



# the RARARAG

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## J.O.T.A. ree 2000

Kevin Kinnally, KD2TJ

Jamboree On The Air (JOTA) is an annual collaboration of the worldwide scouting community and Amateur radio. Big deal?! You bet it is!! Each October about 400,000 Boy and Girl Scouts and Guides “get together” on the air with the help of HAM radio stations and operators. For many Scouts, this is their introduction to the world of hands-on radio technology.

This year, the Eagle District of the Otetiana Council, BSA is planning on combining its annual fall camporee with the international JOTA program. That would be “*JOTAree*” in the scouting short form. The idea is to set up a variety of HAM stations (field day style) around a large camping area and offer a taste of as many operating modes as possible (i.e. HF, packet, Oscar, FSTV, etc.). We will also be coordinating a VE testing tent, a simple construction project, SWL stations, Radio merit badge councilors, and this early in the plan, who knows what else?

And?—Oh, yes. We need you!!

I am looking for volunteers to offer the use of their stations and time for this effort. I am also looking for volunteers to act as technical advisors, coordinators and extra operators. My best guess from talking to other troops is that the *JOTAree* will attract about 600 Scouts and adults. The program is not fully developed yet but I am looking towards a starting point of 15 assorted stations. Field Day with an attitude.

The Eagle District 2000 *JOTAree* is going to be something special but the Scouts are going to need your help. Get involved and show scouting what Amateur Radio is about and see for yourself what Scouting is about. Please contact Kevin Kinnally, Scoutmaster Troop 332, *JOTAree 2000* Chairman, (716) 533-1981, or at [Navet608@frontiernet.net](mailto:Navet608@frontiernet.net)

### RaRa Meeting March 3, 2000

Henrietta Fire Hall, 3129 E. Henrietta Rd.  
Digital Photography –II  
By Keith Freeberg and Dick Witkowski

## Rochester Hamfest-Part III

Lloyd R. Caves, WB2EFU

It is getting closer to June 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> each day, the dates of the Rochester Hamfest. Are you ready to attend and join in on all the excitement? If not this would be a good time to order your advanced tickets for the Hamfest and the Awards Banquet. You can do this by visiting the Hamfest website at [www.rochesterhamfest.org/](http://www.rochesterhamfest.org/) to get ordering information or by contacting Jack Tripp, N2SNL at one of the RaRa meetings. Jack is the advanced ticket sale chairman.

While you are visiting the Hamfest website check out all the things that will be taking place at the Hamfest. All the information is there including a list of the exhibitors that will be attending. Of course you will have to keep going back and checking this website as the list changes daily as more companies sign up to attend. In fact all sections of this website are updated daily as things change. That makes it a great place to visit every day or so to know what is taking place. That is if you are on the Internet.

The Rochester Hamfest is also known as the ARRL Atlantic Division Conference. For that reason there will be an **ARRL League Forum**. Bernie Fuller, N3EFN and Bill Edgar, N3LLR the Atlantic Divisions new Director and Vice Director respectfully will host this year’s forum. A lot of changes have taken place at the ARRL recently and this is a good place to find out just what is happening and to meet some of the newly elected officers. Jim Haynie, W5JBP the new League President and Kay Craigie, WT3P recently elected Vice President will both be in attendance along with a lot of other ARRL officials. Stay informed of both League and FCC happenings. Bring your questions and stay up to date.

Bob Heil, K9EID will present a program called **Audio Science**. He will demonstrate how to achieve professional audio quality on the air. Using current production amateur radios, he will show how you can sound like a radio announcer, and what equipment is required to achieve this excellent voice quality. Bob will also be entertaining you at the awards banquet with organ music at its best.

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# the RARA RAG

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## The Prez Says

Bob Moore, N2USB

Do you live in an area that restricts your ability to put up that tower and beam? Well if you do I hope you attended the February meeting to hear the presentation by one of our past President Ron Jakubowski, K2RJ on Stealth Antennas. Ron presented some very inventive ways to get on the air with out arousing the suspicion of the Neighborhood Association Cops. I've always wondered how to load up my house gutters, and now I know as well as knowing how to disguise a big loop on my roof or to use the chimney to support and disguise a vertical. If you needed these skills and were not there you missed a good one.

I hope all of our members can take advantage of the opportunity to upgrade their privileges are planning to do so prior to the April 14<sup>th</sup>, 2000 deadline. For current Technician Plus and Advanced Class Licensees this is an excellent opportunity for you to move up to General and Amateur Extra Class utilizing the current question pool and test size. I have heard several Amateurs on the air during the last month expressing their desire for April 15<sup>th</sup>, 2000 to arrive so that they could apply for and exercise their newly earned privileges. I know there are three members on the Board of Directors that are in this circumstance and of at least one more Board member is studying for an upcoming testing session. This is a great opportunity, don't pass it up. If you need a place to get study materials and to take practice test, and if you have internet access, you can visit one or both of these sites to take practice exams or to down load the question pool for the test for which you are preparing: <http://w5ac.tamu.edu/ham-exam-v2/ham-exam.html> or <http://www.biochem.mcw.edu/Postdocs/Simon/radio/exam.html>. If you wish to review the new test question pools, you can down load them from the ARRL Web site [www.arrl.org](http://www.arrl.org).

In the near future we will be electing the Officers and Board of Directors members for year 2001. If you would like to serve in one of these capacities or would like to chair one of the committees please contact me, or contact any Board member and let us know of your interest.

See you at the March Meeting.

## SILENT KEYS

Walter Adams, Jr.  
N2NE (ex KB2CBA)  
January 20, 2000

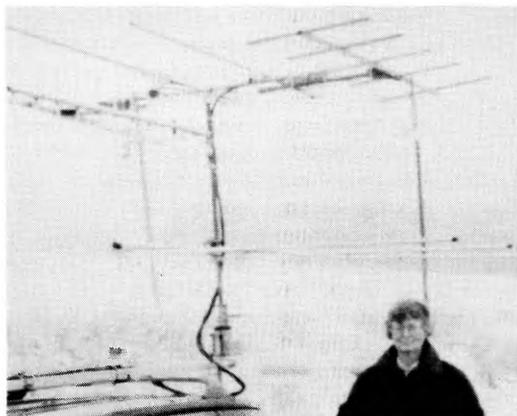
Frederick H. Becker  
W2GV  
February 5, 2000

Maybe in a later column, I'll tell you how I got into amateur radio (it has to do with forty tons of blubber). I thought that, this time, I'd talk about one of the things that keeps me in the hobby.

I enjoy the effort that goes into contesting, particularly the January VHF Sweepstakes – the strategizing, the perfecting of operating skills, the testing and assembling of the equipment, the teaming with and competing against other hams in the area, the long hours with no food, the cold . . . oops.

Because I'm a rabid competitor, I like to go for high scores, which, for me, means roving. I'll load transceivers, transverters, amps, switches, power for seven bands, and a PC in the car, put the antenna farm on top of the car and head out.

*When kids stop me and ask what I'm doing, I tell them I'm looking for the Eveready bunny. For some reason, they accept that explanation.*



A fellow ham, WO2P, Fred, and I travel in two vehicles on the same route. That way, if one of our cars breaks down, it's not as disastrous as if we traveled by ourselves.

This year, we drove to three grid intersections—areas around Watertown, Syracuse, and Leroy—about 450 miles. At Watertown, the temperature was 8 below zero, adding to the challenge of the contest. My antenna rotor broke, probably because the bearings froze, so I would get out of the car every few minutes and turn the beams by hand – not efficient and NOT comfortable. We stopped at a convenience store to use the ladies' and men's rooms but were told that all of the pipes were frozen.

On to Syracuse—WO2P used his PC-based mapping software connected to his GPS to find the quickest route from Watertown. As we were toddling down Route 81, his PC showed that we were tearing through apartment complex buildings at

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The ARRL has gone through a major change in officers. All of these changes will affect us in one way or another. However, those that will effect the Atlantic Division directly are as follows: Rod Stafford, W6ROD (ARRL President) has been elected as International Affairs Vice President; Jim Haynie, W5JBP (West Gulf Division Director) elected President; Hugh Turnbull, W3ABC (Vice President and past Atlantic Division Director) is retiring after 20 years of service and was elected Honorary Vice President; Joel Harrison, W5ZN (Vice President) elected 1<sup>st</sup> Vice President; Kay Craigie, WT3P (Atlantic Division Director) elected 2<sup>nd</sup> Vice President; and John Kanode, N4MM elected Vice President. There were others and you can check your next issue of QST or the ARRL website to find out more. Lets take a moment to send an e-mail message or a written note to these folks and congratulate them on their new positions. Many of them will be attending the Atlantic Division Conference held in conjunction with the Rochester Hamfest so this will be a good time to stop by and congratulate them in person.

Of course the Atlantic Division Vice Director becomes the new Director and Bill Edgar, N3LLR has been appointed as Vice Director. Congratulations go out to these two gentlemen also. They are now our direct representatives and it is felt that this Division is in great hands.

Over the years it has been my pleasure to have worked with or at least talked to most of these folks. It has been a great experience and I look forward to continuing to give them my support in any way I can and hope you will do the same. Jim Haynie is one of the few I knew of but did not know directly. I had the opportunity to talk with him a couple of times at the Miami Hamfest the first weekend in February. From listening to him I learned a lot about him and have the feeling the right man was picked to lead us forward for the next few years.

Western New York is now under total new leadership from the top down with Scott Bauer, W2LC taking over as the Section Manager. Many of you may have known Scott from when he lived in the Rochester area and was a member of RaRa. That means now is the time for everyone to get involved with your elected officials in some way or another. Offer to help them on a project, let them know how

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**DON'T FORGET**  
**RaRa's**  
**SPRING PICNIC**

# RaRa Rag 20 Years Ago

Ed Gable, K2MP

March 1980: Program that month was on the use of toroids, ferrite beads and other ferromagnetic devices by Mr. Lee Vroom, VP of Engineering for Ferronics, Inc. of East Rochester. Club Historian Bruce Kelley, W2ICE, sadly reported on the death of a very popular YL Ham, Clara Reager, W2RUF. Clara was well known, liked and appreciated for her traffic handling accomplishments and for her code copying ability. Clara ran the Western New York Code Championship contests for 24 years and that event continues today, dedicated in her memory. In President Alan Komenski's article he mentioned the hot new FCC topic of the day, the establishment of a volunteer examiner program. Ed Holdsworth, N2EH, wrote on the just completed K2JD open house which was a great success. The new station had three consoles for HF, VHF and Novice use. A TH6-DXX tri-bander, on a 55 foot tower completed the installation at the Iola Complex on Westfal Road. Reprinted from the RRRRA newsletter were instructions on using the *Fuzz Buzzon* the 28/88 repeater. This direct connect device went directly to the Cobbs Hill emergency dispatch center and was designed and installed by Joe Hood, K2YA and Len Gessin, WA2ZNC. It was used by hams much like 911 is used today. It was announced that Jim O'Brien, K2UDP and Paul Tanner, WA2MVK, were generating a Public Service announcement for TV use publicizing Ham radio. Otto Bluntzer, WB2RJB, announced that RaRa would participate in FD this year and that an organizational meeting was planned. From the want ads you could buy a Heath HW-16 Novice rig from Ray Roberts, WA2SSU.

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you feel on different issues or take an appointment to assist them in our local area. With everyone being new in their office they will need all the help that they can get. This will also make you proactive and give you an opportunity to guide amateur radio in the right direction. Don't be one of these people that sit back and complain about everything but do nothing to correct it. Enough people do this in the government but this is our hobby that we are speaking of.

We should all be members of the ARRL. They are the one force that helps keep amateur radio alive in this country and worldwide. They make sure that laws that are passed don't hurt us, only help us, and we keep the frequencies we have. Their voice in international affairs is very influential and they are always working for us. It is the only group that is. Be active, be proud, be an ARRL member.

# Reflections

## Portable QRP Dxing, Elsewhere: A Childhood Revisited

Bill Hopkins, AA2YV

When I was the 16-year-old novice known as KN7NPF, it was Field Day 1961, and I was getting my first taste at operating portable, but not with my DX-20 *cum* NC-125. An older ham had the cat's meow, the Johnson Viking Ranger. Boy! My fingers itched to turn the dark brown knob and see that dial sweep across all those frequencies. Of course, there was no tuner – just a straight shot to the dipole up in the trees.

We were up, high over the fog of Puget Sound, but I couldn't make any more contacts or find any more States than I was able to do at home with my lil setup in Dad's garage. I was content to let it be and wonder at my future possibilities on the airwaves. And so went my first portable station experience. Thirty years later I came back to hamming.

Last summer I hit the road: twice to Europe and once to Seattle. And so, I decided to use a cute Swiss-Air shoulder bag to pack that newly acquired Heathkit HW-8 QRP rig (2 watts out), the tuner, the TiCK-4 keyer, a home brew paddle (QST July '99) coax, antenna, a dual-voltage power supply (with battery back-up) and a plastic bag of goodies and tools. A good amount of foam rubber protected everything, and I decided to carry it all on board. With a few letters to the Secretaria General de Comunicaciones in Madrid and one to Germany, I was on my way with my reciprocal licenses and bag in hand.

Here I was, trundling off to F-2-Layer knows where, and I didn't care particularly about results. Fun is fun (and I wouldn't exactly tell the xyl whether or not I had made any QSO's). Second, if I could get good DX reports from Nevada, as a kid, then I could have a chance here. And of course, from my own Rochester backyard I was now hitting DL stations on 20 meters with the QRP anyway, using a battery and a rotatable trap dipole up the grand distance of 12 feet.

First stop Barcelona via Paris. (Negotiating the security checkpoints at the airports could be a story in itself. Some were a joke – Detroit, Amsterdam, Paris – Chicago was so so, and others were serious business, like Düsseldorf, Frankfurt and Seattle.) In the Paris hotel I had only enough time to drop a receiving wire out the window; a few signals were sharp and loud and others did not exist at all. Then in Barcelona, as AA2YV/EA3, I got permission to get onto the flat ceramic tile roof of the 7-story hotel in the city center and string the 40-meter dipole

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# Amateur Television-Part 4

## Profiling a Point to Point Radio Link

Bill McDonnell, KG2F

Last month we spent some time analyzing a typical receive station. The concept of noise figure was discussed, transmission line loss calculated and the theoretical noise floor determined. One additional source of signal degradation was briefly mentioned and that was the effect of man-made noise. Before going on with our analysis we should take some time and review this important concept.

Our goal in Amateur Television is to receive the best possible picture quality. To achieve this goal we want to optimize the signal to noise ratio. One deterrent to this objective is man made noise. One source of this type of degradation is impulse type noise, such as internal combustion engine, ignition noise. In a gasoline engine, gasoline and air are mixed in a combustion chamber. The volatile fuel air mixture is compressed by the engine piston and then ignited by the spark plug. This spark, caused by the spark plug, emits a wide band radio signal that can interfere with radio and television reception. The effect of this radiation is to raise the theoretical noise floor of a receiving system and in the process reduce the desired signal to noise ratio. To combat this problem, shielding is used on the wiring feeding the spark plugs. By reducing the radiated emission level of the spark induced noise, the signal to noise ratio is improved and improved reception is achieved.

Another form of interference is called adjacent channel interference. Most of the low cost Amateur Television receivers consist of one or two stages of RF amplification feeding a broadband mixer. There is usually one more stage of amplification and simple filtering after the mixer. This output then connects to a television receiver at the antenna terminals.

The input-matching network to a solid state RF amplifier, as used on today's receiving converter, usually takes the form of a low pass filter. Typically these amplifiers have a bandwidth on the order of +/- 5%. At 900 MHz this is +/- 45 MHz of our television channel or a 90 MHz bandwidth. As you may know there is Cellular Telephone and paging services just below our 900 MHz ham band. When located close to a cell site or mobile telephone it is very possible for the transmitted signal to cause front-end overload of the RF amplifier resulting in signal distortion and degradation. The degradation results from distortion products being generated inside the RF amplifier. The better-designed receivers utilize AGC, automatic gain control circuitry, to reduce the front-end Rf amplifier gain. In some cases this will help with reducing the distortion products but also reduces the gain of our desired

signal as well. A less than optimum approach.

To help combat these problems there are several design philosophies available. The most effective approach is to utilize a low insertion loss filter ahead of the RF amplifier. By limiting the receive bandwidth to that required by the television signal, the strong Cellular and paging signals are significantly reduced in level; the end result improving the signal to noise ratio. The improvement usually comes about by reducing the spurious distortion products generated in the RF amplifier. A second benefit is preventing the receiver AGC from being activated and reducing receive gain further improving signal to noise ratio.

Another way of improving the signal to noise ratio is the proper design of the receive antenna. Because of the larger signal to noise ratio required for television, the diligent operator would usually employ a directional antenna. By compressing the radiated power or in this case the received energy, into one direction effective amplification or gain is realized. An additional benefit of this approach is to reduce signal levels from undesired directions (those off of the bore sight of the antenna). The reduction in signal level of the undesired source thereby improves the overall signal to noise ratio. As we progress with our series of articles you will learn more ways of improving your system performance through similar engineering tricks of the trade.

Now we will move our analysis to the transmitting end of our station. The first step in the analysis is to measure or calculate our transmission line loss. We can use the same methodology as described for the receive station. The next step is to convert the transmitter power in watts into dBm. Remember the unit dBm stands for a decibel referenced to a milliwatt. To convert watts to dBm follow these steps.

1. Measure the transmitter power output with a wattmeter. To perform this measurement, connect a camera to the transmitter. Attach the camera lens cover to black out the picture. This will force the transmitter to maximum output.
2. Divide the measurement in step 1 by .001.
3. Take the natural base 10 log of step 2 and then multiply by 10. The answer is the transmitter output in dBm.

As an example assume the transmitter output is 10 watts.

The equation look s like this:

$$\begin{aligned} \text{Power (dBm)} &= 10 \log ( 10 / .001) \\ &= 10 \log (10000) \\ &= 10(4) \\ &= + 40 \text{ dBm} \end{aligned}$$

The power in watts, in this case 10 is divided  
*continued on page 8*

# "God Bless The F.C.C."

Howard Greenwald, KC2ERG

My name is Howard Greenwald, and my call sign is KC2ERG ("knowledge continues to excite, reward, gratify"). Having practiced Patent Law before the United States Patent and Trademark Office since 1966, I have learned to dislike and distrust government and governmental agencies.

There is not much that government does of which I approve. I am personally pleased the F.C.C. has changed the licensing standards for amateur radio operators to allow me to get my General license without passing the 13 w.p.m. Morse Code test, but I do not believe that this action is necessarily in the public good. However, I do approve of the fact that the F.C.C. prevents amateur radio operators from being sued by hordes of hungry lawyers because of the "preemption doctrine."

In a recent case (*Monfort v. Larson*, 693 N.Y.S. 2d 286), the Appellate Division of the Third Department was faced with a situation in which the licensee of WNGN-FN 97.5 (a radio station located in Rensselaer County, New York) allegedly "frequently broadcast at power and modulation levels in excess of the power and modulations levels authorized by Federal laws and regulations." WNGN-FN was sued by the licensee of WBKK-FN 97.7 (a radio station located in Amsterdam, New York) who asserted "tort causes of action sounding in negligence, nuisance, and intentional tort," all of which were based on radio interference caused by WNGN. WBKK argued that, because of such radio interference, "...WNGN's signal could be hard on radios tuned to WBKK, and that this radio interference has resulted in plaintiffs' loss of listeners, advertisers, and profits."

The Appellate Division held that the FCC has exclusive jurisdiction over complaints involving radio frequency interference and thus that state law based claims are preempted by the Federal Communications Act. The trial court's dismissal of WBKK's complaint was affirmed.

It appears the logical consequence of this case is, if a radio amateur operator negligently fried his neighbor's family jewels by transmitting with too much power, he could not be sued in State court for assault, battery, or intentional infliction of impotence.

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## FOR SALE:

Just in time for the Novice classes, a very nice starter Ham receiver. This Hammarlund HQ-170 covers 160 through 6 meter ham bands and will copy SSB, CW and AM signals very well. Cabinet is tired and scratched but works great. \$55.00 with speaker and manual. Ed Gable k2mp, 392-3088 or k2mp@eznet.net

# Spring License Class Update

Rick Wells, W2RW

Spring class registration was held as scheduled Monday evening February 14<sup>th</sup> at 111 Westfall Rd. Despite the rather snowy and slippery driving conditions we had a moderately good turn out. We registered 9 for Technician theory, 6 for 5 WPM CW, 4 for General theory and 6 for Extra theory. Note most but not all of those signed up for Technician theory will also be taking the code. Unfortunately, no one registered for our higher speed CW offering. We anticipate more than the usual additional registrations to come in next Monday night due to the bad WX on the 14<sup>th</sup>.

We will be ordering the current ARRL license preparation textbooks which, of course, are based upon the current question pools. I have verified the availability of the current manuals and was advised by the person at League publications that new manuals won't be printed until late May. Since the question pools change as of April 15, 2000, we are going to simply use the current texts, but provide copies of the new question pools which are available on the web.

The only course that will be significantly impacted by these changes is the "new" Extra. Since this new exam will be a combination of both the old Advanced and old Extra elements, students and instructor will work out the details on a case by case basis based on each students needs.

Good luck to all the new students and welcome to our new associate members. Study hard. We are looking forward to making you successful and getting you started in this wonderful hobby.

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## YL Forum-continued from page 3

60 miles per hour. Hmmm.

In Leroy, some of our rigs began to fail and I was still hopping out of the car to re-aim the beams. I was too wrapped up in the competition to realize yet what a crazy way this was to spend a weekend. Points were mounting up and that's all I was watching. By Sunday night, around 10:00, I was calling this the "Contest from hell", looking forward to the 11:00 PM end of the contest when I could go home, leave my salt-coated car in the driveway, stay in my house that had HEAT, FOOD, and a place to sleep. I never wanted to take part in another January Sweepstakes.

Next morning, though, I was calculating my score, remembering only the beautiful sights from the hilltops where we operated, and starting to build a 10 GHz transverter so I will have another band on the air for next January's contest. Sigh.

Was all that effort worth 41,000 points? I think so. It's great stuff. Give it a try.

# DX Happenings

Ed Gable K2MP

## RDXA #3 USA, Field Day 1999

RaRa would like to recognize and congratulate the RDXA on it's best ever Field Day result with their 3<sup>rd</sup> place national finish in the most hotly contended 3A category. Watch for the 2000 activity being planned now.

The bands continue to improve and ten meters is yielding more and more DX workable with low power. It pays to try listening now and again.

It's also time to rethink the use of HF beacons. So many of the newer transceivers have adjustable squelch which makes monitoring a beacon a real breeze. See your ARRL handbook for details.

Another VK0 on the bands? Yes, but the VK0ERZ you're hearing is Davis Base and counts for Antarctica.

The weekend of March 4 brings the exciting ARRL DX contest and the SSB weekend. This is a great opportunity for new DX'ers to fill their logs with some exotic call signs. Nice, too, is that the rules require DX stations to work US stations. So the DX is looking for YOU. Yes, the DX is eager to dig out your 100 watts and a vertical, so give it a try. This will also be a perfect time to start on the ARRL millennium DXCC award which requires no QSL cards.

More DX news from the ARRL, this time on Field Checking procedure changes. Effective April 1<sup>st</sup>, newly appointed ARRL DX Checkers will be able to check all entities except for QSO's on 160 meters. Previous rules severely limited the entity prefix list that could be checked by field reps.

In what was just a teaser, the subscription published *The Daily DX* bulletin reported a BV9P Pratis operation for April. Standby for this top 10 most wanted operation.

The next meeting of the Rochester DX Association is March 21, 7:30 p.m., at the usual 111 Westfall Road site. The meeting will be on DX Hints and Kinks. The RDXA also has a new information brochure available. A call to Irv Goodman, AF2K at 716-671-4430, will bring you one. See also the expanded RDXA Web Page at [www.qsl.net/~rdxa](http://www.qsl.net/~rdxa).

## RaRa Amateur Radio License Testing

Saturday March 18, 2000  
Registration - 8:30AM

Social Services Building  
111 Westfall Rd., Rochester  
Inquires (716) 334-4488  
[aa2fo@rpa.net](mailto:aa2fo@rpa.net)

# RRRA

Tom English, N2YJY

The RRRA is meeting at WXXI this month (Feb). We are anticipating an informative program.

Next month (March) we will be having our annual auction at the Police/Fire Training Academy on Scottville Road. This is the same location we have had the auction for several years now. Hope everyone has saved something good to sell. Ed Gable, K2MP and Dick Goslee, K2VCZ have graciously volunteered their time to be the auctioneers. The proceedings start promptly at 8:00 pm so plan on being there earlier to set up.

April's meeting we will more than likely be back in Pittsford however the program has yet to be determined.

With the Hamfest coming up it's not too early to start thinking about helping out doing various things. One of those things is the Talk-In-Station. This involves giving directions to out of town hams that are looking for the Hamfest. If anyone would like to volunteer to help with this event, contact me at (716) 381-4018. I will return all messages left if not at home. You do not need to be a member of RRRA to do this function. It's a great time and it's also a great benefit to the ham community.

That's all I have for this month. Hope to see you at the auction.

## FOR SALE:

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across from one stone railing to the other. I had just a 2-foot coax feed line, while I sat squatting right at antenna height on that warm, dark Catalonian evening. The cars and mopeds buzzed by down below through their neon jungle, and the sweet smell of roast lamb and garlic bread wafted upward from the restaurants. Again, only one or two very strong Italian and German stations, but nothing else. No bites. (Do you think the building's steel beams under the tiles and the feed line had anything to do with it?)

Waiting back at home was the announcement that the new European CEPT regulations were in effect and the \$25 I had sent to the German bureau had not been needed. A ham can now cross most any European border with a rig and set up shop with simply an Internet downloaded copy of the CEPT agreement, the home license and permission from a QTH owner. (See [http://www.fcc.gov/Bureaus/International/Public\\_notices/1999/da991098.txt](http://www.fcc.gov/Bureaus/International/Public_notices/1999/da991098.txt).)

Back on the road, I went through security in Rochester and Detroit. Before the first trip I had taken my bag of tricks out to the Rochester airport to get myself "vetted" and avoid any early disasters. Rochester checked the bag thoroughly. The Amsterdam transit was a breeze, but Düsseldorf was a different matter. I was shown respect but had to explain everything. Can you imagine bringing out an ancient-looking rig, a bag of wires, tools, (an exacto knife!?) alligator clips, a big ball of string with a hard rubber projectile, a small unenclosed pc-board (my recently build tuner), and finally a roll of solder with a cigarette lighter? They looked at my exacto knife and broke it off. Then I was on my way.

In Berlin I stayed at a conference center in a snazzy villa in Grünewald. The high balcony of the rear façade and the huge oak tree on the back lawn made for good skyhooks. The youngish building super was non-plussed by my request but said, "Ja sicher. Machen Sie, was Sie wollen." The antenna was up in 25 minutes and from my second story room I trailed the coax out and down to the antenna.

That night, in the hotel room: ecstasy! I fired 'er up and away we went. Let's see. I think I worked about 29 stations all over Europe. Two days later, on the morning I had to tear down the station, I had a good 30-minute QSO with SP7QO/A, Stan from Lodz and then a final report from Chris G3RCU nr Poole. My most personally satisfying contact was with Ado, T95MOJ in Sarajevo, where I had toured back in the late 60's.

Especially for my European runs, I made sure all my paper looked official and serious. I made copies of my ticket, the CEPT document, equipment literature, clean log sheets and some blank paper for copying code, and all reciprocal licensing and email

*continued*

correspondence. Then I bound it at Kinkos to keep with the rig, along with extra copies of CEPT and my ticket, should authorities see a need to retain documentation.

Out of Frankfurt, security was an enlightening experience. My rig was momentarily taken away. (I always left the case screws out to permit inspection inside.) When they returned it to me I was informed that their high-tech vacuum cleaner had found no explosive or drug residues (thanks Heath).

On the Seattle junket I would return to my boyhood QTH, with the same tall Douglas Fir trees as sky hooks. With the dipole at 30 feet I could get nothing. Nothing!, until I discovered that the coax feed line was eating up a lot of DB's. In my late father's inventor workshop (an SOWP fellow), I found 66 feet of stranded insulated wire. Into about 35 equal sized pieces of 1 ½ inch long heavy duty plastic I had cut from ties, I drilled holes in each of their ends and strung the wires through them, then used duct tape snippets to secure the ladder line. On August 14 and 15, that antenna logged 44 QSO's, most of them into Europe, during the **Worked All Europe DX Contest**. What I learned right then and there was that my boyhood shack simply lacked a tuner. Build it and they will come. Back from the three expeditions, I made up my own portable/QLS cards on the computer and sent them out.

I also learned that the true value of Ham Radio is not the results at all costs but the fun to be derived, no matter what the results. Nobody needs a "plug-n-play" environment for portable operation, QRP operation, DX operation or contest operation. Like I now say: get some old gear together, make sure you build in at least one Rube Goldberg gadget – for taste, throw in a kit component into the bargain and be perfectly audacious. Whatever you do with your project, it'll resonate with your childhood dreams.

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## Amateur TV-continued from page 5

by .001 (1 milliwatt reference). Using a scientific calculator or log table find the base 10 log of 10000. The answer is 4. Take 4 multiply by 10 and the answer is + 40 dBm.

The next step is to subtract the transmission line loss in dB from the transmitter power in dBm. Take this answer and add the isotropic antenna gain of your transmitting antenna. Remember if your antenna gain is referenced to a dipole to add 2.15dB to convert to isotropic gain. This answer represents the effective radiated power of your station. Mark down this answer, it will be used in a further step.

Next month we will learn how to use a topographical map to determine the path length between Walters station and the repeater at 111 Westfall Road. See you next month.

## TOP CONTESTER TOM WHITTED WA8WZG TO SPEAK AT MARCH MEETING.

Come join the Rochester VHF Group for a very special meeting on Friday March 10. Meetings are held at the Monroe County Social Services center, 111 Westfall Road. Meeting time is 7:30 PM.

Very few people out there personify excellence. Tom Whitted is one of these. Tom Whitted, WA8WZG is certainly one of the best, if not the best VHF contest operator in this country. He holds numerous overall single operator records in the major VHF contests, including the January, August and September VHF contests. Everything he does in contesting exudes EXCELLENCE!

Besides contesting, Tom is an active homebrewer. He also makes many unique and unusual components to other hams that may need them. He also is one of the few hams who can test popular high-power tubes. He sells tested-used tubes to the ham community.

I have been privileged to know Tom personally for several years. I can tell you from personal experience that besides all the above, Tom is a wonderful person. Always happy to help out or offer advice, Tom exudes an enthusiasm for this hobby not often found these days.

This promises to be the program of the year. You do not want to miss it!

For membership in the Rochester VHF Group, contact Jeff Luce, KB2VGH at [vhf@vhfgroup.rochesterny.org](mailto:vhf@vhfgroup.rochesterny.org) (Note new address!), or visit the club's website at: <http://vhfgroup.rochesterny.org>, or by mail at: Rochester VHF Group, P.O. Box 92122, Rochester NY 14692.

Be sure to come to the banquet and enjoy his music.

Have you ever been plagued by interference? If so **Electromagnetic Interference and the Amateur** is for you. Ed Hare, W1RF1, of the ARRL Laboratory will give a presentation that gives an overview of politics, personalities, and technical issues involved in EMI control. His presentation outlines the standard causes and cures for interference. In today's age of electronics this is a good presentation to see even if you don't have any problems at this time. You never know when you may become a victim.

Wayne Lightsey, AAR2NY, NY State Army Mars Director and Wells Farr, AFF1NY, NY State Air Force Mars Director will host the **Joint Mars Forum** this year. The **Navy-Marine Corps Mars** will be hosted by Ed Kessler, NNN0GBJ, (W2EQW) Northern New York Area Coordinator. These gentlemen will bring you up to date on all the activities in the Mars organization. If you are a Mars member or thinking about becoming involved with Mars this is a program that you need to attend.

For those of you that are following the articles in the *Rag* on Amateur Television and think this is something you would be interested in, plan on attending the presentation on **Amateur Television**. Bill McDonnell, KG2F will be showing you hands on television transmissions. If you think this mode of communications sounds difficult in the articles, Bill will show you how to put this information to use and make it easier to understand. If you have any interest in television at all you need to be at this meeting. It is not as difficult as it may sound.

That will be it for this month. Next month you will be able to find out what the rest of the programs are going to be. You don't want to miss any that are of interest to you.

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