

W2MMD

1993 OFFICERS

President Cory Sickles WA3UVV
 Vice President Ken Bozarth KN2U
 Treasurer Bill Mollenhauer N2FZ
 Recording Sec. Peter Butler KA2DZF
 Corresponding Sec. John Fisher K2JF

Directors

3 Yr (93-95) Leroy Brady Jr. KB2ODL
 Harry Jessen N2DUZ
 2 Yr (92-94) Jim Mollica Sr. K2OWE
 Beth Barnish KB2EAL
 1 Yr (91-93) Charles Colabrese WA2TML
 John Cliver N2NLE

Trustees

4 Yr (93-96) Marla Bozarth N2DWR
 3 Yr (92-95) Joel Supkow KB2AYW
 2 Yr (91-94) Milt Marder WA2FGA
 1 Yr (90-93) Howard Marder WA2IBZ

1993 Committee Chairpersons

Advertising //OPEN//
 ARES/RACES Chick WA2USI
 Awards Jack K2ZA
 Banquet Marla N2DWR
 Budget ✓ Cory WA3UVV
 Chaplin Tom N7GBH
 Constitution ✓ Harry N2DUZ
 Contests Clif N2PLE
 Crosstalk Harry N2DUZ
 Data Processing Charlie K2PQD
 DX Cliff N2PLE
 Field Day ✓ Steve N2GVR
 Hamfest ✓ Pete KA2DZF
 Joe N2KLE
 Health & Welfare ✓ .. //OPEN//
 Help Ken KN2U
 Historian/Archivist... Pete KA2DZF
 Hospitality ✓ Andrew N2PKV
 Legislation //OPEN//
 Membership ✓ Drew N2UNG
 Nets Mike WA2TOP
 Nominations ✓ Herb K2HPV
 Publicity ✓ //OPEN//
 Repeaters ✓ Chuck WA2TML
 Site ✓ ED KB2ODJ
 Scholarships Greg WN2T
 Special Events Walt WB2OYQ
 Special Services Al N2FJQ
 Sunshine Miriam KB2EUA
 Technical Ken KN2U
 Training/Testing Bill WA2VQG
 TVI John K2JF
 Ways & Means //OPEN//
 (✓ Indicates Standing Committees)

G.C.A.R.C. Meetings

General Membership:

- ◆ 8 PM, 1st Wednesday of every month.
- ◆ Deptford Elks Lodge, Highland Ave.
1 Block from Egg Harbor Rd.

Board of Directors:

- ◆ 7:30 PM, 3rd Wednesday of every month
- ◆ G.C.A.R.C. site, Harrison Twp. 4-H Grounds.
Approximately 1 mile south of Mullica Hill
on Rt. 77.

Club Repeaters

147.780/180 Mhz 223.06/224.66 Mhz
 447.100/442.100 Mhz (CTCSS 131.8)

Nets

ARES/RACES .. Sundays, 220 Hrs on both the
 147.780/180 & 223.06/224.66 repeaters.

 10 Meter Sundays immediately after the
 ARES/RACES net. 28.350 MHZ.



Open 7 A.M. to 1 A.M. (609) 228-5166

Fine Points
DINER
RESTAURANT
BAKERY

Fine Selection of Gourmet Food

Steaks • Chops • Seafood
Cheesecake

Rte. 47 & 41 Deptford Township
Conveniently Located at
5 Corners Intersection
P.O. Box 392 Sewell, NJ 08080

Ample Parking



❖ CROSSTALK ❖

December 1993

ONE OF THE LESSER known theories of Albert Einstein concerned his belief that *time* was not constant. I have often felt that there is a "doppler effect" with time in a person's life. Much as the frequency of an ambulance siren seems to rise as it approaches and fall as it passes, so it seems time. We look forward and the future seems so far away. Reflecting on the past, it seems to have moved all too quickly.

And so it is that I look back on this year as president of the Gloucester County Amateur Radio Club. A good deal has changed for amateur radio, the world and our club in 1993. From my own standpoint, I believe we had a good year. Our presence during the "Great Storm", the Walk-a-thon, Field Day, the 4H fair, the hamfest (in spite of its commercial detractor) and other activities was felt strongly. We managed to increase our public awareness in positive ways and found many new strengths demonstrated by some of our members. Some of the things which weren't readily seen, however, were just as important; replacing an antenna in the rain on a water tower, for example, checking QSL cards for awards, scholarship determinations, long-overdue improvements to the clubhouse and much more. Along with this list goes the production of an excellent newsletter. I could try to list everything, but I think you get the idea.

I look back and see a year where much was accomplished, and realize how much more we still have ahead. We have started to direct our efforts toward some long-term goals; a new and improved station at the clubhouse for all of the members to use, a program of continuing education, DX-peditions and encouragement of technical development, to name but a few.

Perhaps the most difficult element of my presidency still lies ahead. It will soon be time for me to step aside and "pass the baton" to someone else. Someone who I hope and trust will lead and direct our club in the path(s) we have chosen. Perhaps I enjoyed this position too much. It will be difficult to "let go", but I promised my wife she would have the evenings free to take some night classes, so that's the way it is.

This year was a learning experience for me. Until you actively hold office in this organization, you can not know all the facets, demands, and nuances that are an integral part of the GCARC. Our club is made up of members. Members who possess a wide range of personalities, ideas, agendas and talents. As president, you are exposed to many of these, from forward-thinking leaders, to active followers, to consistently negative, to those that act as if they never quite grew up. In fact, you quickly realize that there is no direct correlation to age and maturity, nor intelligence and common sense. (Of course, any parent can tell you that...)

There were times I felt I should show up for a meeting in pearls and high heels, since I was being called upon to act as someone's mother and stop them from misbehaving. But there were also times when I was so very proud of what was being accomplished and strived for that I could hardly contain my enthusiasm. You have to be flexible, while amplifying the positive and attenuating the negative.



I tried to encourage democracy, sometimes to a fault. I wanted, and got, a full ranging exchange of ideas and opinions on many issues and concepts this year. For the most part, the comments were sincere and intelligent. Most people, I discovered, felt strongly about their position(s) relating to a given matter, and were treated with respect and courtesy by those listening. (Yes, there were exceptions.) Although some meetings ran long with heightened emotions and I tended to let out some "extra line", we got things done with a better understanding and our club is stronger for it.

One thing that did not happen this year was that I did not suffer from "presidential burn-out", an apparently crippling disease that some former holders of this office have contracted. Admittedly, there is a certain stress factor to this

(Continued on page 10)

President's Message

ARLB106

Instant license

ZCZC AG48
 QST de W1AW
 ARRL Bulletin 106 ARLB106
 >From ARRL Headquarters
 Newington CT October 25, 1993
 To all radio amateurs

SB QST ARL ARLB106
 ARLB106 Instant license

Instant license proposed

The FCC has proposed temporary operating authority to unlicensed persons who pass the examination for a new amateur operator license.

The temporary operating authority would begin when the exam is passed and an application for a license is filed, and last until a full-term license is received from the FCC (not more than 120 days).

The temporary operating authority would not be available to anyone whose license has been revoked or suspended or who has been involved in other enforcement proceedings before the FCC. Under the proposal, the Commission also would reserve the right to cancel such temporary operating authority without a hearing if a need to do so arose.

Those operating under the proposed new rules would use call signs determined by the initials of their name and by their mailing address. The prefix for each such call sign would be WZ followed by a number indicating the appropriate Volunteer Examiner Coordinator region.

The Commission said it believes this system "would be useful to the amateur community, yet practical to implement." The FCC also said it was making the proposal "to better serve new amateurs and to increase productivity in the processing of license applications."

The proposal, assigned PR Docket 93-267, was based on a petition for rule making made in July by the Western Carolina Amateur Radio Society (WCARS) VEC of Knoxville, Tennessee (RM-8288).

NNNN

Ed Note: Sounds a lot like the "11 meter" proposal that came into existence years ago. Look what happened to that one! Your opinion? Better let ARRL & the FCC know what YOU think!!



ARRL

1994 CONTEST CALENDAR

TENTATIVE

JANUARY	1	Straight Key Night
	8-9	ARRL RTTY Roundup
	22-24	ARRL January VHF Sweepstakes
	29-Feb 6	ARRL Novice Roundup
FEBRUARY	14-18	School Club Roundup
	19-20	ARRL International DX Contest, CW
MARCH	5-6	ARRL International DX Contest, Phone
APRIL	18 (Mon)	144-MHz Spring Sprint
	26 (Tues)	222-MHz Spring Sprint
MAY	4 (Wed)	432-MHz Spring Sprint
	14 (Sat)	902-MHz Spring Sprint
	14 (Sat)	1296-MHz Spring Sprint
	14 (Sat)	304-MHz Spring Sprint
	21-22 (Sat-Sun)	50-MHz Spring Sprint
JUNE	4-6	ARRL June VHF QSO Party
	25-26	Field Day
JULY	9-10	IARU HF World Championship
AUGUST	6-7	ARRL UHF Contest
	20-21	ARRL 10-GHz Cumulative Contest
SEPTEMBER	10-12	ARRL September VHF QSO Party
	17-18	ARRL 10-GHz Cumulative Contest
NOVEMBER	5-7	ARRL November Sweepstakes, CW
	19-21	ARRL November Sweepstakes, phone
DECEMBER	2-4	ARRL 160-Meter Contest
	10-11	ARRL 10-Meter Contest

This information is from the ARRL BBS, and as stated in the title is TENTATIVE. However, it does give us some ideas for plans!

E M E ANYONE?

ARE YOU THE KIND of person who gets bored easily and is always looking for a new challenge? Well I am. So, after spending a couple of years working all the amateur satellites, I decided to try and work the earth's own natural satellite, the moon. It's called EME or earth moon earth. You send your signal from the earth towards the moon and some of it bounces off and returns to the earth about 2.5 seconds later. With a total path length of about 500,000 miles it is the ultimate DX and definitely a weak signal mode!

Recent advances in antenna design, low noise preamp design, and operating techniques have made EME possible even for relatively small stations. It is necessary to have as much antenna gain as possible, a low noise preamp on receive, and plenty of transmit power. I decided to build an array to cover both the 144 and 432 mhz bands that could be used for weak signal terrestrial work and satellites as well as EME. After working on it all this summer, the array was finally done. The main horizontal boom is 14 ft. of Rohn 20G tower. The four 144 MHz 15 element yagis have 25 ft. booms and are mounted 13 ft. wide by 12 ft. high. The four 432 MHz 33 element yagis also have 25 ft. booms and are mounted 8 ft. wide by 7 ft. high. The entire array is mounted on a KLM EL-3000 elevation rotator at the top of an 80 ft. tower. It is quite a sight.

Not long after I got the array up what should come along but the first weekend of the ARRL International EME Competition. So I printed out a schedule of the moon's position and fired up the Yaesu FT-736R and 150 watt bricks with preamps for both bands. Although I don't yet have enough transmit power to hear my own echoes, a couple of the big guns heard them. I worked VE3ONT on both bands thanks to his 150 ft. dish! On 144 MHz I worked KB8RQ and K5GW. They made it seem easy thanks to their big stations!

I've got some improvements to make if I want to work other smaller stations. I need low noise preamps up at the feedpoints and some more output power. I also need to learn more about the moon's orbit and the special propagation phenomena that effect EME operation. I'm going to try and work some of the big guns in Europe during the second weekend of the contest on Nov. 6-7. The next time the moon is up don't just look at it, listen to it very closely!

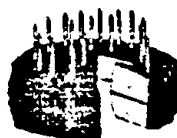
73... AI, KB2AYU

CONGRATULATIONS



To WA2TOP, Mike, and his wife on the birth of their new son, Matthew Michael Lizzio. This harmonic was first observed on October 25th, at 1611 (ET). It was further noted that this little harmonic weighed in at 8 lbs, 4 ounces with an overall wavelength of 20 1/4 inches.

Best wishes from all the members of G.C.A.R.C.!



Happy Birthday!

To the following in the month of December, from the members of the G.C.A.R.C.

<u>CALL</u>	<u>NAME</u>	<u>DAY</u>
WB2VNS	VINCENT GADZINSKI	2
N2SBQ	KELLY GLANS	4
N2SIX	JAMES COOMBS Sr.	5
KE2ES	TOM GORMAN	5
WA2VQG	WILLIAM HELMETAG	6
N2SXO	RAYMOND WRZESZCZYNSKI	7
W2LVW	AMES PECK	7
KB2JCG	WALTER SEITZ Jr.	9
N2PKT	LOUIS IOCONA	11
W2SPN	NORMAN WILLIAMS	12
WB2HVJ	NORMAN WILLIAMS	14
KA2ZZA	VIRGINA MACRIE	16
N2MOO	DONALD SEIBERT	17
KA2ZRN	JOANNE WEILER	18
NT2N	WILLIAM O'DONNELL Sr	18
N2TXW	AUGUST BENDLER	19
K3WIN	ARTHUR GOLDMAN	19
WB2AOL	JAMES McDONALD Jr.	29
KB2ETV	CHARLES JAY FOX	30

73 & Happy Birthday to all!

K2PQD, Charlie
Database Chairperson

The major airlines are testing a new system that would allow passengers to send faxes while the plane is in the air. Now you can file lost luggage claims before you hit the ground.

**ATLANTIC DIVISION
LICENSE TEST SESSIONS
DECEMBER, 1993**

Confirm all information with the contact person before appearing for a test.

>> SOUTHERN NJ

16 *Bellmawr*, 6:15 PM. Bill Helmetag,
(W5YI)

>> DELAWARE

11 *Dover*, 9 AM. Kent Co. ARC. Robert Baker,
(ARRL)
11 *Wilmington*, 9:15 AM. AWARE. Giselle Walls,
(ARRL)

>> EASTERN PA

02 *Levittown*, 7 PM. Dave Heller,
(W5YI)
02 *Philadelphia*, 6 PM. Phil-Mont MRC. Dusty Rhoads,
(ARRL)
03 *Nazareth*, 7 PM. Delaware-Lehigh ARC. John Greenage,
(ARRL)
04 *Levittown*, 10 AM. Penn Wireless Assn. George LeNoir,
(ARRL)
11 *Middletown*, 9 AM. Harrisburg RAC. John Obradovich,
(ARRL)
11 *Shrewsbury*, 10 AM. S. York Co. VEs. Carol Kirschman,
(ARRL)
16 *East Stroudsburg*, 7 PM. Pocono ARK. Steve Gajkowski,
(ARRL)
16 *Lancaster*, 7 PM. Red Rose Rptr Assn. Carl Denlinger,
(ARRL)
18 *Honesdale*, 9 AM. Vincent Banville,
(ARRL)
20 *Telford*, 6:30 PM. RF Hill ARC. Warren Erdman,
(ARRL)
30 *Levittown*. Cully Phillips, (ARRL)
31 *Allentown*, 7:30 PM. Lehigh Valley ARC.

73 and good luck on your upgrade

de
Hugh Tumbull, W3ABC,
Director Atlantic Division ARRL
@ WB3V.MD
Kay Craigie, WT3P,
Vice Director Atlantic Division
@ WB3JOE.PA

PIANO TUNING and REPAIR

A poorly kept piano - one that is out of tune or suffering from broken parts, ill adjusted pedals or sticking keys - will discourage any piano student and impede their progress in becoming a better player.
Call...

T.D. Church - Piano Service
(aka N7GBH)
Assoc. Member Piano Technicians Guild
(609)931-2436

HERE IT IS!, Your list of candidates for the G.C.A.R.C. 1994 elective offices. These are the people who have indicated their willingness to give their personal time and energy to the club for the coming year. It won't be much of an election this year, since every candidate, except for the 4 year Trustee, is running unopposed.

Anyway, here are the candidates:

President.....//OPEN//
Vice-President.....N2SRQ, Charlie
Treasurer.....AA2BN, John
Recording Secretary.....N2IVN, Chris
Corresponding SecretaryN2PLE, John
3 year Directors (2)N2GVR, Steve
WA2UDO, Bob
4 Year Trustee (1).....KB2PAU, Jim
K2HPV, Herb

Marla, N2DWR, has informed the Board of Directors that due to personal reasons, she has had to remove herself from the election. That means the December meeting will be very interesting!

What will happen now? Show up and find out!

73... N2DUZ, Harry
Crosstalk Editor

Article Deadline for
January 1994 Crosstalk is
8PM, Sunday, December 26.

YOU'RE LAST CHANCE !

WHAT: 1994 GCARC Installation of Officers & Awards Dinner

WHEN: Saturday, January 8, 1994
6-11PM (1800-2300)

WHERE: Dutch Inn
Rt. 295-S
Gibbstown, NJ

MENU: Seafood Newburg on a Bed of Rice
Carved Top Round of Beef
Jumbo Stuffed Shells
Boneless Breast of Chicken(Italian Style)
Carved Smithfield Ham
Greenbeans Almondine
Rice Florentine
Potato Salad, Cole Slaw, Pickled Beets,
Macaroni Salad, Assorted Relish
Tray, Tossed Salad, Dinner Rolls
Coffee, Tea, Milk
AND
DESSERT TABLE
Cash Bar...

There will be music (DJ Style). RELAX!! This year the music is by Charlie(N2SRQ) and Marla(N2DWR).

There will be dancing! And, of course, everyone should come to see our newly elected officers get sworn at.... I mean SWORN IN!! There are always lots of laughs that evening!



Come by yourself, or bring a friend. Hey, you can even bring your spouse if you want to!

The cost? A mere **\$8.25 for club members**, and \$16.50 for non-club members. Or just \$24.75 a couple. There will be DOOR PRIZES GALORE!!!! Not to bad for a nights entertainment, friendship and food!

Please R.S.V.P. by December 20, 1993, to Marla, N2DWR

ATLANTIC DIVISION HAMFESTS/CONFERENCES 1994

+ DENOTES ARRL HAMFEST

January-

- 15 Skyline ARC - Marathon, NY
- + 23 Columbia Area ARC - Lancaster, PA
- + 30 Maryland Mobileers - Odenton, MD

February-

- 20 Cumberland Co. ARS - Camp Hill, PA
- 26 Appalachian ARG - Lebanon, PA

March-

- + 5 Shore Points ARC - Absecon, NJ
- + 20 Two Rivers ARC - Monroeville, PA
- + 26-27 Baltimore ARC - Timonium, MD

April-

- + 10 Penn-Del ARC - New Castle, DE

May-

- + 15 Warminster ARC - Wrightstown, PA
- + 21-23 Rochester Hamfest - Rochester, NY
- + 22 Antietam RA - Hagerstown, MD

June-

- + 5 Tamaqua Transmitting Society - Tamaqua, PA

July-

- + 3 Murgas ARC - Wilkes-Barre, PA
- + 10 Genesee RA - Alexander, NY

August-

- + 7 Mid-Atlantic ARC - Warrington, PA
- + 28 Tri-State ARC - Matamoras, PA

September-

- + 10 Radio Assn of Erie - Erie, PA
- + 11 Butler Co. ARA - Butler, PA
- 11 FAR - Gaithersburg, MD
- + 17 Buffalo Hamfest - Buffalo, NY
- + 24-25 York, PA

CONVENTIONS AND CONFERENCES

- + MAR 26-27
ARRL Maryland State Convention - Timonium, MD
- + MAY 20-22
ARRL Atlantic Division Convention - Rochester, NY
- + JUN 10-12
ARRL NATIONAL CONVENTION - Arlington, TX

73 de

Hugh Turnbull, W3ABC, Director Atlantic Division ARRL
@ WB3V.MD
Kay Craigie, WT3P, Vice Director Atlantic Division
@ WB3JOE.PA

HOW MUCH DO YOU KNOW?

Question: How many of the G.C.A.R.C. past Presidents do you remember ?

Really try and remember them all before you read on. Ready? Well here they are...

PAST PRESIDENTS OF GLOUCESTER COUNTY AMATEUR RADIO CLUB

- 1959 VAN TURNER * W2KE
- 1960 WOODY FRANTZ * KA2AQL
- 1961 JIM PECK W2LVW
- 1962 GEORGE STEWART * ... K2SOL
(HELD OFFICE JAN THRU MAR)
- 1962 MAL MASON * W2MMD
(HELD OFFICE APR THUR DEC)
- 1963 MILTON GOLDMAN K3WIL
- 1964 PAUL WALTON * W2YNR
- 1965 JACK LAYTON K2JKA
- 1966 GURDON COOPER W2PAX
- 1967 DOUG GEHRING WA2NPD
- 1968 JACK BOWEN WB2WKV
- 1969 BILL BACHMAN WA2VEE

- 1970 PAUL CALLAGHAN WB2WAK
(HELD OFFICE JAN THRU FEB)
- 1970 KEN NEWMAN (WB2FNF) N2CQ
(HELD OFFICE MAR THRU DEC)
- 1971 BILL FRAMBES WB2FJE
- 1972 JOHN STULL (WB2JZX) N2SI
- 1973 WAYNE WOOD W2SUA
- 1974 JACK WHITE WA2MEM
- 1975 DOUG GEHRING WA2NPD
(HELD OFFICE JAN THRU AUG)
- 1975 RICH NETHERBY WB2OCR
(HELD OFFICE SEP THUR DEC)
- 1976 RICH NETHERBY WB2OCR
- 1977 HERB SCHULER K2HPV
- 1978 RAY METZGER (WB2BZY) AI2B
- 1979 RAY MARTIN WB2LNR

- 1980 ROSE ELLEN BILLS * ... N2RE
- 1981 TOM WIDENER KE2M
- 1982 HARRY JACKSON WB2GSF
- 1983 RUSS GLANS N2ASV
- 1984 HARRY MAXFIELD WA2VXT
- 1985 TOM GORDON* KB2GI
- 1986 JOE DINOVI WB2GFK
- 1987 VIRGINIA MARTIN N2FJM
- 1988 JOHN FISHER K2JF
- 1989 EDWARD SUMEK * W2GSN

- 1990 BETH BARNISH KB2EAL
- 1991 NORM CONNELLY WA2BMQ
- 1992 MARLA BOZARTH N2DWR
- 1993 COREY G. SICKLES WB3UVV

Note: * indicates Silent Keys

Well, how did you do? Now maybe you could try to think of those who were Vice-Presidents!

73..... K2JF/John

HAPPENINGS

CONTESTS

- Dec.3.ARRL 160m CW 2200 Z (42 hours).
- Dec. 11-12ARRL 10 Meter Contest.
(see page 126 of Nov. QST)
- Dec. 31-1 Jan ..ARRL SKN (Straight Key Night) 24 hours
(7 PM EST Dec 31 to 7 PM EST Jan 1)

MISC STUFF

- Dec 7earliest Sunset N. Hemisphere
- Dec 9Puppids-Velids meters
- Dec 9First day of Hanukkah
- Dec.21SOLSTICE AT 2026 Z (winter begins & shortest day N. Hemisphere.

SEASONS GREETING

K2JF, John

The missiles that the U.S. shot at Baghdad this past summer were aimed at Iraqi Intelligence Hqtrs. So, we meant it when we said we weren't out to hit Saddam Hussein personally.

The American Legion Magazine Parting Shots

DID YOU KNOW?

Dec. 6, 1901.....Marconi set up his receiving station at St. John's Newfoundland, listening for Morse signals sent by his station in Poldhu England. Success came on Dec. 12, when the letter "S" was copied. a 400' kit-supported long wire was the antenna.

Dec.11, 1921...."1BCG", Greenwich, CT, constructed by E.H. Armstrong and fellow members of Radio Club of America, ran 1 KW on 230m. The transmission were received in Androssin Scotland by Paul Godley, who was sent by the ARRL to conduct receiving tests. The significance of this accomplishment was that short waves were used. The feat was documented in Scientific American and QST.

Dec 24, 1906 Reginmald A. Fessden's broadcasts from his longwave station at Brant Rock, MA of violin playing and scripture were perhaps the first radiotelephone signals ever heard. Fessenden's station employed the first "alternator". Designed by GE's brightest engineer, Ernst Alexanderson.

The Alexanderson Alternator was used for many years by shore and ships stations until the vacuum tube came along.

SEASONS GREETING

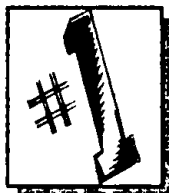
K2JF, John

THE WORD IS IN...

7 HE G.C.A.R.C. FIELD DAY GROUP - W2MMD - ranked #1 in the 10A class for the ARRL 1993 Field Day, and #3 in the AMSAT 1993 Field Events. Even though we were listed wrong (10A Commercial) in QST because of a typo, ARRL headquarters has extended their apologizes to us all.

We all did a GREAT job and I'm looking forward to next years Field Day event.

73... N2GVR, Steve



ARLX023
ZCZC AX32
QST DE W1AW
SPECIAL BULLETIN 23 ARLX023
FROM ARRL HEADQUARTERS
NEWINGTON CT NOVEMBER 18, 1993
TO ALL RADIO AMATEURS



RADIO SHOW GOES NATIONAL

A local radio program on amateur radio will go nationwide beginning Sunday, November 28. "Ham Radio and More," hosted by Len Winkler, KB7LPW, from KFNN in Phoenix, will be made available to the 82 member stations on the Talk America Network (TAN) at 6 P.M. EST on the 28th.

The show, now in its third year on KFNN, is non-technical and intended to appeal to licensed amateurs as well as the general public. Well-known amateurs are guests on the show, which runs two hours locally but which will last one hour in the network version.

Winkler says a grass-roots effort by hams is needed to make the national broadcasts a success. Amateurs are asked to call their local talk radio station (TAN affiliate or not) and encourage them to air "Ham Radio and More."

Winkler's first national guest on November 28 will be Frank Moore, WA1URA, a television executive in Fort Wayne, Indiana, and producer of an award-winning documentary video about amateur radio's role in communications from Kuwait during the Iraqi occupation in 1990 and early 1991.

Amateurs can find out the call signs of stations in their area affiliated with TAN by calling KFNN at 602-241-1510. The show also can be heard via SATCOM C-5, transponder 19, 6.0 audio, and Galaxy 2, transponder 3, channel 55.4.

NNNN

SAY THAT AGAIN...

From Washington D.C....

City officials in Washington D.C., have passed a law against panhandling on the streets. According to one council member, "If they want to live off public hand-outs, they can run for office like everybody else around here."

G.C.A.R.C. CONTINUING EDUCATION PROGRAM

SHOWING AT 1300 Hrs. every Saturday during December, starting on the 4th, Steve, N2GVR, will be presenting the second of the Heathkit Educational Systems Video Programs called AC ELECTRONICS!

Learn the principles of alternating current and voltage. You'll learn about AC electrical measurements, plus be introduced to AC applications for capacitance, inductance and transformers. You'll explore waveform generation, waveform analysis, motors, generators and test instrument meter movements.

This particular session runs about 2 to 2½ hours. The extended length is because the tape stops throughout to allow for student workbook activity.

Then, starting on January 8th, and every Saturday in January after that, Steve will be presenting RECOGNIZE AND UNDERSTAND ELECTRICAL COMPONENTS. This program is a must for every beginner in electronics! This 40 minute component recognition video introduces you to resistors, capacitors, inductors, diodes, transistors, integrated circuits and more. You'll learn how to read the values of each component as well as describe power handling capabilities, prefixes, polarity and the orientation of transistors and ICs.

Come on out! These video tape presentations are not a boring as they may sound and are very easy to understand. Don't be scared off by the usual premise that learning and education are boring.

73, N2GVR, Steve

TWO METER LOOPS

THIS BEGINNER'S ANTENNA was designed by Dick Reimer, W6ET, and passed along by John Gallegos, W6EQ, who has used it to successfully find both hidden T's and a jammer. All you need to build it is...

- ✓ Broom stick
- ✓ 10 picofarad trimmer capacitor
- ✓ Small piece of perf board
- ✓ 6 feet or so of coaxial cable
- ✓ 3 feet of solid AWG 12 copper house wire

A piston trimmer works best for the tuning capacitor, but an air or ceramic type can be used.

Mount the capacitor to the perf board. Form the solid wire into a loop and connect the ends to the capacitor terminals as shown in Fig 1 (see next page). (Don't hook up the vertical sense antenna yet.) Secure the loop

to the perf board for mechanical rigidity. Mount the loop to the broom stick mast. Five-minute epoxy glue is good for securing these parts. Connect the coaxial cable shield to the loop at the point exactly opposite the capacitor. Connect the center conductor to the gamma match as shown. It's Done!

This antenna is about 0.3 wavelength around. It is much larger in terms of wavelength than the hf loops, yet it acts like a small loop in its directivity. Fig 2 gives the pattern. Its sharp resonance gives it amazing sensitivity for its size. It has produced higher S-meter readings, when held above W6ET's car roof, than did a 5/8 wavelength magnetic mount whip on the rear deck.

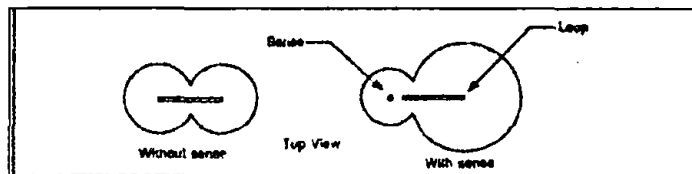


Figure 2

An electrostatic shield is not necessary or desirable on this particular loop. The higher you can get it above the car, the better it will work. Nearby objects won't have as bad an effect on pattern as they will with a loop on hf, because the objects are further away in terms of wavelengths. Still, it performs best when out in the clear.

Use the local repeater as a signal source to tune the loop. Hold it end-on to the direction of the repeater antenna (one maximum lobe) and tune the capacitor with an insulated tuning tool for maximum signal. Tune slowly and remove your hand after each adjustment, as coupling to your body affects the adjustment. You may be able to improve performance by experimenting with the gamma match dimensions. Do not transmit into the loop. (Disconnecting the microphone prevents accidental transmissions!)

Through many experienced hunters prefer to work alone, you'll want to team up for this first hunt. The passenger holds the loop upright out the window and spins it slowly. For weak signals, hunt the peaks, which are in the plane for the loop (off the ends).

With strong signals, hunt the nulls. They should be sharper and at exact right angles to the peak. They may be disguised or in the wrong direction due to inter-action with the car and other antennas, however. Stay in the clear, away from fences and power lines when taking bearings, as they can upset nulls too. Get some experience taking readings on the local repeater from several locations before setting out for the hunt.

One of the biggest problems with this simple loop is

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its bi-directionality. Is the signal in front or in back? One sneaky way for a beginner to tell at the starting point is to look at the direction all the quads and beams are pointing. Then drive a course that always keeps the bunny ahead of you, never letting him get more than 90 degrees left or right.

In the early days of hunting, most hunters used these bi-directional loops. When they had a choice, they started the hunt from the edge of the boundary area instead of the center, so that the 180 degree ambiguity would not be a problem. Of course they were often a very long way from the fox because of starting at the boundary.

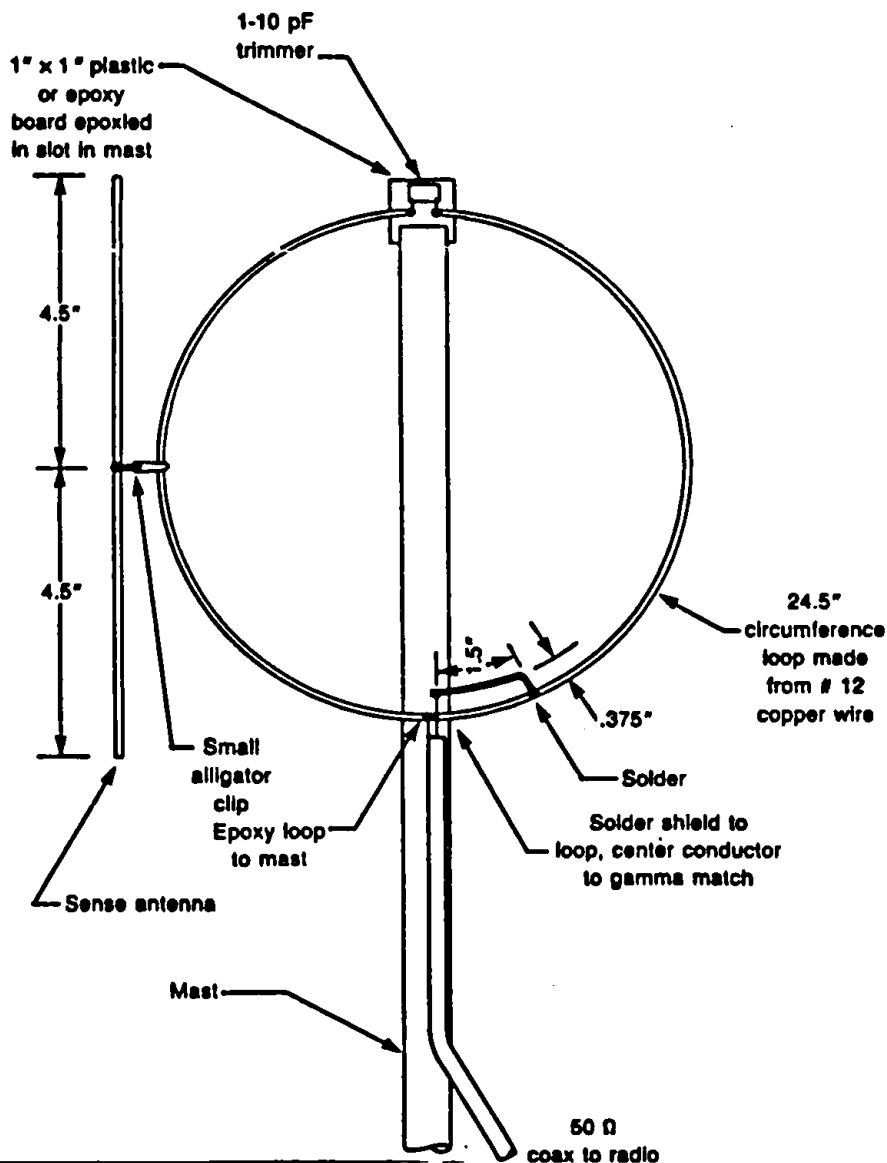
Fortunately there's a better way. The loop can be made somewhat uni-directional. Clip the nine inch sense wire to the side of the loop and shown in Fig 1. Now rotate the loop and notice that the signal peak on one side is much higher on the S meter than the one 180 degrees

around. When oriented for the higher peak, the vertical rod will be on the side away from the hidden T.

Adding the vertical rod detunes the loop, decreasing its sensitivity by several dB. This is no problem unless the signal is very weak. The vertical sense antenna may not give proper uni-directional response if there is a high horizontal polarization component to the incoming signal.

Although this loop method will get you started in hunting (and maybe even win a hunt or two), it is admittedly crude. You'll soon be eager to improve your system. But don't throw your loop away then - keep it in the trunk. You may be glad you have it when your fancy wire quad gets mangled by a low hanging branch in the middle of a hunt.

Ed. Note:
Thanks to Steve, N2GVR for the above article!



(Continued from page 1)

position, but life doesn't have to end once you have been president. Notice too, that no one has held the position for two or more full terms. Perhaps it's all in how you approach it. Perhaps I was fortunate to have such a great team of directors, chair-persons, and supporting members. Perhaps YOU would make a good president. Think about it. How much do YOU want to further this club and amateur radio?

That is not to say that being president is the most important thing in our club. In fact, I found that counsel from the active directors on the board was extremely valuable. While the officers' terms are only one year, the directors provide the continuity, experience and guidance that is needed in any administration. They will be especially important in the coming years as we work to realize certain long term goals and projects. It is going to be their responsibility to see that the "batons" which are passed from year to year and from one "runner" to another are not dropped.

I would like to also thank the members that had ideas this year and acted on them. I am grateful to everyone that approached me with a concept or concern. While I was not able to make everything asked for a reality, they helped me stay focused on the important matters in this organization.

I feel too, that I have grown this year. It has been good to renew my management experience and I have crossed a self-imposed "boundary". As I was busy this year trying to write a total of thirteen intelligent, inspiring and provocative President's Message articles for "Crosstalk" and the membership directory, I managed to bring out something that has been inside of me for years; the desire to write and be published. I have been approached with compliments by a number of you this year. You have told me how much you enjoyed and were challenged by what I wrote. Hopefully, 73 and QST will be as kind in the coming year.

As I close this, I feel I have so much more to say and do. I guess I'll have to continue some of these thoughts next year, albeit not as president. Plus, I just found out there is another crisis which requires my attention. The antenna on the 440 repeater has become an end-fed folded dipole. Of all the personality attributes one needs in this position, I think *perseverance* is the most important.

Finally, as we celebrate the holidays this month with family and friends, may I extend warm wishes from the Sickles family to you and yours.

73 & thanks for the ride,

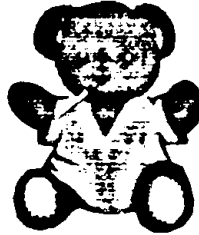
WA3UVV, Cory

**FOR SALE
BY OWNER**

The following item is for sale by Chuck, WA2TML...

Kenwood TR-7730 2-mtr mobile
25 Watts 5 Memories Touch Tone Mic
Memory Scan Band Scan
Original Box w/ manual

Asking \$175. Contact Chuck on the repeater or give him a call at (609)228-5314



BEST WISHES

Best Wishes and a hearty Get Well Soon go out to Ray Metzger, A12B, who is taking a short vacation in the hospital. Take it easy and we hope to hear from you soon!

FOR SALE

! SECOND NOTICE !

The following items are still available on a sealed bid basis. The bids must be received no later than 19:30, December 15, 1993. Bids must be marked with the words "Bid Enclosed" on the outside of the envelope. and mailed to...

G.C.A.R.C
P.O. Box 370
Pitman, NJ 08071

Bids received out of time or not marked as instructed will not be considered. This will be the LAST notice for these items!

Successful bidders must pay for and take possession of the item(s) no later than the beginning of the January general membership meeting. If this does not occur, the item(s) will be assigned to the next highest bidder.

- (A) LaFayette HA146 2-meter crystal-controlled FM transceiver. Non-Working.
- (B) Azden PCS-3000 2-meter synthesized FM transceiver. Non-Working.

Both radios are offered as one item. Minimum Bid \$ 25.

WA3UVV, Cory
President

Seasons Greeting to all,
and a Safe & Happy
New Year!

