CROSSTALK

HAMFEST EDITION

GLOUCESTER COUNTY AMATEUR·RADIO·CLUB

NEW JERSEY

THE OFFICIAL PUBLICATION

C R O S S T A L K

Published For and By The
GLOUCESTER COUNTY AMATEUR RADIO CLUB, W2MMD

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Ed Sumek, W2GSN	Printer	Len Kravitz, KD2CR	Circulation
Milt Goldman, K3WIL	Publisher		

AREA NETS

GCARC RTTY NET	Tuesday,	8:00 PM I47.78/18 Rptr
ARES NET:	Sunday,	8:00 PM I47.78/18 Rptr
Del. Valley Regional Emer. Net	Sunday,	8:30 PM 224.66 Rptr

Club Repeaters: 147.78/.18, 223.06/224.66, 447.10/442.10

The Gloucester County Amateur Radio Club Meets the first Wednesday, of each month at the V.F.W. Hall in Woodbury Heights. Meetings begin promptly at 8:00 PM.

Please send contributions for CROSSTALK to Tony Starr, WS2FZB,

Deadline for submissions is ten (10) days before Club Meetings.

PRESIDENT'S MESSAGE - - 1985 HAMFEST

I would like to take this time to welcome everyone to the 1985 GCARC HAMFEST. The Hamfest is one of our most exciting events of the year. Our committee, under the direction of chairperson Ginny Martin, N2FJM, is responsible for the success of the day. They are all great people!

Our club was founded and incorporated in 1959 and has grown to its present membership of approximately 150. We are involved in many facets of Ham Radio such as RTTY, Field Day, VHF and DX contesting. We also do public service work for the American Cancer Society Bike-a-thon; the Jaycees Bike-Hike for Retarded citizens; the March of Dimes Walk; the Underwood Memorial Hospital Horse Show; and the Pitman 4th of July Parade.

The GCARC also helped to get VEC Testing off the ground in this area. The credit for this goes to John Fisher, K2JF. John has done a lot for Ham Radio.

We hope everyone enjoys themselves here today. If you have any questions concerning the club or would like to join, any of our members would be glad to be of assistance.

Thank you,
Pres. Tom Gordon, KB2GI

The following list is our Presidents of Gloucester County Amateur Radio Club, Inc., along with the year which they served in this capacity.

* 1959 - Van Turner - W2KE (Club Founder)
1960 - Woody Frants - K2AQL
1961 - Jim Peck - W2LVW
* 1962 - Jan. thru March - George Stuart - K2SOL
* 1962 - April thru December - Mal Mason - W2MMD
1963 - Milt 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 - Jan. thru Feb. - Paul Callaghan - WB2WAK
1970 - March thru December - Ken Newman - W2FBF (N2CQ)
1971 - Bill Frambes - WB2FJE
1972 - John Stull - WB2JZX (N2SI)
1973 - Wayne Wood - W2SUA
1974 - Jack White - WA2MEM
1975 - January thru August - Doug Gehring - WA2NPD

1975 - September thru December - Rich Netherby - WB2OCR
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
* SILENT KEY (CURRENT CALL)

Our Club CALL - W2MMD is taken from our SK President Mal Mason, after permission from his family as well as from F.C.C.

A MESSAGE FROM THE EDITOR

It is with great pleasure that we bring you this special edition of our newsletter, Crosstalk. We of the Crosstalk staff take great pride in producing one of the best club publications in the local Amateur Radio community. This issue is a small sampling of our larger monthly publication. Shortly, we will be computerizing the editing and composition/ layout processes for a cleaner, more information - packed format. In the meantime, we hope that you will enjoy this issue. Copies of our regular monthly issues are available free of charge at our regular monthly meetings, where guests like yourself are always welcome.

I have included in this issue, for your reading pleasure, two articles of the type regularly published in this newsletter. The first article, by our No. 1 contributor John Fisher, K2JF, is aimed at all of you who would like to get started in DX'ing. It is an all new, never-before-published feature which you will find quite informative. The second feature a science-oriented piece, is reprinted from our February, 1985 issue and is one of my favorites. The author, Lou Micelli, WB2THM, has contributed several good articles over the past year.

I am always interested in exchanging newsletters with other clubs. If the editor of your club newsletter does not receive Crosstalk, have him contact me. My address is at the bottom of the title page of this issue. I look forward to hearing from your club, and hope all of you have a good time at our hamfest.

73 Tony Starr, WA2FZB

POST OFFICE BOX 370

GLOUCESTER COUNTY AMATEUR·RADIO·CLUB NEW JERSEY

W2MMD

PITMAN, N.J. 08071

August 25,1985

Hello, Welcome to the Gloucester County Amateur Radio Club's 7th Annual "Hamfest".

As a new Ham it has been an honor as well as a learning experience to have been Hamfest Chairperson, for this year's big event.

Why a "Hamfest"? This word probably has a different meaning for different people, but for me it means new Hams have a chance to pick up inexpensive gear; and for old Hams to browse at their hearts content. For others still, it has another meaning, an eyeball with other Hams whom they have only had contact with over the radio, or for Dealers, bringing in some new business. A "Hamfest" can also have the opportunity to listen to a guest speaker; such as our own DX editor of QST, Ellen White, W1YL/4, or Jeannine Duane,WB2MBW; semifinalst for teacher in space.

Whatever Hamfest means to you it is a function that requires the joint effort of all club members,to make this event a success.

I would like to thank all those who did give their support and help this year.

Hope all of you have a good day; as the Gloucester County Amateur Radio Club has made every effort to have something for everyone.

73's
Virginia Martin
Virginia Martin
Hamfest Chairperson

LES BELLES

Look around the site of our HAMFEST '85 and you will not only see our licensed YL members but several of the XYL's of our members helping to make your day one you will long remember. To help you, here are a few to identify:

N2FJM — Our Chairperson, GINNY MARTIN, can be found just about anywhere she may be needed on this day. Be sure to look her up and have an 'eyelash' QSO with her.

N1YL/4 — Ellen White of ARRL will be speaking on 'HOW'S DX' and can be found at the ARRL Booth.

WB2MBW — Jeannine Duane, a semifinalist for the recent space shuttle trip will be telling us about this and can be found at the YL Table.

N2AKL — Roslyn Marder, our talented cook, can be found at the food table.

N2FNF — Irma Colabrese, can be found at the food table.

AE2Y — Mary Petruzzi, can be found at the YL Table.

W2AFZ — Della Parker, our Club Historian, can be found at the YL-Hospitality Table and is able to answer any questions you may have about the club.

N2RE — Rose Ellen Bills, will be handling the YL Activities with many many nice prizes for the YL of any age. Check the YL Table for the times of each activity.

XYL of WA2VEE, Doris Bachman, can be found at the YL Table.

XYL of K2JF, Gladys Fisher, can be found at the food table.

XYL of K2HPV, Claudia Schuler, will be helping at the food table.

XYL of WA2FZB, Maryann Starr, will be helping at the food table.

XYL of KA2DSV, Donna Clark, will be helping at the food table.

XYL of KD2CR, Miriam Kravitz, will be helping at our Club Table.

Thank you for joining us today and we would like to have you stop and pass your greetings to each of the above mentioned persons.

33/73/88

Rose Ellen

Rose Ellen Bills-N2RE
Hospitality & YL Activities

* * * * * * * A VERY (VERY) SHORT COURSE ON "WHAT IS DX ?" * * * * * * *

This little epistle is for those that often wonder what that Amateur radio operator is talking about when he mentions DX. What is it? What does it coverture?: and, how do I find out? Well let us try to help you who may have never tried or even thought about the "World of DX."

First DX is the working of a Foreign call sign. It could be as close as Cuba (CO, CM, 91 miles off the U.S. Coast of Florida) or some very exotic far away place like Heard Island (VKO), it is that call sign and area that you work that gives you the thrill of knowing that you have made a contact with a foreign country. There are presently 317 countries now listed under the "ARRL DXCC COUNTRIES LIST" PETER'S ISLAND" has just been added. OK now I know what it is; so, how do I get started?

Well, the first thing you want to do is to get a copy of the "DX" list and take a look at all the prefixes and the countries they represent. Never mind what constitutes a country, that is up to the DXAC and ARRL awards committee, just notice the areas of where they are. Now the second thing is to start asking some questions to some of the "BIG GUNS" and even some of the "LITTLE PISTOLS" of DXing. They can help a lot and get you started on the right leg. (For those fellows in GCARC I will list the names of some of the fellows in our club who have DXCC in our regular issue.); but to get you started here goes.

Right now with the Solar Flux low (Cycle 21 has to August of 1986 to bottom out) the first bands to try are 40 and 80 meters. Especially if you like CW, Forty is your band. Starting around dusk you can get down to 7.030 and lower into 7.002, if not an Extra, why not try hanging around 7.040 to 7.025 you will hear a lot of the Europeans come in and they are very anxious to work us over here. Oh yes power - YOU DON'T NEED HIGH POWER! better than 90 percent of my 40 meter CW contacts have been with 100 watts (that is all my IC-730 will put out). So start calling them when they give a CQ or you Try. Give a CQ DX call, but do it right. Suggested method is call CQ three times inject DX, give your call twice, do it two more times and then send K. Betcha you get someone. If you are a Phone man and you have a beam try 20 phone during the daylight hours. Suggest at first you don't try to break into the some of those "horrengous" pile-ups that occur, wait till you get your feet wet. However, that doesn't stop you from going after countries you have not worked. In the mornings try putting your beam NE to Europe for a while and see how many of those fellows come in. A little further North you may grab yourself a few of the USSR boys; now follow the Sun. In the afternoon start looking south. You will be surprixed how many of the Caribbean amateurs you can pick up and, don't neglect the people in South America. A beam he says, don't let that scare you many of the fellows operate 20 with a dipole, vertical or horizontal. Ok now lets go to80 meter CW or SSB. For the Phone part you have to get down around 3800 or lower and this works at night, starting around 9:00 PM (remember you are just beginning so don't

worry about the Dusk to Dawn lines you will learn about them soon enough). Ok, so now you have worked about 50 countries. What about QSLs? There are various routes you can take. One is the "Bureau" if you are a member of ARRL they have an "Outgoing QSL Bureau" and you can find out all about that in the section of QST call "How's DX"; two you can go through a QSL manager such as N7RO who will handle 12 cards for a dollar and send they to the fellow directly or to the manager; or you can go the costly route of sending it direct with a "greenstamp" or IRC's in your returned addressed envelope. Any of the routes are good, and I would suggest that before you start sending your QSL's you talk to one of the fellows who has "played-around" DX for a while. The guys are willing to help you get started; and if you concentrate on the "game" you can get your DXCC certificate pretty darn quick. Oh yes the CERTIFICATE, there are three major ways you can go starting out (One) "Mixed" that is work 100 countries in any of the two modes CW and SSB and send in your cards; (Two) CW send in 100 cards of 100 countries that have been work on CW only; (Three) SSB again send 100 cards of 100 countries that have been work on SSB only. Yes, you can go for more than one award; I have Mixed and CW DXCC awards. When you think you have your cards ready, Ask ONE of the DXers in your Club what is the CORRECT procedure . . .

Now is the time to get into it; for in two or three years the upper HF bands, 18, 15, 12, and 10 meters will be opening up and you want to be ready to take advantage of those bands. We have the 15, 12, and 10 meter bands already and in a couple of years, maybe sooner, we will have the 18 meter band. When Cycle 22 starts you want to be on your way.

So good luck in getting started. Don't forget personal contact with some of those "BIG GUNS" and "LITTLE PISTOLS" in DXing will bring you BIG rewards.

73 John K2JF

LOOK . . . UP IN THE SKY . . . IS IT A BIRD?

More or less; and mostly less, our air-time and communication distance is controlled by the propagation conditions, station output power, and antenna design. The introduction of OSCAR increased the Amateur's communication capabilities, but OSCAR's RF output power is linited by it's electrical input power; manely the use of solar arrys (photovoltaic cells) and batteries. How do we get more electrical power "high-in-the-sky"?

Thanks to the U.S. government, the Office of Aeronautics and Space Technology of the National Aeronautics and Space Administration (NASA)

together with the Office of Nuclear Energy of the Department of Energy (DOE), a joint program called SP-100 has been formed to develop the technology required to build nuclear-reactor space power plants in the range of 100 to 1000 kilowatts electric (kWe).

The military has concerns, because as some of you including myself have experienced during lightning storms, highly energy-efficient micro-circuits used to conserve power in satellites are vulnerable to radiation and electromagnetic pulses from hostile nuclear explosions. With more energy available, medium-scale intergrated circuits could be used and would be inherently more rugged.

Have no worry, we already had a 500-watt reactor up there in 1965, but due to a voltage regulator malfunction in the host spacecraft, the reactor functioned for only 43 days. In the meantime, the chief power sources used today in space are solar arrays, fuel cells, and radioisotope generators.

There are various applications for high-powered satellites that would appear to benefit from a nuclear-reactor space power plant, not to mention our OSCAR. For example, an advanced, high power direct-broadcast satellite instead of numerous geosynchronous earth orbit satellites cluttering up space (HBO eat your heart out); for air traffic control, high-power radar can be used to track commercial aircraft over a large area and would provide high-resolution for those pilots like WA2JCT who like to fly "wingtip-to-wingtip"; space-station missions for materials-processing such as crystal-growth, biological-processing, and optical-fiber production...and the list goes on.

Space-based nuclear power has been around for some 20 years between the mid-1950s to the mid-1970s. As early as the late 1940s, the U.S. Air Force started to develop a nuclear-powered, supersonic, longe-range bomber to be used to deliver nuclear weapons. The Atomic Energy Commission (AEC)...known today as the Nuclear Regulartory Commission (NRC) and the Air Force tried to develop a nuclear-powered jet engine throughout the 1950s. There was only one little problem...the shielding (lead0 required around the reactor to protect the crew made the aircraft too large and heavy. Therefore, the switch was made to develop ICBMs to deliver the nuclear warheads. I gues you all heard of the line... "it dropped like a lead balloon !!!

The main consideration is reactor system design safety, especially since the Soviet satellites Cosmos 954 and 1402 prematurely decided to reenter the earth's atmosphere and scattered radioactive debris over a wide area of Canada. The U.S. SP-100 program specifies that reactors be launched "cold", or unactivated, and be turned on when they have reached stable orbits that will be degraded only ny atmospheric drag for at least 300 years, by which time the radioactivity will have significantly decayed.

Well, until the early 1990's, we Amateurs will have to do with what we got (loo watts or?) to "get-out". While we wait, let's put our heads together and figure a way to run a long extension cord into space. 73s

(Thanks to IEEE Spectrum, December 1984)

WB2THM
LOU