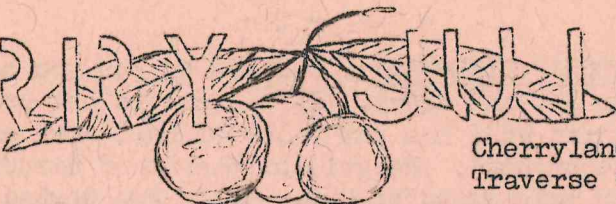


CHERRY JUICE



May, 1975 - VOL. II, No. 5

Cherryland ARC
Traverse City, Michigan

President: Terence H. Wolfley WB8PLQ
V. President: Dr. Kenneth H. Musson W8QKP
Treasurer: Joseph W. Novak W8TVT
R. Secretary: Dr. John P. Mesch W8LQZ
C. Secretary: Clayton Bud Heller W8TEE

CLUB BOARD OF DIRECTORS:

2 yr Term: William F. Martinek W8JUY
1 yr Term: Frank X. Shumsky III W8TVQ
1 yr Term: Wells R. Chapin W8GI

CLUB MEETINGS - Every Fourth Tuesday of Month at Designated Time and Place.
BOARD OF DIRECTORS MEETINGS - Every First Wednesday at Designated Time and Place.

75M SMASH NET - Every Sunday Morning at 0930 Local Time, 3935 KHz \pm 5 KHz.

2M WASH Net - Every Wednesday Evening at 8:00 PM Local Time, 146.52 SIMPLEX.

MAY, 1975 MEETING: Will be held on Tuesday, 27 May, 1975 at 7:30 PM in Jerry Cermak's barn. The program will consist of a view of the Repeater and a Field Day Slide presentation. The slides are all shots of previous FD events, and should prove to be a real gas! Jerry lives at 3905 Slusher Road, Traverse City. To get to his place, just head out Silver Lake Road like you were going to the Jr. High School. Just before you get to the Jr. High School, you grab a right hand turn, and Jerry's house is the very large white house overlooking the whole valley, with a large white barn in the back yard. There is a vertical 2M FM antenna on top of the barn, and there will also be a lot of cars parked around the yard with Ham Plates on them. That last fact should be the give-away, if all else fails!

2M-FM WASH NET: The local 2-meter gang is now meeting on Wednesday Evenings, .52 Simplex, with Vic Devlin W8KPO acting as the able NCS. Vic reports that they are having 10-12 check-ins regularly, and as summer progresses, probably more summer guests will join us. The 2-Meter OMs are also now monitoring 146.52 Simplex, rather than 146.94 as in the past. .94 has never been really a simplex frequency, since it is primarily used as a Duplex frequency with .34 in areas that have a 146.34/94 Repeater machine. Vic urges everyone to monitor .52 as a calling frequency, to bring our area into line with ARRL guidelines, & to make our monitoring efforts more compatible with the practices Down State. Those that travel a lot to Southern Michigan inform me that .52 is a standard calling frequency, so let's join our brothers in the south, and use .52!

FIELD DAY 1975: Don't forget to set the Week-end of 28-29 June, 1975 aside, and plan to join us for a weekend of sheer, unmitigated Ham Radio! Our Field Day Chairman, John Mesch W8LQZ has received a packet of goodies from the ARRL, and we can now get our Dupe Sheets and logs printed up. Some of us plan on heading out on the Friday evening before, and get a few things in order. We will also hold the June, 1975 meeting at the Field Day Site. There will be more on this at the May meeting, and still more in the June issue of Cherry Juice.

NORTHERN MICHIGAN HAM RADIO PICNIC: Just a short reminder to not forget the N.M. Ham Radio Picnic that our club is sponsoring on 27 July, 1975 at the Whitewater Twp. Park. Chairman Wells Chapin W8GI and Co-Chairman Vic Devlin W8KPO report that all is ready, and that Wells has a nice printed circular ready to send out with the July C.J. to show everyone how to get there. Thanks fellas for a nice job well done! The rest of the success is now up to us and luck. We need a little of the latter when you plan a outside activity in Northern Michigan! Hopefully the WX Co-operates.

CHERRYLAND ARC MEMBERSHIP DIRECTORY: Perhaps by now you have noticed that this issue of C.J. is rather fat and heavy. This issue is not pregant, regardless of what you think! Wells Chapin W8GI has put a lot of hard work and sweat into a nice club directory, and had it printed. He got the packet of directories to me and asked me to send them out with this issue of C.J. Wells has worked hard on this directory, and deserves a "THANKS" from all of us. You can imagine how much I would use the directory being Newsheet Editor and Club President! It is invaluable to me, and I'm glad we have someone as thoughtful as Wells to tackle this big job!

SCANDLE AND SCUTTLEBUTT SECTION:

John Mesch W8IQZ caught a nice five pound brown trout near the mouth of the Platte River last week. John just can't seem to get away from mouths, even on his day off!

Bud Heller W8TEE and his frau Ruth are on a European Tour at this time, I hear. If when Bud gets back, and all you get out of him is oui, oui, you will know why! Those French lassies have a way of teaching you basic French, real quick! Right, Bud?

I hear straight from the Horse's mouth (No offense meant!) that Dr. Dave K8WPE has been kicked out of his ham shack! It seems that Beverly is due soon to present Dave with an heir, and that this particular heir needs a nursery much worse than Dave needs a Ham Shack! Things aren't all that bad for Dr. Dave, however. You will soon be treated to an Ode composed by our Resident Poet Laurette, Vic Devlin about Dave.

Incidentally while we are on the subject of poets, I'll have to tell one on Uncle Vic! When Mrs. Devlin, Vic's mama, got her first glimpse of Vic in the Maternity Ward, she exclaimed "My Goodness, we have a poet in the family! Look at the size of his feet! They are fur damn sure Longfellows". Sorry about that Vic! That one is so old that it has grey whiskers. But so what? Vic has grey whiskers too!

ODE TO K8WPE

By Vic Devlin

This story starts out in ole Bellaire, in the middle of the summer.
A Doctor ham built up a kit that really was a bummer!

II.

We hear a signal scratching, and then a faint CQ. This Aurora Skip we all agree,
it must be Tim-Buck-too!

III.

Out comes a voice that bravely says, "Anybody on 94?" We tweak controls and some
ham says, "I've heard that voice before!"

IV.

Would you believe it's Dr. Dave kerchunking down the road. He's heading for the
hospital to check out the patient load.

V.

His signal is in and then goes out, but comes back with a chug. His voice declares
"Oh not again, its that fouled-up Phono-plug!"

VI.

We give ole Dave due credit for the rig he tried to save. He now agrees he should
have tried a Clegg and/or Genave!

VII.

He won't give up, he's much too smart, and there will come a time his XYL will bless
him with a new rig, End of Rhyme!

By Vic W8KPO

Postscript: Dr. Dave did finally get his Clegg FM-27B. Beverly presented him with
the rig, and that's not all! He'll soon have a Jr. Op to help operate it! Best of
wishes to Beverly and Dave!

Have you ever wondered what the term "Decibels Gain" means when you read this specification in a Antenna Advertizement? Well, there is really no real mystery or magic involved. There are two types of gain we must know about when we work in power amplifying and antenna circuits. The first is Voltage Gain or Current Ratio, and is mainly used in amplifier circuits to describe their amplifying ability. The formula for Voltage or Current Ratio is: Decibels (Db) = $20 \log \frac{V_2}{V_1}$ or $20 \log \frac{I_2}{I_1}$

Since this article deals primarily with antennas and their gain qualities, I'll explain the following formula, and only mention the above two in passing. The Gain Formula we are interested in the Power Decibels Formula, and is the one that antenna gain figures are usually based upon. This formula is: $Db = 10 \log \frac{P_2}{P_1}$

You need a Common Logrithim Table to apply this formula, that is unless someone takes the time to formulate a Table , such as the one I have calculated for this article! I recently purchased a nice, new Pocket Sliderule Calculator, and I was really scraping bottom for practical applications for my new toy! One evening last week a flash of genius struck me, and I thought it would make a usefull article for the club newssheet if I would calculate such a reference table.

To explain use of the table: When antenna gain figures are given, they are usually based on comparisons derived by applying the same amount of RF to an Isotropic Antenna, usually a dipole several wavelengths above the ground, and the antenna under test. Signal strength readings are taken from a remote location, and the power for both received signals is computed using the basic power formula, $P=EI$. The power for the Isotropic Antenna becomes P_1 in the formula, and the power for the antenna under test becomes P_2 . This formula tells us how many watts of power we would have to apply to a dipole antenna, which theoretically has no gain, to get the same amount of power to the Receiving Test Equipment, that an antenna that has gain, and the same amount of RF applied to it. puts into the Receiving Test Equipment.

<u>Db</u>	<u>Power Gain X</u>	<u>Db</u>	<u>Power Gain X</u>
0.5	1.122	10.5	11.220
1.0	1.259	11.0	12.589
1.5	1.413	11.5	14.125
2.0	1.585	12.0	15.849
2.5	1.778	12.5	17.783
3.0	1.995	13.0	19.953
3.5	2.239	13.5	22.387
4.0	2.512	14.0	25.119
4.5	2.818	14.5	28.184
5.0	3.162	15.0	31.623
5.5	3.548	15.5	35.481
6.0	3.981	16.0	39.811
6.5	4.467	16.5	44.668
7.0	5.012	17.0	50.119
7.5	5.623	17.5	56.234
8.0	6.310	18.0	63.096
8.5	7.079	18.5	70.795
9.0	7.943	19.0	79.433
9.5	8.913	19.5	89.125
10.0	10.000	20.0	100.00

Example: If your Transmitter puts out 25 watts, and disregarding feedline loss, your antenna has a gain of 9.5 Db, you would have to apply 222.825 W. to a dipole antenna to do the same job that your 25 W. out does to a 9.5 Db antenna!

$25 \times 8.913 = 222.825 \text{ Watts}$

My 15 watts out to my 17.8 Db Long Yagi has an Effective Radiated Power of:

$15 \times 61.00 = 915 \text{ Watts}$

This is quite an increase in useful power!

The gain from an antenna comes from "squirting" most of the radiated power in one direction, very similar to the effect that a squirt nozzle on a water hose has compared to a spray-mist nozzle. So, get busy and get some of that gain for your 2M FM setup!

So, that's all for this issue. Keep me posted, and Best 73 de Terry WB8PLQ
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