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THE BULLSHEET

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Texas DX Society

An ARRL Affiliated Club



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President	Jim Lane, N5DC
Vice President	John Stevens, K5JS
Secretary	Butch Barber, K5GB
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DX Chairman	Bob Walworth, AK5B
Field Day Chairman	Bob Burns, W5SJS
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Announcements

Meeting Notice - The Texas DX Society meets on the second Friday of each month except when the date is changed by the Board of Directors. This month the April meeting will take place on **Friday, April 12, 1991** at **St. Johns School** at the corner of Claremont and Westheimer Roads. Claremont is the name of Buffalo Speedway after it crosses to the north of Westheimer. There is a parking lot entrance just north of Westheimer. Park in the lot and follow the walkway to enter the school building. The general meeting will take place in the auditorium/lecture hall and will begin about 7:30 P.M. A meeting of the TDXS Board of Directors will be held starting at 6:30 P.M. Visitors are welcome to attend the meeting and may obtain help in finding the location by checking in on 147.96/36 MHz.

Program - The April program will feature a film provided by the Northern California DX Foundation on the subject of amateur radio in Russia. The film was made by WA6WXD and should offer some interesting insights into the current activities of our friends in that unique area of the ham radio world.

WRTC Update - For those of you who managed to get in on the World Radio Team Championship contest last July, it might be of interest to know that the WRTC committee received a total of 944 logs and will be awarding the 500 T-shirts to all of those whose score was 67,039 points or more. In addition there will be 198 pins (for working 30 WRTC stations) and 762 certificates.

Bullsheat Mailing List - TDXS wishes to provide the Bullsheat to those amateurs in the Houston area with an active interest in DXing and contesting. Donations to help defray publication and mailing costs are appreciated. Visitors to our club meetings will receive the Bullsheat for three months free of charge simply by

signing the Attendance List and including their mailing address. Articles or other newsworthy items are hereby solicited by your editor. Articles should be submitted in the form of either ASCII files or as MS Word or WordPerfect word processor files. Files may be uploaded to the TDXS Bullsheat area on K2TNO's Bulletin Board at 713-798-4955, or sent direct to the Editor on either 5 1/4" or 3 1/2" diskette, either DS/DD or DS/HD. If necessary, files may be sent to "Dr. William Schrader" via FAX at 713-790-1275. For those with VHF Packet and having access to any of the local Digipeaters, or able connect directly, ASCII text can be sent directly to the Editor. Contact W5ASP at (713) 974-3455 to arrange such file transfers.

DX Packet Clusters - The Waller County Contest and DX PacketCluster Bulletin Board (PCBS) is located in Hempstead, Texas operating on 144.990 MHz with the call KE5IV. A local digipeater is operational on 144.990 MHz from the Greenway Plaza area to provide access to this PacketCluster. This Digi has the alias TDXS. The suggested procedure is to connect with KE5IV via TDXS (C KE5IV V TDXS). There is a second port operating on 144.910 MHz, also under KE5IV's call. This affords those with higher ERP, particularly on the west side of Houston, the option of connecting directly with Hempstead and gives somewhat faster response.

The Galveston County DX PacketCluster, located in La Marque, is active under the call KC5SC and operates on 144.930 MHz and 144.970 MHz. It is usually connected with KE5IV via the 446.100 MHz backbone link. Stations in the southern parts of Houston may find it easier to connect with this cluster. AB5A located in Dickinson about 10 miles northwest of KC5SC operates another PacketCluster node regularly connected to the KC5SC PacketCluster via 446.100 MHz. This cluster features a 40 Meter HF Gateway on 7.089 MHz as well as limited access for local uses on the VHF port.

The local clusters are frequently linked into Austin, Dallas and beyond for added DX coverage, especially during contests. In addition to listing current DX spots, the system provides access to a wide variety of DX related information such as the W6GO QSL Manager list, Russian oblasts, WWV propagation, beam headings, etc. Users are requested to limit their use of these "databases" to off-peak hours so as to minimize the side effects on others. A quick check of the status shown in the opening message which appears upon connection will indicate the number of nodes/users active at the time. Otherwise all users are encouraged to query the various data banks and make full use of their many features. A complete list of the PacketCluster commands can be obtained by sending a S.A.S.E. to the TDXS at the address shown above.

The Prez Sez

de Jim, N5DC

I would like to take this opportunity to thank KE5IV, N5RP, K5WA, AA5NK, AK5B and W5ASP for a stellar performance in taking down the Tri-Ex tower we acquired at the Kinkaid School. In addition, W5SJS's capable truck crew hauled it off the premises and took it to its interim home. Though it initially had the makings of a tricky operation, exceptional management and skilled execution made the whole thing come off very well. The tower is now under the personal care of N5RP, who first spotted this hidden gem, and is scheduled to be sand blasted and coated. The tower is a heavy duty 2-section job, that appears to 36' when cranked up. It is missing the winch crank handle, but I am told that Tri-Ex is still around, and one should be available from them, as well as a new base.

The upshot of all this rambling is simply that the tower is for sale. The asking price is \$300.00 dollars. It would make a dandy self-supporting tower with a 10 foot mast on it to support a 3-element quad or tribander. Any takers?

It is time for TDXS to start thinking about the 1991 ARRL Field Day. Bob, W5SJS has "volunteered" to be Field Day Chairman, and we need to give him direction as to what sort of Field Day we want to put on. I have my own thoughts on the matter, which I will make known at the next meeting. Please give it a bit of thought, and come to the April meeting prepared to give us your ideas.

The GE repeater's receiver has come down with the "deafs" and is in the shop for repair. If all goes well, it should be back in service during the coming meeting week.

It points up to me that all the work and money put in by our members in the past is certainly paying off. I was able to bring up the backup Spectrum with our control receiver. Bill, K2TNO and I later removed the GE for repair. The Spectrum seems to be performing very well. I am very pleased that our remote system, designed by Kim, K5TU, built by Bill, K2TNO and brought to life by Bob, K5VMX and myself, is doing quite well. It really gives us a fine working system.

I am in favor of us acquiring some spare boards for the GE, and this I believe, with the addition of a little better antenna later on, will complete the system. With the advent of the PacketCluster the use of the repeater as a DX-spotting machine has fallen to practically zero. However, it is a primary means of keeping in touch on a daily basis for most of the group, as well as the site of our weekly DX & Contest Net. The TDXS has supported the Repeater very well in the past, and we need to keep it going for our use in the future.

In closing, all TDXS full members should have received a ballot containing the names of the two prospective new members and the constitutional amendment. I urge you, if you have not done so, to cast your vote and get it in the mail to our Secretary, Butch, K5GB. Also take a look at the current TDXS Membership Roster in this issue of the -Bullshead. If your name does not appear, maybe you need to get back in the fold...pronto!

DX Report

de Bob, AK5B

April...one of my favorite months ham radio wise. T'is the month for the International DX Convention in Visalia, followed in two weeks by the Dayton HamVention. Now if Jim Smith would just show up from S2, Bangladesh (or I could get a card from Dr. Vince Thompson, K5VT), all would be well for '91.

Latest word is that Jim Smith, VK9NS is leaving S2, Bangladesh without having obtained a license to operate. We will just have to wait and find out later just what really went on there. I think the trip with Kristi is still on to A5, Bhutan for the first of May.

Silent Key...Peter Uberto, WB2WOW, who was QSL manager for ET2A, STODX, and 7Z1AB, passed away suddenly. His QSLing chores will be taken over by Howard, WA2NHA. Any cards sent to WB2WOW will be picked up and handled by Howard. (Thanks to Larry, NY5L for this information.)

Anyone out there still needing 701AA cards? The good news is that the logs did survive and are in the hands of DL2BCH. She has a computerized log and requests can be sent to her home address. Remember that these cards are now valid for DXCC credit as of March 1, 1991.

Anyone needing IRCs? QRZ DX says that Steve, KD5GY has plenty of IRCs for 50 cents each. Steve is the manager for XE0DX, XE2XA and 6D2X. Send check or money order with an SASE to Steve Corbitt, 4300 South Hwy 281, Edinburg, TX 78539. (W5ASP has IRCs locally if you're in a hurry..ed)

April also sees John, K9EL operating from two good spots. April 11-14 from HS0E, Thailand and April 14-19 in Hong Kong as K9EL/VS6.

This last weekend saw quite a bit of activity during the CQ WPX phone contest. K2EEK, Alan even called me on Sunday afternoon. Glad to see that the folks at CQ operate in their own contest. HI! Also I'm sure your editor will be turning in a super score from ZF2NE/ZF8. Glad I was able to break his pile up on Saturday morning. Joe was really running 'em on 10 Meters. Others from the club that I worked were KE5FI, K5LZO, WN4KKN/6, and K5MA/1.

Sure hope everyone who got on during the contest, even for just a few QSOs, will turn in a log and show TDXS on their summery sheet!

Another one to cross your fingers for. According to the DX Bulletin John Fung-Loy PA3CXC will operate CW from Ethiopia for two weeks beginning "soon". He will then go on to Uganda, 5X for another two weeks. Don't bet on the Uganda operation though, as the civil war is still going on there.

KH9, Wake Island will be aired by KB5LRO signing /KH9 around the 16th to the 25th of April. Look for him on 10-20 meters, mostly SSB with some CW in the General portions of the bands and on most nets.

Remember that ZS8MI will be going QRT in May. There is no word of any other radio amateurs in the next group, so best work it soon. Look for him on 28445, 21260 or 14260 Mhz at 1300Z til 2000Z.

Finally, don't forget to check in for the weekly TDXS DX & Contest Net on Tuesday nights at 9 P.M. on 147.36/96 Mhz for all the latest on DX and contests. Till next month, 73 es gud DX.

Upcoming Events

- April 12.....Texas DX Society Monthly Meeting
- April 12.....International DX Meeting, Visalia, CA
- April 26.....Dayton HamVention, Dayton, OH
- April 27.....Swiss Helvetia Contest
- May 4/5MARAC County Hunters CW Contest
- May 4/5Ten-Ten International CW QSO Party
- May 10Texas DX Society Monthly Meeting
- May 11CQ-M USSR Contest

Dispatches from the UK

(Andy, GM0ECO is now sufficiently settled in his Scottish QTH to bring us up to date on his station, contesting and other activities. Here is what he has to say...ed)

It now seems ages since leaving the warm climate of Texas to take up my posting in the wilds of Scotland. Further north than Juneau, Alaska contesting from GM has proved interesting to say the least. The wind is the worst thing - but more of that later.

The biggest difference is the ability to make large numbers of contacts using only a fairly modest station. GM actually appears to be a relatively rare multiplier with the pile ups to prove it. In both the 1990 CQWW SSB and the 1991 ARRL DX SSB, I managed 4,000 QSOs plus.

I had to smile at NZ5I, Kenny's article in the March Bullsheat. My problem is finding an hour with a rate less than 60 per hour! ARRL was purely a rate contest - 100 percent CQing. Contrast that with my early experiences at the Lumberyard where 2,000 Q's was a minor miracle. W5ASP, N5EA and K5RVK did a great job of teaching me the art of contesting, but lad's - how do I cope with 200 plus per hour? You never taught me that! (We never even hear the extra 100 per hour lost in our noise...ed) On 40 meters I had to resort to not giving my listening frequency (operating split) to cut down pile ups. (Seriously - I thought Kenny's article was great. Let's have more of that - and the answers please!)

The antenna farm (garden?) consists of a TH7 on a 60 foot crank-up, tilt-over tower. I suppose I have had it at an average height of 45 feet over the past year's contests due to the very high winds. I've also had to swap rotors twice due to the continual buffeting from the wind and I'm sure it will not stop there.

For 40 meters I have built a 2-element, vertically polarized, full size wire Quad. It's suspended in the trees with the top at less than 50 foot. Yet for such a low height the antenna plays superbly. It took a long time to learn the trick of phasing the feeds to the two elements to get good directivity at low height rather than zero directivity when trying to operate it with one element as a parasitic. I've still got some way to go to squeeze a bit more out. Phased quad loops are certainly potent for stations more than 5,000 Km away with very low rejection of high angle signals and a good null at 180 degrees.

For 80 meters I now have a single vertically polarized loop (in the trees again - any one got a spare tower?). This summer I hope to repeat the 40 meter experience and add another loop. I haven't a clue whether I can get directivity so close to the ground, but if I can, then what an advantage I'll have over my colleagues in the UK. Who needs a full size, 3-element 80 M yagi at 200 feet?

My problem is 160 meters. A rather sorry inverted "L" droops across a tree (what else?) and the garage (that's pronounced ga-rage - remember?), putting an S9 signal into the adjacent farm at the end of the road and nowhere else. Perhaps the odd radial wouldn't do any harm! Any one know where I can get hold of a helium balloon?

One benefit of GM land is that there are very few squirrels around to chew through the coax. Unfortunately our two dogs have taken up this challenge including digging up my ground rods. At least the ducks aren't perching on the wire of the Quads.

The Haggis (I'm sure it's Haggi, Bill) are not too much of a problem - unless they are resonant on top band (160 M) and

are absorbing all my signal - now there's a thought. (By the way I can't find Haggi on my spellchecker!)

I keep listening for some long skip on 2 meters but have not as yet managed to hit the TDXS repeater. Hopefully I'll be back over to the states for a trip before too long and see you all again. If anyone wants to try a CW contest from over here - give me a call. Keep the points coming! CUL es 73.

Contest Corner

de Ken, NZ5I

Here we are well into the '91 season with a couple of the major contests now behind us. I can't believe time is moving so quickly. As for me, I'm really looking forward to the end of May and the WPX code event. However, it looks now like I will need to negotiate hard for contest privileges as the latter part of the season approaches since Ann and I will have a new little member of the household in mid November. I have already witnessed what that sort of event did to Dave, K5GN! How early can one start learning the code anyway?

Looking back over this past month I've really not been in the loop for scores and contest results, as I've been out of town. I hope that all of the club members who've been active have managed to get their numbers to our beloved editor. Two significant efforts that I was aware of were our friends in Mexico, CRANTAC, operating as 6I2A, and Joe, W5ASP operating from ZF8. I'm anxious to hear how things went.

I expect to hear the repeater buzzing with activity and plans for our upcoming annual TDXS outdoor operating event which just happens to fall on the same weekend as ARRL Field Day. Ought to be a lot of fun. Hope you can make it.

It's really a thin column for me this month, but I suppose it's getting to be that time of year. Before I go I'd like to leave you with a question. Who would you pick as the best individual operator in the TDXS? If the stations were totally identical (and I mean identical), which currently active TDXS club member would win top honors for: peak QSO rate, sustained QSO rate, most mults/QSO, lowest errors, total Q's, total mults, and finally, total overall score. In phone? In CW? Wouldn't it be fun to have a competition among the members which would award trophy's for each of the above categories? I think it would. I also think it's very possible to pull this off with little effort. Let me know what you think about this...over the repeater, on the net, or at the club meeting. I'll address this issue again, if there appears to be interest in such a "friendly competition" among the group.

Claimed Scores:

ARRL DX SSB

K5MA/1 1570 Q x 116 M = 546 K
 K5GN 1952 Q x 126 M = 10 M (SO/SB 10 M)
 W5ASP 527 Q x 212 M = 335 K (SO/AB)
 XE2FU 8073 Q x 324 M = 7.8 M (MULTI-2)
 (K5LZO, W5SRUS, KD5SP, WB5N, NM5M, XE2GB, XE2AQ, N5OAO)

CW WW WPX SSB

KCSCP.....434 Q x 292 M = 228 K
 K5LZO.....1028 Q x 541 M = 1.3 M
 ZF2NE/ZF8...3010 Q x 690 M = 6.1 M (W5ASP Op.)
 K5MA/1.....700 Q x 400 M = 700 K

Amateur Radio in China

de Mike, AA5NK/BW1Z

(This is the first of two articles on amateur radio in China as experienced by Mike, AA5NK. In it he describes what it was like during the 1980s. In the second part Mike will look ahead to some of the ways in which ham radio in China may evolve during the decade of the 90s....ed)

China may not be so rare today, but only a few years ago it was number one on the Most Needed List. As I recall, several hams from Japan, Canada (VE7BC), and the U.S. were instrumental in getting amateur radio started after an absence of thirty some odd years. Their approach was to introduce amateur radio as a competitive sport. Since China was opening up to the world, it was only reasonable that they should participate in radio sporting! It was decided to work through the China Sports Association, an official arm of the government. This move was very smart. From this the China Radio Sports Association (CRSA) was formed.

A station was set up in Beijing to demonstrate ham radio to the various officials. I believe one of the operators was K7LAY and another was VE7BC. They worked the late Bill Bennett, W7PHO in Seattle on a special schedule. The amateur radio world knew of this sked, but were asked to not interfere and to let the demonstration run it's course.

Later, BY8AA was set up as a club station to "work the world". This all took place around December of 1982. Their signal was very raspy and probably 10-20 Khz wide. There certainly was no problem finding them! They transmitted on about 14.050 Mhz, plus or minus 10 Khz, and listened split. China was once more on the air!

BY1PK was established as the lead station in China and as the headquarters for the CRSA. The "Master", or head of the CRSA, Mr. Tong, has borrowed a lot from the U. S. in setting up the licensing and operating formats.

The station at BY1PK is strictly a "Cadillac" operation. All of the equipment has been donated by various ham groups and the major manufacturers. There are probably five complete stations available.

Following the creation of BY1PK a number of other club stations were set up, mostly at schools. A manager is appointed for the station, and one of his jobs his jobs is to "recruit" club members and assist them in becoming operators. Sometimes, when there is a problem in recruiting enough operators, payment is made to certain students as an incentive to get them to participate. This is done to interest and motivate students to become involved in amateur radio. (Sometimes, a few of them were "overly motivated" when the green stamps came rolling in!)

With few exceptions, all of the equipment is donated. The individual operators just do not have the personal finances to purchase equipment. The CRSA does not have sufficient funds either. Both VE7BC and W7PHO were instrumental in obtaining equipment for many of the early club stations, notably BY9GA and BY1QH.

My principal station was BY1QH. I would often check into Uncle Bill's Family Hour net, and then Bill and I would discuss just what items were needed and where. For instance, at BY1QH we were very much in need of an amplifier, particularly as conditions were pretty lousy back in 1986. Bill put the word out and W2AN stepped in and donated a Yaesu FL1000 amplifier. This really turned things around and speeded up our QSO rate.

Usually I would run stations on a separate frequency, and let the other club operators pick up the guys on the Family Hour net under Bill's watchful eye. Yuan Bo was one of the club operators who was well known on the net. (Bo is now a sales engineer with IBM in Beijing.)

Other equipment at BY1QH was a Hy-Gain 204BA at 80 feet, a triband vertical (TVI generator deluxe!), a 10/15 Meter duoband yagi, and a 40 Meter delta loop that I took over with me. The transceiver at that time was a TS-180. There was an old German made electronic keyer that was clumsy to operate. I later brought over another CW sendin' machine and a Bencher paddle. Today, there is also a IC-751 and IC-2KL. As you can see, it is a really nice ham station. Now, if they will just keep it all together!

BY9GA is located in western China in the city of Lanzhou. Madame Jiang is the only operator. Her husband is master of the school where the station is located. BY9GA started out with wire antennas and a TS-930. Today there are three complete stations, including RTTY and 6 Meters. They also have a tribander. If you still need Zone 23, look for Jiang. She was a great host to me the many times I operated from there.

BY4WNG is another station I know well. It is located at Nanjing Institute of Technology in Nanjing. At this station most of their simple equipment was purchased by themselves. As postage is provided by the school, they save the green stamps for equipment purchases.

One morning several years ago I had been operating BY1QH on 20 meters SSB and decided to try CW. I quickly found myself with a major pileup on my hands. I haven't been back to SSB since. It's far more fun on CW running the pileups. I do sked with a friend who is also my QSL Manager. He will drop his call in on my CW pileup. This is a signal to meet him at 14.180 Mhz on the next hour.

Even today I still see a need for BY on CW, so that is where I prefer to spend my time. I do some 40 M work, usually at east-coast/mid-west sunrise on 7.005 Mhz. But the local electrical noise in Beijing is something else! Usually all I can hear are the guys with really good antenna setups like N4AR. Bill was my beacon on 40 M. I have done some 80 Meter operating, but here again the noise is a serious problem.

Several years ago, I approached CRSA for a personal call sign. At that time my U.S. call was NS7Z, so they gave me BW1Z. But I was told to hold off a few months before using it. Later I approached them asking to use the call. They said I could use it on 2 meters but to hold off for a while. They wanted to get their own people licensed first.

I was at BY1PK the week they were testing for new operators. I was able to meet Chinese operators from all over China. In addition to the club stations, there are a few private calls being used today. However, they are usually found operating from a club station.

For a visiting ham, arranging to operate from China is fairly simple. First write to the club station that you wish to operate and let them know when you will be in their city. Ask them to write back to you confirming your visit and giving their address and telephone number. Also, either arrange to have someone from the club meet you at your hotel, or request in your correspondence a copy of the directions to the station written in Chinese...you can give this to your taxi driver. (By the way, I have a supply of the operating permission applications for those of you already packing their bags for the trip!)

In my next article I'll bring you up to date on some current developments and talk about what may lie ahead for amateur radio in China.

It's a Piece of Cake to Work MIR

de Jim, NN50

Having lost the struggle to stay consistently connected with the PacketCluster via TDXS, I decided to try something a little easier...communicating with a sure 'nuf spacecraft with my impotent packet setup. Over the years, I have made a few contacts via the RS birds (Russian amateur radio satellites..ed) and a few more via the Oscar 10, Mode B type unmanned satellites. But I could not even hear the SAREX in the fall of last year and could only listen to Owen Garriott a few years back. Would it be the same frustrating mess to try to hook up to the MIR space station? NO!

Day 1: Tune the Icom 25A (25 watts) to 145.550 Mhz and open the squelch. Set KAM TNC wide open to all packets (MC, MALL, MCON, and MCOM all "ON"). When I came back the next morning, I reviewed my laptop's screen and saw nothing but time bullets for the past 4 hours. When I used the "UP cursor" (Packcom software), I found that I had clearly logged two passes of the MIR and its communications with Oklahoma, Iowa and Canada using the TNC on the spacecraft as a digipeater.

Day 2: Now I am fired up! I can really hear this thing with only a vertical (J-pole on the roof). Tonight, I will use my N4HY QuickTrak program to see when the passes will occur and listen again. In the morning, I found two more passes recorded, but not at the times predicted? Also, I noticed that some California guy had brought up the U2MIR-1 personal mailbox and was trying to send a message. Since I was only seeing packets from MIR (of course), I could not see the message, if any.

Day 3: After watching 145.07 Mhz for a while, I saw one of the BBS messages start to play out the latest AMSAT advice, including the latest Keplerian Elements for spacecraft of interest to hams. Armed with a new set of "keps", I fine-tuned QuickTrak and found that MIR seems to have good daytime passes over the U.S. on the weekends. So, on Saturday, March 23, I was ready for a live encounter of the amateur kind. The bird showed up right on time spurring packets to various hams as a digi, including WASZIB, Andy (AMSAT National Board member from Pearland). I sent "C U2MIR-1" and was connected on the second burst. As you can see from the screen depicted below, I was "Logged on to U2MIR's Personal Message System". In my excitement, I did not wait for the next line of the BBS routine: "CMD (B/H/J/K/KM/L/M/R/S/SR/V/?)". When I sent my oneline "WELCOME TO HOUSTON, USA" message, I was disconnected and Andy then got through and connected.

Day 4: I tried again to connect and U2MIR-1 heard me but was connected to a guy in 6-land. I got a packet that looked like: U2MIR-1NN50 <DM> U2MIR-1 BUSY.

Day 5: After stumbling around and probably causing confusion on the frequency, I have learned a few things:

1. Do not try to connect or communicate with your Beacon. I did and probably was a real hated pest.
2. Set your TNC as noted above in the wide open mode. The other parameters as recommended for the packet cluster seem to work OK.
3. Make sure that you are not blasting away with packets every second or so. Even once every 6 seconds is to rapid. One connect packet every 10 seconds works fine.
4. LISTEN to a couple of passes before you transmit to see what is happening.

5. Musa Manerov is the ham on board MIR and is active. Although I have never heard him, sometimes he is on the same frequency on voice or live on the keyboard.

6. QSL info and more details later. Have fun and don't use the Alpha for 2 meters. Twenty-five watts works fine. You can hear U2MIR with a handi 1/4 whip!

Finally READ THE ARTICLE IN APRIL QST, PAGE 72!

(Here is a replica of the screen Jim refers to..ed)

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C U2MIR-1
cmd:U2MIR>N5PNU/V
U2MIR-1>NN50/V
*** CONNECTED to U2MIR-1
U2MIR-1>NN50/V
Logged on to U2MIR's Personal Message System
U2MIR-1>NN50/V
WELCOME TO HOUSTON, USA DE JIM
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The W2IHY Audio Memory Keyer

by Ken, NZ5I

I made a New Year's resolution to get into more phone contests starting with this year. I was convinced that if I used a digital audio keyer, thereby emulating operation in a CW contest, I might even enjoy it. I had used an audio keyer in the past, the DVK-100, and tried to hunt one of these down. It turns out that these are no longer made, and nobody had any stock. After calling around trying to identify what options were available to me, I ended up settling on the W2IHY Audio Memory Keyer(*). I thought I'd share some of my experiences and opinions with you on my choice.

I am the type of person who is willing to pay a few more bucks for a product, if the quality of the design and construction justify the price. My more forgettable experiences have been with electronic equipment in high level RF environments, and this fact made me consider RF shielding a very high priority item. I frequently operate with an amplifier, and usually with a computer, as matter of choice. This guided my decision a lot.

The W2IHY audio keyer is available in various kit forms as well as fully assembled and tested. I purchased the assembled model because of time constraints. I spoke at length with Julius, W2IHY, by phone before purchasing. I discovered that the complete detailed design and parts list had appeared in the 1989 and 1990 ARRL Handbook. This gave me an opportunity to thoroughly read up on the product.

W2IHY shipped the unit to me COD, and it didn't take me long to get it set up and running. Julius takes his product very seriously. He is more than willing to discuss the design in as much detail and at the most basic circuit level as you wish. (He is a designer by profession.) He is extremely technical, competent, and responsive. He called me twice to check on my satisfaction level. (Nobody's ever done that with me before!).

As delivered, the audio keyer costs about \$ 300 for the assembled model. When you place the order, Julius will wire it to interface correctly with your rig. (I use an ICOM 765.) The unit comes with an A/C adapter and the cable to connect it to your rig.

The manual is essentially the ARRL Handbook article, and could be better in my opinion.

Construction is superb. Only high quality components are used, including the toggle switches and pots. It is enclosed in a rugged metal box and is therefore very RF resistant. I personal-

ly think that the push buttons, used to send messages, could be better. I experienced some "bounce" at times. But if you are going to interface the unit to a computer parallel port in order to use K1EA's CT or K8CC's NA contest software, it's not really a factor.

The enclosure box is physically large. This is mainly due to the need to use discreet components for the highest possible quality, balanced against cost. DIN connectors are provided to attach a battery for backup, a microphone, and your computer. There are some instructions for constructing the interface circuit/cable for your computer. There is enough room to squeeze the switching parts into the box, if you are creative. I personally think that Julius would do well to add this circuitry as a standard feature. You can make your mike and computer cables long enough to set the keyer out of the way when operating once you have everything setup. Very convenient indeed.

Features of the keyer include: 4 memories with up to 13 seconds of recording time each, adjustable repeat, voice activated reset, LED microphone gain indicator, and the ability to set the sensitivity for just about everything you could imagine. Julius has thought of just about everything. Though the unit comes wired for use with a low impedance microphone, I bet he'll change this if you ask.

Operation is absolutely a breeze. Voice quality on the air is outstanding, due to a solid sampling rate and high quality D/A and A/D converters. Each of the four memories are capable of autorepeat; delay is knob selectable; memory 1 is the default.

My first experience with it was in the ARRL Sweepstakes Phone contest and it operated flawlessly. It may be a little pricey compared to other possibilities, but I believe you'll get what you pay for. Without hesitation, I highly recommend the W2IHY Audio Memory Keyer anyone who is considering this type of equipment.

(*)W2IHY Audio Memory Keyer c/o Julius Jones 15 Vanessa Lane Staatsburg, NY 12580 (914) 889-4933

DX Bulletin

FROM ARRL HEADQUARTERS
NEWINGTON CT APRIL 5, 1991
TO ALL RADIO AMATEURS

Thanks to Paul, KB1BE and the Connecticut DX Association for the following DX information.

BANGLADESH, S2. Jim Smith, VK9NS, is operating SSB only as a basic demonstration for the S2 officials for a three day period. Friday is his last day of operation. Frequencies are 14155, 21255 and 28455 KHz, listening up. Unfortunately, conditions have been poor and Jim is limited to 30 watts with a vertical antenna. He has been worked in Europe, Asia and the southern areas of North and South America. Try 21255 KHz around 1100 UTC for stateside. Remember, the last day of operation is April 5.

COMOROS, D6. Frank Turek, DL7FT, will operate D68FT from April 5 to 12. Try 14030, 18075, 21030, 24898 and 28030 KHz. Listen up 3 to 5 KHz on CW. On SSB, try 14190 to 14195, 18125, 21290 to 21295, 24930 and 28490 to 28495 KH, listening up 5 to 15 KHz. QSL to W-1000, Berlin 19, Germany.

MADAGASCAR, 5R. Frank, DL7FT, will also try to operate as 5R8FT from April 15 to 25. Same frequencies and QSL route as above.

WALLIS ISLAND, FW. Ron, ZL1AMO, will sign FW0BX from April 10 to 24 on all bands, CW and SSB, with some RTTY. VK2BEX will join Ron on the island from April 17 to 24 and will sign FW0/VK2BEX or a FW0 call sign on 160 through 10 meters, also on CW, SSB and RTTY. QSL to both operators via Box 195, Killars, NSW, 2071, Australia.

Propogation Forcast

PROPOGATION FORECAST
FROM TAD COOK, KT7H
SEATTLE, WA APRIL 6, 1991
TO ALL RADIO AMATEURS

THE SOLAR FLUX STAYED UNDER 200 OVER THE PAST WEEK, BUT INCREASING FLARE ACTIVITY CAUSED MORE OF THE UNSTABLE CONDITIONS THAT WE HAVE SEEN IN PAST WEEKS. ALTHOUGH NOT AS DISTURBED AS LAST WEEK'S CONDITIONS, K INDICES OF FIVE HAVE BEEN REPORTED ON EVERY DAY SINCE APRIL 1.

LOOK FOR MORE UNSETTLED TO ACTIVE GEOMAGNETIC CONDITIONS, GRADUALLY TAPERING OFF WITH A DECLINING FLUX VALUE SHOULD RISE FROM 200 TO AROUND 225 OVER THE NEXT WEEK, AND THE A INDEX MAY FALL OFF TO ABOUT 10. THE SOLAR FLUX IS EXPECTED TO PEAK FOR THE SHORT TERM AROUND APRIL 19 OR 20

STUDENTS OF HF RADIO PROPAGATION WILL BE INTERESTED TO READ AN ARTICLE ON FORECASTING BY W3EP AND N8LSQ IN APRIL QST, WHICH DISCUSSES SOME OF THE WAYS RADIO AMATEURS CAN USE PUBLICLY AVAILABLE SOLAR DATA TO DO THEIR OWN SHORT AND MID TERM PROPAGATION FORECASTS.

AMERICAN SUNSPOT NUMBERS FOR MARCH 21 THROUGH 27: 138, 145, 151 AND 150, WITH A MEAN FIGURE OF 156.4. FOR THE WEEK MARCH 28 THROUGH APRIL 3, THEY WERE 121, 111, 95, 87, 82, 99 AND 108, WITH A MEAN OF 100.4.

Weekly DX and Contest Net -

Each Tuesday night a 9:00 P.M. local time the Texas DX Society sponsors a net on 147.96/36 MHz. The purpose of this net is to exchange information of interest to DXers and contesters. The agenda includes current DX and contest information, QSL routings and related announcements. Stations checking-in are urged to report DX heard or worked locally, band openings, contest claimed scores, and any other information that might be of interest. Participation is not limited to members of TDXS, but is open to all and everyone is encouraged to join in.