SOUTHEASTERN DX CLUB

Bulletin

DX CODE OF CONDUCT

November 2022

Founded In 1958

Our Next Meeting & Speaker

Date & Time: See you in January, 2023
Location: Via Zoom
Topic: ***Happy Thanksgiving***
Presenter TBD

The November and December SEDXC Meetings will be canceled. Hopefully, you had the chance to enjoy HamJam on Saturday, November 12th.

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

Fellow DXers, welcome to the SEDXC November 2022 Bulletin!

Wow, what a fun time with DX over the last four weeks! October was good and November is even better. And, it looks like we will have some good DX heading into December. The solar flux is in the 130's and has been exceeding predictions, and the K index is not bad at 2-3. Propagation remains quite good with activity across all the HF bands.

Here's a snapshot of the DX I've worked recently; I suspect many of you have worked these and even more. The combination of DX World's "Featured DXpeditions Timeline" and DX Summit made most of these accessible.

- 3C3CA Equatorial Guinea – This one has been elusive, coming out of the noise briefly and then disappearing. Finally, on 10/18, he came up just long enough to make the Q on 12M FT8.

- TY0RU Benin – A Russian team with very good ops and strong signals; worked all HF bands except 160 and 80, mixed CW and FT8.
- 5V7RU Togo – The Russian team then moved next door to Togo; worked on 40, 20, 15 and 10M. Between Benin and Togo, the team logged over 200,000 Qs. Unfortunately, one team member contracted serious malaria.
- P29RO Papua New Guinea – A German team with good ops; worked 80, 40 and 30M mixed on CW and FT8. The climate was tough on the ops but they made 90,000+ Qs. This DXpedition was supported by SEDXC funds.
- J28DM Djibouti - The Mediterraneo DX Club did a nice job activating a relatively rare entity; worked 20, 15 and 12M mixed CW and FT8.
- A35GC Tonga – A two-man team (Stan and Ivan) survived a M7.3 earthquake and are active through Nov. 20; worked 40, 30, 15 and 10M mixed on CW and FT8. Still active (as of 11/18).
- T88WA Palau – A five-man team from the Western Washington DX Club survived sever wind and rainstorms to log over 29,000 Qs. Worked 17 and 15M SSB.
- T33T Banaba Island – The Rebel DX Group (two-man team). They say the island has no internet or water. Worked 40 and 30M FT8. Still active.
- TL8ZZ Central African Republic – Good signal but very little information so far. Worked on 40, 30 and 20M FT8 in about 20 minutes. Still active.

Keep a look out for K8H Pago Pago, American Samoa, that will be active starting 11/18 and running through 12/01. Bob W7YAQ and Al K7AR are the ops on 160-10M.

Now for a recap on the home front: The **Stone Mountain Hamfest** was great! The SEDXC booth was overtaken by members that we've not seen in person for years; what a treat. Cards were checked (Thanks Verne!) and friendships were rekindled. The inside and outside bone yards were back to their normally crowded flow of lookers and buyers. It felt good to be back home.

Saturday, Nov. 12th, was **HamJam**, sponsored by the North Fulton ARC and supported by the SEDXC. HamJam is all about supporting youth in ham radio by bringing three exceptional speakers to Georgia. The speakers were from CQ magazine, the ARRL and an outstanding young ham who recently participated in the **Youth DX Adventure** at PJ2Y in Curacao. For more info click HERE. All proceeds from the thousands of dollars of donated radio equipment and raffle sales go to the advancement of youth in ham radio. Thus far HamJam has donated over $50,000 toward this endeavor.

P.S. The SEDXC won the prize for the largest number of members present!

As we approach Thanksgiving in a few days, lets all step back and remember the blessing we have received, the love that has been bestowed to us and the good things that have made our lives worth living. I hope your Thanksgiving will be joyful and full of good memories for all.

As a reminder, there will not be a club meeting in the month of December. This month is reserved for our members to spend with families, friends and holiday celebrations.

73 es gud DX,

Chuck, AE4CW

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

This Month

As we near our monthly publication date, Clark is feeling a little under the weather, and will be taking a little break from writing the *VP's Corner.* We wish Clark all the best; may he get well quickly, and rejoin us on the bands soon!

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

Greetings, Fellow DXers! Disbursements to report for last month:

Purpose	Amount
Donation to the TN8K DXpedition	250.00
Donation to the PN29RO DXpedition	300.00
SEDXC Brochure Printing	287.54
Renewal of SEDXC.com URL (T-Rex Software)	16.49
Postage	16.40
TOTAL:	***$870.43***

Our Account Balance is $13,275.53, as of November 16th.

We are currently reviewing our Club criteria for DXpedition donations. If you are interested in providing some input and becoming a part of our small committee, please contact me at jacantor9@gmail.com.

Gud DX & 73,

Jeff, K1ZN

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

The Tale of the Accu-Keyer

While he is still settling in at his new QTH, please join us in welcoming back Hal Kennedy! While we have republished some of Hal's earlier articles in his absence, there is nothing like have Hal's "fresh", new stories each month. This month, Hal shares a story that's been wanting to share for awhile. Welcome Back, Hal!

If you are an "old-hand" CW operator, you may know of the WB4VVF Accu-Keyer. Or, maybe you don't. But if you have ever used a paddle to send some CW, then Jim Garrett (WB4VVF) probably had an effect on the way you sent.

Lengthy erudite papers have been written about the nuances of electronic keying. The attributes of WB4VVF keying (sometimes called "Accu-Keying"), Curtis keyer chip keying, Mode A and Mode B keying, etc. are still being debated decades after their creation. The details involve how dots and dashes are completed, whether the keyer has dot and dash memories, how it toggles those, etc. Personally, I think the best version of iambic keying (aka "squeeze keying") is the one you are used to. You can read about the subtleties on the internet. This article is about *the story* of the Accu-Keyer – not the technical details.

The Accu-Keyer was published in the August, 1973 QST. At that time, the transition from discrete transistors to rudimentary ICs (integrated circuits) was in full swing. Jim Garrett, WB4VVF, a SSB-only operator, decided to build a keyer using logic ICs - something that to my knowledge had not been done before. Duke Contini, N4SA (sk) *was* a CW op and collaborated heavily. Jim, Duke and I worked for Martin Marietta in Orlando at that time.

There had been prior keyers, to be sure. The first electronic keyer to appear in QST (April, 1940) used vacuum tubes – the transistor had not yet been invented. The author was W2ILE, Harry Beecher. A lot of Beecher's circuit wound up in subsequent keyer designs.

A milestone keyer was the "TO Keyer," devised by Jim Ricks, W9TO, working together with Hallicrafters. Hallicrafters offered the keyer for sale – the model was the HA-1. Ricks held a patent for the circuit. Thousands were sold. So many, in fact, that 60 years later they are still easy to find on eBay and at hamfests. The HA-1 is shown in figure 1. Note it says "T. O. Keyer" on the front panel. As with Beecher's design it used vacuum tubes and was not iambic. It completed dots and dashes and that was it. Connected to an iambic paddle and with both contacts closed, an HA-1 will send a continuous string

of dashes, although not by design. Squeeze keying was mostly unknown when the HA-1 entered the market in 1960.

W9TO was generous with his design. He readily gave the schematic to anyone who asked. The schematic was also in the back of the HA-1 manual. Doing research for this article I was surprised to discover the TO Keyer was never described in a published article. I wanted to read the original article – there isn't one!

I would guess that for every HA-1 Hallicrafters sold, one or more (many more?) were home-brewed. The parts were easy to get, and this was the era of DIY ham gear.

Beyond the Accu-Keyer's ground-breaking use of ICs to implement iambic keying, Jim broke ground in another way. To my knowledge, *The Accu-Keyer* was the first QST article to offer one or more parts for sale by the author. The article ended with: "A ready-made circuit board is available from the author for a cost of $3.50." Note, the PCB was available from Jim, not the ARRL.

I wondered at the time and am still a little surprised the ARRL allowed the PCB to be sold by Jim. But that happened and it had a significant financial impact at WB4VVF. Jim went on to sell over 20,000 PCBs and most of the $3.50 price was good-old-fashion profit. You can do the math – that was *a lot* of money in the mid-1970s.

As publication approached and mindful the PCB offer would be at the end of the article, Jim decided to go out on a limb and have a small quantity of PCBs made. How many? The initial order quantity was "all I could afford to lose," which was 200 boards. Jim and Duke had a friendly $1 bet that 100 PCBs would/would not be sold by Christmas, 1973 (the QST article would have been in circulation for five months).

Per the norm for QST authors, a proof of the article went to Jim the month before publication (July, 1973). Amazingly, PCB orders started arriving pre-publication! The ARRL staff and friends had seen the article and wanted to build Accu-Keyers. This was a harbinger of the immense popularity the Accu-Keyer would achieve. 100 PCBs were sold long before Christmas. Duke paid off the $1 bet. Forty-nine years later Jim still has the $1 bill.

The Accu-Keyer circuit was debugged and perfected on a breadboard Jim built using hobby board – the kind you can plug components and wires into without soldering. The breadboard was not retained – it was cannibalized for parts shortly before the first two PCBs came about.

The design of the Accu-Keyer PCB and production of the first two examples followed the typical route for roll-your-own PCBs in the 1970s.

Jim laid out the Accu-Keyer PCB on a drafting table at his home, at 4X final size. If you are not an old timer you may have trouble conceptualizing the layout process before personal computers. PCB layouts were made freehand using black tape placed on a

Mylar sheet. Placement of the parts and routing of the connections was wholly dependent on the ingenuity of the designer.

The Accu-Keyer board design was simple. It was single-sided and did not use plated thru-holes. The lands did not have nice direct routes with square corners like they do today. Turning corners required bending the black tape as it went onto the Mylar. Jim took the finished 4:1 Mylar sheet to a local photography store and they photo reduced it 1:4 and returned the image as a negative.

The negative was used to expose a photo-sensitive coating on PCB blanks and then a strong etchant was used to dissolve away the copper that had not been exposed. The first two Accu-Keyer PCBs were made this way in WB4VVF's kitchen sink. The very first of Jim's kitchen-sink boards is in my personal Accu-Keyer. It is a cherished possession. The whereabouts of the second PCB is unknown. Yes, I built and own Accu-Keyer S/N 00001. It is the first of over 20,000 examples.

Figures 2 and 3 show my Accu-Keyer, built to Jim's "instructions" in late 1972. Jim's instructions to me: "Here, populate this PCB and see if it works." It worked straight-away, and I have used it on the air for 50 years.

As mentioned above, selling Accu-Keyer PCBs became a lucrative business. Flush with "Accu-Money," Jim used some of the funds to buy a brand-new 1985 Corvette, which immediately became known within the local ham community as the "Accu-Vette." Jim was sometimes referred to as "Accu-Garrett." As the years went by, Jim's friends appended "Accu-" to the front of nearly anything Jim got involved with. It was all in fun with Jim as amused as anyone.

Accu-collaborator Duke, N4SA, was a ham's ham. He was an ardent DXer and contester, and was on the air whenever he wasn't at work. Duke's contesting led to he and Jim taking the Accu-Keyer a step further, designing one of the first memory keyers, named, of course, the "Accu-Memory." (QST, August, 1975).

As with the Accu-Keyer, I built Accu-Memory serial number one (if you don't count the breadboard). I regret it is no longer in my possession. I gave it to W2DNG (later W8RT) (sk) and it subsequently got passed around the North Jersey DX Association. At one point it was in the possession of Howard Wolf, W2AGW (sk). Howard sat on top of the DXCC honor roll for many years, having worked all but one. I'd like to get that Accu-Memory back! Over 4,000 Accu-Memory board sets were sold. The design required three PCBs in addition to an Accu-Keyer board. The three board set was $12 and significantly increased Jim's Accu-Revenue.

One feature lacking in the Accu-Keyer design was a weight control. The keyer's TTL logic formed a perfect 1:3 weight ratio between dots and dashes, determined by counting out one or three clock cycles. The 1:3 weighting was hard-wired into the

design. Wanting a weight control (and knowing a lot of other people wanted one) I decided to come up with something.

Jim and I made a friendly bet I couldn't devise a simple way to add a weight control. Maybe with a major redesign of the keyer's logic circuits it could be done, but that would be close to an entirely new keyer.

The February, 1978 QST carries my article, which the ARRL decided to publish as a "Hint and Kink," entitled *A Weigh Control for the Accu-Keyer*. Jim acknowledged it worked fine. I won the bet. The weight control added two diodes, one resistor and a potentiometer to adjust the weight. None of the keyer's circuits were modified! That's as simple as it gets. Figure 4 shows the weight control schematic and caption as they appeared in QST.

My approach followed a predilection of mine for simple analog designs in lieu of digital ones. As an aside, here is one of my favorite stories from my engineering days. An EE working for me proposed a design for a voltage to current converter. It used an A/D converter, microprocessor complete with a few hundred lines of firmware, a D/A converter and a transistor set up as a variable current source. I had the pleasure (his horror) of telling him a resistor did the same thing. This is a true story. Oh, and you don't have to boot-up a resistor.

So, how did I get the hard-wired clock-counting Accu-Keyer logic circuits to vary their timing? I took the keyer's dot and dash memory outputs and fed them back to the clock generating circuit. The weight control adjusted the amount of feedback. The feedback slowed the clock down, making dashes and dots longer with respect to each other.

Note in figure 4 the bottom connection is not labeled! This oversight occurred at ARRL. Everyone eager to add a weight control to their Accu-Keyer sent me a letter asking where the bottom terminal connected. A month later a correction was published in QST, but it was buried deep in the magazine and in tiny print. The mail continued.

I got *a lot* of mail. It cost me many late nights typing replies and buying postage. SASEs were infrequent. Ah, the joys of being a QST author before personal computers and email.

My weight control mail however was nothing compared to the Accu-Avalanche that arrived at WB4VVF. Every one of the 20,000-plus PCB orders was a letter to open, a PCB to place in an envelope, and a check to cash. Many orders did not include an SASE. These required the extra step of hand addressing the return envelope. Mail arrived at Jim's place in large sacks.

The mailman was curious about what might be going on behind closed doors at Jim's nondescript residence – well, nondescript except for the 125-foot tower in the backyard. In addition to order fulfillment, every technical question and every complaint

(bwwaaa… my keyer doesn't work…why?) came and went via the USPS. The 20,000 PCB sales were not exactly "free money."

Jim eventually turned over order fulfillment and accounting to one of Duke's kids, who was happy to have a part-time job. For many years the Accu-Keyer created *a lot* of work.

The first 200 PCB order was placed with Continental Circuits of Longwood, FL. Continental was a hobby shop in 1973 and struggled with an order that size. Continental eventually went on to supply the 20,000 boards that were sold, although the company must have farmed a lot of that out. The company is still in business, at the same address. It is now PFI Inc. and it can easily fill a 20,000 board order. The Accu-Keyer helped build that company.

It's hard to fully assess the impact the Accu-Keyer has had over the past 50 years. It revolutionized ham radio keying with the introduction of a simple IC-based iambic circuit. It might be a stretch to suggest it increased CW operating, but it certainly caused an increase in DIY construction. It also became the kernel for a lot of follow-on tinkering and design. To date, there have been 37 QST articles devoted to the Accu-Keyer and Accu-Memory; I suspect that is a record. I wrote "to date" because the Accu-Keyer lives on. A few PCBs were ordered in 2021! No kidding! The Accu-Keyer was in several editions of the ARRL Handbook in the 1970s. Some folks can't part with geriatric Handbooks (you know who you are) and continue to build projects from the contents.

Jim and I continue to be good friends and recently reminisced about my spinning the brand-new Accu-Vette on a country road and stuffing it into an orange grove. The car had about 100 miles on it. Jim, I and the car survived fine, based on luck rather than any skill of mine. I was the first person Jim let drive it. He thought I knew what I was doing. Good times.

I hope you enjoyed reading the tale of the Accu-Keyer. My involvement with the Accu-Keyer and subsequent escapades are a treasured part of my ham journey.

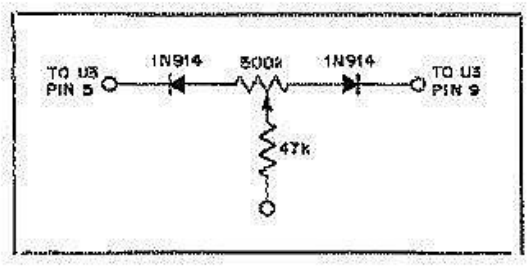
73,

Hal, N4GG

Figure 1. The Hallicrafters HA-1 T.O. Keyer

Figure 2. Accu-Keyer S/N 00001, Built by N4GG

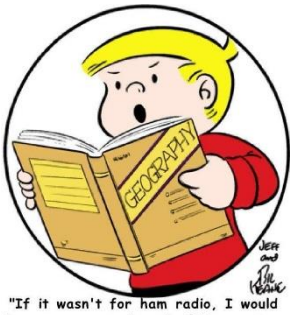
Figure 3. The interior of S/N 00001 built on the first "kitchen-sink" PCB. Over 20,000 followed!



A weight control addition for the Accu-Keyer. References are to the original Accu-Keyer schematic diagram.

Figure 4. N4GG's "It Can't Be Done" Weight Control for the Accu-Keyer, with mail-inducing unlabeled lower terminal. Source: ARRL's QST archives, only available, sadly, as low resolution PDFs.

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!

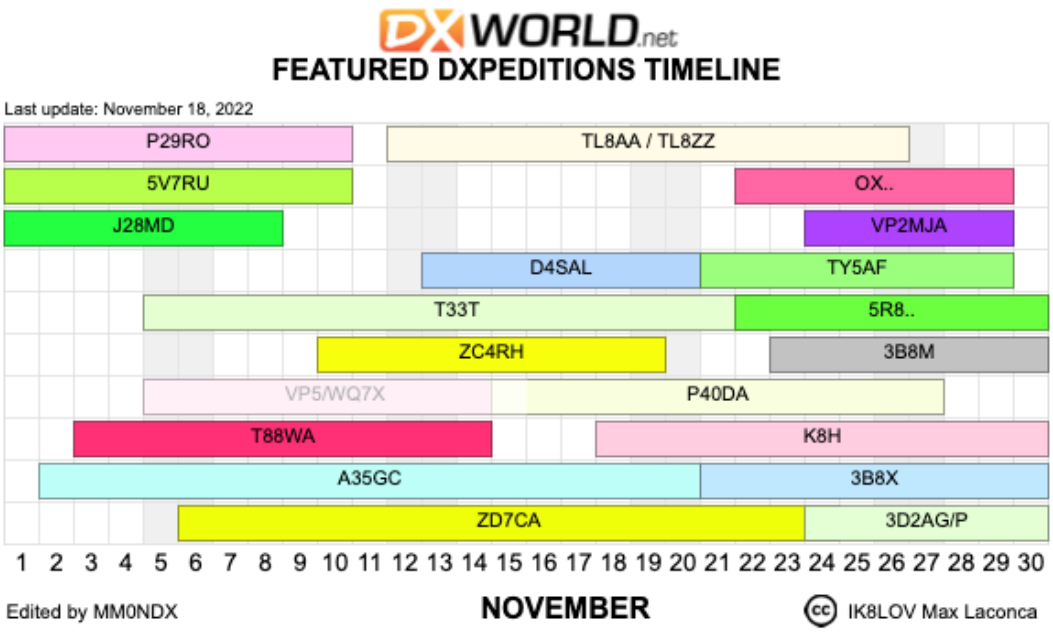
The November, 1997 Newsletter is attached for your entertainment. It seems strange writing about a 25-year-old newsletter right after Hal's article on the Accu-Keyer; I can still remember entering the world of ham radio as a Novice in 1975, envious of other hams who had the funds (and the patience) to build the keyer… It was "a classic in its own time"!

Activities Director Dick Bentley (K2UFT) proposed that members of the club take turns in 1998 running W4S to commemorate the SEDXC's upcoming anniversary (in 1998). Dick had a great idea; we'll have to see next year (when we "flashback" to the 1998 newsletters) how things turned out. Great idea, Dick!

73,

Bob, NF7D

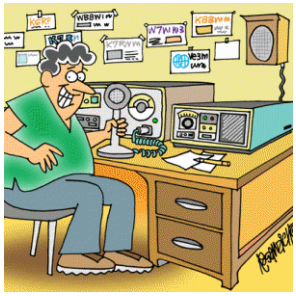
DXWorld.net DXpedition Timeline



The *DX World* Calendar features a timeline of all DXpeditions anticipated for the current month and is a great way to plan your chase for the next, All-Time New One (ATNO). The Calendar is updated regularly; use this link to see the latest version: http://www.hamradiotimeline.com/timeline/dxw_timeline_1_1.php

The ***SEDXC Bulletin*** 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.

SEDXC Officers & Positions



SEDXC Officers:

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Bob Sarnecki, NF7D – *SEDXC Bulletin* Editor – bob.sarnecki@gmail.com

SOUTHEASTERN DX CLUB

SOUTHEASTERN DXCLUB

W4NT

THE SOUTH'S PREMIER DXCLUB

November 1997

NEXT MEETING TIME & LOCATION

Tuesday, Nov. 18th, 7:30 PM, Old Hickory House in the Days Inn, Roswell Rd., just inside I-285.

PRESIDENTIAL RAMBLINGS

-Paul Hansen, W6XA, President

After a valiant and heroic campaign into Maine to decimate the lobster population, I have returned defeated. Those overgrown mud bugs were just too numerous for even my crack troops. Success, however, was achieved on the left Cervesa front. The opposition's fatal flaw is that they think they are Canadians and have Moosehead and Molson for assault leaders. Easy pickin's.

Before I left to go to Maine, Rick Musicer told me that I should take along a 2 meter radio. He told me the hams in New England and Down East were courteous and helpful. Let me set the record straight. I called CQ on every repeater and tried to call several individuals heard. I contacted zero members of the northeastern amateur radio fraternity. I hope when travelers come through Atlanta they get a much warmer welcome.

I am very disappointed in missing the meeting. I was looking forward to the presentation from Gary on his modeling of small terminated loops. Guess I'll have to wait until Greenway builds one to see if it'll be something I'd like to try. I am running out of time to get on top band with anything other than my low dipole dummy load.

Tom, K8XP has been gracious enough to present his ZK1XXP program at the next meeting. I have to confess that I had a great time chasing his group around the band. Even my 160 meter dummy load was tall enough to get N6MZ on the first night. But, if any of you were on then, you will know they were so strong I thought it was a local. They put on a great show for North Cook.

On a side note, I was wondering how most of you feel about using the special call sign K7K for Kure Island? If this is going to be a trend for United States call areas I'm going to have to revamp my filing system.

Finally, I am still trying to get the swap going. Perhaps it will come together for the December meeting. That might be the ideal time to trade off some stuff and try to generate some income for the coffers. As you all know, the club is essentially destitute. We can't keep past members nor can we attract new members. The Southeastern DX Club is fast approaching critical mass and we don't have anybody in the control room to scram the reactor.

CU there, Paul, W6XA

BRING ZK1XXP CARDS TO THE MEETING!!

VP THOUGHTS

-Ernie Zinglemen, KS4Q, VP

Many thanks to all members who attended the October meeting. We enjoyed Gary K9AY's interesting presentation of his new antenna design for low band listening. As we enter into the low band season, many of us are looking for that extra edge on 160 Meters. Gary has shown us that a lot of real estate in not necessarily required to take part in top band activities.

For the upcoming November meeting Tom, K8XP, will give a program on a Wake Island DXpedition in which he participated. Quite the traveler, Tom recently returned from the ZK1XXP effort on North Cook Island. If you recently worked either of these DXCC countries, you have Tom to thank in part!

An effort will be made to keep the business portion of the meeting short to allow time for a prize raffle and for Tom's Wake Island program.

CU There!

73, Ernie KS4Q

BEEPS DE K2UFT

-Dick Bentley, K2UFT, Activities Director

During a conversation I had with Kioshi, W3XJ, he reported that there was an interesting announcement made at the Japan DX forum at the August 1997 Tokyo Hamfest. Two of the attendees were the Chairman and Vice-Chairman of the North Korean Sportsmanship Association, under which falls amateur radio, as in many communist countries. They contend that there was no official sanction of the JA1BK/OH2BH amateur radio demonstration which led to the establishment of P5 as a DXCC country. These officials went on to say that any sanctioned operation in the future would be coordinated by their organization through Yasuo Miyazawa, JH1AJT, better known in ham circles as Zorro. Zorro has been instrumental in arranging for humanitarian aid in North Korea and the amateur radio connection is coincidental. I no longer subscribe to the DX Reflector so don't know if this has been beaten to death by the regular bashers or not. Have any of you seen or heard any chatter on this subject?

To switch from innuendo to ideas, how's this one? 1998 is the anniversary of the Southeastern DX Club. I propose that each of us that can take a turn keeping a special event call sign on the air for all of 1998. As of this writing (10/29), W4S is not spoken for any time period in 1998. I need someone to initiate the activity by reserving W4S for the first 15 days in January. I'll take the second shift for the next 15 days, and so on throughout the year. If you will volunteer for a time period (2/1 to 2/15, 2/16 to 3/2, etc. etc) 26 of us serving two shifts can keep W4S alive for the entire year.

If you are real crafty, you can have custody of W4S for one of the upcoming contests. All you need to do is sign up with me giving me your preferences for 15 day periods, your current curriculum vitae, including email address if you have one, and I'll take care of the paperwork. Once the call sign assignment has been confirmed, you just commence to operate during the time period, once an hour signing your own call sign to keep it all legal, and send me the logs. We'll probably have to form a QSL committee to take care of the paper work.

What do you think?

73 Dick, K2UFT

SEDXC MINUTES 10/21/97

-Rick Glisson, N4XMX, Sec.

Ernie, KS4Q, called the meeting to order at 7:33 PM. Paul, W6XA, was on vacation. 14 members were present and everyone introduced themselves.

The minutes were accepted with a correction made by Nancy, NK4U, that Paul, K4UJ had the computer problem concerning the survey, not her. Nancy also said she had mailed the labels to Paul, K4UJ. Paul also has the survey sheet now.

Old business: There was some discussion from Phil, W4GTS, about the 160M plaques. Nancy mentioned that Dave, K4JRB, was handling the plaques.

Announcements: Sonny, KE4LDJ, mentioned that he knew of a 70' aluminum crankup tower with winch, Pro 67B, Ham IV rotator, and a Ringo Ranger 2M for sale. Anyone interested was to contact him. Asking price was $2000. Someone at the club was already interested.

Nancy asked about the club's effort in CQWW last year. It was mentioned that the club placed 9th.

New business: Mike, K4PI made a motion to match donations for the ZK1XXP North Cook up to an agreed upon ceiling. Nancy said that with all the outstanding obligations, the club didn't have any extra money. She detailed the expenses including the costs of the survey, etc.

Ernie also mentioned the auction as a money raiser. The motion was tabled for now. Dick, K2UFT, seconded the tabling until the club has more money, possibly in May. In the meantime, if anyone has made any direct contributions, tell Nancy.

Fritz, KJ4T, announced that the K4JPD DX repeater is now in his basement working. This should improve reception on the east side of town.

No door prizes were available so a break was announced.

The program was given by Gary Breed, K9AY. Gary holds some patents in the design of antennas and showed us his improvements for low band wire antennas. He basically improved the EWE antenna shown in QST last year. His improvements were featured in QST this fall. It was a very interesting and rewarding program. Gary showed how the gain and selectivity could be improved by phasing several together. Just in time for the 160M season!

(continued from p2) wrapup of the ZK1XXP operation. Antennas went up in one day (Saturday) so they would not offend the locals by working on Sunday. They made over 15,000 QSO's in five and a half days. They used two radios mostly. They also had some amp problems and 80/160M were a problem. Most contacts on 20M (4219) followed by 17M (1935) and then 40M (1904). The mode split was 6708 SSB and 8101 CW. There were about 500 RTTY as well.

The meeting was adjourned at 9:00 PM.

-Rick, N4XMX, Sec.

TREASURER'S REPORT

-Nancy Draheim, NK4U

Balance 9/30/97 (Checkbook)	$2976.68
Income	$145.00
Expenses:	
Outgoing QSL's	$8.00
Postage	$10.40
September Newsletter	$48.13
Balance Checking 10/31/97	$3055.15*

* Of this balance, $905.15 is from the packet fund and $920 is reserved for the CQWW 160 plaques. That leaves $1209.24 for actually club expenditures.

Hope everyone got a 'new one' in CQWW... or at least enjoyed the contest. The antenna is finally up with coax attached and works great. On my second contact I finally got that elusive last country for WAZ. Now to do the paperwork. New email address: nk4u@bellsouth.net

See ya at the November meeting.

73, Nancy NK4U, Treasurer

FOR SALE

Kenwood TS-50, excellent condition, original box and packing, $650.00 Contact at work or at home before 9 PM. See phone numbers on back cover. Ernie, KS4Q

DX TIDBITS

-Rick Glisson, N4XMX, editor

Things been a little slow so there is a little space in the newsletter for the tidbits column. This month a few thoughts about what happens in my shack between contests.

Picked up all the ham gear my dad had at home and now I am integrating some of that into the N4XMX "Terror of 20M" station. A Kenwood TS-450 has now replaced the TS-440. Of course all the controls are different! Now I have a separate power and carrier/mike controls. One thing I really wanted to do is to try RTTY. The TS-440 has some kind of feedback problem if you wire the RTTY controller through the ACC plug on the back. The TS-450 fixes that but you have to find a DIN 13 pin connector to make it work! Of course the only place that had even heard of the connector was HRO. 13 pins on one connector takes a steady hand and small soldering device. I favor the butane model found at Radio Shack with the 1 mm tip.

After plugging in the connector, the next trick was to get a program that would allow me to communicate to the KAM and not get hung up with WIN95 serial port timeouts. Finally had to use my 486 laptop running a terminal program with a few macros.

Found a station running RTTY loud enough to tune in on 20 meters, an XE! Not major pileup material but an excellent test station. Running a whopping 100W, I hit the F1 key after he CQ'ed. Since he came back to me, I must have wired it correctly! Told him he was my first RTTY contact and he promised QSL 100%! Now I can go after those rare DX stations who always run RTTY during prime openings!

I favor the revival of the DX need list. Steve, K4WA, always reports on the DX stations I need two days after they've been on! Since he's near a radio when he's not out of town, I think we should introduce a handicap system. The number of countries you have worked should be divided by the number of hours you could have been in front of the radio. Something for the DXCC 2000 bunch to consider.

Just before CQWW SSB, I tried to hook up the TS-450 to CT. Found that the 450 was not listed. Then tried all the Kenwood settings. Nothing worked! Got on the internet, subscribed and posted a note to the CT reflector and in several hours I had the answer. There was a TSR I had to run to get it to work! What a world!

-Rick, N4XMX