. Several incumbents have indicated they will run again if „slated‰ but not the President or the Vice President. Contact me (dickb@akorn.com) 393-2150 913-3624 or DX Packet or Mike, K4PI 770-942-4576 mike.greenway@sid.net or DX Packet if you would like to be a candidate or have a suggestion for a candidate.