

# WEARC WIRELESS

West Essex Amateur Radio Club  
An ARRL Special Service Club  
Home of KB2UNI

Volume II

January 1996

## From the President

We are already into the winter season and the time seems to be going faster and faster. WEARC is doing well and thriving. The club had an outstanding Field Day and I want to thank our Chopper Brian, KF2HC, and every one who participated in the first annual WEARC Field Day event. We had a great weekend, and even though we ended up short in the CW tent with Joe, WO2X, being sick, the placement which WEARC made in the competition was exceptional. I am confident that with Joe back into action, we will even do better in the next Field Day. The Field Day Friday night social turned out to be another fun time with all the members and guests. By everyone pitching in with various dishes it turned out to be a well organized and relatively easy affair to run. This Field Day Social will also become an annual part of the WEARC Field Day contest event. The details of Field Day can be found further in this newsletter.

I would like to thank our Past President Dan Tapper, WB2BTR, for his fantastic job of establishing and organizing this club and his leadership in running the club in the past year. Unfortunately, as a result of his busy schedule he was not able to run for an office this year, but Dan has accepted the position of Community Coordinator for the

club. In June of this year we had our election of officers for the 1995-96 fiscal year. Supporting me this year will be: Ray Linke, WB2JGZ, as Vice President; Stan Przybylski, KB2NQL, as Secretary; Joe Valley, WO2X, as Treasurer; Brian Keegan, KF2HC, as Chief Operator; Jim Plant, KB2LJG, Dave Whitehead, N2JJK, and Bob Marsh, KB2SGM, as Trustees. Bob Marsh was elected in June to be trustee replacing John Weinfeldt, WF2Z, who's term expired.

This fall, we started working with MEARC in providing VE sessions at our club site in the Essex Fells Service Building. Ken Rosen, WA2VCI, is the VE Coordinator and we will be conducting VE sessions on the third Tuesday of each month. Anyone who wishes to work on an upgrade is welcome to come to our VE sessions and take the desired test. Also any VE who wishes to help out, please contact Ken for assignment. You do not have to be

a WEARC or MEARC club member to help giving the VE tests.

This coming December we had our second annual holiday social event. This event was held on 16 December 1995 at our club meeting room in the Service Building. As last years party, this one also turned out very well with a great turn out and every one having plenty to eat and a lot of fun. Joe Valley was the coordinator of this years event and I want to thank him for his efforts as well as everyone who helped in bringing a food dish.

I hope everyone had a healthy 1995 and a good holiday and I would like to wish everyone a **VERY HEALTHY AND HAPPY 1996**. I look forward to seeing you all come out to our meetings and invite you to participate in our upcoming activities.

*73 de Bob N2NYR*

## Chopper's Corner

The club recently approved the purchase of an Icom IC-730 HF radio. The purchase included the rig with filters, microphone, and power supply. It was installed and is working quite nicely. Thanks to Dan Tapper for leading us to this piece of equipment. A condition for buying the IC-730 was that we sell our Drake TR-4C and it's accessories to offset the cost of the new radio. Thanks goes to

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Bob Marsh for handling the sale of the Drake equipment.

An end fed Zepp antenna was installed by Joe Valley, Bob Marsh, and myself. This is in addition to the R-3 vertical which limited operating to 20 meters and above. We are now able to operate on both the 40 and 80 meter bands. An MFJ antenna tuner is on loan from Brian KF2HC (Hey! That's me) until we can afford to buy one with club funds. Thanks to John Burgio W2JB for the technical advice on initial tuning of our new end fed Zepp antenna.

The 2 meter J-pole has not yet been installed. Ray Linke WB2JGZ has offered to donate an appropriate length of RG-8 for the cause. I hope to have the 2 meter station up and running by the end of the year.

Another addition to the shack was an AEA MorseMatic keyer. This was a generous donation from Wil Angermeier W2MJ. He also passed on to us several years worth of classic QST magazines and assorted books. Wil recently sold his house in Essex Fells and has relocated to Denville. We thank him for thinking of us and wish him the best of luck at his new QTH.

Of course a keyer is no good without something to key it with. The membership approved the purchase of a Bencher BY-1 Iambic paddle at the November business meeting. The Bencher has been received and is now installed at the station. Bob Marsh has provided us with a conventional/non conventional adapter cable for those who like to use their paddles backwards. (Namely, Bob.) A Nye Viking straight key donated by Terry N2RUV is also available for you brass pounders.

The subject of club QSL cards came up. Bob Marsh offered to take a crack at designing one for us. I'm looking forward to seeing what he comes up with.

As you can see there have been significant improvements made to the WEARC station. We hope to

add our own antenna tuner and a TNC in the future. Meanwhile, the station is up and running for anyone who cares to use it. I will ask that, unless you need to work a station with your own call for an award, please use the club's call KB2UNI. If you need a crash course in operating any of the equipment, I will be more than happy to help.

*73 de Brian, KF2HC*

## Field Day Nets Impressive Results

In case you didn't look ( I can't imagine you all weren't camped out on your doorsteps waiting for the November QST to arrive) the results for the 1995 Field Day event have been released. WEARC, using the call sign WT2R, placed 73rd out of 644 class 2A entries. That's the top 11%. We were third in NJ, second in NNJ, and had the top score in Essex County. Our 15 operators made 1227 QSOs along with bonus points netting us a score of 4770. Very impressive especially for a first time effort. I think we all showed WEARC has a high quality membership that can only get better as time goes on. I want to thank all the members and non-members for the equipment donations for the weekend. Everyone really enjoyed the Field Day event and we are all looking forward to the next one in June of '96.

See the montage of pictures of the June '95 Field Day. One page showing the set up and the other showing the operators who got caught by the camera.

*73 de Brian, KF2HC*

## Casual Contesting can be Fun

You don't have to be a "big gun" with an amplifier and monoband beams up 200 feet to

enjoy contesting, especially if you are in it just for fun or to increase your country, state, county, or prefix count.

At the peak of the sunspot cycle, you can easily work 100 different countries in a weekend contest - or all states during the ARRL Sweepstakes.

To me, casual contesting means contesting with no intention of achieving a big score. You spend a few hours on the air, but not enough to upset your family.

However, to play even casually, you must learn the basic contest rules: the exchange, what stations you cannot work for points, and when the contest begins and ends. You can find this information in QST or CQ magazines. Also, you must keep an accurate log - in UTC (Coordinated Universal Time). And you should respect the rights of hams who aren't in the contest.

The Exchange is usually a signal report plus an identifier. The IARU contest, for instance, requires a signal report plus your IARU zone. You might receive 5020, meaning your report is 59 and the station is in Zone 20. Almost everyone sends 59 signal reports (599 on CW).

The log is your only record of the contest. Today's computer logging programs detect "dupes" (stations already worked) automatically.

One key to success is to listen before you leap. If the contest is one you haven't entered before, listen to a few exchanges before you begin. Then you'll be ready to "hunt and pounce." After the other station sends QRZ? or CQ, drop your call in - only once. But always send your full call, unless the other station specifies otherwise. Also watch out for the directed CQs. If the guy asks for "threes" don't answer if you're a "four."

If you want cards, be sure you know the proper route. Some stations announce it every so often. Or refer to one of the published lists of QSL routes. You can also try your local DX Packet cluster. Never

waste a contesteer's time asking for the address on the air.

*From the December 1995 issue of ARNS which was written by Harry "Bud" Hovey, WF2B for the Sept. '94 Troy (New York) ARA "TARA News" - Jack Culliton, N2LBZ, Editor.*

## Turn it Down! (I can hear you)

What is it about hams that requires an RST of 59/599 every time we make a contact? Obviously, we want to put out the best signal possible but why do we need to hear 59/599? Or 20 over S9? Why isn't it enough to just be heard? Now I'm not talking about contesting or busting through a pile up. That's a whole different ball game. I'm talking about your everyday, typical contact be it a ragchew or a quick exchange with a DX station.

Let's go through the motions. You turn on your rig to check out the bands and decide you want to get on. You pick your band, tune up the rig INTO A DUMMY LOAD, (yes, some of us do still have to tune our rigs) switch to antenna output, turn the RF gain down half way and tune up the antenna. After conning yourself that you have a good match, because the SWR meter tells you so, you turn the RF gain all the way up and you're ready to go. But wait! Why did you turn the RF gain all the way up? You haven't even tried making a contact yet you're all ready to transmit full power. Ever try to make that first contact with HALF power? How about 1/4 power? Let's change the scenario a bit. You crank the RF gain to full and call CQ a few times. A station answers and sends you 59/599. Cool! That's what we all want to hear. Now that the ego has been stroked do you turn the RF gain down to "...the minimum transmitter power necessary to carry out the desired

communications."? I put that in quotes because it comes from THE FCC RULE BOOK Part 97.313 Transmitter Power Standards.

My purpose here is not to bash anyone's operating habits or to preach about Part 97. It's about realization. The realization that you don't need big power to make and maintain a QSO. In many cases you don't need 100 watts or even 50 watts to hold reliable QSOs. Personally, most of my contacts are initiated running 25 watts out. If I receive a favorable RST I turn the power down accordingly. Many contacts end up with me transmitting 10 watts or less without any comments about my signal dropping from the other stations. This practice has been reinforced by my QRP operations during the past couple of years. Typically, when I make a conscious decision to operate QRP I turn my output down to 4 watts. Having just returned my NE 40/40 QRP rig, which has an output of 1.5 watts, to the air I've been reminded that sometimes even 4 watts is more than "necessary to carry out the desired communications."

Now I'm not going to start pushing QRP operations as we now know it (5 watts or less). That's an entirely different philosophy that some of us adopt. What I will suggest however is to make the effort to turn that output power down and see for yourself. You actually CAN make contacts with less power without sacrificing readability. Here's something else to try. Next time you're going through that standard "my rig is...antenna is...power is..."jazz ask the other operator to try turning his/her power down half way. See if you detect any noticeable difference. If you do is it detrimental to the quality of the readable signal? If not let the other operator know. Do this a few times and not only will you prove it to yourself but to others. In most cases there is no reason to crank that power to full output. It simply is not necessary.

**73 de Brian, KF2HC**

## Rayovac Renewal Cells

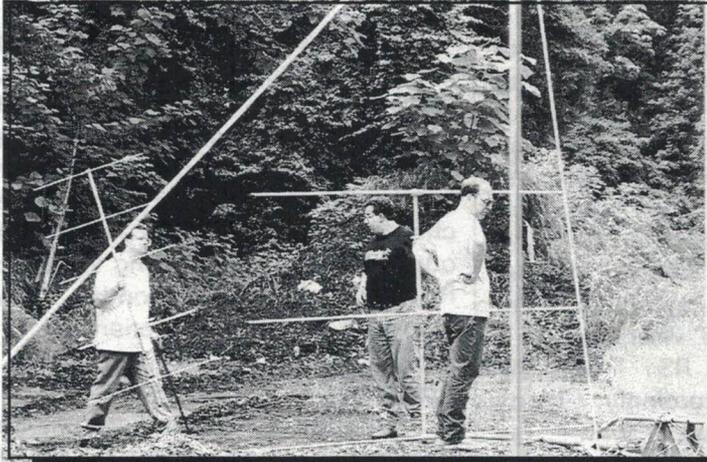
Rayovac "Renewal" cells are rechargeable alkaline AAA, AA, C, and D battery cells. (Traditional alkaline cells are not rechargeable.) Rayovac offers a proprietary charger for the Renewal line. The cells and chargers are available at retail outlets. I have been using Rayovac Renewal cells for 16 months. The following are my observations:

### Advantages:

1. Renewal cells have more charge capacity than same-size NiCad or NiMh cells, *in lower current applications*. The capacity of the AA cell, for instance, is 1400 mA-hour (discharging a new cell to 0.9 volts with a 300 mA load). This figure exceeds NiCad and NiMh AA cells under the same load.
2. Renewal cells feature long shelf life - measured in years vs. weeks with NiCads, or days with NiMh cells).
3. They're already charged when you buy them.
4. Their charged voltage exceeds that of NiCads or NiMh cells - 1.5 volts vs. 1.2 volts. So from eight cells, you get 12.0 rather than 9.6 volts.
5. They are priced competitively with NiCads, and below NiMh cells.
6. The charger is fast - two hours, maximum. Also, the charger stops charging each individual cell when that cell is done; there is no risk of overcharging.

### The Downside:

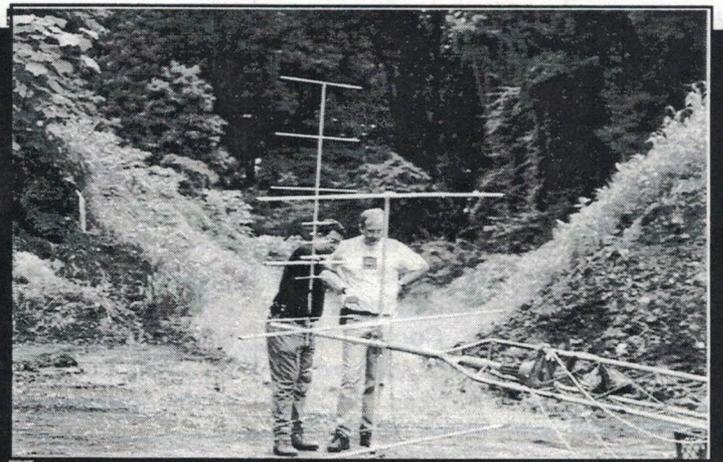
1. Capacity falls as current drain increases, so Renewal cells are inappropriate in high current applications. I tried a 3 amp load, and got just 250 mA-hour from the D cells. Their capacity also falls in a variable current environment, so that even the current pulses in a switch mode converter may reduce their capacity. The AA cell's

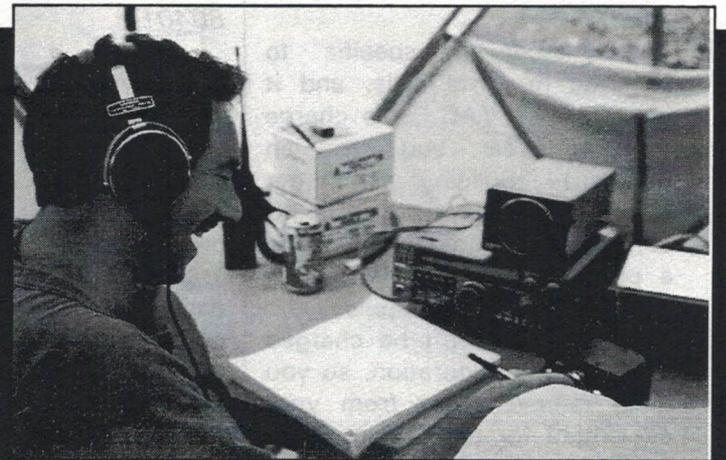
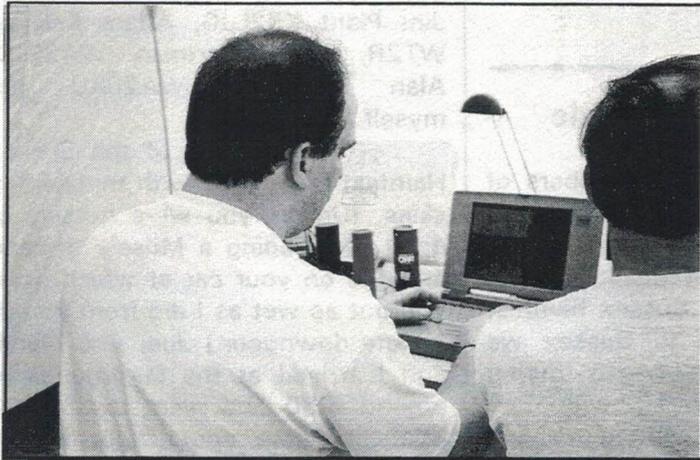


## FIELD DAY 1996

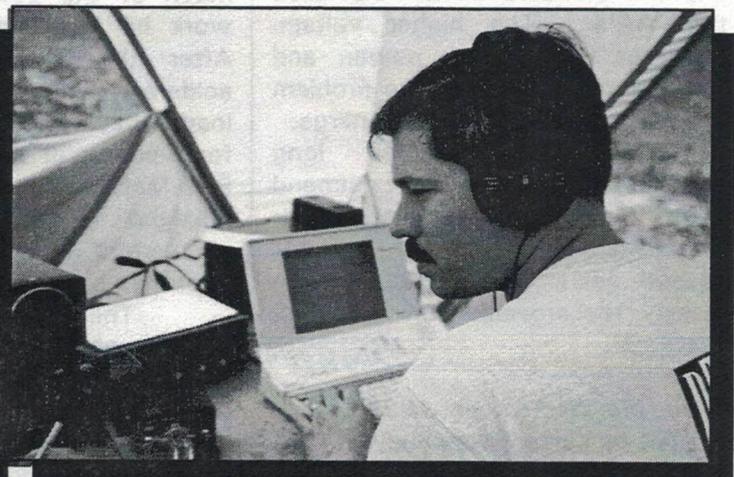
### The Lay out at Trotter Tract in Essex Fells

### Operated 2A with VHF Tent





**The WT2R Field Day  
Operators  
who got caught on  
camera**



maximum current rating is 400 mA. In contrast, a NiCad or NiMh AA cell can deliver 5 amps.

2. The charger is specific to Rayovac Renewal cells, and it requires 117 VAC. (To charge from your car, you need an inverter.) Building a charger wouldn't be easy; a special IC controls the charge cycle, using a pulse scheme that measures cell voltages between pulses.
3. Renewal cells can't be charged in a series configuration, so you must remove them from your equipment for recharging. This fact precludes a Rayovac "9 volt transistor" battery. (Rayovac is promoting integration of their charger technology into commercial battery powered devices, but I've yet to see such an arrangement.)
4. You must wait for the "last" cell to finish when charging a group, because you need a fully charged set. My charger can charge eight cells simultaneously, though.
5. The charge a cell can store declines with use. I'm still using Rayovac renewal D cells in a flashlight after 30 cycles. The flashlight no longer lasts as long, but it remains useful.

#### QRP Observations

For a QRP rig, with its low transmit current, these cells work well. I use them in an old IC-2AT and in a Standard C108A that uses two AA's. The higher voltage increases my transmit power, and Renewal cells eliminate the problem of a dead HT due to self discharge.

Because of their long charged shelf life, I recommend them for emergency equipment; they will keep their charge for several years of storage, yet be quickly rechargeable for sustained operation.

*From the September 1995 ARNS written by Dave Feldman, WBOGAZ for the January '95 Colorado QRP Club "The Low Down" - Rich High,*

*WOHEP, Editor. (Open to all hams. Annual dues \$10, c/o Mark Meyer, 14153 W. First Dr., Golden, CO 80401).*

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## The "Super" J-Pole Sale

As anticipated, members of WEARC produce a second batch of our famous copper pipe J-pole antennas. These 24 beauties were ear marked for the Sussex hamfest on July 16th and to Sussex we went. Construction began during the week of July 10 with Bob Marsh KB2SGM accepting delivery of a load of copper pipe that was donated by Stan's KB2NQL cousin. I'd have to say this single contribution was paramount to the success of the project. Bob cut the copper to the required lengths, ordered the end caps, purchased the brass hardware and SO-239 connectors and experimented with new types of paint during the week.

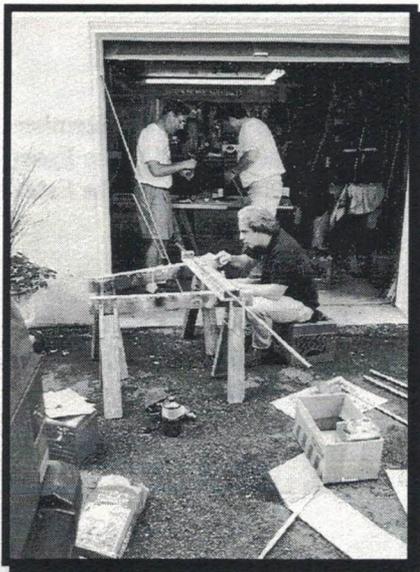
Actual construction took place on July 8 at the N2NYR Ham Radio & Swim Club. The crew consisted of Bob Marsh, Bob Lange N2NYR, Joe Valley WO2X, and Brian Keegan KF2HC (me). Soldering was performed by Bob Marsh with Bob Lange acting as the Drillmaster. Miscellaneous duties such as cleaning the copper joints, sanding down solder blobs and on air testing were done by Joe and me. Bob Lange will testify that our product standards meet OR EXCEED much of the government contract work he has been involved with. After the brass hardware was soldered in place the antennas were loaded back into Bob Marsh's truck for painting at his home. Oh yes, Bob Marsh also cut and drilled the Plexiglas pieces for the antenna connectors. He really had his hands in on this project.

The following Wednesday Bob brought the painted antennas to the WEARC meeting for finishing touches. Construction of the SO-239 connector assemblies took a good part of the evening. The plastic end caps were also installed

that evening. The members who helped with the final assembly that eve were Bob Marsh, Joe Valley, Jim Plant KB2LJG, Adam Kaletski WT2R, Mike Hartman WA2QIC, Alan Machabitz WA2LXU and myself.

The morning of the Sussex Hamfest greeted us with threatening skies. (Unless you were outside at 4:30 AM loading a Mosely tri-band antenna on your car at which point you got as wet as I did from the 10 minute downpour.) Joe, Bob Marsh and I arrived at the fairgrounds at around 6:30 and were awarded 2 prime tail-gate spots right in the middle of the action. Set up only took a short time and included some club and personal items in addition to our J-poles. A quick sprinkle passed through the area at about 7:30 and had many of us believing that the day was going to be a bust. Boy were we in for a surprise.

Before the gates opened at 8:00 we had already sold our first antenna to the vendor next to us. He was quite impressed with the quality of the product and just couldn't resist the price. These comments would be echoed throughout the day as we would soon learn. Shortly after 8:00 Bob Lange arrived and began to jump at every person who so much as glanced at our tables. Before long he and Joe had their sales pitch tuned up like a fine watch. It was a marvelous thing to witness. Bob would draw the potential customer to the table with his wry smile and a warm greeting. What I believe most people didn't realize, and this is the beautiful part, was that while they were returning Bob's greeting he had already placed one of the antennas in their hands. It was a very slick operation that was worth getting up at 4:00 AM to see. After the initial oohs and aahs were over Joe would state that this was a club project and without donations of materials we simply would not be able to sell them for \$25. "You couldn't MAKE 'em for 25 dollars". Of course everyone agreed. And he was right. Finally, Bob would make

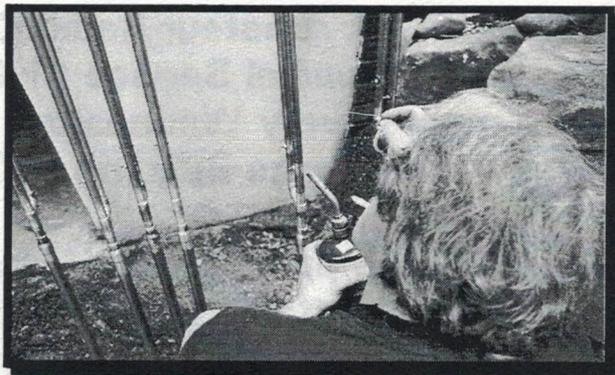


the bold claim that our J-poles pass the very demanding "XYL ascetic factor". That is to say that HE has a J-pole on his house and his wife, Louise, allowed it to stay. Several of our buyers had their wives with them and a few of wives actually were the ones to present the money.

At 10:00 a glance through the crowd in any direction would afford you a view of no less than 5 of our babies bouncing along. You just had to feel proud. By 11:00 all but 2 antennas had been sold. I couldn't believe we were going to go home with only 2 left. Shortly after 11:00 a return customer! A fellow who had just bought one was on his way out of the gate when one of the ticket sellers asked to see his J-pole. He had seen them all on their way out to the parking lot and wanted to get one for himself. Unfortunately, this fellow was in a wheelchair and didn't think he'd be able to get to us before we sold out. Our customer sold him his antenna and returned, just in time, to buy a replacement. What a nice guy! Selling the last unit was quite a challenge. Joe had to work for it but was able to convince the gentleman that although he already had a 2 meter antenna on his house there was NO WAY he could pass up this bargain. SOLD! And before 11:30.

Joe, Bob M and I packed up the tables, Joe went home and Bob and I went to get a drink. Upon returning to our cars we were informed by our neighbor vendor, who bought the first J-pole, that several people had stopped by looking for us. One person offered him \$30 for the his antenna. He kept it.

I think I can speak for all involved with the project and say we were very satisfied with the outcome. I'm not sure if there will be a third batch but some of us do tend to look for trouble where there is none. For now I think we'll cool off our torches and spend some time enjoying our hobby. Thanks to all who helped make it an overwhelming success. Oh yeah...the next day there was a message on the Internet seeking information about the people who



were selling the pipe J-poles at the Sussex Hamfest. How's that for publicity?

*73 de Brian, KF2HC*

### From the Editor

This Newsletter is a update from the last one published in June 1995. Although we have not published a newsletter since then, we have been a very active club. We had planned on helping out at the Caldwell's First Night again on this New Years Eve, but this event was canceled this year.

Time seems to go by fast and everyone was very busy, thus the newsletter kept getting postponed. We have been meeting

every Wednesday evening at 7:30 and we have been conducting our business meetings on the third Wednesday of each month.

Ken Rosen WA2VCI has been coordinating the VE sessions on the third Tuesday of each month at the club and we have been giving tests to future hams and hams who want to upgrade at each VE session. This shows the need for these regularly scheduled VE sessions in our area. We are happy to provide this service.

We look forward to possibly fabricating more J-Poles for sale at the next Sussex and possibly other hamfests which will take place this summer. The response to our J-Poles have been very good and there seems to be hams who want them.

This June is the next Field Day and we are also looking forward to participating in this event and see if we will be able to beat last years score. We have a good chance because we are going to make sure that Joe WO2X remains healthy and doesn't get sick as he did last year. CW contacts represent twice as many points as Phone, and Joe is a good CW operator.

Hopefully we will be getting the next news letter out a bit quicker than this one, and we will fill you in on the upcoming events and the activities that the club participated in since this newsletter.

I wan to wish everyone a very Happy New Year and good DX.

*73 de Bob N2NYR*

# West Essex Amateur Radio Club

## An ARRL Special Service Club

### WEARC

WEARC meets on the second floor of the Essex Fells Service Building every Wednesday night at 7:30 PM September through June. Business Meetings are conducted on the third Wednesday of each month starting at 8:00 PM. The Essex Fells Service Building is located across the street from the Essex County Grover Cleveland Park and next door to the Essex Fells Post Office. All hams and prospective hams are welcome.

#### CLUB OFFICERS

President	Bob Lange, N2NYR	License Trustee:	Brian Keegan, KF2HC
Vice President	Ray Linke, WB2JGZ	Trustees:	Dave Whithead, N2JJK
Treasurer	Joe Valley, WO2X		Jim Plant, KB2LJG
Secretary	Stan Przybylski, KB2NQI		Bob Marsh, KB2SGM
Chopper	Brian Keegan, KF2HC		
		Newsletter Editor:	Bob Lange, N2NYR

**The West Essex Amateur Radio Club  
is an ARRL Special Service Club  
and meets every Wednesday  
at the Essex Fells Service Building at 7:30PM**

**All Hams and prospective Hams  
are welcome to stop by and visit us**

#### WEARC WIRELESS

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