

Matt Carpenter-KC5CGT

Guy Pigg-WZ5C

Our sympathies are expressed at this moment to the memory of Jim Jeffrey, WA5QMJ and his family. Jim is one of the founding amateurs responsible for the creation of the West Texas Connection. Jim resided in the Midland/Odessa area. Memorial Services were on Wednesday, April 12, 1995.

... -.-

The 1995 P.A.R.C. Hamfest has been canceled for this year. Discussions for next year will take place at this month's meeting. Please plan on attending with your thoughts.

Here is a list of frequencies and time for local nets:

- P.A.I.N. Net-146.66 Mhz-8:00 pm, Sundays.
- Cloud Chases Net (RACES)-146.92 Mhz- 8:00 pm, Mondays.
- ARES Net-444.2 Mhz-7:30 pm, Thursdays.
- Panhandle Traffic and Emergency Net-3.933 MHz - 00:00 UTC, Daily.
- MidWest Section, AMSAT Net-3.94 0MHz -9:00 pm, Tuesdays.

Here are dates and times for activities and meetings in April.

- Tuesday, May 2nd - Regular Meeting, 7:30 S.W. Branch, Amarillo Public Library (VE TESTING @ 6:00 PM)
- Sunday, May 7th - Wide Area Fox Hunt, 2 PM at lot N. of Civic Center
- Sunday, May 21st - Local Area Fox Hunt, 2 PM at Southwest Park
- Tuesday, May 30th - RACES meeting, 7:30 at Old Police Academy.

Events at Club Station for May.

Club Station will be open only on selected weekends this month.

MAY 6TH - "THROUGH YOUR JUNK IN THE TRUNK"

TAILGATE PARTY AT CLUB STATION ON TSTC CAMPUS

Aprox 8 AM until we get tired or nobody else shows up. Dial in to either 146.66 or 146.94 for callup and instructions.

President's Letter

Wow, what a month. In case you haven't heard the official 1995 Amarillo hamfest has been canceled. There will be a "Throw your Junk in the Trunk" swapfest in the parking lot of the club station on Saturday, May 6th from 9:00am until 4:00pm. This is a bring your own affair, bring your own tables, chairs, drinks, etc.

What does all of this mean? First of all the Hamfest committee has NOT been dissolved. The club is looking at doing away with the hamfest, but it hasn't happened yet. Several individuals had worked very hard on this year's hamfest, but the necessary help did not come forward after multiple requests, so the only logical option left was to cancel the hamfest for 1995. Will there be a 1996 Amarillo hamfest? That will be up to you. I ask that you give this some serious thought.

On a lighter note, it's time for the good news. The first phase of the 146.94 repeater work has been completed! Thank you to all of the folks who have worked so hard to make this a reality. I have noticed a big difference at my QTH! Please read the article elsewhere in the LO to find out who you need to thank. I understand the "friends of 94" will have an informal get together soon to discuss phase two.

Finally, Field Day is looming ever closer. Dick, N5AE is heading up this years effort for W5WX. Contact Dick and let him know how you intend to contribute. I think Dick will be announcing his site selection soon as well as the time and place of the brainstorming session to be held.

73 and CU at the Next Meeting,
Joe

P.A.R.C. MEMBERSHIP RATES

Full and Family	\$25.00 per year
Associate (Non-Voting /Newsletter only)	\$8.00 per year

NEWSLETTER SUBMISSIONS

All articles are due by the 20th of the month.
You may send them via the following:

Internet: guy.pigg@radio-online.com

BBS: The Lumber Yard (806) 381-8247
(Must be registered user)

By phone: (806) 372-8462 (An answering machine)

In care of: Panhandle Amateur Radio Club
P.O. Box 10221
Amarillo, Texas 79116

Reddy-KC5JIF, has the following information:

I found a VERY good callsign server on Internet today. It uses the FCC database directly, and I found out that I was granted my Tech Plus on 20-APR-95. It is currently on telnet, but will be on the Web soon.

To use telnet to: [callsign.ualr.edu](telnet://callsign.ualr.edu) 2000

The 2000 is a port assignment number and allows you to sign on without giving a password. Help is available by typing 'help'. Sorts are available by last name, call, state, and zipcode.

Beats the callbook AND CD-ROMs in speed (if you're already logged in) and obviously is ALWAYS up to date. Also, you can enter a persons OLD callsign, and it will give you their NEW one. Reddy

W5WX SYSTEM NOTES

by Guy Pigg-WZ5C

A very hardy job well done to the hams who helped restore the 146.94 repeater to better usefulness. Seems there was some evidence of mass corrosion at the antenna connection atop the tower. The corrosion was eliminated within the feedline and connectors. The antenna was changed and configured for an omni-directional characteristic. The antenna that was in place is down and will be checked for operation and used as a spare for the moment. As most of the 2-meter users know for now, there is an intermod problem that has shown its face when the antenna system was fixed. This is an old problem that has been around, but not notice when the system began to deteriorate and work is being done to solve this problem.

Work and money will still be needed on the other phases of upgrading the North Site. At this time, Reddy-KC5JIF, is in the process of researching controllers.

Sometime after field day, those who donated and have pledged moneys to the project will be asked to come to a meeting for discussion on this phase. If you have some thoughts as to how we wish to present the appearance and the features for the machine, start writing this down now so you may bring it up at this meeting.

There is still interest on a remote receiver site south of Amarillo for the use of low powered transceivers. This will be the next phase if a decision is made to do it. The final phase will be to invest in a proper rf deck for the repeater site itself. Some type of system that will provide us with good clean audio and appropriate range throughout the city of Amarillo as well as to the north and south.

Let us not forget the 146.66 machine. At the present, there is no major problem with this machine. Plans are to upgrade the stand-by power status as well as routine maintenance. This machine can be used to boost coverage to the West. Some thought in that direction should be considered. The main goal is to provide coverage to low power transceivers throughout the city.

One final note, this in regards to our club station. At the moment, there are no plans to upgrade or add any radios to the station. We do need a lot of antenna work and planning. At present, the beam is in need of repair, and some of our UHF/VHF antennas needs adjustment and work. One thing we all must think about, what do we want to do with the club station? I've not seen too much interest in operations. So far, I've been very limited on my time to get out there on the weekends, but I hope to start back on a more regular schedule. There was some interest in the balloon launch the first of the year. What about club members participating in contest for the club? What if we wanted to get the club a Worked All States certificate? What about DXCC? What about "10-10"? Yeah, the contest bug may not be in everyone's blood, but what about those of you who never done such a thing? Keep this in mind and let me know.

Here are the names of those who helped with the 146.94 antenna project.

Ken-WB5QLI	Ronnie-N5ZLU	Leland-N5VRN	Dan-KC5DTA
Chip-N5LTZ	Matt-KC5CGT	Robert-KC5DKQ	Mike-
Arron-KJ5ER	Dale-N5WGR	Don-KC5EZO	Guy-WZ5C

THANK YOU ALL AND A JOB VERY WELL DONE!

73, Guy-WZ5C, Station Manager, W5WX

HAMFEST NOTES by Guy Pigg, WZ5C

As we all know by now, the hamfest for this year has been canceled. As was discussed in the previous meeting, certain factors have rather multiplied over the years and finally came to a head this year. I'm not going to rehash the circumstances involved as to what happened. Nor, do I want anyone to bring them up again. What we all need to do as members of the club is evaluate both in the general membership and the executive committee as to what we as a club want.

Do we want just to have a once a year fellowship where we get together and meet? Do we want just to throw up some tables and have everyone bring what they want to trade? Or do we want to have an event where not only do we have a forum to advance our hobby in this part of the world, but make available to those who make their living in the hobby a means to sell their wares. I'm talking interesting forums, events for the non-hams within a family, events that would cater to a large and varied group of people within the hobby. We have done this in the past! We can do it again, but you the membership need to make the decision.

The club on its own can and will support itself. So the basic premise of some type of event to help us financially is slowly becoming less important. We've seen that come about through the 94 project. Let us not dwell on what happened this year, but concentrate to what we are going to do in the future. This is an important event that needs to be taken seriously. We either put forth an effort and do something with it, or we concentrate on other events and move on.

I will support any decision and direction the general membership has. But let's decide on it now and commit ourselves to it for whatever purpose.

73, Guy-WZ5C, Hamfest Committee Chairman

P.A.R.C. MEMBERS AS OF APRIL 1, 1995

K5KNA	JACK LOVE	N5LTZ	CHIP ANDREWS
KA5KHY	BILLIE JEAN LOVE	N5MGU	JEROLD MCCOWN
KA0YOS	GARY JOE MAYFIELD	N5SQK	BRETT SIMS
KB5VLE	TERRI MAYFIELD	N5TOW	LOUISE SIMS
KA5BYB	CLEON LIGON	KJ5ER	AARON SIMS
KA5PHU	LEE ESTEVEZ	N5UDI	BRANDON SIMS
N5IAB	ELIZABETH ESTEVEZ	N5SXJ	ROBERT MACMILLIAN
KA5TEY	MURLE JONES	N5UPC	RANDY BAKER
KA5VOZ	MARSHALL COOK	N5UXW	SHERRI BAKER
KB5EY	BRAIN W. F.	N5VRN	LELAND CARPENTER
KB5RQV	KENNETH PAYTON	N5WGR	DALE LEWIS
KB5VLV	CHARLIE HARRIS	N5WTW	GEORGE RILEY
KB5VVM	GLENN DALLKE	N5YOX	V.A. BRAUCHI
KC4MO	JAMES FITCH	N5YXN	CARL JEANS
KB5SGP	JOSH FITCH	N5ZLU	RONNIE KERR
N4ZKP	TENA FITCH	NZ5P	TIM PILLSBURY
KC5CGT	MATT CARPENTER	W5CKR	JIM FOWLER
KC5DKQ	ROBERT MCKEE	W5FBQ	BOB HILL
KC5DTA	DAN MCCABE	W5ILJ	JOE BUTLER
KC5EZO	DONALD S. BRISTOW	W5MJD	JOE PRYOR
KC5GDG	MARTIN TANDY	W5PIP	FRED GILBERT
KC5JC	STAN ADELMAN	W5PSZ	LUTHER ADKINS
KB5CTB	ALLAN ADELMAN	W5SFW	PHIL PATTERSON
KC5JIF	REDDY BIGGS	WA4NXI	COLEMAN WINGATE
KC5JIE	RICHARD BIGGS	WA5PEO	CHARLES SEITZ
KC5KCR	LONNIE WILLIAMS	WA5PLJ	KEITH MONSON
KD5WJ	JOE C PRICE	WB2UZT	JERRY VANNOTE
KE5XR	DAVE THOMPSON	WA2HUW	HANNA VANNOTE
KA5VLO	EDNA THOMPSON	WB5IZH	ED MANN
KK5KK	DAVID WILLIAMS	WB5OWN	FOY SHACKELFORD
N5AE	DICK REIMUND	WB5MXL	RACHEL SHACKELFORD
N5DJG	THOMAS BREIDEGAN	WB5QLI	KEN HANSON
N5LRH	VERNON ALEXANDER	WB5RSN	PAUL BEAUCHAMP
		WB5WCD	RICHARD HAMILTON
		WD5IKZ	LEE DAVIS
		WY5B	B. M. STEVENSON
		WZ5C	GUY PIGG

FOXHUNTING Joe, KA0YOS

(Ed Note-Part One was in last months newsletter. This is part two.)

Building the Circuit

Circuit construction is quite straight forward, and layout with one exception is not critical. The exception is that the length of coax to each antenna must be EXACTLY the same. Time and effort spent on keeping the two antennas and feed lines identical will pay GREAT dividends! Otherwise the circuit is quite simple to assemble. I would recommend that you solder a socket in place and install the timer chip after the circuit is complete. As an option you can install a switch between the battery connector and the circuit. Personally I prefer to disconnect the battery when not in use that way I know it is turned off. R1 is used to adjust the clock frequency of the timer (antenna switching speed). The values shown will allow from about 20 Hz to 1.2 KHz. I would recommend against using the lowest frequencies due to some inaccuracies that can be introduced. PIN diodes could be used for D1 and D2 and would probably slightly improve performance, but the cost and inconvenience of acquiring them is not justified in my opinion. For the purest who has to use PIN diodes ECG 555 or 553 would work without any other changes to the circuit. I have left the antenna configuration up to you for the most part, but there are a couple ideas in figures #3 - 5.

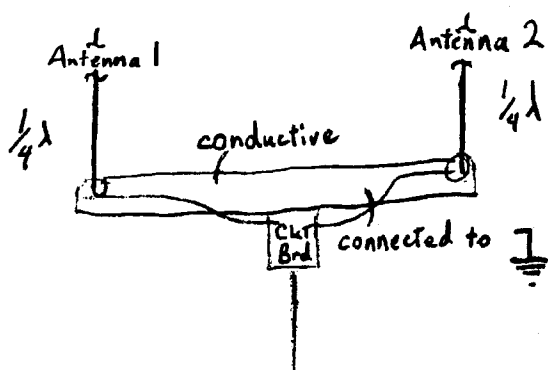


Figure #3 $\frac{1}{4}$ Waves

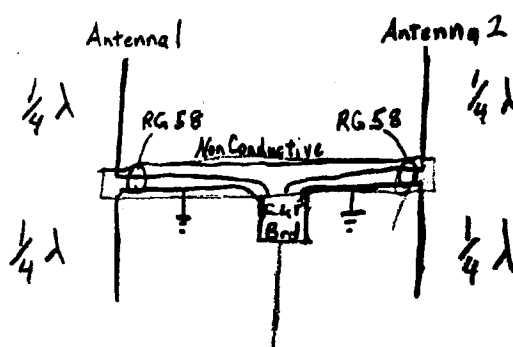


Figure #4 Dipoles

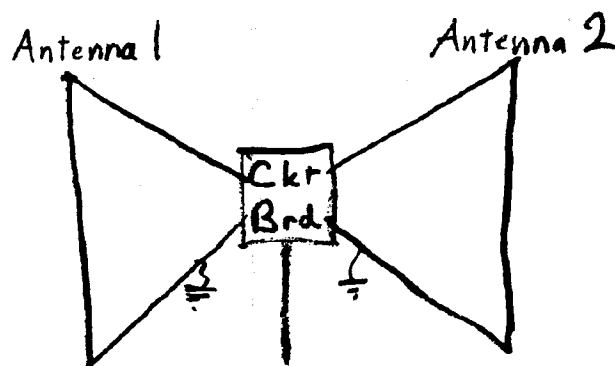


Figure #5 Bowtie

Operation of the Unit

The unit is very easy to use. Just null the tone to pinpoint the location of the transmitter. The only drawback to the system is that it produces two nulls in exactly opposite directions. This problem can be solved by getting bearings from several locations, or by other means which I will describe in this column two months from now. There is no substitute for practice with a Time Delay Of Arrival (TDOA) direction finding (DFing) system. Small area transmitter hunts are conducted monthly in South West City Park of Amarillo. These events are idea for debugging your system and perhaps gathering some pointers from more experienced DFers. The schedule is elsewhere in the Local Oscillator. Also, it pays to mount the entire system on a nonconductive broom handle or something similar to get your antennas above you and in the clear.

In a few months the Fox hunting column will return with an electronic method to take the guess work out of which null to follow with your TDOA system.

73 and Good hunting,

Joe, KA0YOS

Satellite Roundup

Well, I think I lied in the satellite column two months ago. I'm not going to talk about OSCAR history this month. I'm going to talk about Field Day. Field Day is a classic opportunity to expose the uninitiated to OSCAR operation. The arguments for satellite operation on field are straight forward. The first is a quick and easy 100 point bonus awarded for making a satellite contact. The second benefit is that an OSCAR station does not count as an additional transmitter meaning all of the additional contacts are free. The ARRL looks at "satellite" as one band (ie RS-10 and FO-20 contacts with the same station count as dupes) SSB and CW contacts do count separately. Fortunately AMSAT runs a Field Day concurrent with the ARRL. Under the AMSAT rules different satellites count as different bands.

I will propose that we make an effort to enter both contests. I will back up that proposal with the offer to disassemble my OSCAR station and take it to Field Day. There are a few additional components that we will need to complete a top notch OSCAR Field Day station. If you would like to help please talk to me after or before the next meeting of the PARC.

Hopefully, we will be able to work the following satellites: AO-10, AO-13, RS-10/11, RS-12/13, FO-20, AO-27, and MIR. If you have pacsat experience and want to add the digital satellites to the list I would LOVE to talk to you! I will warn you that AO-13 conditions do not look great for Field Day, but it and several other satellites should provide some fun for the weekend. Next month I'll forgo the Fox hunting column and we will discuss the Field Day effort in greater detail including a dry run to be conducted the weekend before Field Day.

73,
Joe

FIX 94 CONTRIBUTIONS AS OF APRIL 17, 1995

		CONTRIBUTION
WA4NXI	COLEMAN WINGATE	\$100.00
N5SQK	BRETT SIMS	\$100.00
N5MGU	JEROLD McCOWAN	\$250.00
KC5JIF	REDDY BIGGS	\$250.00
KK5KK	DAVID WILLIAMS	\$100.00
N5UPC	RANDY/SHERRI BAKER	\$25.00
KB5WIO	JIMMY BURKHALTER	\$50.00
N5YXN	CARL JEANS	\$50.00
KC5DKQ	ROBERT McKEE	\$25.00
K15VR	DALE HALL	\$100.00

FIX 94 PLEDGES AS OF APRIL 17, 1995

		PLEDGE
KC5CGT	MATT CARPENTER	\$ 50.00
WZ5C	GUYPIGG	\$100.00
WS5R	BEN POLLARD	\$25.00

Minutes for the Panhandle Amateur Radio Club, Inc.
March 7, 1995 Southwest Library

Meeting called to order by KA0YOS, Joe, President.
Financial Report read by KJ5ER, Aaron, and accepted.
Previous minutes read and accepted by N5SQK, Brett.

KA0YOS, Joe, reported that the hamfest will be May 6, 1995 at the Fairgrounds Art Exhibit building.
N5AE, Dick, discussed field day ideas. Dick suggested that members consider better operation and simple installation. Suggested sites were the N5LTZ ranch, or Buffalo Lake.

N5MGU, Jerold, discussed upcoming severe weather training dates. Weather training will be held on March 18 at the Civic Center from 8:15 a.m. till 4:00 p.m. Weather training will also be held April 1 from 1:00 p.m. till 5:00 p.m. at the downtown library.

Jerold reported NWS weather advisories will be available on the Caprock Intertie.

Foxhunt will be March 19 north of the Civic Center.

Executive Meeting will be held March 23, 7:00 p.m. at the Club Station.

N5SQK, Brett, discussed fixing the 146.94 repeater. Donations and pledges were accepted in the following amounts:

	Contribution	Pledged
WA4NXI, Coleman	\$100.00	
N5SQK, Brett	\$100.00	
N5MGU, Jerold		\$250.00
KC5JIF, Reddy	\$250.00	

Meeting adjourned

PANHANDLE AMATEUR RADIO CLUB, Inc.
APRIL 4, 1995 T.S.T.C.

Meeting brought to order by President, Joe, KA0YOS.

Previous minutes read by Treasurer, Aaron, KJ5ER

Joe, KA0YOS, gave a report on the previous Executive Committee meeting. At the Executive Meeting, a date of April 8th, was set to replace the antenna on the 146.94 repeater. April 22 was set as a backup date.

Brett, N5SQK, reported the results of the FIX 94 FUND RAISER and that \$925.00 had been raised of which \$200.00 had been spent on a new antenna harness.

Ken, WB5QLI obtained permission for club members to climb the tower saving the Club at least \$700.00. Volunteer climbers for the antenna change-out are:

Ken, WB5QLI
Ronnie, N5ZLU
Charlie, KB5VLV

Station Manager, Guy, WZ5C, asked members to start thinking long range about future improvements on the Club Station and repeaters.

Guy, WZ5C, lead a discussion of current and future HAMFEST activities. Motion was made and seconded to cancel the 1995 Amarillo Hamfest. Motion was seconded and passed.

Dick, N5AE, asked members to let him know what gear participants might be able to contribute for FIELD DAY. Field Day will be all Battery Operation.

Ken, WB5QLI, made a motion that the Club sponsor a Tail-Gate Swap Session on May 6th in the Club Station Parking Lot...

Meeting Adjourned.

Beginners Guide to Understanding Servers
 North East Digital Association-1994 Annual
 NEDA-POB 563 Manchester, NH 03105

A server is a device that serves remote users, in this case - you. That's pretty vague I know That's because servers can be so many different things. In a vague way your TNC is a server to you. It all depends on what you call remote. For our purposes a server is something that you will access via packet radio from your station.

Command Line

All servers on packet radio use a device called a *command line*. A command line is a mechanism where a person can use a keyboard to type a *one line command*. When a computer is expecting a command line command it will wait until it sees a *carriage return* character and then will look at what characters preceded the carriage return. A command line is usually associated with a *prompt*. A prompt is a text message that tells you that it is time for you to type. The **cmd:** prompt on your TNC is a good example. Each time you see a **cmd:** prompt you may type a command. That is called a command line. The process by which your TNC analyses your command is called a *command line interpreter*.

When you tell your TNC to connect to a server it makes your keyboard the control for the server's command line. That means that if you type something and hit a return what you type will be sent to the server and the server will try to figure out what you mean. Figuring out what you mean is actually pretty simple because servers have a very limited list of things they will expect. If you type something that the server doesn't expect it will usually give you a simple *error* message to tell you that what you typed was meaningless to it. It may tell you that what you typed was meaningless even if you only missed by one character. When you type something that is one of the things that the server expects it is called a command. You are commanding the server to do something.

Many of the commands that a server expects are things that the server can do immediately. For instance you can tell the server good-bye usually with a **B** command. Just type **B** and a return. When the server gets the **B** command it will disconnect from you leaving you with a *** DISCONNECTED on your display.

Disk Drives

A disk drive is a computer accessory that stores data in the form of magnetic impulses on a flat media that is much like an extremely high quality magnetic recording tape. The density of data is high enough that one thousand billion characters could be stored on a surface that is measured in tens of square inches. Access time to that data can be as fast as a hundredth of a second and the data can be read off the disk at millions of char-

acters per second The particular type of disk drive I'm describing here is called a hard disk because in order to get that much data on so small an area the recording surface has to be very flat and in order to get the data on and off the disk so fast the disk has to spin very fast.

A disk drive is an accessory to many computers, even cheap ones. The disk drive I was describing above costs about \$1000 but drives which are somewhat slower and which store less data can cost as little as \$200. Amateur radio operators can have a computer system with a hard drive for around \$450.

There are many things that hams can do with such a computer. One of the things we can do with a computer that has a hard drive is make it possible for packet users to store and retrieve data on the drive from over the radio. Such a computer system is called a *server*.

Servers

Most servers are computer systems that have a hard drive and which allow hams to connect in via packet. Once connected the ham gets a prompt and can type commands on a command line. The server interprets the commands and responds. Many of the commands allow the ham to write text to the server's disk drive or read text from the disk drive. Here is a brief run down on what some of the servers do:

Bulletin Board Systems (BBS)

These servers allow a user to send messages to other users, to read messages and to send and receive bulletins. Messages and bulletins may be sent to users that use the same BBS and to those who use other BBSs.

DxCluster

Users connect and stay connected. When a user of any DxCluster hear a rare Dx station they post it to the DxCluster which copies it to all of the other DxClusters.

DOSgate

Users connect and then use the programs that the DOSgate operator have available. These include satellite tracking, VE exam simulation, repeater directories, games.

Callbook Server

Lets a user reference a computerized amateur radio callbook.

CROWD converse node

Several users connect and have a multi-way conversation.

NOS

Users access a NOS server and then can utilize TCP/

IP to access other TCP/IP systems.

Bulletin Board Systems

The most common server used in amateur radio today is called a Bulletin Board System, or BBS. A BBS is one of many servers that is commonly made out of an IBM PC compatible computer. A BBS has an external connection to talk over packet radio to other BBSs and to users. The BBS also has a disk drive which allows the storage of messages and text files. Users connect into the server over packet radio and with the command line prompt may read messages and text files. They may also send messages to other packeteers and create text files.

The first of the packet BBSs was created by Hank Orenson, W0RLI. The program that Hank wrote started with a simple command line and a few functions. The functions were as follows:

S - *callsign @ otherbbs* - Send a message to station *callsign* and deliver it to BBS *otherbbs*
 L - list messages
 R - *msgnum* - Read message *msgnum*
 I - Read the Info file
 B - disconnect from BBS.

When the user connects to the BBS they get a welcome message that is created by the BBS operator. It might look something like this:

```
cmd: c w3iwi
***Connected to W3IWI
Welcome to Tom's BBS in Baltimore MD
Use the I command to get information about the BBS.
KA2DEW de W3IWI B,I,L,R,S>
To send a message to somebody else the user would use
the S command:
s ka2eia
Enter a title for your message:
Trying new BBS
Enter your message. Type control Z on a blank line to end
your message:
Steve,
  You finally talked me into getting on packet radio. I
  hope this works. How often do you check into Tom's
  BBS to get mail?
Tadd
^Z
message stored as #215
KA2DEW de W3IWI B,I,L,S>
To read the message Steve would connect to the BBS
later and do an L command which showed all of the
messages on the board.
```

One of the features that made Hank's software popular was that a ham could connect to one BBS and send a

message to a ham at another BBS. The BBSs had text files on disk called forward files. This file had a list of the other BBSs and a simple script that told the BBS computer what it had to do to get a message to the other BBS. Basically what the BBS did was the same thing that a user would do. It would do a connect to the other BBS and then use the S command to send the message.

As experimentation allowed and as the program got popular Hank added commands and features to the program and tried new things. The list of commands expanded from the simple few to hundreds. The user interface (the list of commands and the way the command line works) stayed very similar.

Originally what Hank wrote was a program for a computer that Xerox produced as a work processing system and which Xerox had discontinued. There were scads of these computers available for a few hundred dollars which was, at the time, considerably cheaper than most personal computers. Once clones of IBM's PC started showing up on the market for around \$1000 other writers of BBS programs published their contributions. The first of these was WB8MBL. Later W0RLI converted to IBM compatible PCs. In the seven or so years since then many more authors published their contributions. One very nice thing about the BBS servers, which was started by Hank, is that all of the software has been free. The software authors have had to take public approval and user feedback as their only reward (except for infrequent donations). Actually, except for very few exceptions, all software for amateur packet radio has remained free.

If you're interested in obtaining a copy of the current run of BBS software you have only to telephone one of the many telephone BBSs. Look for articles announcing the release of new software elsewhere in this *Annual* and in future issues of the *Quarterly*. For user information on just about all of the BBSs you need only connect to the BBS and make use of the extensive HELP facilities on any of the BBSs. Some also have Downloadable files for users.

DxCluster

Around about 1987 AX1A, Richard Newell, created the PacketCluster™. This is a computer software package which runs on a PC to implement the DxCluster

The primary purpose of a DxCluster is to relay immediate rare Dx spotting information between stations. Packet stations connect to the DxCluster and stay connected for long periods while they are at their HF station. When they hear a rare country on CW or SSB they type a single command into their packet station which is relayed to all of the other connected packet stations. A ham operating HF may see a Dx spot come through from the DxCluster and will tune to the specified fre-

quency on the HF radio and work the rare station.

The secondary purpose of a DxCluster is to be a resource of HF operating information, including callbook information, propagation forecasts and other HF DX-ing data

The neat thing about DxClusters is that a DxCluster may make a full time connection to other DxClusters and share information. When a Dx spot is entered at one DxCluster it is processed and passed on all of the other connected DxClusters. In a system of dozens of DxClusters over several states, hooked together via quality network links like those specified elsewhere in this book, a Dx spot may be entered and will be passed to the far end of the DxCluster network in a matter of less than a minute or so. This means that the information is still current when it gets out to as many as 500 or so HF stations.

Since many DxCluster systems may be connected in a network the facilities of all of the DxClusters are available from any one DxCluster. The commands available on the DxCluster allow easy access to all of these facilities without burdening the HF operator with having to learn much about the network.

See the side-bar for a short table of Pavilion Software PacketCluster™ commands.

DxCluster operation is currently available with two software packages. MSYS, which is free and which is available on many of the telephone BBS systems and AKIA's version which is marketed as PacketCluster™ by Pavilion Software

PacketCluster™ is about \$150. Updates are available for around \$100 when they become available. The current version, by the way, is 5.4-47. PacketCluster™ from Pavilion Software is not cheap but the support is excellent.

Pavilion Software
PO Box 803
Hudson MA 01749
508-779-8527

There is a telephone BBS in California available to support PacketCluster™ owners: DxBBS at 916-992-0923

When a user connects to a PacketCluster™ the user gets a message that the system operator has programmed and then gets a prompt just like in the BBS software above. The command set is different of course but you can play with it and it will be fairly obvious

MSYS is available from most telephone BBS systems

that support amateur radio products (See the list published in the *Quartely*) The commands for MSYS are published elsewhere in this document.

DOSgate

Another useful automated station is called DOSgate. This is a program written by NMID, Rich Bono. This program is run on a IBM PC clone and allows a packeteer to connect up and use the PC as if it were his own station. You can run programs and even create files. It also serves as a packet mail box. Some of the programs circulating that are commonly found on DOSgates include

- automatic FCC testing sessions that use the real FCC test elements to let you practice a license exam. This is great for getting new licensees used to the idea of passing their first test.
- satellite tracking program to let you see when each of the current satellites will be above the horizon and what beam headings to use
- games like Zork and Wumpus
- amateur radio callbook. This may include your local call district or the entire FCC and DOC database.

When a user connects into DOSgate he gets a message that the system operator has created, followed by a prompt which is very similar to a PC DOS prompt: C:\HAMRADIO>

The user can type a PC DOS command, like CD or TYPE, or the user can type the name of a program that the system operator has put onto the DOSgate system. The program can be any PC DOS program that generates straight text. No graphics and no screen formatting is allowed.

I have had conflicting reports about the availability of the DOSgate program. When I first heard of DOSgate it was free. I've seen it downloadable from various telephone BBSs. I've heard that it was an inexpensive for-sale program, however the best bet is to contact NMID directly using NMID @ WB1DSW.nh. Please get back to your editor if you have better information.

CROWD Nodes

These are covered in another section

NOS

NOS means Network Operating System. NOS is a program which operates as a server to other packeteers and as an operating console for the local user. The primary purpose of NOS is to be the operating program for a local user to communicate with other stations using TCP/IP. NOS is not an amateur radio-only program.

The name NOS is used to refer to many different programs which perform file access, keyboard and display control, and TCP/IP communications for several different kinds of computers.

For amateur radio users NOS can be used as a gateway between TheNET users and TCP/IP users, and can be a platform onto which new servers can be built. For instance, in Oregon, WG7J has created a version of NOS which supports a very nice BBS program. In New York the members of the RF Harris ARC have created a version of NOS which operates as a multi-site round table conference server.

Conclusion

Servers have one basic thing in common. They all are operated remotely by users. Beyond that anything goes and we're only limited by creativity, enthusiasm, and time.

If you hear about something new, send a letter or packet gram to NEDA@WB2QBQ.ny.

In the July issue-TNC BUYING GUIDE and PacketCluster commands.

(for more information on North East Digital Association, write to the address at the beginning of this article.- Guy, WZ5C)

FIELD DAY EQUIPMENT INFORMATION

Dick, N5AE is requesting that all field day participants fill in the following and either bring to the May meeting or call him via telephone number 355-1394.

NAME: _____

PHONE

NUMBER: _____

EQUIPMENT: _____

This information is needed to see what all equipment will be supplied for field day and plan for any shortfall.

Executive Committee Meeting Minutes

March 22, 1995 TSTC

Meeting brought to order by the president, KA0YOS, Joe.

Options for the 146.94 repeater were discussed. Also we made plans to replace the antenna. WB5QLI, Ken Hanson, has gotten PARC permission to climb the channel 7, KVIL, tower. N5ZLU, Ronnie Kerr, and KB5VLV, Charlie Harris will be assisting him.

The dates for the tower party are April 8, 1995, and as a back-up April 22, 1995.

-----The next Executive Committee Meeting is scheduled for June 13-----

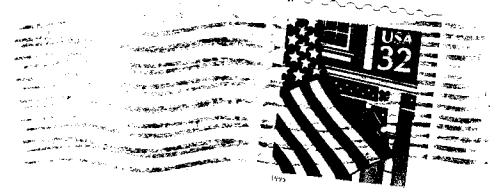
SPECIAL FIELD DAY ISSUE NEXT MONTH!!

A special request is hereby made for anyone wishing to submit articles for field day projects. Please get these to me ASAP and preferred prior to the normal deadline of the 20th of the month. This is to place any diagrams and any assorted parts list prior to publishing.

Thanks!

Guy-WZ5C

PANHANDLE AMATEUR RADIO CLUB
PO BOX 10221
AMARILLO TX 79116



03/03/96 - Individual
CARL JEANS N5YXN
6112 CALUMET
AMARILLO, TX 79106

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HOBBY, IT'S PEOPLE GOING TO GREAT
HIGHTS TO GET GREAT COVERAGE!!!**