



Crosstalk



Nary a contribution spurned

May, 1988

ARRL Affiliated

PRESIDENT'S MESSAGE by K2JF

Well we have certainly have had a busy month this time and we can certainly be mighty proud of the achievements club has accomplished. Under the excellent guidance of KB2COB *your* club did an outstanding job for the ARC Bike-Hike. They, the ARC collected over \$40,000 for this effort and much of the effort goes to the people who participated in this to see that all went smoothly and no one got hurt or where necessary emergency help was needed the help was there due to your members who participated in that event. Not to be undone by that, we have to give WB2LNR and his gang a great "Well-Done" for their efforts in working at the hospitals around our area in the "Mock Disaster" exercise. They spent a lot of their time in proving that Amateur Radio can sure be a great help in a disaster situation; and, of course we have to give a big "Great Job WB2GSF" for his coordination and execution of getting the people out and doing a "bang-up" job again protecting the people as they walk their routes for the March of Dimes "Walk-A-Thon". It is these members of *your* club who participate in these events that give *your* club and Amateur radio a good name in our communities. It shows our communities that we can be a vital part in the communication and service to very worthwhile non-profit organizations that benefit all. For you who were unable to lend a hand, perhaps the next time you will find the time. Much is being done at the site and I

will let the site people tell you about all that is going on. We have over 30 countries worked from the site. Spring has "sprung" and the area around the Site certainly is beautiful with all the peach and cherry blossoms in bloom and the apple trees beginning to show their green leaves. We expect to see many of you participate in the coming week-ends site work parties. With the coming of may, there is much to be excited about in Amateur Radio. We will be hearing from the people who come back from the Dayton "HamVention" telling us about the new equipment and the new stuff coming out. We have the spring UHF-VHF Sprints, and the upward swing of the Solar Flux will give you all chance to do some good DXing on the HF bands. N2GSF is busy getting his new Scholarship committee organized and getting into the nitty-gritty of its operation. Let us not forget WA2VQG's efforts of training and of course the VEC testing group that happens every third Thursday. Let us get out and support WB2LNR and W2GSN at the site; and, for those who are interested I will be taking slide pictures of my trip to Visalia and try to get some shots of the big DXers. KA2DOT is getting a good start on Field Day so let us get behind him for this big club event. I hope to see many of you at the meeting on Wednesday, May 4th, at 8:00 P.M. at the Woodbury V.F.W. Come on out and meet some of the gang and enjoy yourself, we need you. 73

DX

Well no one can say there was not

any DX this last month. Boy, it was all over the place and I heard many new calls from our club in there working some of that stuff. How did you make out working DX from your car WB2DXB? The Solar Flux for the month of April was never below 110, and it looks like we are in for a very good month in May. Ten should be wide open to all parts of the world starting around 1400Z and will stay open after dark. Look for great stuff on 15 all doing the day and into the late evening, and as for 20, well around the clock, and believe me you don't need a KW and a fancy beam. Your site has done some real fine DXing with 100 watts and a 16ATV vertical. How about YB3CN, VS6CT, J37AH, JA9AA, S0RASD, just to mention a few. Remember to look at WWV at 18 after the hour to get the day's Solar Flux, A index, and of course the very important K index. If you see a SF over 115 and a falling K index, be ready for some real good DX. Oh yes, you UHF-VHFers, we are entering the time of the year where TE and Sporadic E will be coming up. The site has a new 6 meter beam (Txn to N2AIV's help), and when I checked its VSWR it was below 1:1.2, so we are getting ready out there. Wait till we get that tower up, boy that is going to be great. Don't neglect the low bands. 80 and 40 have been doing very well and in may they are still usable. Getting a little noisy but still in there, especially in the early mornings at the Terminal line time. VK9NS, VK2HD, VU2RAU, and the ZL's coming bouncing in, BY4WGN comes up on 3795 and listens at 3805 many mornings. The DX is there and especially on 10, so you Techs and

COMMITTEE CHAIRMEN

HAMFEST	NJ2B
CONSTITUTION	WA2NPD
AWARDS	K2ZA
SITE	WB2LNR
HISTORIAN	K2PQD
NETS	WA2TOP
ARES	WA2SEA
SUNSHINE	KB2EUA
MEMBERSHIP	WB2GSF
DATA PROCESSING	KB2COB
TECHNICAL	WA2TML
PICNIC	WA2GFK
SPECIAL SERVICES	WB2OYQ
HEALTH/WELFARE	KD2CR
HOUSE	KB2AB
BANQUET	N2FJM
TRAINING/TESTING	WA2VQG
CONTEST	K2IIPV
FIELD DAY	KA2DOT
SCHOLARSHIP	N2GSF

CROSSTALK

EDITOR	N2HIS
PRINTER	W2GSN
DISTRIBUTION	K2OWE
	N2FJQ
	KD2CR

OFFICERS, 1988

President: John Fisher, K2JF
Vice-President: Ed Sumek,
W2GSN
Recording Secretary: Beth Bar-
nish, KB2EAL
Treasury: Sonny Gutin,
WB2DXB
Corresponding Secretary: Mike
Lipnitz, N2FKS
Chaplain: Ed Stetser, K2JJC

BOARD OF DIRECTORS

R. Layton, KB2COB - 3 year
E. Ross, WA2ZND - 3 year
W. Ashton, WB2OYQ - 2 year
D. L. White, N2FKT - 2 year
J. Barnish, WB2CAK - 1 year
A. Trueblood, N2FJQ - 1 year

TRUSTEES

J. T. Clark, KA2OSV - 4 year
H. Spiece, NJ2B - 3 year

H. Jackson, WB2GSF - 2 year
M. Lizzio, WA2TOP - 1 year

CLUB REPEATERS

147.78/1.18 MHz
224.66/223.06 MHz
442.100/447.100 MHz PL 20

CLUB NETS

ARES/RACES:

Time: Every Sunday, 8pm
Frequency: 147.78/1.18 MHz FM
Net Control: WB2LNR

10 METERS:

Time: Every Tuesday, 9:30pm
Frequency: 28.350 MHz USB
Net Control: WA2TOP

Novices, here is your chance- go
get it.

And one other thing..don't forget
that 12 meter band..it is very hot
now days with 10 open you can
get some good points for the new
awards. C U in the Pile-Ups 73
K2JF

RECEIVED SIGNAL STRENGTH

A. **FACTORS**...Whether the iono-
sphere will support transmission
of sky waves over a given signal
path at a certain time may be deter-
mined by finding the MUF and
LUF for this path. If a consistent
optimum working frequency can
be derived from these factors, ra-
dio communication over this signal
path is known to be possible. In
the downcoming sky wave, we are
not dealing with a steady wave of
constant amplitude and phase, but
one which may fade suddenly and
greatly, whose polarization may be
changing constantly, which may
be composed of not one but many
component waves, which is affect-
ed by reflection at the ground near
the receiver, and which is subject
to the variations in height and en-
ergy absorption in the ionosphere
and to focusing by the ionosphere
These difficulties may be mini-

mized by due regard to certain fac-
tors upon which the received signal
strength depends, such as transmit-
ter power, antenna gain, transmis-
sion-path distance, absorption
function of the signal path, and in-
terference losses. It is obvious that
the transmitter must supply the
amount of power required to pro-
vide a field of sufficient strength at
the receiver.

B. **GAIN OF ANTENNA**....The
gain of an antenna depends primar-
ily on its design. Transmitting an-
tennas are designed for high effi-
ciency in radiating energy, and
receiving antennas are designed for
the efficient pickup of energy. On
many radio circuits, transmission
is required between a transmitter
and only one receiving station. In
such cases, it is desirable to radiate
as much energy as possible in the
proper direction since radiated en-
ergy is useful only in that direc-
tion. Directional characteristics in
a receiving antenna increase the en-
ergy pickup or gain in the favored
direction and reduce the reception
of unwanted noise and signals
from other directions. The general
requirements for receiving and
transmitting antennas are that they
have small energy losses and that
they be efficient as receptors and
radiators.

C. **FIELD INTENSITY**... In tra-
versing a nonionized region of the
atmosphere, practically no energy
is lost from the wave, and the only
decrease in field intensity is that
caused by the spreading out of the
wave front, the **INVERSE DIS-
TANCE ATTENUATION**. The
field intensity along a path, en-
countering no obstacles (neither
large masses nor ions) and no in-
terfering wave trains, varies in-
versely as the distance from the
emitting source; the energy density
in the waves, which is proportional
to the square of the field intensity,
varies inversely as the square of
the distance (the familiar **IN-
VERSE SQUARE LAW**). The
field intensity usually is measured
in microvolts per meter;

D. **ABSORPTION**...The presence
of ions in the upper atmosphere not

only causes bending and the return to earth of radio wave of sufficiently low frequency, but also causes part of the wave energy to be dissipated because of the collisions of the electrons with neighboring molecules of air. This reduces the intensity of the radio wave below that resulting from the normal spreading of the wave front as it travels out from the transmitter. This absorption process is of great importance in the practical use of ionospheric radio transmission. During the day, absorption takes place mainly in the D region of the ionosphere. During the night ionization and absorption in the D region becomes negligible. However, there is still some absorption for frequencies near the MUF of the F2 layer because waves at such frequencies are retarded, and there is sufficient time for appreciable energy loss to take place in spite of the relatively small number of collisions.

E. ANTENNA HEIGHT ...The received signal field is usually a combination of the direct field resulting from the downcoming sky wave, together with that caused by the wave reflected from the ground. The resultant electric vector at the antenna, therefore, is dependent on variations of the ground-reflection coefficient as well as on the changes in both the amplitude and direction of the downcoming sky wave. The height of the receiving antenna and the angle at which the sky wave approaches it may thus be contributing factors to the received signal strength, since polarization and phase of the ground-reflected component may serve either to cancel out, or to contribute to, the resultant field strength at the antenna.

FADING

Because of fluctuations in ionospheric conditions, the received intensity of the sky wave is not constant, but varies with time. The term *fading* refers to relatively rapid

variations which occur during a space of minutes, seconds, or even fractions of a second. In general, fading is more sudden on high than on low frequencies. A type of fading known as *SELECTIVE FADING* also can cause distortion in radiotelephone signals. In such cases, the fading affects certain frequencies more than others and, therefore, may affect the side bands and the carrier wave differently.

A. TYPES OF FADING...The many types of fading fall into four principal classes-(1) interference fading, (2) polarization fading, (3) absorption fading, and (4) skip fading. Most of the rapid fading in the input to a receiver is a combination of the first two types; the other two are responsible for slower changes.

B. INTERFERENCE FADING-Interference fading is caused by phase interference of two or more waves from the same source arriving at the receiver over slightly different paths. If the paths are of different lengths, and their relative lengths vary for some reason, such as fluctuations in the height of the ionospheric layers, the relative phases of the waves arriving over the different paths vary with time, causing alternate reinforcement and cancellation of the field intensity.

C. POLARIZATION FADING-Additional variation in the field intensity affecting the receiving antenna occurs as a result of changes in the state of polarization of the downcoming wave relative to the orientation of the antenna. This variation is called polarization fading. In general, the state of polarization of the downcoming sky wave is changing constantly. This is due mainly to the combination, at random amplitudes and phases, of the two oppositely polarized components, the ordinary and the extraordinary wave. The polarization of the downcoming sky wave is generally elliptical. By elliptical polarization is meant that, as the wave travels along the signal path, the electric and magnetic fields re-

main at right angles to each other, and to the direction of propagation, but rotate about the signal path in more or less corkscrew fashion instead of remaining constantly in either a vertical or a horizontal plane with respect to the path, as does the plane polarized wave. This results in random and constantly changing values of the amplitude and orientating of the electric field with respect to the receiving antenna.

D. ABSORPTION FADING-Absorption fading is caused by short-time variations in the amount of energy lost from the wave because of absorption in the ionosphere. In general, the period of this type fading is much longer than for the other two types, since the ionospheric absorption usually changes slowly. The sudden ionospheric disturbance is an extreme case of this type of fading although usually it is classified as an irregular disturbance rather than as fading.

E. SKIP FADING...Skip fading is observed at places near the limit of the skip distance, and is caused by the changing angle of refraction. Near sunrise and sunset, when the ionization density of the ionosphere is changing, it may happen that the MUF for a given transmission path fluctuates about the actual operating frequency. When the skip distance moves out past the receiving station (sometimes call going into the skip) the received intensity abruptly drops by a factor of 100 or more, and just as abruptly increases again when the skip distance moves in again (sometimes called *HIGH MAX*). This may take place many times before steady conditions for transmission are established.

The next and last part will be on:

Radio Noise and Required Signal Strength

CLUB AWARDS by Jack Zaruba, K2ZA

Nothing new to report. Re-member, I need input to get this awards machine into gear, so start collecting those QSL cards.

There are 8 HF and 5 VHF/UHF awards for contacts after January 1, 1988, in addition to the original "WORK 15 GCARC MEMBERS" general award.

The leaders in the general award are:

Ray Martin, WB2LNR - 253 members worked.

Sonny Gutin, WB2DXB - 188 members worked.

John Fisher, K2JF - 123 members worked.

Please contact me for information on all of the above awards.

TO ANYONE WHO CONTRIBUTES TO CROSSTALK FROM NOW ON:

Please double-space your contributions. - Ed.

CONTEST CORNER by Herb Schuler, K2HPV

MAY CONTESTS

- 7-8: Ten-Ten Int'l Spring CW QSO Party
- 7-8: Nevada QSO Party
- 14-15: MARAC County Hunters SSB
- 14-15: CQ-M (Peace to the World) - CW & SSB
- 14-15: Utah & Michigan QSO Parties
- 21: Armed Forces Day - Work Military Stations
- 28: QRP International CW Sprint
- 28-29: CQ Worldwide WPX - CW

Last month I gave you the scoop on the club's MEGAPOINT award. I said there were five contests from which you could use the scores to get this award. While

that is true, I want to clear up one point. Four of the five contests named actually have separate CW & SSB sections which count separately as a contest. So you actually have 9 contest scores to use toward your MEGAPOINT award. OK??

The biggie this month is the CQ Worldwide WPX CW Contest on the 28th and 29th. Remember, WPX stands for Work All Prefixes. Each new prefix counts as a multiplier, and there's a pile of them. This one is really fast moving and a lot of FUN. Of course, it is sponsored by the CQ Magazine people.

Ten-Ten International is sponsoring their Spring CW QSO Party on the 7th and 8th. Ten-Ten International is an organization devoted to promoting the use of the ten meter band.

Just a note to call your attention to the three state contests this month to help you collect your states and counties.

MARAC (Mobile Amateur Radio Awards Club) is holding its SSB County Hunters contest on the 14th and 15th. Here's a good opportunity to get new counties. This is the main group comprising the county hunters, so get in on this to learn more about county hunting. Just another of the many addictions to help use up your ham radio time.

QRP Amateur Radio Club International is holding their CW Sprint on May 28. This is something different from the usual contest. This one will run for four hours only (0500Z to 0900Z). Doesn't take a lot of time. Obviously, this club is devoted to the use of low power (hence, QRP in their name) in all radio contacts. The club defines low power as not more than five watts output. It's surprising how much you can work with low power. In five months I have worked all states, all but 2 Canadian provinces, and 70 DX countries. I don't spend a lot of time on the radio; but when I do I'm either county hunting, operating QRP, or doing both at the same time. Speaking of what you can work

with low power, K2JF, John Fisher, (he's our PRES, you know) has a DXCC certificate for QRP Mobile. He's worked over 100 countries with a converted CB rig on ten meters from his car!!

I hope you are enjoying these columns. Nobody has mentioned them to me since I started. Nobody has mentioned contests to me since I started. I enjoy writing the column, but is my time well-spent if you don't respond?? Well, I don't give up that easily. The upcoming Field Day exercise is a good way to get your feet wet in contesting. And your help would be greatly appreciated. But have you been hesitant to try contesting?

You think it's too fast-paced for you? You don't think you're that great an operator? Can't copy CW fast enough, you think? Remember your first low band contact when you were a new Novice? WOW!! What a thrill!! You say you have never operated on the low bands? You never operated CW? Holy cow, I can't imagine anyone getting a ham licence and not at least trying it out. Well, contesting doesn't have to be fast-paced. You can find people to work at your speed. You don't have to spend 48 hours in a contest. You can stay there for just 1 hour or a half hour, or whatever you wish. And some of these contests are SSB, so you can use your microphone. Some of them are on VHF!! Try one of those.

If you have been asking yourself these questions and not getting any answers, ask someone else. Ask me! You wanna get your feet wet but don't have a low band station? Come to my house and let me show you how it works. Want to have a seminar in contesting? We can use the club station at the trailer for that. I'd be more than willing and happy to take five of you at a time down there for a few hours' seminar and actually operate a contest with you and show you how it goes.

OK. Enough preaching, and the last time for it! Call me and come to my place for an hour or

extension has been placed in the back room operating position, so now if you need to leave a message for anything concerning the club, you can do so. Keep in mind that the number for the GCARC is listed, and even if you forget the number Information will have it. This is a good phone system!!

Temporary electricity has been set up in the shed, and when the trencher is available all wires will be placed underground.

The trustees have taken inventory and everything has been put into the computer. Another job well worth the effort. Thanks, gang!!

The markers for the telephone poles have been put in place. The phone company informs me that it won't be long until they set up the poles, so let's get the poles dressed up with the pulleys etc.

The 2 meter and 220 antenna have been placed on the tower. We still need a 440 antenna to be donated. Anyone??

Does anybody have about 250 pounds of grass seed laying around doing nothing?? If so, we need just about that amount.

Two meetings were held at the site last month. We didn't have to leave a tip for the waiters either. One less bill...K2JF loves it...

A four drawer filing cabinet has been donated and will probably be on site by the time this reaches the mail, thanks to Sonny, WB2DXB.

We are waiting to dress the tower only because we don't know when we can coordinate with the crane to lift it in place, so it won't be long now. Fred, KB2BF, has been in contact with the gentleman who owns the crane and will let us know when things are ready to go after we dress up the big stick. We will have on the tower: a 2 meter horizontal beam, a TA-33 Sr., a Ringo Ranger for 2 meters, an Iso-pole for 220 FM, and hopefully, if donated, a 440 vertical.

So that's about it for this month. Keep in mind that we are having work parties on the weekends (that is when we don't have anything else planned, such as Bike-Hikes and the like). So come

on out and enjoy the club site; get acquainted with the equipment, and enjoy.

See you at the meeting.

ARES/RACES by Ray Martin, WB2LNR

First let me say, for the last 25 years of my amateur existence, I have known the previous Emergency Coordinator. And at this time I would like to extend my sincere appreciation from the hams of Gloucester County to Mr. Harry McCormick, WA2SEA.

Jumping into the years of FM repeater activity, the wonderful surprise of acknowledgement came from across the 2 meter FM band from Harry. Here he was in all his glory, preaching preparedness and the necessity of Civil Defense on the home front.

Well, this has never changed in all those years; and consequently, the hams in Gloucester County have always had a good friend and teacher in Harry. So at this time I just want to say "THANKS, HARRY!!!"

The next point of business is updating the files. Everyone involved in ARES/RACES knows how important records are. Without them we would be out of luck. We wouldn't be able to dispatch the proper person with the proper equipment in a "real emergency." So with that in mind, would everyone involved please send Chick Naylor the following information:

1. Your call
2. Expiration date of your licence
3. Class of your licence
4. Social Security number
5. If you run the low bands
6. If so (#4), how much power?
7. Type of antenna you have (beam, wire, etc.)
8. If you can run the low bands mobile
9. What FM gear you have (2m, 220 MHz, etc.)
10. If you have handhelds
11. If you run mobile on FM
12. If yes on #11, which bands?

13. If you have a portable generator
14. If yes on #13, is it always available to you?
15. If yes on #13, how many watts does it put out?

It is very important to be able to put the right person in the right spot in a "real emergency." So that's the reason, folks. I know I might sound like the federal government, but it's very important!! With that in mind, please try to put this information together and send it to Chick so he can input the info into the computer. Enough said.

Thanks, and I will try to keep everyone informed while I'm in my infancy in this new position. I want to do the position justice and I can't do that unless I have your cooperation. Thanks.

FIELD DAY UPDATE by Art Strong, KA2DOT

Field Day is rapidly approaching and by meeting time, we will have had our first Field Day meeting at the club site. I'm quite sure a large share of the planning of station location, etc, will have been squared away.

Work on the tower stakes is progressing right along. Chick, WA2USI, put tapered points on them and Ray, AI2B, has the pieces to be welded on the top and is also doing the welding. They will certainly outclass the pieces of conduit we've used in the past.

Looking back through last year's write-ups, 2300 contacts had been set for our goal for Field Day. We blew that goal away with 2655 contacts to our credit. With propagation picking up a bit, it would seem that 2500 contacts might be attainable. Seems to me we can do it.

Before I go on, I want to say that we have some Chairmen coming out for a real challenge; QRP CW! Jack and John Zaruba are running 2 QRP CW stations on battery power, this year. There are those who dare scoff these brave adventurers? Their mode and class gets

them 10 points per contact! Not too shabby.

As soon as you get a definite count of the number of people in your group, let Rosalyn Marder, N2AKL, know. She is beginning to start planning for our meals and needs to be kept informed. If some of your people will be missing a meal, like Saturday dinner or Sunday breakfast, let her know this also.

This year, as like last year, the food will not be available until after the tower is up and secured. Until that time, the coffee and soda will be available.

As you can see by the list that there are still some bands available. You new members should really consider giving Field Day a try. It certainly isn't for everyone, but quite a few first-timers, come out again and again. You need not be a real ratchet-jaw phone operator, or a 35 w.p.m. CW op, to participate in Field Day. Just come out and help set up on Saturday and take down on Sunday, if you like. But if you come out on Saturday, stick around for awhile, after Field Day officially starts at 2 p.m. You never know, you may spend quite a few hours there after you discover what Field Day is all about.

The following are Band Chairpersons thus far:

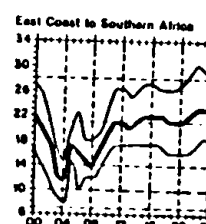
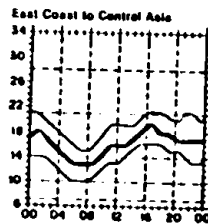
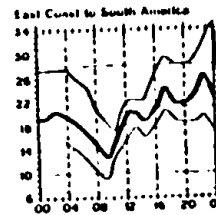
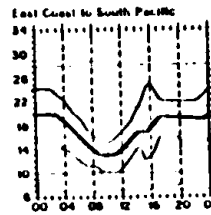
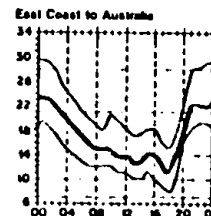
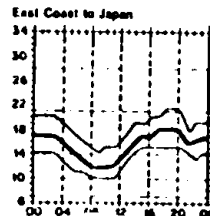
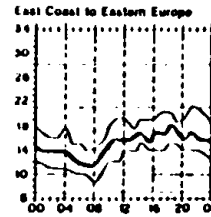
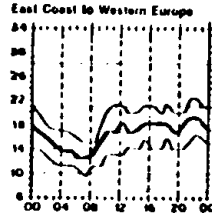
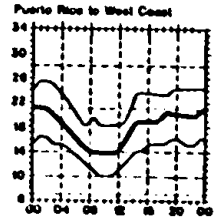
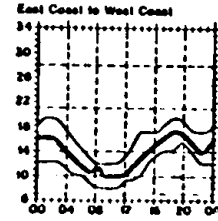
- 80 PH - Jim Clark - KA2OSV
- 80 CW - OPEN
- 40 PH - OPEN
- 40 CW - Ken Newman - N2CQ
- 20 PH - Beth Barnish - KB2EAL
- 20 CW - Mike Blasenstien, N2HIS
- 15 PH - Harry Spiece - NJ2B
- 15 CW - John Zaruba - WB2VOH
- 10 PH - Dan White - N2FKT
- 10 CW - Jack Zaruba - K2ZA
- 6 PH - OPEN
- 6 CW - OPEN
- 2 PH - OPEN
- 2 CW - OPEN
- 220 PH - OPEN
- 440 PH - OPEN

We will again be going to the site on Friday night and doing some

setting up, as we have done the past 2 years. As usual, Friday night is party night, but with a twist. If you wish to bring anything stronger than birch beer or apple juice, just make sure that any empties go home with you when you leave.

If you have any questions on this, feel free to call me.

That's it for this month. See you at the meeting. 73.



When are the bands open? These charts predict this month's average propagation predictions for high-frequency circuits between the US and various overseas points. One chart showing East Coast to West Coast is also included. On 10 percent of the days of the month, the highest frequency propagated will be at least as high as the uppermost curve (highest possible frequency, or HPP). On 50 percent of the days of the month, it will be at least as high as the middle curve (maximum usable frequency, or MUF). On 90 percent of the days of the month, it will be at least as high as the lowest curve (optimum traffic frequency, or FOT). The horizontal axis shows Coordinated

two some weekend, any weekend. I'll help you and show you. I'll take the first five people who apply down to the trailer on a Saturday or Sunday of your choice. We'll get in a contest, make a few contacts, have each of you make a few contacts, discuss the scoring and log preparation, whatever you wish. I just hate to see anyone miss out on the thrill of contesting without even trying it. If you try and don't like it, you won't offend me. That's why there's more than one flavor of ice cream. Heck, I don't particularly care for VHF operating, but I do it; and I don't like you less if that's your only ham radio activity.

Well, that's the best I can do. I can't make you drink the water. But let me help you just taste it. If you don't like water after that, **WHAT CAN I SAY?** Talk to me! See you in the contests and at the next club meeting. 73.

**ASSEMBLY, NO. 2393
STATE OF NEW JERSEY**

**INTRODUCED
SEPTEMBER 13, 1984**

**By Assemblymen Zimmer,
Haines, and Weidel**

**An Act concerning crime and
amending N.J.S. 2A:127-4**

Be it enacted by the Senate and General Assembly of the State of New Jersey:

1. N.J.S. 2A:127-4 is amended to read as follows:

2A:127-4. Any person who installs or has in any automobile, a short-wave radio receiver operative on frequencies assigned by the Federal Communications Commission for fire, police, municipal or other governmental uses, is guilty of a [misdemeanor] crime of the fourth degree, unless a permit therefor has first been obtained from the chief of the county police, from the chief of the police of the municipality, wherein such person resides.

This section does not apply to any fire, police or other governmental official of the State or of any county or municipality thereof, nor shall it apply to a resident of New Jersey holding a valid radio amateur license of the Technician, General, Advanced, or Amateur Extra Class.

The term fire official, as used in this act, shall include all active members and officers of any municipal fire department or force or any first aid and emergency or volunteer ambulance or rescue squad whether said department, force of squad be paid, part-paid, or volunteer.

2. This act shall take effect immediately.

STATEMENT

The purpose of this bill is to exempt certain residents of New Jersey holding certain valid amateur radio licenses from a criminal penalty and from the requirement of obtaining a permit from the chief of police of the county or municipality of residence, as the case may be, before installing or having short wave radios in automobiles.

NOTE: To anyone reading this: This bill has NOT been enacted. It was a bill that was introduced in 1984. DO NOT RIDE IN YOUR VEHICLES WITH A RECEIVER CAPABLE OF RECEIVING POLICE/FIRE, ETC., FREQUENCIES.

I KNOW MANY OF THE NEW VHF RADIOS THAT WE CAN PURCHASE HAVE THIS CAPABILITY. THAT MAKES IT ALL THE MORE IMPORTANT THAT WE GET THIS BILL RE-INTRODUCED AND WORK HARD TO GET IT PASSED.

Proper protocol would be to contact Senator (he's changed jobs since this bill was last introduced) Richard Zimmer at his office:

- Tnx K2JF

SUPPLEMENT

by KB2COB

K3UKW, TONY MUSERO

KB2ETW, CHARLIE BASTOW

N2HTP, LOUIS GAZEN

SITE REPORT

by Ray Martin, WB2LNR

Things at the club site are moving right along. At present a few more things have been accomplished and everyone involved is quite happy. First things first: We had to make a few modifications to the septic system, which in the interim will save us quite a few dollars and also enhance the system to our benefit. Long Engineering in Williamstown has again offered to set up the prints and do the drafting so we can submit the plans to the Gloucester County Board of Health. The Board has been in touch with Long Engineering, and they will work with us so we can get things moving as fast as we can.

The six meter tranceiver that was purchased last month is now on the air. A three element beam has been erected and is working fine for its temporary height.

A new electric range has been donated by W2GSN. It has already been transported to the site by KB2GI with help from W2GSN. We now need to give the old range to anyone who might need it. Keep in mind that it is a full size propane stove and oven. Any questions see Ed, W2GSN, or call the site and leave a message on the answerphone at 478-4738.

That's right. The new phone system has been installed, and an

HAMDOM THIS MONTH

MAY, 1988

SUN	MON	TUE	WED	THU	FRI	SAT
1 GCARC ARES NET 147.78/.18 FM 2000 EDT ----- DREXEL HILL, PA HAMFEST	2	3 10 MET. NET ----- 2100 EDT 28.350 MHZ USB WA2TOP NCI	4 CLUB MEETING ----- 8:00PM-???? WOODBURY VFW	5	6 ARRL SPRING SPRINTS ----- 902 MHZ	7 NEVADA QSO PARTY ----- TEN-TEN INT'L NET SPRING CW QSO PARTY
8 GCARC ARES NET	9	10 10 METER NET	11	12 ARRL SPRING SPRINTS 1296 MHZ ----- WIAW QUALIFYING RUNS 0200Z MAY 13	13	14 *COUNTY HUNTER CONTEST SSB* -10 METER DASH- *CQ-M CONT.* -MI & UT QSO PARTIES- *A. VOLTA RTTY DX CONTEST*
15 GCARC ARES NET COUNTY HUNTERS ----- MI & UT PARTIES ----- *CQ-M* -VOLTA RTTY-	16	17 10 METER NET	18 DEAD LINE ----- FOR CROSSTALK ----- BOARD OF DIRECTORS MTC	19 VEC TESTING ----- 7:00 PM BELLMAWR SEE WA2VQC FOR DETAILS	20	21 ARMED FORCES DAY ----- ARRL SPRING SPRINTS ----- WORLD TELECOM. DAY CONTEST
22 GCARC ARES NET	23 WIAW QUAL RUN 2000Z 100AY	24 10 METER NET	25	26 ARRL SPRING SPRINTS ----- 2304 MHZ	27	28 CQ WW WPX CW CONTEST
29 AKES NET ----- CQ WW WPX CW CONTEST	30	31 10 METER NET				

WRIGHTSTOWN, PA HAMFEST 5/15

HAM PROFILES

*Bryan Hastings KA1HY
 73 Magazine staff*

73 Magazine had the great fortune to obtain an interview with one of the Soviet Union's premier hams: Leonid Labutin UA3CR. "Lyonya" is the Chief of Communications in the Soviet Union for the joint Canadian/Soviet polar skitrek. The expedition left a northern USSR island in February, and expects to arrive at Ellesmere Island in Canada's Northwest Territories three months later. See "Look North!" in the January 1988 issue of 73 Magazine for more information on this trek.

The Soviet Union has a very active amateur population, and the *Callbook* lists over 18,000 Soviet hams. Despite this, not very much is known about the state of amateur radio in this vast country, which under *glasnost*' is just beginning in earnest to open up to the West. Leonid provides us with a look into his personal experience and sheds light on the state of amateur radio in this powerful and mysterious nation.

73: Let's begin by finding out a little about yourself.

L.L.: OK, well, I've lived all my life in Moscow. I studied at the Radio-technical faculty at Mayakovskiy Institute, and finished up there as a radio construction engineer.

I have a wife and a 21-year-old son. He's in his last year of Electrical Engineering at the Moscow Electro-Technical Institute. He wants to do his thesis on packet radio.

73: When did you first become interested in ham radio?

L.L.: I made my first rig in 1939, when I was 11 years old. It was a crystal detector. I used a very long antenna with it and received a few stations on the medium- and long-wave bands.

73: Was it hard to get permission to put up an antenna in Moscow?

L.L.: No, not then, but it's more difficult now. Before, the administration didn't pay too much attention to outside views, but now there are several organizations

Leonid Labutin UA3CR

against aeri-als, because they feel they are eyesores.

73: Did you have an Elmer? Who first got you involved in amateur radio?

L.L.: Yes, at first it was my father. He was not a ham, but an SWLer. I really became interested in short-wave after reading a remarkable article in our journal *Radio* by one of our first ham-polar researchers, Ernest Krenkilo RAEM [an early Soviet callsign—Ed.] He spent months at a time at a North Pole research station as the radioman.

He was also president of the Radio Sports federation in the USSR. I had the good fortune to get to know him—his dacha was close to mine and we often went out together.

73: Have you been on a DXpedition before?

L.L.: Yes, I went to Franz Josef Land in 1962 with SSB radios. It was a brand new country on SSB. That was my first trip to the Arctic.

73: Are there any hams there now?

L.L.: Yes, one I think.

73: Is your wife a ham?

L.L.: No, but she minds me being one.

73: What other hobbies do you have?

L.L.: I love to listen to classical music. I also like to read contemporary historical novels and cross-country ski.

73: You were involved in building the first Soviet ham satellites, is that right?

L.L.: That's right. I worked on RS-1 and RS-2, which went into orbit in 1978.

73: There are now 11 ham satellites from the USSR?

L.L.: Yes. Satellites RS-3 through RS-8 were made very much in the mold of the first two.

73: What aspect(s) of amateur radio interest you the most?

L.L.: It differs at different times. I've always been interested in new developments. At first SSB, then satellite communications, and now packet radio.

73: Is there packet radio now in the Soviet Union?

L.L.: So far, no. We are working hard to get the administration to allow hams to experiment with packet radio.

L.L.: There is a similar document in Moscow. Only, to put up an aerial, we must first apply to the appropriate ministry and show our amateur license and give the details of the erection. Then, they send us permission.

73: How long do you have to wait for this permission?

L.L.: It varies... sometimes a long time, sometimes not. Some cities don't have the document system, and in these places it's harder.



Leonid UA3CR/VE3 on packet. This photo was taken at the home of Tom Atkins VE3CDM of Toronto, Ontario, where Leonid spent much of his time during his two week visit to Canada before Christmas. Tom is the Canadian Coordinator for the Polar Bridge skitrek.

73: Are there a lot of hams in the Soviet Union?

L.L.: There's a fair number—probably around 50,000. About half of them have their own stations.

73: What's the equivalent organization in the USSR for the FCC?

L.L.: There's an organization under the auspices of the Ministry of Communications that administers the exams to hams. The Government Inspector of Electro-communications grant licenses to hams to transmit.

73: In the US, we have a government ruling—PRB-1—permitting hams to put up antennas in cities, even those cities with local sanctions against antenna and tower erection. How is it in the Soviet Union?

73: Are there many ham nets in the Soviet Union?

L.L.: Yes. DX nets are very popular, especially in the Ukraine.

73: Yes, I've spoken with many Russian DXers. Most only want to say, "Hello, ur 5 x 9 OM, vy gud 73."

L.L.: Yes, for them it's just sport. There's a lot of radio sport in the USSR and not enough *tekhniki*. This is a bad situation.

73: Are most of the people in the Soviet Union who want to become hams from technical backgrounds?

L.L.: They're from all different backgrounds. Many are from technical backgrounds. It seems that more hams there than here come from radio technology background—perhaps 20-30%.

Z73: Are there a lot of female hams in the Soviet Union?

L.L.: Not so many—even less than here. Most hams' girlfriends tolerate their hobby until they get married, and then completely reject it.

There are exceptions, however. Yuri UA3HR's XYL, Alla RA3AZ, just got her ticket. She's very keen on amateur radio and helped us quite a bit to prepare for this DX-pedition.

Z73: Is *Radio* the best known journal for amateur radio in the Soviet Union?

L.L.: Yes.

Z73: Is there a journal devoted entirely to amateur radio?

L.L.: Unfortunately, no.

Z73: Is it hard to find amateur radio journals from the West in Moscow? For example, can you buy *73 Magazine* in Moscow?

L.L.: It's impossible to buy it

there. It's possible, however, to subscribe to some Western journals.

Z73: Is *QST* available?

L.L.: We get it only by reproduction. As well, it arrives late, and we don't get to spend much time with it. We get this at the library. A lot of hams also get a magazine by their "personal route." [Black market. Ed.]

Z73: Do you have any well known people from diverse backgrounds who are hams? We have from the US, for example, Barry Goldwater K7UGA a well known statesman, and Martin Brando FO8GJ, a well-known movie actor, to name a few.

L.L.: No, there are no such people in the USSR. [There was, however, Yuri Gagarin UA1HO, the first man in space. Ed.]

Z73: Do Soviet hams have microcomputers?

L.L.: Microcomputers are becoming

widespread here, especially after the publication in *Radio* of the detailed construction plans for the *Radio* RG RK. It's a computer for amateur radio purposes that uses a Russian version of the Intel 8080 microprocessor. Many hams have built this computer.

Z73: There is a Russian version of an Apple model called the *Aqal*. Is this popular among hams?

L.L.: A few hams have it, but it's not very popular, mainly because it's so expensive. Another relatively popular computer is the *Mikrosha*, issued to industry. The *Elektronika VI 0010* is a micro-computer issued to schools, but it's fairly popular among hams, too.

We have several computers at home. For example, the Sinclair ZX spectrum, for which I have a lot of amateur radio programs for satellite communications and HF propagation. My son and I built several computers, including the *Radio* RG RK. We also have the *Elektronika* 0010, and I recently bought the Sharp DC-1276. It's a

special pocket computer to calculate orbits using Karl Meinzer's DJ4ZC program.

Z73: Can you relate any specific Russian ham jargon words?

L.L.: There's one I can think of. We often address each other as *Tov* [short for: tovaristch, meaning "comrade"]. Ed.]

Z73: Well, we've arrived at the end of the interview. One last question. Do you find a big difference between hams here and in the Soviet Union?

L.L.: Yes, and this is a point I want to emphasize. Many amateurs here have a great interest in the latest developments in the hobby. I encourage Soviet hams to begin to focus more on the technical side of amateur radio. We have a lot of "sportsmen," such as DX contesters, but we really need to get more experimenters, more people interested in keeping up with the latest developments. [Ed.]