

GLOUCESTER COUNTY AMATEUR RADIO CLUB
(W2MMD)

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VICE PRESIDENT	JOHN BOKOLES - W2KI
TREASURE	ROSE ELLEN BILLS - N2RE
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Training:	Chick Naylor - WA2USI	DX:	Wayne Wood - W2SUA
Membership:	Bill Helmetag - WA2VQG	Publicity:	Sonny Gutin - WB2DXB
Contest:	Ken Newman - N2CQ	House:	Bob Ruple - WA2MMA
V.H.F.:	Tony Starr - WA2FZB	Historion:	Della Parker - W2AFZ
	Hamfest Chairman -----	Bob Grimmer - KN2QWO	
	Club coll trustee -----	Rose Ellen Bills - N2RE	

CLUB NETS

10 Meter RTTY	Thursday	8:00 PM	28.100	2 Meter FM ARES	Sunday	8:00 PM	78/1B
10 Meter SSB	Friday	9:30 PM	28.930	80 Meter CW	Call	anytime	3.705 - 3.680

The regular meeting of the G.C.A.R.C. is the second wednesday of each month, at the National Park Municipal Hall, National Park, NJ. The meeting starts at 8:00 PM sharp.

All articles to be printed in Crosstalk should be sent to the Editor; Jack Kessel/AB2W

- PRESIDENTS CORNER -

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Well its that time of the month again, another Crosstalk. First off I want to thank everyone for a fine Field Day. I dont know what our score for the event is yet, but needless to say we had a good time.

Thanks go to the following; John Zarub Jr. & Sr. All the band chairman who did a fine job, a lot of the members who came out, both to operate and to help put up all of the equipment and antennas.

A special thanks to the ladies who did a fine job; Ginny Martin and Claudie Schuller for preparing all of the food a few days before the event and who also came out Saturday night and Sunday morning to make sure we had a hot meal.

Field Day is always a good time, but when we can get hot food to boot... that is really a treat. So for the last two years we have been spoiled with fine cuisine. So to Mary Jo and the rest who helped to make this year another success...thanks. See you at the July meeting.

P.S. Since we had a case of beer left over from field day, we will be chancing it off at this meeting.

73 Ray/WB2LNR

HAMFEST NEWS

Tickets for the Hamfest are now available. Each club member will be issued 10 tickets for advanced sales, along with fliers announcing the hamfest and a map of how to get to the Hamfest.

If we all sell our tickets to the hamfest it should be a howling success. Of course some of us will not be able to sell all of these tickets. In that case all remaining tickets and monies must be turned in at the August club meeting, or by Aug. 8th at the very latest.

If you are going to a hamfest in some other area prior to August 26th, fliers are available from Mark Wilson or Jack Kessel, to put on windshields or just pass out as you roam through the other hamfest. The Hamfest Comm. will be grateful for your help to make ours the best Hamfest in S.J.

TU Bob/Kn2QWO

AMATEUR RADIO GROWING

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The number of licensed operators in the Amateur Radio Service increased by 8% overall during 1978 according to statistics kept by the Personal Radio Division. There were 356,336 licensed amateurs at the end of 1978 compared with 328,648 at the end of 1977.

By class of operator there were (62,856 Novices) (68,738, Technicians) (118,808, Generals) 83,436 Advanced and 22,498 Amateur Extra Class licensees at the end of 1978.

The amateur Radio Public Service Corps (ARPSC) is the backbone of the ARRL's public service operations. It is comprised of two main operating entities, the National Traffic System (NTS) and the amateur Radio Emergency Service (ARES).

The Amateur Radio Emergency Service is organized on the local level for the purpose of providing both emergency and non-emergency communications. It is run by the Emergency Coordinator (EC) who oversees all operations in his area. In southern New Jersey ARES is broken down by county, with one EC for each of our 9 counties. Each EC has his own county organization, with Assistant EC's appointed to help with the work. Each county runs nets at least weekly, for the purpose of training and traffic. They provide communications during normal times for such things as parades, walkathons, bikeathons, motorcycle rides, or anything else that needs our services. They maintain contact with local and county government officials, Red Cross, police, hospitals and anybody else who might require ARES services during an emergency. In short, the EC is the boss on his turf!

The overall operation of ARES in Southern New Jersey is tended to by the Section Emergency Coordinator SEC, Boyd Prestwood, W2HOB. Boyd is in charge of Co-ordinating the activities of all the counties, as well as overall system planning and advising. He also selects the EC for each county, whom I then appoint. Boyd has written the Emergency plan for the section which spells out just how the section will respond to an emergency. It explains how the counties will communicate with each other and the outside world both on two meters and on the low bands, as well as other miscellaneous things necessary to run the show on the section level. Operations within each county are not covered by this plan, as they are strictly the concern of the EC.

The National Traffic System is organized on the section level for the purpose of providing communications between ARES groups and stations. The Section Traffic Manager organizes section wide nets which maintain liaison with region and area nets. He also recommends candidates for the position of Net Manager (NM). The section nets are the principal means of sending a message into, out of or throughout the section. Southern New Jersey runs combined section nets with Northern New Jersey, providing better efficiency in liaison and manpower, and bringing the state closer together. The major section nets are the New Jersey Net (NJN), the New Jersey Phone Net (NJPN) and the New Jersey Slow Net (NJSN). The New Jersey VHF Net (NJVN) will soon be operating on linked repeaters. NTS, including all of these nets, provide a valuable message service even in non-emergency times.

As you can see operation of the ARPSC is quite involved. Many man hours have been put into section wide planning, and many more are put into the operation of the organization each week. Are you involved? It doesn't take many hours to volunteer as a member of ARES or NTS. Why not contact your EC or NM today? Don't know his name give me a call and I'll put you in touch. Until next month, very 73.

Bill/WB2LCC -SCM

The best way to forget your own problems is to help someone else solve theirs...

PROPAGATION GLOSSARY OF TERMS by K2JF

As you read the Propagation forecast and become more acquainted with propagation, there will be terms that are used, and it is most helpful to know their relationship to propagation.

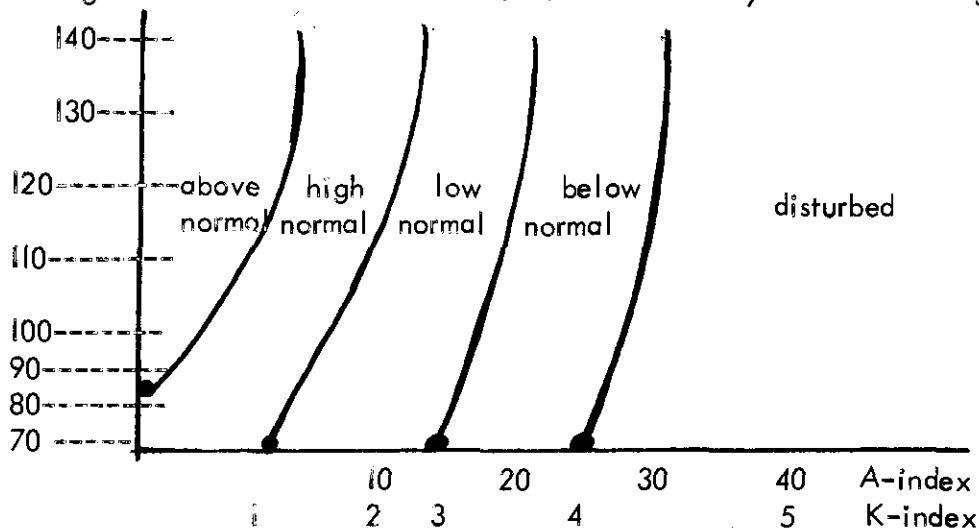
Critical Frequency: That frequency which beamed straight up will not be returned by the ionosphere. The last frequency that will be returned is "The Critical Frequency" and is the Maximum Usable Frequency (MUF). The Top Operational Frequency is measured on an angle 2 degrees from the vertical that will be returned. This is a very useful operational frequency since this is used to determine the depth of each layer of the ionosphere.

Sporadic E: is a little understood phenomenon that affects the lower (E) level of the ionosphere and results in strong short-skip propagation. Highly ionized clouds seem to appear in the E layer, remaining in place for minutes, or even hours, producing strong but relatively local conditions of good propagation particularly at the upper end of the hf spectrum and lower end of the vhf spectrum. Quite unpredictable, hence the term sporadic.

Solar Flux: It is a measurement of radiation from the sun at 2800 MHz and is used to represent the flux level. In general, the higher the solar flux, the higher the degree of ionization. Essentially, a product of ultraviolet radiation.

Geomagnetic Activity: Solar particle radiation from the sun directly affects the earth's magnetic field, and can cause the ionospheric activity to weaken or disappear entirely. It is responsible for fading, flutter, and increased noise levels. The A Index is the daily planetary average of measurements taken at all participating observatories worldwide and hence, is about 24 hours late when reported.

The K Index, is related to the A Index, but consists of measurements taken at the Fredricksburg, Virginia, observatory, and reported every three hours. In general, the lower the A and K Indexes, the better the ionosphere for radio propagation. For those who are already DXers WWV is no secret, but for the new ones an important source of information is the WWV's propagation information, WWV gives much information of value to the DXer at 18 minutes after each hour, on all of the frequencies they use. 2.5, 5.0, 10.0, 15.0 and 20 MHz. The information consists of Solar Flux data plus Geomagnetic Activity, using the A and K indexes. A chart here shows this information, and by transferring the WWV information to the chart, you can quickly plot the crossover point and directly read the condition of the ionosphere. Conditions from Low Normal through Above Normal are the ones to use for your DX hunting.



PROPAGATION FORECAST JULY 15 - AUG 15 1979

Well, we re-done the whole computer program, so let us see how it works out. If you have not been working the ten meter shortskip in the evenings, shame on you. It has been rather good with the major openings toward W4 land with ole miss coming in rather good. Start looking for ten meter short skip to the mid west, W9 land and the far western section of W8 land.

We have passed our summer solstice, that part of the year when the sun has reached its maximum northern excursion from the equator, it touches the 23 deg. north latitude or the Tropic of Cancer, and as such our days will start getting shorter. We can now see a slight reduction in 15 meter operation as the night time will be longer; however, don't dismay, the openings on 15 will be very good. Lots of good DX for you DX boys. Bill WA2VEE, twenty is going to be very good DX toward the So. Pacific. Fifteen will be good up to 2000 while twenty will last to midnight then go to forty some fine DX. The area toward the indian ocean will be pretty good this next forecast period. Try twenty at 2000 to 6000 (YSTIARFI).

The months of July and August will exhibit the propagation phenomenon of the "over-coupled" effect, so look for your best signals before 1300 and after 1700 on the DX bands. Forty will start opening around 2200 in July and 1930 in August. There will be some intermittent openings on ten, increasing as August approaches.

For you sun lovers, be careful, you can receive some real nasty over-exposure during this time, not only surface burn as manifested by red skin, but some deep internal oxidation of cell formations that may cause lasting damage. This is most prevalent during high sun-spot activity as we are now experiencing in Cycle 21.

For you VHFreaks, there will be two good meteor shows, the Aquarius July 28-31st and Perseids will peak in second week of August.

ALL TIMES PITMAN TIMES

<u>*80</u>	Europe	2300 - 0000	<u>*15</u>	Europe	1700 - 1800
	So. America	2300 - 0400	*	Mid. East	1700 - 2000
				Africa	(1500 - 0300 1700 -2300 best)
<u>*40</u>	Europe	2200 - 0200		So, Pacific	1800 - 2200
	So. America	2100 - 0400		Australasia	2000 - 2200
	So. Pacific	0500 - 0600		So. Amer.	Anytime but 0300 -0830
<u>*20</u>	Europe	1600 - 0300&05-0700			
	USSR	1700 - 0100			
M	Mid. East	1800 - 0100	<u>*10</u>	West Africa	1700 - 1900
	Africa	1700 - 0400		So. Pacific	1800 - 2030
	Far East	0700 - 0900		Australasia	1830 - 2130
	So. Pacific	2300 - 0500		So. Amer.	1500 - 2000
	Australasia	0100 - 0800			exceptionally gud 1700-2300
	So. Amer. Carib	Anytime but 11-1500			
	Antartica	2200 - 0300			

UHF GOOD DAYS: July 7, 10, 25, 28, Aug. 3, and 6th. Good Luck
 VHF GOOD DAYS: July 7, 19, 28, 30, Aug. 11, and 15th. John/K2JF

LES BELLES

By Rose Ellen-N2RE

MARY PETRUZZI passed her first test in April of 1977 and had the call WA2ONZ receiving the Technician Ticket. This was after she attended the school in Bellmawr, which was sponsored by the G.C.A.R.C. along with the Barnsboro Repeater Association and the Bellmawr Civil Defense.

Mary, as well as her OM "Snub", attended the class together and she says, "I must admit he had to do a lot of talking to convince me to sign up for the course, because like a lot of people I felt ham radio was just for men".

Mary moved along and received her Advanced Ticket and after mastering the theory she passed the Extra Exam and now is AE2Y.

"Snub" recently passed his exam and was accepted as a member of GCARC February 1978.

It was Mary who became our first member of that family in October of 1977 and was appointed Corresponding Secretary of GCARC in February of 1978.

Mary and "Snub" are gradually building up their shack and have a Galaxy Mark V and work with a dipole antenna. They recently purchased a tower and beam.

Mary is also active in Civil Defense in Bellmawr and with Camden County. She is a member of the Young Ladies Radio League, Inc.

The new 2-meter group recently established in Bellmawr appointed Mary as one of their trustees.

Mary has worked most of the states on CW but not out of the U.S. as yet. Just wait until the antennas are up and she will get out.

Mary feels she has met some great people through ham radio and her only regret is that she did not get into it sooner.

Mary and her OM "Snub" reside New Jersey and as a family they are enjoying the hobby of radio and attending clubs and other radio events together.

Mary, congratulations to you from the club as one of our now 11 YL members.

Rose Ellen

FIELD DAY 1979

CQ CQ Field Day ! I guess that some of us will be hearing that in our sleep for the next few weeks.

Field Day has to be one of the most enjoyable events we do as a club. One of the reasons is that so many take part in this yearly event. You get up early on Saturday morning to get out to the field site, work to get the station in shape for the long hours ahead and hope that Murphy stays away. After long hours of operating you have to drink some of Mary Jo's STRONG coffee. (this is fun ?) you bet it is !

If you can get your second wind after Saturday night, with very little sleep, You have it made. One thing that helps a great deal is, the fine effort the girls put in on Sunday morning. I don't think that eggs and coffee ever taste better than they do at this time. I admit that some guys look like they can hardly see the plate, but they still manage to put their share away.

It looked like we had quite a few new ops out this year and some new band chairmen also, it's good to see you take part. Not only is it good experience, it's also a good way to pick up some operating skills that would be particularly useful during an emergency situation.

You can tell the state of the art is changing. I think this was the first year that I saw a microcomputer doing the logging for one of the bands... Well anything that takes some of the work out of it. One thing that I hope never changes, is the "SNAKE". How the mast for the two-meter antenna ever gets off the ground is beyond me. After a few crashes to the ground, it finally snakes its way into the vertical position. That alone is worth a ride out to the site to see. Well done Joe and Bob. I will be looking for it again next year.

Ten and Fifteen meters was not in the best of shape this year, but it seems that one band or the other is always poor during the Field Day weekend. I guess that it would be too much to ask for to have good propagation on all bands. Although conditions were good on 80 meters, I was told that the reason they packed it up early was, they could not compete with the guys on 40.... Well better luck next year.

Last but not least, the heart of the operation was the generator crew. They did a fine job and we had a minimum of down time for refueling. WA2DYO did a lot of work to get set up, and it worked very well.

Start planning now, and I hope to meet you all again next year for ..-. -.. !

73 Jack/AB2W

FOR SALE ; HR2B two meter FM. D-104 mic. and hand held mic. Bpr Xtal 12, chan. Call: Tom/WA2MFS