

Crosstalk is published monthly by the
GLOUCESTER COUNTY AMATEUR RADIO CLUB

THE CROSSTALK STAFF

| | |
|-----------------------|--------------------------|
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| HAM INTERVIEW: | Gurdon Cooper, W2PAX |
| CONTEST CORNER: | Ken Newman, W2FBF |
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| TYPIST: | Bill Frambes, WB2FJE |
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|--------------------------|--------------------------|
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CLUB NETS

| | |
|---------------|------------------------------------|
| 6 M AREC | 50.9----Sunday, 8 PM Local Time |
| 10 M Rag Chew | 28.8----Friday, 9:30 PM Local Time |
| Novice | 21.115--Monday, 8:30 PM Local Time |

APRIL MEETING: WEDNESDAY APRIL 2ND BEGINNING AT 8 PM. PROGRAM: W3ZO TALKS ABOUT BARCC

**DEADLINE FOR SUBMISSIONS FOR THE MAY ISSUE IS SUNDAY, APRIL 20, 1975.
PLEASE MAIL ANY CONTRIBUTIONS TO: MARK WILSON, WB2OSQ,

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CLUB HOUSE DESTROYED BY BOMB

On Thursday March 26 at 3:17 AM, the GCARC's clubroom at the Pitman Borough Hall was totally devastated by what Pitman Police believe to have been a bomb. According to the Pitman Chief of Police, a call was received at 3:08 informing the police that a bomb had been placed on the third floor of the Borough Hall. The caller remained anonymous. Before police could arrive at the hall, an explosion shook downtown Pitman.

Police found a man stumbling around the gas station across the street from Borough Hall with a large box of matches and a gallon of Ripple wine. He was taken for questioning and arrested as a suspect responsible for the bombing. An unidentified source has informed us that he is a member of GCARC.

When asked where the club will now hold its meetings, President Gehring replied "I don't know. I just don't know. This is just terrible."

Unofficial sources tell us that since the building was to be wrecked within a few years anyway, rebuilding of our room would not be considered, and if you believe a word of this, your a damned April fool!!

73

Bill, WB2FIF

APRIL PROGRAM

As many of you know our club has posted a fifty dollar bond with the BARCC, (Bicentennial Amateur Radio Convention Committee) to assist in financing the preparations for the upcoming celebration. In order to inform our members what that money is being used for, our speaker this month will be, Dave Zimmerman, W3ZO. Dave is chairman of the BARCC, and has kindly offered to come from Warminster, Pa., to speak to us. This promises to be a very interesting meeting. Come out and meet Dave and find out what your money is doing. See you at the meeting!

de Rich WB2OCR

EDITOR CHOSEN

At their February meeting, the Board of Directors decided in a secret ballot vote to name Mark, WB2OSQ, to be permanent Editor of Crosstalk.

Last year, if you will remember, the Board voted to give Bill, WB2FIF, and Mark, WB2OSQ, a 6 month trial period each, to try their hand at editing. They then would vote on the permanent editor.

Bill did a very outstanding job during his stint as editor. The board stated that it was a tough decision and required two votes. The sincerest gratitude is to be expressed to Bill for his endeavors during his six month trial period.

NEW MEMBERS

The following new members have been welcomed into the GCARC:

Len Cureton, WN2WGD,
Jack Kessell, WA2VCZ,
Art Kessel, WB2UCY,

PRESIDENT'S COMMENTS

Many congratulations to Mark, WB2OSQ, upon having been selected as permanent editor of X-Talk. Obviously, he demonstrated to the entire Club his expertise, enthusiasm, and dedication. However, because Bill Conrad, WB2FIF, in essence, did the same top-rate job during his trial period, your Board of Directors was faced with perhaps its toughest decision ever. In fact, Mark eventually wornout by a single vote margin. Many thanks to Bill also for his efforts. In fact, Bill has taken-on the major responsibility of serving as Club Chairman of Ham Radio Week--the week of June 17th to 23rd. We plan, as in the past, to set-up a shack and exhibit at one of the local shopping marts and demonstrate to the public what Ham Radio is all about. Bill will be soliciting your help in due time--so don't fail to lend a hand!

Banquet plans appears to be progressing nicely and, according to chairman Steve, W2TDS, some prizes have already been donated courtesy of our two Radio Shack emcees Jim, W2LVW, and Milt, K3WIL. The important thing now is to get your tickets! Let's plan on getting them (or maybe one now--the other later) at the April 2nd meeting. Tickets are available from any committee member (Steve, Shorty, Herb, Bill). We have to give the committee a "feel" for the total attendance as soon as possible. So let's go now--FB, Tnx.

Finally, for those ARRL members, I hope you have all by now completed your FCC Rule Change questionnaires and mailed them in. Following the ARRL wishes, GCARC will respond as a club in this manner only--unless further instructions or direction is forthcoming from ARRL. I will present a more detailed explanation at the April 2nd meeting. Also I wish to thank our committee, W2SUA, W2FBF, WA2AXJ, and WB2OCR for their recommendation.

See you all on April 2nd, I understand Rich, WB2OCR, has arranged a most interesting speaker.

73 WA2NPD

FIELD DAY 1975

Harry, WA2SEA, has been very busy in his role as Field Day Chairman. The band chairmen are all in, unless anyone wants 220 Mhz and above. They are:

| <u>Band</u> | <u>Chairman</u> |
|-------------|------------------------|
| 160 | Steve Asay, WA2AXJ |
| 80 | Rich Carter, WA2OLS |
| 40 | Mark Wilson, WB2OSQ |
| 20 | Gary Hitchner, WA2OMY |
| 15 | Bill Conrad, WB2FIF |
| 10 | " " " |
| 6 | Carmen Inverso, WA2TRS |
| 2 | Ray Metzger, WB2BZY |
| Power | Fred Cowgill, WB2GEK |

The Field Day site is not yet decided. It will probably be at the same site as last year's, out behind Alcyon Lake in Pitman. Harry is open for suggestions for a better site.

WA2FGS reports on BARCC Activity:---

The Bicentennial Amateur Radio Convention Committee plans to hold approximately 100 meetings and are making great progress. This will be the first Atlantic Division held in Philadelphia since 1929. Banquet Chairman W3PBF announced that the price is to be \$22.00 a head for this affair. Mae Burke W3CUI is to supply the music. The official photographer is WB2DBA. All YL affairs are handled by W3GTC and a booth will be maintained at the Hotel. The Convention dates are to be 23, 24 and 25 July '76 at the Benjamin Franklin Hotel in Philadelphia. There are Hospitality rooms available at \$100 each for that weekend. The Commemorative call to be used during these dates is WM3PEN and special QSL's will be sent conforming all contacts. There is a QSL contest being run at this time and the deadline for judging in about three months--anyone interested can submit their ideas. It is hoped that New Jersey, Pennsylvania and Delaware will observe some kind of Amateur Radio Week during this Bicentennial.

BANQUET, HAM RADIO WEEK UNDER CONTROL

As stated in last month's Crosstalk, the GCARC banquet will be held on Saturday, May 10, 1975 at the Tall Pines Inn on Woodbury-Glassboro Rd., Sewell, N.J. Dutch Pot Refreshments will be served at 7 PM dinner at 8. The menu will consist of either prime ribs of beef or New Orleans golden fried butterfly shrimp. \$16.00 and \$8.00, respectively.

All club members, their families and friends are welcome. A limited number of tables set for 4, 6, and 8 people will be available first-come-first-served, so if you intend to come with a group, make reservations as soon as possible.

Tickets are now available from Steve Blasko, W2TDS, Herb
Schuler, K2HPV, Wayne Wood, W2SUA, Bill Conrad, WB2FIF,

Our guest speaker will be Connie Mack, ARRL Atlantic Division Director (oughta prove interesting). Door prizes have been donated by Jim Peck, W2LVW, Milt Goldman, K3WIL, Gammatronics, Henry Radio, and General Radio.

All in all, a good time should be had, so buy your tickets now, as quite a few have already been sold, and a limited quantity is available.

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National Radio Week will be recognized during the week of June 17-23. The State of New Jersey will recognize Amateur Radio Week during this time as well. GCARC will be having a public display of amateur radio, tentatively scheduled to be held Saturday, June 21 near the main entrance to Grants at the Collegiate Shopping Center in Glassboro. The display will consist of at least an HF Class B station and a VHF station of some sort, all powered by emergency power sources, as well as some large signs to draw attention to ourselves, and some propaganda handouts for interested persons.

The date chosen is ideal because people who are really interested can be invited to come out to Field Day the next weekend and gain some more information about ham radio. This makes the activity sort of a double publicity stunt. If their not convinced the first time, we can give 'em another chance

Banquet, Ham Radio (Continued)

So far, Steve and Steve, WA2AXJ and W2TDS, respectively (hi, hi), have offered their assistance. We need people to lend tables, rigs, generators and operating time, as well as make signs, to make their event a successful one. Also gasoline donations will be needed and appreciated. If you're able to give a hand in any of the above needs, please phone me or see me at the April club meeting.

73, Bill, WB2FIF

SCHOLARSHIP FUNDS

The Foundation for Amateur Radio, Inc., a non-profit organization with its headquarters in Washington, D.C., announces its intent to award three scholarships for the academic year 1975-76. All amateurs, wherever resident in the U.S. and holding an FCC license of at least General class, can compete for one or more of the awards if they plan a full-time course of studies beyond high school.

The John W. Gore Scholarship pays \$750. Applicants must intend to pursue a career in electronics or a related science and have completed at least one year in an accredited college or university toward a baccalaureate or higher degree. Preference will be given to residents of the District of Columbia, Maryland, and Northern Virginia.

The Richard G. Chichester Scholarship also pays \$750. Applicants must be members of the ARRL and be sponsored by an ARRL-affiliated club. There is no restriction on the course of study, but applicants must be enrolled in or have been accepted by an accredited university or college and intend to seek a baccalaureate degree. Preference will be given to residents of Ohio, Kentucky, Indiana, Illinois, the District of Columbia, Maryland, and Northern Virginia.

The Edwin S. Van Deusen Scholarship pays \$250. Applicants must have been accepted or enrolled in an accredited 2-year technical school and intend to seek an Associate degree in a science-related area. Area preference is the same as the Gore Scholarship.

Application forms can be requested from the Chairman, Scholarship Committee, 8101 Hampden Lane, Bethesda, Maryland 20014. Requests must be post-marked prior to June 1, 1975.

The Foundation is devoted exclusively to promoting the interest of amateur radio and to scientific, literary and educational pursuits that advance the purposes of amateur radio.

CLUB MEMBER TRAVELS TO ZONE 19

Rose Ellen-WA2FGS has been selected as a delegate in the United States Music Teachers National Association Leaders Goodwill People-To-People tour visiting countries of western and eastern Europe.

This is NOT a trip devoted to tourism. It is an informative, educational goodwill mission dedicated to improving relations and understanding between America and the people of Europe.

The National office is located in Kansas City, Mo. Of the 17 delegates going on this trip there are no two from any one given area from the U.S.

Countries visited include Holland, Germany, Austria, The Soviet Union, Hungary and Spain. More details will be given after the trip is completed.

HAM INTERVIEW

by Gurdon Cooper, W2PAX

Our Vice President, Richard J. Netherby, WB2OCR, was born in Underwood Hospital on April 21, 1944. He grew up in Swedesboro, graduated from Swedesboro High School, and attended Drexel Institute of Technology in Philadelphia. Rich then joined the DuPont Company at the Jackson Laboratory in Deepwater where he is now employed as a Labory Technician.

Rich was first licensed as a novice in 1960 with the call WV2ICN. He let the license lapse, and about a year later received his Technical license and the call WB2OCR.

Our V.P. is active on two and six meters with a TR-22C and a Utica 650. He has RTTY equipment and a Heath line-up for MARS and low band operation when he upgrades his license.

Rich joined GCARC in 1962, served a term as director and on the Tech. Advisory Comm. He is an ARRL member, and is active in AREC and Nay MARS.

Rich holds a private pilot's license, is active in Boy Scouts, now serving as a Unit Commissioner and is a Lay Preacher in the Clarksboro Episcopal Church.

CONTEST CORNER

The results of the Novice Roundup held February 1-9 are now in. Larry Bakely, WN2VKG, is this year's winner and will receive the prize of his choice. Larry found the contest interesting and it was his first contest. The results:

| | |
|--------|-------------|
| WN2VKG | 8066 Points |
| WB2BVV | 3468 " |
| WB2OSQ | 3131 " |

Please bring any logs for the DX contest to the April meeting. No matter how small your score, it helps the Club score.

DX

COCOS: HB9AQM will head a group of European and T1 ops to Cocos for operation between April 22 and April 29. Possible call--HB9AQM/TI9 and frequencies are CW: 3795, 14195, 21295, 28295. QSL--AB9AQM.

SPRATLY: Plans still go for arrival date of April 14. Operation to start 0300--0400 April 15 till April 21.

CHAD: Chester 9G1AK, plans this operation for late March or early April. Plans call for a stop at TL at the end of the trip.

GLORIOSO: FR7AI planning this one in July using the call FR9AI/G.

FARQUAR: Hopefully last week of April or first week of May depending on propagation forecasts and etc. VQ9BP, VQ9D & VQ9R are the operators. VQ9M told me March 16 they were housing trouble getting a boat--let's wait and see. (All above via L1DXA).

DX (Continued)

To make DXCC program self-supporting new fee of \$10.00 for applications will be charged after June 1st with a \$2.00 fee for endorsements. Five band DXCC applications will be \$20.00.

Received a card from Earl Carter -- signing call TI2CA -- Costa Rica -- nice way to get in a little winter DX, Earl!

GLOUCESTER COUNTY A.R.E.C. NET SCHEDULE

Frequency 50.9 Mhz.
Alternate frequency 51.3 Mhz.
2 Meter FM frequency ???
Sunday 8:00 local time.
Monday 0000 Hrs. G.M.T.

Bob Meis, K2JRU
Assistant EC

Harry McCormick, WA2SEA
EC

| <u>Date</u> | <u>NCS</u> | <u>ANCS</u> | <u>Program</u> |
|-------------|-----------------|------------------|--|
| March 31 | WA2USI | WB2BZY | -- 2 M. Repeater operation. |
| April 7 | WA2SEA K2JRU | WB2GEK WA2SEA | -- G.M.T. -- Mobile drill, date and time to be announced. |
| April 21 | WB2GKH | WB2EFL | -- Topic of choice. |
| April 28 | WB2OCR | WA2MEM | -- Topic of choice. |
| May 5 | WA2MEM | WB2OCR | -- Topic of choice. |
| May 12 | WA2TRS | K2JRU | -- Review of S.O.P. |
| May 19 | WA2LTY | WA2SEA | -- Message handling, check in with a practice msg. |
| May 26 | WB2WYD | WB2GEK | -- Training for new HCS. |
| June 2 | WA2SEA | K2JRU | -- Closing of net for the summer. |

As the concept of emergency operations change with the advancement of the state of the art, it becomes increasingly difficult to plan in advance for these changes.

For example at the time this schedule is being made up are contemplating changes in our 2 M frequency from 146.58 Mhz. to 147.24 Mhz. And at the same time are studying the possibility of utilizing WR2AGO, the new 2 M repeater in our area for A.R.E.C. purposes.

Hopefully by the time we start up again in the fall, most of these problems will have been solved.

PROPAGATION (Conclusion)

The conditions on the six H.F. amateur bands and the VHF bands vary greatly. Therefore it is important that careful consideration be given to the choice of bands to operate on at a particular time.

Propagation on the 160 meter band varies sharply with the time of day. The time of year, and the sunspot cycle. During the day, 160 can provide good, reliable communications for up to about 100 miles. At night it is possible to work up to several thousand miles and during the winter months distances of 1500--2000 miles are quite common. During the low years in the sunspot cycle propagation of ten lengthens so that trans-oceanic communication is possible. There is hardly ever a skip zone on 160 so that short range communications is

Propagation (cont'd.)

propagation often lengthens to that trans-oceanic communication is possible. There is hardly ever a skip zone on 160 so that short range communications is almost always possible. This makes 160 a good alternate for 80 meters when long skip makes short range work impossible on 80.

Eighty meters provides good communications up to several hundred miles during the day. At night ranges extend outward to 2500 miles or more, even in the summer, however, summer static levels often long range work difficult if not impossible. During winter nights worldwide communication can be quite common, especially at low points in the sunspot cycle. There is seldom a very large skip zone on eighty.

Forty meters is similar to eighty except that distances which can be covered are longer and skip zones are much more prevalent. During sunspot lows, skip zones often extend far into the daylight hours. In the daylight hour it is possible to work up to about a thousand miles while at dawn and dusk stations can be worked on the other side of the globe--the signal following the dark path.

Twenty meters is usually open to some part of the world 24 hours a day, but there is almost always a skip zone that extends to a thousand miles or so. During sunspot highs, the band is open over very long paths, by way of F2 layer propagation, to practically every part of the earth at some time during the day. During sunspot lows, F2 propagation often vanishes completely at night, but the band may remain open by way of Sporadic E, or "short skip". For distances of 1500 to 2500 miles.

Conditions on fifteen meters vary greatly with the sunspot cycle. During sunspot highs it is useful over long distances for a good part of the day, but in years of low sunspot activity, it is only good in the daytime and sometimes unusable even then. Sporadic E is quite common and it is good for distances of 1500 to 3000 miles. During the years of high sunspot activity, fifteen is capable of world wide communication with low power and simple antennas. Circuits from the southern U.S. into South America are consistently open regardless of the sunspot cycle.

In the winter ten meters is a DX band on the high side of the sunspot cycle during the daylight hours. Ten often stays open far into the daylight hours. This band is even more variable than fifteen and during sunspot lows it often goes dead for weeks or months at a time, except for sporadic E propagation. Even during the worst of sunspot lows there are occasional DX openings on ten although they are usually of poor quality. These sporadic E openings usually occur during the spring and fall months. Ground waves on ten are very short, even shorter than on VHF bands.

The VHF band offer the most reliable frequencies for short range work, however, some relatively long communications is possible by means of Tropospheric bending (Tropo), Sporadic E layers propagation, auroral propagation, and even F2 layer propagation during peak years of the sunspot cycle.

As can be seen from the previous discussion, the proper choice of frequency for a certain operation is extremely important and each operator must consider all possibilities before deciding on a specific band to work on at that particular time. It is very bad manners to cause interference to stations several thousand miles away just to talk to someone across town.

Propagation (Cont'd.)

The choice of power level is also important, often a few watts will work out to the desired area while at other times several hundred watts are necessary.

This is the last part of this article and I hope it has proved interesting and informative. Much of the information contained in this series came from "The Amateur Radio DX Handbook", by Don Miller (published by CQ Magazine), and "The Radio Amateur's Operating Manual" (published by the ARRL).

73 Steve Asay, WA2AXJ

LES BELLES -- By Rose Ellen, WA2FGS

Is there an old table in the ham shack that you feel ashamed to use to serve coffee or other drinks on? An old round table can be put to good use as an occasional table by refreshing it with a bright, cheerful cover. Felt makes such a cover. It also comes in a variety of colors and in 72 inch widths which eliminates a need for a center seam. It is not necessary to hem felt. Just cut a circle the necessary diameter using sharp scissors or if you have pinking shears finish the edges that way.. Use bright wool tassels of contrasting color, wool embroidery or wide knotted fringe to decorate around the edge. Other fabrics which can be used for this type cover are linen, corduroy or even antique satin if you have an elaborate set up for your ham shack.

Before cutting your cover, determine the diameter of the circle. The height of the tables times two plus the width of the table provides this measurement. For a table cloth of a finished 72 inch diameter you will need 2 yards of 72 inch felt; 4½ yards 36 inch fabric; 3½ yards 48 to 50 inch fabric. For a cover of 52 inch diameter you will need one-one half yards of 72 inch felt; 2½ yards of 36 inch fabric or 2 yards of 48 to 50 inch fabric.

All you have to do is join the fabric sections with a one-half inch plain seam if piecing is necessary. Make a narrow hem around the edges of your fabric if using other than felt. Apply trim by top stitching it to the cover.

73's Rose Ellen, WA2FGS

SWAP SHOPPE

- FOR SALE: Frequency Counter -- Heath IB-101 Frequency Scaler --Heath IB-102. Good to 150 Mhz. Excellent condition \$200.00. John Stull, WB2JZX.
- FOR SALE: LPA-1 B & W Linear amplifier, 2--813 P.P. in final, plus a pair to spare with P.S. \$100.00.
- FOR SALE: Johnson Viking Courier Amplifier, \$97; National NCX-3 80-20 transceiver with Manual, \$118; Heath HP-23 power supply, \$34; Heath SB-301 Receiver, \$160; Budd Lf601 Low Pass filter \$5.00; other misc items; all good condition. W2TLO c/o William & Catherine Oberest
- FOR SALE: 35 ft. aluminum tower, 2-ele. 10 & 15 meter quad, archer transistorized rotor with cable, 200 ft. of ¼ in. nylon guy ropes--\$60 takes all. Contact Gary, WA2OMY

SWAP SHOPPE (Cont'd.)

The following equipment, from the estate of Steve Pakyz, W2PZX, is offered for sale. Contact Mrs. Pakyz,

Heathkit "cheyenne" Mobile (AM & CW) transmitter with MP-1, 12 v PS, and Instruction book, \$45.00; Poly-Comm, 62B, 2 & 6 Meter AM Trans., with Mic and Instruction book, \$75.00; Globe, Hibander, VHF 62, 6 & 2 meters with 5 crystals, \$40.00; Lafayette 6 M. AM trans., \$25.00; Turner, Model 22, Dynamic Hi-Impedance Mike with floor stand, \$15.00; RCA, type KB-2C, "Bantam" Velocity Microphone \$10.00; Browning, Model S6 Frequency Meter, 1.0 to 2.0 Mhz, \$30; NRI, Model 34, Signal Tracer, \$10; Lavoie 300 to 600 Mhz. Frequency meter, \$30; High Gain, TQW--530, Mobile Antenna, brand new with instruction book \$7.50; Hallicrafters, S-95, Civic Patrol Receiver, 152-173 Mhz., \$30; Heathkit Power Converter, MP-10, 12v to 110 v. ac., \$25; New 110v ac DPDT Antenna relay \$4; New Bud Boxes, each \$2; Lafayette 4 channel transistorized audio mixer \$10; Baldwin Headphones, \$5; PS 110V. AC input--28V at 30A output \$10; High Power Modulation transformer, \$5; High Power Plate Transformer \$10; Steel Console Housings, approx. 40 inch high (3 each available @ \$7.50; Many tubes, cabinets, and older equipment --- Make offer; 2--810 transmitting tubes each \$5; 1-4D-32 transmitting tube (new) \$10.

FOR SALE: Simpson 260-5 Series VOM in good condition; 2 Meter 8-ele beam.
Call Bill Frambes, WB2FJE

DUES

At the March Board of Directors meeting, the Board decided to extend the \$7.50 dues price until the end of the April meeting. After that, any unpaid member will be dropped out of GCARC. The annual membership list will be coming out soon, so those of you not paid-up should get busy.