

GLOUCESTER COUNTY AMATEUR RADIO CLUB. WEMMD

G.C.A.R.C. OFFICERS

PRESIDENT.....	BETH BARNISH	KB2EAL
VICE PRESIDENT.....	MARLA BOZARTH	N2DWR
TREASURER.....	ROBERT LAYTON	KB2COB
REC. SECRETARY.....	CHRIS CHAMBERLIN	N2IVN
COR. SECRETARY.....	JOHN FISHER	K2JF

DIRECTORS

3 YR. CHUCK COLABRESE...WA2TML  
 3 YR. FRANK MALINOWSKI...KE2NY  
 2 YR. JERRY BARNISH....WB2CAK  
 2 YR. MICHAEL LIPNITZ...N2FKS  
 1 YR. C. SKETCHLEY.....K2PQD  
 1 YR. MIKE LIZZIO.....WA2TOP

TRUSTEES

4 YR. HOWARD MARDER...WA2IBZ  
 3 YR. VIRGINIA MACRIE...KA2ZZA  
 2 YR. JIM CLARK.....KA2OSV  
 1 YR. JIM McDONALD....N2AIV

COMMITTEE CHAIRPERSON

ARES/RACES.....	WB2LNR	MEMBERSHIP.....	WB2GSF
AWARDS.....	K2ZA	NETS.....	WA2TOP
BANQUET.....	N2DWR	PUBLICITY.....	N2HQL
CONSTITUTION.....	WA2NPD	LEGISLATION.....	? ? ? ?
CONTESTS.....	WB2CAK	REPEATERS.....	WA2TML
DATA PROCESSING.....	KB2COB	SCHOLARSHIP.....	N2GSF
FIELD DAY.....	KA2DOT	SITE.....	K2PQD
HAMFEST.....	WB2CAK	SPECIAL SERVICES.....	KA2ZZA
HELP/WELFARE.....	N2ILB	SUNSHINE.....	KB2EUA
HISTORIAN.....	K2PQD	TECHNICAL.....	WA2TML
HOSPITALITY.....	KB2AB	TRAINING/TESTING.....	WA2VQG
CHAPLIN.....	WA2BMQ	SPECIAL EVENTS.....	WB2OYQ
CROSSTALK EDITOR (ALL)...	N2FJQ	ADVERTISING.....	KA2YKN

CLUB NETS

ARES/RACES...SUNDAY 20:00 HRS. REPEATERS 147.78/18-224.66/223.06  
 10 METERS...TUESDAY 21:00 HRS. FREQUENCY 28.350 MHZ.

CLUB REPEATERS

147.78/18 MHZ. 224.66/223.06 MHZ. 442.100/447.100 MHZ. PL20 OR 3B

CLUB MEETING : FIRST WEDNESDAY OF EACH MONTH AT VFW HALL IN WOODBURY, N.J.  
 : STARTS 20:00 HRS SHARP

CROSSTALK CONTRIBUTIONS : SEND TO N2FJQ OR VIA KB2COB PACKET 1-15-070  
 DEADLINE IS ONE WEEK BEFORE MEETING.

CLUB SITE MONITORS 147.78/18

PRESIDENTS MESSAGE

Spring is here and with it comes fix up and clean up time. Men hear those timeless phrases - "Honey, the grass needs cutting." and "Dear, the house needs painting." Ladies, we are busy with our spring cleaning and keeping our men busy! Just as each of our homes need things done, our club "home" has it's needs also. When work parties are set up during the spring and summer, any help you can give will be greatly appreciated by myself and the site committee.

As of this message two club events will be over, the Jaycee Bike-Hike and the March of Dimes Walk America. A special thanks to W2GSN and WB2GSF and to all who volunteered for these worthy causes.

Unfortunately, I had to notify the Bike Race Association that the club is unable to help out on May 12th with their event. With everything going on we did not get enough volunteers to staff the event.

Thanks to WB2CAK for our April program, The FM Clinic.

Finally, remember our upcoming big event in June - Field Day. See KA2DOT for details.

See you at the meeting. 73, Beth, KB2EAL

\* \* \* \* \* COMING EVENTS \* \* \* \* \*

MAY 3RD. GENERAL MEMBERSHIP MEETING-- AT THE MEETING WE WILL HAVE THE JACKETS THAT THE CLUB MEMBERS ORDERED. (PLEASE PICK UP IF YOU ORDERED).

MAY 3RD. WA2TML WILL GIVE A TALK ON THE REPEATER AND ITS FUNCTIONS.

MAY 11TH. SKATERS CHOICE 7:30PM - 11:30PM, \$4.00 (INCLUDES SKATES).

MAY 12TH. CASINO BUS TRIP FOR THOSE THAT WENT TO THE FIRST ONE, THIS IS THE "ON THE HOUSE"...3:00PM DEPARTS FROM DEPTFORD K-MART AND WE LEAVE CASINO AT 9:00PM

JUNE 3RD. BUS TRIP TO ARRL FOR THE OPEN HOUSE AND FLEA MARKET. DINNER ON THE WAY HOME...PRICE FOR BUS IS \$20.00, THAT INCLUDES SNACKS ON THE WAY UP THERE. AND DRINKS...DINNER WILL BE UP TO YOU...WE'LL BE STOPPING ON THE WAY HOME AND BUYING IT THEN.

IF YOU ARE INTERESTED IN CAMPING, THEN THAT WILL STILL BE ON.

PLEASE LET ME KNOW IF YOU ARE INTERESTED IN GOING, I NEED TO PUT A DEPOSIT ON THE BUS!!!!!!!!!!!!!!!!!!!!!!!!!!!!

TNX MARLA, N2DWR

# REPEATER NEWS

de WA2TML

I ran an article about this topic in last April's Crosstalk, but unfortunately, because some Club Members have had their phone patches terminated maliciously, I'll remind everyone that this feature is still active on the 2 Meter Repeater. It's called the Custom Hangup Code. The purpose of it is to prevent someone else (other than a Control Op) from hanging up your Autopatch or Autodialer Call. It allows the user the option to define his own three digit hangup code prior to making the call. This prevents the normal Patch Hangup command from terminating the call.

To define a custom hangup code for either the Autopatch or the Autodialer, enter the command within 15 seconds of initiating the patch (do it right before activating the patch). The Controller will respond with "cancel". The hangup code is returned to the normal code ( \* ) after the completion of the call, or if the patch isn't initiated within 15 seconds.

User Command = ( \* ) ( any 3 keys except \* or D and not beginning with 3 \* )

**Example**      Let's say I want the Custom Hangup Code to be 4 7 9.  
Send \* 4 7 9 before initiating the patch.  
The controller will respond "cancel".  
Initiate the patch within 15 seconds.  
To terminate the patch send 4 7 9.

Remember, use of this Custom hangup code is optional. . .

-----

## MAILBOX CALL-SIGN SLOT LIST      as of 3-25-90

01. HOME	15. N2FJM	29. K2OWE	43. KE2NY	57. W2DWE	71. N2DWR
02.	16. N2HYS	30. KB2GW	44. K2RCH	58. N2DJZ	72. KB2ETV
03.	17. KA2DOT	31. WB2LNR	45. WB2THM	59. N2AYK	73. WA2SIT
04.	18. AI2B	32. NM2T	46. WA2PFC	60. WB2GSF	74. N2DUZ
05.	19. KB2GTT	33. N2FJQ	47. WB2UVB	61. WA2FZB	75. N2JLQ
06.	20. KA2PEB	34. WB2HVJ	48.	62. N2FKT	76. N2IVN
07.	21. WA2TML	35. W2SPN	49. KD2CR	63. KA2OSW	77. KB2COB
08. N2KLD	22. N2FNF	36. WA2GFK	50. WA2USI	64. N2FKS	78. SYSTEM USE
09. KB2AYU	23. KC2PC	37. WA2FGA	51. WA2UDO	65. WB2CAK	79. SYSTEM USE
10.	24. K2JF	38. WB2OYQ	52. KE2ES	66. WB2DXB	80. SYSTEM USE
11.	25. W2PAX	39. KA2KMW	53. NJ2B	67. WA2ZND	
12.	26. N2ASV	40. K22N	54. WA2TOP	68. KB2GTV	
13. N2KLE	27. WB2OZE	41. WA2IBZ	55. K2PQD	69. N2IMK	
14. WB2VOH	28. W2GSN	42. N2AKL	56. KA2OSV	70. KN2U	

AUTOPATCH & AUTODIALER codes will change on May 07, 1990.

For AUTOPATCH, new access code is 609.  
For AUTODIALER users, the first 3 digit will change to 610, the last 2 digits will NOT change.

\* \* \* \* \* FIELD DAY " 90 " - JUNE 23 & 24 \* \* \* \* \*

AS YOU MAY RECALL, LAST MONTH I HAD STATED THAT THIS WOULD BE MY LAST YEAR AS FIELD DAY CHAIRMAN AND THAT I WOULD LIKE TO HAVE SOMEONE ASSIST ME THIS YEAR AND LEARN THE ROPES. I WOULD LIKE TO WELCOME RICH GRAVES (N2ITX) AS MY ASSISTANT FOR THIS YEAR AND WHO WILL BE CHAIRMAN FOR FIELD DAY "91".

AT LAST MONTH'S CLUB MEETING I SAW A LOT OF ENTHUSIASM FOR FIELD DAY FROM RELATIVELY NEW MEMBERS. DAN (N2FKT) WAS BESIEGED BY OFFERS TO WORK WITH HIM ON 10 PHONE. RICH (N2ITX) IS A MEMBER OF LESS THAN A YEAR. IT IS REALLY GREAT TO SEE NEW MEMBERS GET INVOLVED LIKE THIS WITH CLUB ACTIVITIES RATHER THAN BE RELUCTANT DUE TO INEXPERIENCE, ETC. WE DIE-HARD FIELD DAYERS WELCOME YOU ALL.

REGARDLESS OF WEATHER, PROPAGATION, HUMIDITY, ETC, WE WILL BE EATING IN FINE TRADITION AGAIN THIS YEAR. ROSLYN AND IRMA HAVE ASSURED ME THAT WE WILL BE USING THE FINEST OF STERLING PLASTICWARE, CHINA PAPER PLATES AND LINEN PAPER NAPKINS WHILE WE INDULGE IN THEIR CULINARY CREATIONS. MAYBE I CAN CONVINCE THEM TO PUBLISH THE MENU IN NEXT MONTH'S CROSSTALK.

WHERE ARE ALL THE BAND CHAIRPERSONS FOR THIS YEAR? ? ? ? SINCE LAST MONTH'S NEWSLETTER I HAVE HAD TWO (2) PEOPLE TAKE THEIR RESPECTIVE BANDS FOR THIS YEAR. SURELY THERE ARE SOME SPORTING MEMBERS OUT THERE THAT WOULD LIKE TO TRY THEIR HAND AT TAKING A BAND, ORGANIZING IT, PUTTING IT ALL TOGETHER, AND MAKING SOME CONTACTS FOR THE CLUB. IT'S NOT DIFFICULT. BEFORE I FORGET, I WILL NOT BE AROUND THE AREA FROM MAY 13TH TO 28TH AS UNCLE SAM WANTS ME TO BE A REAL SAILOR FOR TWO WEEKS AND I HAVE A CAMPING TRIP TACKED ON OVER MEMORIAL DAY WEEKEND. SO IF ANYONE WANTS TO BE A BAND CHAIRMAN, CALL MY HOUSE AND LEAVE WORD WITH GAIL. SHE WILL SEE THAT I GET THE MESSAGE.

HERE ARE THE BANDS AS THEY STAND RIGHT NOW:

80 CW - OPEN	15 CW - OPEN
75 PH - ART STRONG - KA2DOT	10 PH - DAN WHITE - N2FKT
40 PH - OPEN	10 CW - JACK ZARUBA - K2ZA
40 CW - KEN NEWMAN - N2CQ	6 PH - OPEN
20 PH - OPEN	6 CW - OPEN
20 CW - MERRIL BROWN - WG2K	2 PH - OPEN
17 PH - OPEN	2 CW - OPEN
17 CW - OPEN	220 PH - OPEN
15 PH - OPEN	440 PH - OPEN

THAT'S IT FOR THIS MONTH. SEE YOU AT THE MEETING.

ART - KA2DOT - CHAIRMAN FIELD DAY " 90 "

---

\* \* \* FOR SALE \* \* \*

KENWOOD TS 520S + OUTBOARD VFO === 2 METER TRANSVERTER  
G5RV ANTENNA === COMMODORE VIC 20 === MICROLOG INTERFACE  
DENTRON SUPER TUNER PLUS \$900.00  
MARK N2HZM



(302) 478-2757

AMATEUR AND ADVANCED  
COMMUNICATIONS

BILL RYAN WB3DPJ  
Manager

3208 CONCORD PIKE  
WILMINGTON, DE 19803

\* \* FCC EXAMS \* \*

THIRD THURSDAY OF EACH MONTH. 7:00 PM SHARP. BELLMAWR COMMUNITY CENTER, BROWNING ROAD AND LEWIS AVE. NO PRE-REGISTRATION IS NECESSARY. FEE \$4.95. MUST BRING ORIGINAL FCC LICENSE AND COPY OF SAME PLUS SOME OTHER FORM OF IDENTIFICATION. WE SUPPLY EVERYTHING, INCLUDING 610 FORMS.

TNX BILL WA2VQG

\* \* \* \* \* HAPPY BIRTHDAY \* \* \* \* \*

WB2OYQ WALTON T ASHTON JR.

WA2PFC EDWARD R. LOVELAND JR.

---

\* \* \* \* \* WANTED OR TRADE \* \* \* \* \*

I AM PRETTY MUCH CONFINED AT HOME WITH A WIFE WITH ALZEIMER'S DISEASE AND WOULD LIKE TO SPEND A PART OF MY TIME ON MY RADIO. I PURCHASED A REALISTIC HXT-100 10 METER RIG AND AM WORKING ON A HOMEMADE INVERTED V ANTENNA. IF SOMEONE HAS A VERTICAL FOR 10 METERS REASONABLE PRICED I WOULD LIKE TO TRY THAT.

WANTED::: 10 METER VERTICAL ANTENNA REASONABLY PRICED AND A LINEAR AMPLIFIER SUITABLE FOR 10 METERS USE. WOULD BE WILLING TO TRADE WHITE'S COINMASTER 5900 METAL DETECTOR WITH SEVERAL ATTACHMENTS. ONLY USED 1 SUMMER OR WILL SELL SAME AT REASONABLE COST.

I AM WILLING TO TRADE THE METAL DETECTOR AS AM NOT ABLE TO LEAVE MY WIFE ALONE.

I AM RETIRED AND AM 71 YEARS YOUNG, SO RADIO WILL HELP PASS SOME TIME.

THANKS FOR ANY HELP,

REV. JAMES E. THOMPSON N2EDK

---

\* \* NOTICE \* \*

\* \* NOTICE \* \*

\* \* NOTICE \* \*

MOST OF THE MEMBERSHIP KNOWS THAT DURING THE GENERAL MEETING THE FOLLOWING RULES MUST BE FOLLOWED

#1 NO SMOKING

#2 NO IDLE CHIT CHAT.

THIS HAS BEEN A BIG PROBLEM AT THE PAST COUPLE MEETINGS. THERE SEEMS TO BE THE SOME 3 OR 4 PEOPLE WHO LIKE TO STAND IN THE BACK AND TALK ALL DURING THE MEETING, THIS IS VERY RUDE TO THE PEOPLE SITTING NEAR BY THAT CAN'T HEAR THAT GOOD, NOW YOU SAY "WHY DON'T THEY SET UP FRONT". THEY SAY "WHY DON'T YOU GO TALK IN THE BAR", WELL ITS BECOMING A PROBLEM THAT WE ARE GOING TO HAVE TO CORRECT IN THE PAST WE LOST A COUPLE MEMBERS DUE TO THE SMOKING, NOW WE ARE NEAR TO LOSING MORE MEMBERS ATTENDING THE MEETING DUE TO THE TALKING IN THE BACK. PLEASE IF YOU HAVE TO TALK GO OUT TO THE BAR.

TNX N2FJQ

\* \* \* YES I'M TIRED \* \* \*

FOR SEVERAL YEARS I'VE BLAMED IT ON OLD AGE, IRON POOR BLOOD, LACK OF VITAMINS, AIR POLLUTION, WATER POLLUTION, OBESITY, SACCHRIN, DIETING AND A DOZEN OTHER MALADIES THAT MAKE YOU WONDER IF LIFE IS REALLY WORTH LIVING. BUT NOW I FIND OUT IT AIN'T THAT AT ALL.

I'M TIRED BECAUSE I'M OVERWORKED...THE POPULATION OF THIS COUNTRY IS 200 MILLION. 84 MILLION ARE RETIRED, THAT LEAVES 116 MILLION TO DO THE WORK. THERE ARE 75 MILLION IN SCHOOLS, WHICH LEAVES 41 MILLION TO DO THE WORK. OF THIS TOTAL THERE ARE 22 MILLION EMPLOYED BY THE GOVERNMENT, THAT LEAVES 19 MILLION TO DO THE WORK. 4 MILLION ARE IN THE ARMED FORCES, WHICH LEAVES 15 MILLION TO DO THE WORK. TAKE FROM THAT TOTAL 14,800,000 PEOPLE WHO WORK FOR THE STATE AND CITY GOVERNMENT, AND THAT LEAVES 200,000 TO DO THE WORK. NOW, THERE ARE 188,000 IN HOSPITALS, SO THAT LEAVES 12,000 TO DO THE WORK. THERE ARE 11,998 PEOPLE IN PRISION...THAT LEAVES JUST TWO PEOPLE TO DO THE WORK...YOU AND ME...AND YOU'RE SITTING THERE READING THIS...NO WONDER I'M TIRED!!!!!!

AUTHOR UNKNOWN      TNX N3FOA BBS

Date: + denotes AFRL Sanction

MAY 28 Auburn, NY  
+MAY 5 Southern Tier ARC - Oneonta, NY  
+MAY 13 Summit ARA - Westminster, MD  
+MAY 18-20 AFRL ATLANTIC DIVISION CONVENTION - ROCHESTER, NY  
+MAY 19 Ephrata ARA - Ephrata, PA  
+MAY 20 Harminster ARC - Harminster, PA  
+MAY 20 Lemaqua Tr Co Soc - Lemaqua, PA  
+MAY 27 Maryland FA - Howard Co., MD  
+JUN 3 Freezershooters - Pittsburgh, PA  
+JUN 3 Rome ARC - Rome, NY  
+JUN 3 Lancaster ARC - Lancaster, NY  
+JUN 8-10 AFRL NATIONAL CONVENTION - KANSAS CITY, MO  
+JUN 10 Federal PA Hamlet, Winfield, PA  
+JUN 17 Frederick, MD  
+JUN 1 Hugas ARC - Wilkes-Barre, PA  
+JUN 4 Bessler (Harrisburg), PA  
+JUN 8 Geneva RA - Batavia, NY  
+JUN 8 North Hills ARC - Pittsburgh, PA  
+JUN 29 BRATS - Timonium, MD  
+JUN 5 Skyview ARC - New Kensington, PA  
+JUN 12 Mid-Atlantic ARC - Martinsburg, PA  
+JUN 25 Tomkins Co. ARC - Ithaca, NY  
+JUN 26 Gloucester Co. ARC - Mullica Hill, NJ  
+SEP 8 Erie, PA  
+SEP 8 Hancock, PA  
+SEP 9 Butler ARA - Butler, PA  
+SEP 9 Gaithersburg, MD  
+SEP 16 South Jersey RA - Pennsauken, NJ  
+SEP 22-23 York, PA  
OCT 13 PARS - Syracuse, NY  
+OCT 14 Columbia ARA - W. Friendship, MD  
+OCT 14 PA-ARA - Carlisle, PA  
+OCT 21 Penn Wireless Assn - Bensalem, PA  
+OCT 28 RF Hill ARC - Sellersville, PA  
+NOV 4 Carroll Co. ARC - Westminster, MD  
NOV 12 ARUM - Washington, PA

73 de Hugh Turnbull WPARC, Director, Atlantic Division AFRL - MA321W  
Ray Craigie KCRUM, Vice Director, Atlantic Division - MB310E

QST DE WIAW  
DX BULLETIN IS ARLD016  
FROM ARRL HEADQUARTERS  
NEWINGTON CT APRIL 20, 1990  
TO ALL RADIO AMATEURS

THANKS TO STEVE, W9NHF AND THE NORTHERN ILLINOIS DX ASSOCIATION FOR  
THE FOLLOWING DX INFORMATION.

FROM THE DXCC DESK, DO NOT SUBMIT QSL CARDS FOR MALVIS BAY BEFORE  
JUNE 1. CARDS SUBMITTED BEFORE THAT DATE WILL BE RETURNED WITH NO  
CREDIT. DXCC CREDIT FOR MALVIS BAY WILL BE GIVEN FOR CONTACTS ON OR  
AFTER SEPTEMBER 1, 1977.

PTI. THE ARRL DX ADVISORY COMMITTEE HAS VOTED UNANIMOUSLY AGAINST  
RECOMMENDING THE PUYALLUP TRIBE OF INDIANS FOR SEPARATE DXCC COUNTRY  
STATUS.

~~BANGLADESH. VINCE, K5AT HAS GONE QRT. HOWEVER, SSB OPERATION BY A  
GROUP OF 10 OPERATORS IS NOW ON THE AIR. THE CALL SIGN IS S21U. QSL  
TO AH1AJT. LISTEN ON 14155, 21255 AND 28455 KHZ.~~ **DONE**

CONWAY REEF. OPERATION IS EXPECTED TO BEGIN APRIL 24.

CROZET. FT4WB IS QRV ON THE LOW END OF 20 METER CW WORKING BETWEEN  
1700 AND 1800Z.

JARVIS. AH3C/KH5 IS ACTIVE ON BOTH SSB AND CW. CW FREQUENCIES ARE  
3503, 7023, 14023, 21023 AND 28023 KHZ. LISTEN ON SSB ON 14185,  
21285 AND 28485. QSL TO OH2BN. APPLICATION FOR NEW COUNTRY STATUS  
IS EXPECTED. HOWEVER, IF JARVIS DOES NOT COUNT AS A NEW COUNTRY,  
THE OPERATION WILL COUNT AS PALMYRA.

NEPAL. 9N1FUC HAS BEEN ACTIVE. WATCH 14025 AROUND 0130Z. QSL TO  
WY7K.

OGASAWARA. JG6CVO/JD1 HAS BEEN WORKED ON 7070 AT 1500Z. JD1HR IS  
QRY ON CW BETWEEN 1100 AND 1200Z.

SPRATLY. RUSSIAN AND VIETNAMESE OPERATION IS ACTIVE FOR ABOUT 5  
DAYS OR SO. THE CALL SIGN BEING USED IS 150XY.

SUDAN. PA8GHM/ST2 CONTINUES TO BE VERY ACTIVE. WATCH 14025 KHZ.  
QSL TO PA8GIN.

SOUTHERN SUDAN. PA3CXC/STW IS ACTIVE NOW ON BOTH CW AND SSB.  
NNNN  
0318z, 345 msg -KE2M MailBox Window 1)

# PART 1

## GETTING ON PACKET

Ed Ludin, K2UK

### A GUIDE FOR THE NEWCOMER TO PACKET RADIO

The latest conversation on the air as well as in most ham radio publications is about Packet Radio. And that conversation can be exceedingly confusing. I know - I've been there! And the confusion is especially severe for the ham who has not been actively using a computer. So, let's talk about a few things that may seem sort of basic and simple, but, believe me, practical.

First of all, to get on packet a few pieces of equipment are needed. You need a transceiver, of course - an ordinary HF or VHF rig will do just fine. And you need a computer. Any computer will do. The simple Commodore 64 is fine, but most folk these days do have an IBM clone. I personally do use the C64. Of course a dumb terminal will do, but if you know what that is, I'm really talking basic to you! And, the one special piece of gear you need is a "terminal node controller", popularly called a TNC.

Packet communication is carried on at HF frequencies primarily for long distance purposes. Thus 20 meters is the most popular band. There is even talk today of getting DXCC in the packet mode! However, because frequency accuracy is absolutely necessary, an extremely stable UFO or crystal control is required. VHF packet is primarily conducted on 2 meters, though there is activity on 220 and 440 as well. On these bands, frequency stability is not a problem of course.

The computer creates the characters to be sent out on the air. As most of you know, people are using computers these days in ham radio for sending high speed CW as well as RTTY. Programs are loaded into the computers which send the CW and RTTY and also interpret the received signals and display them on the screen. In packet radio, a very similar approach is used. Thus, the computer takes what you type on your keyboard, converts it into the computer characters and sends them out.

What the TNC does is takes the computer language and sends it into your radio to be sent out on the air. The TNC actually creates the "packet" of info. It also controls your radio, transmit and receive. The TNC does a lot of other wonderful things, but that gets into more detail than this article can cover. Suffice it to say, it's the "brain" of the packet system. There are several TNCs on the market. You can build one yourself, if that's your thing, but most nowadays buy the readymade. The major companies into them are MFJ and AEA. You can get a relatively bare bones one like the MFJ 1270B up to the very sophisticated AEA PK232 which will also do CW, RTTY, and even WEFAX!! As they say, "Ya pays yer money and takes yer cherche!"

Now, for my major piece of advice: Do not try to get on packet alone! You will save yourself hours of time and considerable frustration if you will swallow your pride and ask a local ham friend who is already on packet to come over to your shack and help you get going. Believe me, this is critical. When you buy your TNC and look at the manual that comes with it, you'll fully understand what I mean. And I don't care how much computer experience you've already had.

If you are somewhat experienced using a computer, you will find the whole process a bit easier. As for me, I didn't own a computer till this packet bit came along. After all, I didn't have enough available free time to get on the air as it was - when would I find the time to play with a computer? Besides, I knew that if I got one, I would just have to learn what makes it tick! But, packet radio was, after all, part of my hobby, so I went out and got one. And here I am, using a "word processor" to write an article about using computers! Anyhow, if you are accustomed to using a computer and a modem for computer to computer talk over the phone lines, the process here on packet will be easier to understand. But, for those of you, like me, who never did all that, you'll have to recyle your thinking a bit.

After you get the computer and TNC, you will have to wire the two together and then hook the TNC to your radio. This is not too difficult and the directions are relatively easy to understand. Or, you can get a friend to do it for you. You will also need a terminal program for the computer. This is a program that tells the computer what to do. They come in a variety of capabilities. Here again you'll need the advice of your friend. There are programs that are in "the public domain" (freebies) and some must be purchased. Ask you local packet friend.

So much for gear, etc. Next time we'll discuss just exactly what you DO when you get going.

ORX.



## A GUIDE FOR THE NEWCOMER - PART 2

Now that you have your equipment purchased and hooked up, what now? What are you going to do with this new gadgetry? Well, of course, basically what you're going to do is communicate. After all, that's what ham radio is all about, isn't it?

There are fundamentally two ways to communicate using packet. The first is station to station. Just like on any other mode. If you are on HF, most packeteers hang around on 20 meters these days. As our friendly sunspots improve, there will be more activity on 10 and 15, I'm sure. For now, look around below 14.080 or above 14.1 and you'll hear that distinctive "braap" sound of packet transmissions. Just like CW and RTTY there is a distinctive sound to packet. If you're going to work HF packet, I strongly suggest you get a TNC that has a tuning indicator built in. All the companies make them. The reason is, as I already mentioned, it is very important that you are smack on frequency with the station you're working. Tune very carefully on a signal and soon you'll be displaying the other station's transmission on your screen. If he's calling CQ, answer him and hope you're tuned right on him. The problem is that, unlike the human ear which can adjust to less than the best intelligence and make some sense of it, the machinery (here a bunch of solid state devices in the TNC) requires hearing a very good signal. Of course, you can call CQ and depend on the other station tuning on you.

Working station to station on UHF or VHF is another matter. Here frequency stability is not a problem. Most UHF packet is on 2 meters. You can hear that distinctive sound on 145.01 almost everywhere in the country. Other common frequencies are 145.03, .05, .07, and even 144.97 and .95. The best way to make a contact here is just to monitor what's going on and then connecting to a station after he signs with another. Notice I said "connect". That is the fundamental difference between packet and other modes. It is necessary to actually digitally "connect" your two stations together before you can converse. You do that by issuing a connect command to the other station. Here's where your local ham friend will come in handy to actually show you how to do it.

The second way to "communicate" on packet is to use the mode to send and receive messages with other stations all over the country. This is the most efficient use of the mode and the one I like the best. There is a system of interconnected Packet Bulletin Board Stations all over the country. You will soon learn of the PBBs in your area. Your friend will tell you. These PBBs are set up by hams who are dedicating their stations (computer, TNC, and radio) to full time use for just this purpose. These hams generally have an IBM (or clone) with hard disk and all set up to store and forward messages. Also they have files of all sorts available to download, including W5YI, AMSAT, all kinds of packet publications, and even programs for various computers. From a utilitarian point of view these PBBs are really great. You can send a message to a friend and he can pick it up on the PBBS at his leisure, and vice-versa. Neither of you have to be there at any certain time. When you come home, check in to the board and pick up your message. The very best thing is that you can send messages to your friends all over the country and they get there automatically through the system.

How the system works is the subject of much more extensive articles. My last series did go into much more detail and I refer you to those. At this time I can only say that we are at the proverbial tip of the iceberg when it comes to digital communications, especially packet. There is so much happening so fast that it is almost impossible to keep up. But, do get on packet. Give it a try. "Try it, you'll like it".

When you do get on packet, send me a message - at least to say "hello". Send it to K2UK @ WB2MNF. Your friend will show you how. I promise I will send you a message in return. We'll get to know each other, digitally! And I promise that I will write some more articles about packet, if you're inclined to read them.