THE NEWSLETTER OF THE KINGS COUNTY RADIO CLUB



March 2015 Volume 2, Issue 3

Next Club Meeting:

Wednesday, April 15th, 2015 at 7:30PM

Our weekly Nets meet on Sunday at 11 AM on 28.380 (10 meters) and Tuesday on 146.730 PL 88.5 (2 Meters)

Next Club Activities:

Our Annual Field Day Planning Marathon continues. Try to come to our upcoming meetings so that you can put your two cents worth across on the subject.

VE Exam Session: March 29st 2015 at 1PM — Tell your friends who are interested in finally getting that license they always wanted, and perhaps consider upgrading your license to one with greater band access!

Further details will be posted on www.KC2RC.com and www.KingsCountyRadio.com as they develop.

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KCRC Meetings Schedule Change Notice!

Due to scheduling problems, the KCRC has had to adjust their monthly meeting dates for March, April and May. Our next monthly meeting is scheduled for Wednesday April 15th at The Methodist Hospital Executive Dining Room. Please make a note of this change! The May meeting will be on Wednesday, May 13th, 2015 at the same site.

Verizon Pouts Using Morse Code!?



Morse Code is alive and well and is being used by Verizon to pout over the recent FCC decision on Net Neutrality. Poor, poor Verizon, I think we all feel so terribly sorry for the poor little company with total assets of approximately 232 BILLION DOLLARS. Maybe next month we should put *a little something extra* in our payments to them, for their fine selfless services...

Yeah, sure.

The Kings County Radio Club is at www.KC2RC.com or www.KingsCountyRadioClub.com

KCRC is an ARRL affiliated club (see: www.ARRL.org)

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KCRC Sponsored Volunteer Exam Session

The Kings County Radio Club will be sponsoring another VE Exam Session! It will be held at the Executive Dining Room of The Methodist Hospital on March 29st, 2015 at 1PM. Although walk-in registrants are allowed, it would be best to contact the VE Coordinator John, WK2J, at johnsrealestate@yahoo.com to let him know you are interested and to get any details. Remember to bring your photo ID, your \$15 in exact change, your number 2 pencils and your wits!

All examinees get \$15 taken off their first year's membership to the KCRC!

US Hams—Growing Every Moment!

Well, the trend persists! US Amateur Radio Numbers continue to reach an all time high! By the end of 2014 the FCC Universal Licensing System (ULS) Database had reached a total of 726,275 license holders. This does not include expired licenses that are still within the 2 year grace period, nor club licenses. In the first two months of 2015 the trend continues with total licenses going over the 727,000 count!

Where are all these new guys and gals? On the microwave bands?

Although our numbers are growing, they also might be growing older—There are no good demographics for the age of license holders in the U.S. but over in Great Britain their National Amateur Radio Society, the RSGB believes that the number of teenaged Hams there have gone from 410 to 234 in 4 years—that's a slump of 43%!

H.R. 1301—"The Amateur Radio Parity Act Of 2015"

(better luck this time)

"The Amateur Radio Parity Act of 2015" - H.R.1301 - has been introduced in the US House of Representatives. The measure would direct the FCC to extend its rules relating to reasonable accommodation of Amateur Service communications to private land use restrictions. US Rep Adam Kinzinger (R-IL) introduced the bill March 4 with 12 original co-sponsors from both sides of the aisle - seven Republicans and five Democrats. Kinzinger also sponsored "The Amateur Radio Parity Act of 2014, which died at the end of the 113th Congress. H.R. 1301 is an essentially identical piece of legislation, H.R. 1301 has been referred to the House Energy and Commerce

Committee. Rep Greg Walden, W7EQI (R-OR), chairs that panel's Communications and Technology Subcommittee, which will consider the measure. The League had worked with Walden on the 2014 bill during the 113th Congress.

ARRL President Kay Craigie, N3KN encouraged ARRL members to urge their US House members to sign on to the bill as a co-sponsor. The ARRL has an H.R. 1301 resources page on its website at, http://www.arrl.org/hr-1301. If the House member is already a co-sponsor, call the member's local office or send an e-mail via the member's official website to express their thanks. She called on League members to encourage other hams to do the same, and to be sure to refer to the bill by its number, H.R. 1301.

Minutes of the March 2015 KCRC Executive Board Meeting,

March 1st, 2015

A special session of the Executive Board was called to order by our President, Howard N2GOT. Also present at today's meeting were Vice President Mitch N2RGA, Treasurer Richard KA2KDQ, Secretary Juan KC2QNK, Member of the Executive Board-at-large, Tommy KB2GTO, and Roy AC2GS.

Our next VE Session was announced to be scheduled March 29th, 2015. This should be mentioned on both Nets, our Web site and our Newsletter. It is already listed on the ARRL's VE Session database. Ed W2DEV advised the group that he will be obtaining all VE materials thru the ARRL to Operate as a *back up* VE Liaison Officer if one is needed.

It was also announced that we had successfully placed an order for a new Yaesu DR-1X Repeater at a significant Club discount. It has been placed on backorder and Yaesu expects it to be available to ship mid April. Our new Repeater Antenna should be installed on a Sunday in the next month when the weather improves. Our reapplication to Metrocor to have our Repeater designated KC2RC is still pending completion. We expect to have a brand new Repeater and an improved antenna system by late Spring.

The idea of *off the cuff* impromptu presentations at each meeting on such topics as Morse Code, Software Defined Radio, etc. was discussed. Richard will present a small impromptu presentation on Short Wave Listening.

The Club Newsletter was discussed. Work is progressing and through an arrangement with LIMARC, they will be reprinting our series on Antenna Basics in their monthly newsletter, *The Log*, along with a mention of our Club and our Web site. This will hopefully increase our Club's visibility locally. The Editor once again made a plea for any original material for inclusion in our Newsletter. The Editor feels that this is *our Newsletter* and should contain *our thoughts and experiences*, not a cut and paste of random articles out in the Internet (either with their consent or without it).

Thoughts about a membership drive were discussed. Setting up a table with a *live* radio at such events as *National Night Out*. Perhaps *Emergency* based events might be a better source for finding interested individuals. Howard N2GOT suggested that the best way of finding new members is talking *one-to-one* with Hams and people interested in Amateur Radio. Logistic problems with our planned mass mailing to new Amateurs were discussed, and hopefully these will be ironed out and the planned mailings will be begun. An idea was presented to include a \$15 credit for VE Examinees for their first 1 year Club membership, as well as development of a brochure promoting membership and/or a copy of our most recent Newsletter. This ideas was unanimously approved by the Executive Board.

Field Day was discussed and the extreme importance for netting or plastic at the entrance of the tent we will be using was stressed. Juan KC2QNK suggested that he would like to bring his new TS-2000 to the event, Mitch N2RGA reminded everyone that he had a generator for use on Field Day.

The idea of Non Field Day events, based in Floyd Bennett Field was brought up by Howard N2GOT, either commemorating some event or involving one of the many Amateur Contest events. Something that would amount to 3-5 hours of activity either on a Saturday or a Sunday. He also suggested that club members might wish to use our Club Call during various Contests throughout the year in order to increase Club visibility.

Our Club Website was discussed. Mitch N2RGA was congratulated upon his introduction of an online membership form. The idea of including a method of renewing our ARRL memberships through our web site was discussed, but the nature of the ARRL's paperwork for this process made it impossible at this time. The idea of obtaining more recent pictures of club members and club activities and replacing images of deceased club members on every page of our Web site was discussed. Submissions were requested.

Juan KC2QNK discussed how successful his efforts to have our Club's activities listed in the monthly ARRL section Newsletter have been.

and with that, the Special Executive Session was close	ed.
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Minutes of the March 2015 KCRC Meeting, March 11th, 2015

The Monthly meeting was called to order by our Vice-President, Mitch N2RGA. Our President Howard N2GOT was delayed for a short time due to job related responsibilities. Also present were Treasurer Richard KA2KDQ, Secretary Juan KC2QNK, and Roy AC2GS. This month we were joined by two CUNY Journalism majors recording a video of Juan KC2QNK, and Amateur Radio and they interviewed members present about our exciting hobby. We were also visited by two gentlemen that wished to market a pair of shirts inspired by the idea of Amateur Radio Operators (one of the entrepreneur's father was a Ham back in India).

In the past month we have gained four new members: Tom W2TJT, Shawn N2DXT, as well as Charles and Etienne, who are not yet licensed.

Herbert N2ZQV, Renee KC2ATX, Elmar K2EL and Hugh KA2SKO are up to date with their membership dues. Please get your 2015 membership dues to Richard, KA2QNK, our Club Treasurer as soon as possible. We are able to take your dues payments through our new PayPal account at treasurer@Kingscountyradioclub.com. Using PayPal to make these dues payments is as easy as it gets, but for any technophobes out there a check will still do!

10 Meter Report— Juan KC2QNK reported that in the past month our Net had 50 unique contacts, including operators in New Jersey, California, Texas, Florida, Oklahoma, Montana, New Mexico, Great Britain and Sweden! Juan discussed the possibility of suspending our regular Net during Contests which will cause excessive congestion and QRM. It was decided to take each contest on its own merits and to consider the additional flexibility of shifting from our normal Net frequency by 3-5 kHz if our regular frequency is already being used by contest participants.

2 Meter Net—Due to Richard's delay this report was made by Juan KC2QNK. The 2 Meter Net has a consistent attendance of 7 operators. The general membership is urged to drop by and show their support as well as invite other Hams to the Net.

Treasury Report—Richard KA2KDQ reported that we still have an outstanding debit of \$500 pending the shipment of our new Yaesu DR-1X Repeater, which will be on back order until mid April. Discounting this \$500, our Club assets presently amount to \$1,241.88.

Old Business—Mitch showed a preliminary version of our 2015 Membership Roster. This will hopefully be distributed to the general membership shortly. It was discussed that the Club Web site should contain a centrally accessible and easily updateable Roster List. Mitch will look into this idea.

The idea of offering a \$15 credit for all VE Examinees towards their first year's membership in the KCRC was discussed during our most recent Executive Meeting and was passed unanimously at that time.

Our next VE Session will be March 29th, 2015. It has been listed with the ARRL VE Session web pages. We will be looking into the logistics of setting up a regular bi-monthly VE Session schedule in the near future.

Mitch is investigating *National Night Out* as a venue to promote our Club and our hobby. Our Repeater's new Yaesu DR-1X is still on backorder and we hope for it to ship sometime in April. A form of back up power for it was discussed by Mitch.

The Club Newsletter was discussed. It is alive and doing reasonably well, but your Editor still would like it if ANYONE could offer some personal and original material for inclusion into the Newsletter. The General Membership has still offered nothing for this effort, and The Editor can only keep *all the dishes* spinning on their sticks for so long before he decides to see what would happen if he lets them spin down and crash to the floor. The Long Island Mobile Amateur Radio

Club (LIMARC) is currently reprinting our original technical series on Antenna Basics along with a mention of the KCRC as well as our Club's Web site.

New Business—Mitch N2RGA has modified our Club Membership Applications to reflect the fact that all checks for membership dues should be made out to *The Kings County Radio Club*, and not personally to our Treasurer. Mitch supplied Richard with a supply of updated membership applications and the revised version will also be available on our Club's Web site.

Mitch will be testing out our new Repeater's antenna with Mike NY2BB (the Director of ARRL's Hudson Division) and will be tuning it for optimum SWR on our Club Repeater's output frequency. Howard said that we should make plans for its new installation sometime in the next few Sundays.

Field Day was discussed. Mitch will be testing out the Club's generator sometime in the next few weeks. A permit for our place in Floyd Bennett's Field will be submitted. Some form of netting for the tent that will be used was again discussed. Our Field Day location has already been given to the ARRL and is on their Field Day Web pages. Juan discussed his interest in bringing his Kenwood TS2000 Transceiver as the primary Field Day Radio, but the logistics of transporting it safely to and fro have not been fully determined.

A short presentation by the two gentlemen interested in promoting their new line of Ham Radio inspired shirts was made and Mitch generously offered his Ham Shack for a back drop for their ad campaign.

Richard made a short impromptu presentation of Short Wave Listening (as requested by Steve W2GOP), showing his Sony ICF-SW7600G Short Wave Receiver, the reception at the meeting deep in the bowels of Methodist Hospital were not conducent for SWL. Richard then played a selection of short wave broadcasts he had previously recorded and passed around published lists of short wave broadcast stations.

Roy AC2GS offered a quick little *Show and Tell* of a small example of the whimsical nature of the new *Maker Movement*, a group of people very interested in technology and often involved in *Software Defined Radio* technology. Roy showed something called the Most Useless Machine (http://www.instructables.com/id/The-Most-Useless-Machine/). The device was shown to the General Membership and they were told that inside was a battery, a servo motor, and an LED. After many guesses of what kind of useless thing it did, the device was activated to demonstrated the full uselessness of it! There is a short YouTube available for this historic device at: https://www.youtube.com/watch?v=isZNJjPsaMI

With that our March meeting was closed and we all dispersed into the unseasonably warm night in Brooklyn.

Our President's message...

Hello friends and fellow KCRC members.

I hope everyone is doing well. It's time to start that spring time shack cleaning and projects for new antennas now that the temperatures are warming up.

We're looking forward to installing our replacement repeater antenna within the next month or so.

Our new repeater system should be online very soon as well.

Last Wednesday we had another interesting and eventful meeting.

We had two fellows who took an interest in our hobby. They both came down with camera and video equipment to record our meeting and interview us.

Great job Juan KC2QNK as our club's ambassador and being interviewed at his shack for our weekly ten meter net!

Looking forward to our next meeting on Wednesday, April 15th.

73,

Howard

President, Kings County Radio Club

Antenna Basics For Fun

Part Six What Is A SWR, And How Important Is It? What Is A Balun, And How Important Is That?

Standing Wave Ratio (SWR) can be described in many different ways. One of the simplest ways to look at it, is that in order for energy to be transferred from one place to another, a matched circuit impedance allows the most efficient transfer of energy and that applies to RF energy too! Since we have all agreed to standardize on coax feedline and final amplifier stages with a nominal impedance of 50 ohms, it would simply be best if the antenna that you were feeding with this system be 50 ohms impedance too. Such a perfectly matched antenna system would give you a 50 ohms coax, feeding 50 ohms at your antenna, or 50:50 (or 50/50) and can simply be written as 1:1! But, who said life was simple? Unfortunately a lot of things change antenna impedance, even while remaining resonant on your selected transmitter frequency. Moving the feed point off center from a center feed point will change it, lowering it closer to earth ground can alter it, changing the angle of the antenna's elements can alter its impedance. Operating off an antenna's resonant frequency can alter its impedance! SWR can also be considered as the ratio between the maximum voltage (or current) found at any point along the line to the minimum value found at any other point along the line. That is why SWR is sometimes called VSWR (Voltage Standing Wave Ratio). That means that if you hook up your final power amplifier stage (PA) to an antenna with a 10:1 SWR, the PA's 100 volt output might get reflected back until it sees 1,000 volts! Vacuum tubes will usually tolerate such abuse, but try that with even the latest and greatest silicon versions and you have a roasted/toasted MOSFET (Metal Oxide Surface Field Effect Transistor) that will need to be replaced. These days almost every solid state PA designed has something called a *fold over* circuit that can detect an SWR past 2:1 and place the PA into a much lower power setting. The good news is that you your MOSFET is saved, the bad news is that you are, at best, transmitting with 1/10th the power you intended to.

Most Hams who *sweat the details* seem to *live or die* by their SWR to the exclusion of all else. If you ask them if their dummy load is a great antenna because it produces a 1:1 SWR they look at you, reply "don't ask me a stupid question", and walk away. If a dummy load presents a perfect 1:1 SWR why *ISN'T IT* a good antenna? Surely there's something else that's not being taken into account! The problem is that your antenna doesn't need to be resonant or even capable of radiating RF energy to have a perfect 50 ohm impedance with a perfect 1:1 SWR - sometimes a 1:1 SWR alone can be far from perfect!

What is impedance anyway? Well the short answer is that it is the complex sum of a circuit's resistance and reactance. If you want more details pick up a copy of an earlier part of this ongoing series (Part One).

As a very smart Electrical Engineer/Antenna Designer often says: "first resonate, THEN impedance match". You want an antenna that is capable of radiating RF into the *Aether* in the first place, then you need to worry about getting the most efficient transfer of RF energy to the antenna with a properly

matched impedance. That's why a dummy load makes a lousy antenna - it may have a great impedance (50 ohms of pure resistance), but it is just a resistor attached to some form of a heat sink. It transfers all your RF wonderfully, but it all gets turned into heat - little to no RF escapes into the world!

So, let's say you have the ultimate resonant antenna up there high on you 200 foot tower (a Ham can dream, can't he?). Maybe we should take a more likely antenna - a folded half wave dipole, which has a nominal impedance of 300 ohms at resonance. That's a 300:50 SWR or simply 6:1! That's 33% reflected power! Theoretically, if you don't burn out your final amplifier with all that power it *should* get reflected back to the antenna, but since most of us use coax cable each trip across a length of coax cable causes an additional power loss going up in heat! This is one purpose for a Balun (or an Unun) - to match impedances. In a perfect world you might take a 6:1 matching balun and your *good to go*! Antenna tuners perform the same impedance matching function and often are used in combination with a balun. Placing all the impedance matching hardware as close to the antenna's feedpoint as possible decreases the cable loss of an antenna with an impedance different other than 50 ohms. A less adjustable method is to place an impedance matching circuit at the feedline of the antenna - either as a simple or a complicated series of LC circuits, or as an open or shorted extra piece of coaxial cable operating as a stub match, or any of the less obvious mechanical antenna match designs that go by such obscure names as "gamma match" or "delta match" (to name just a few). Perhaps later in this series, we shall "dive" more deeply into the subject of how all these types of impedance matching devices actually work!

How is your percentage of reflected power related to its SWR? The equation is:

Reflected Power (%) = 100 x
$$\frac{SWR - 1}{SWR + 1}$$

Just in case you don't care for mathematical equations, here's a little "cheat sheet" table that gives the important values in "black and white". No need to memorize anything, this is primarily here to give you an idea of what different SWR values mean in terms of reflected power, etc.



Standing Wave Ratio	Power Reflected (%)	Power Transmitted (%)	Return Loss (dB)
1	0.000	100.00	-∞
1.1	0.227	99.773	-26.44
1.2	0.826	99.174	-20.83
1.3	1.7	98.3	-17.69
1.4	2.78	97.22	-15.56
1.5	4.00	96.00	-13.98
1.6	5.33	94.67	-12.74
1.7	6.72	93.28	-11.73
1.8	8.16	91.84	-10.88
1.9	9.6	90.4	-10.16
2	11.1	88.9	-9.54
2.2	14.1	85.9	8.52
2.4	17.0	83.0	7.71
2.6	19.8	80.2	7.04
2.8	22.4	77.6	-6.49
3	25	75	-6.02
4	36.0	64.0	-4.44
5	44.4	55.6	-3.52
6	51.0	49.0	-2.92
7	56.3	43.7	-2.50
8	60.5	39.5	-2.18
9	64.0	26.0	-1.94
10	66.9	33.1	-1.74
20	81.9	18.1	-0.87
30	87.5	12.5	-0.58
40	90.5	9.5	-0.43

Let me offer a reminder, that just because a percentage of your transmitted power is being reflected, it may not necessarily be "lost". As long as the increased power your final power amplifier stage sees doesn't burn it out, this reflected power will get reflected back out to your antenna! Part of it will be lost to your coax cable's power loss at that frequency and part of it will again get reflected back down your transmission line due to its high SWR.

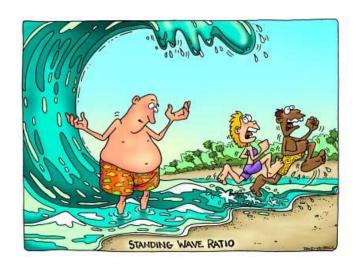
used for impedance matching or impedance transforming, it is meant to match a balanced antenna (like a dipole, or a Yagi) to an unbalanced transmission line (like a coax cable), or an unbalanced antenna (like a vertical) to a balanced transmission line (like open wire). One very useful type of balun is a so-called current balun (as opposed to the voltage balun described earlier to transform impedance), otherwise known as a current choke or more simply as an RF choke. We all want all of our transmitted power to go up the transmission line and out the antenna. The transmitted power is located in the center wire and the inner surface of the outer shielding (this is because high frequency alternating current travels on the surface of conductors, not throughout their cross sectional volume. What often happens is that some of the transmitted power is reflected back down the outer surface of the coax shielding, so-called *common mode* (as opposed as the *differential mode* that we all want).

You can go *cheap* with an RF choke that's as simple as six to eight loops of coax coiled together on a cylindrical form, or a series of six ferrite chokes attaches end-to-end and then covered with some shrink tubing, all the way up to some very nice heavy duty toroid based current balun designs. The closer you place this to the antenna's initial feed point usually the better.

So, do YOU need a balun? What kind? Well, it depends what you need it for - to connect a balances circuit to an unbalanced circuit? Do you need to transform a particular antenna's impedance to your transmission line's impedance (does this call for a 4:1 or 9:1 balun)? Or, maybe it's just that you need to stop some RF from reflecting down the transmission line and getting into your shack. Your needs will define what kind of balun is best for you!

Is your SWR the only thing to be worried about? Nope, *first resonate THEN impedance match*! Smarter people than me live by this principle.

Capisce? Perhaps next time we'll get back to another antenna variety? Anyone out there have any kinds of antennas that are of any particular interest? For that matter, is there anybody out there at all?



-The Editor- (I can be contacted at TheEditor@KCRC.com)

The Rag Chew - The Art of Conversation?

Ask any Ham and they will tell you what their favorite aspect of Amateur Radio is to them. Some are in it for the tinkering and only ask for a realistic readability and a signal strength report, others are Contesters, others are avid DX-ers. I could go on and on listing all the different aspects of our wonderful hobby that different Hams prefer above the others.

My favorite has always been "rag-chewing". I came to Ham Radio as many did, as a Short Wave Listeners (SWL) as a youth. Yes, I even put together a crystal radio set once upon a time. Even today I tend to listen a great deal more than I speak. I already know what I know, my purpose is more to find out what other people out there in the *Aether* think about the world.

I'm sure that anyone who has given a long listen to "conversations" other than the exchange of RS numbers and grid references has bumped into the occasional Ham that thinks that his radio is actually a "soapbox" and promotes his particular world view on the rest of us (many times this is reminiscent of the Chicken Little folk tale "the sky is falling, the sky is falling, cried chicken little"). In Ham Radio (as in "real life") too many people are more interested in "talking at you" rather than "talking to you".

Then there are Hams that don't seem to have anything to really talk about some days. Their conversations tend to be about the recent local weather and its comparison to local weather patterns for the past 50 years, what they just ate and what they intend to eat later that day and to agree heartily with any cliché you might come out with. Mobile conversations are full of "well, I'm going to the store" eventually followed by "well, I just left the store". I understand that every conversation can't be substantial and ponderous, but maybe sometimes these guys can throw something else into the mix?

Sometimes you just might get what you wished for and realize that you made the wrong wish. The most detailed conversations I have heard on the Radio are often not a technical discussion on some aspect of Radio Theory, but what has been given the sobriquet "Organ Recital". I was taught, as most people, that "Hi! How are you" was a mere rhetorical greeting. The next time someone passes you on the street with that greeting, try to engage them with a description of your hemorrhoids and the numerous unsuccessful attempts you've made to lessen the problem and count on your stopwatch how many seconds it takes them to excuse themselves. Vague responses to the greeting are fine, as most responses to "how's the weather there" ("it' raining", people usually don't offer the projected precipitation at hourly intervals for the next 24 hours). If you ask "how are you?" to some "private kinds" people while they're hooked up to life monitors and have sundry tubes going in and others going out, lying in a hospital bed, they will sometimes reply "fine, how are you?". I have heard people give their medication list and dosages, their scheduled injections of insulin throughout the day and recommended coverage dosages to guys on the other end of the country. TOO MANY DETAILS. Often after a long description of their ailments they end that chat and engage another Ham on the same frequency and repeat all of the previous details. This is a common phenomenon on Repeaters. We are all sorry you're not doing too well, but this isn't a medical consultation, it's a chat between two people who may not know each other and

that will probably only meet "on the air"! Perhaps we should consider ourselves fortunate that the same "organ recital" is not done for the Ham's pet cat, or dog, or even his pet parakeet. Perhaps this article shouldn't give anyone any new ideas? I think, on the subject of chronic health problems, brevity is the soul of wit. Others may disagree.

I have heard some Hams that were so adept at "interviewing" the other guy in the conversation that they could have done it professionally. I was able to get a sense of who that man was, what his likes and dislikes were, how he saw the world and how he saw himself in that world - it was a mini-revelation. One particular Ham-Interviewer was a Police Detective before he retired and he seemed to have learned a lot more than to play "good cop, bad cop". It's a skill like all things and maybe rag chewers should invest a little effort in honing that skill?

Perhaps I am expecting too much. Some people have their radios tuned to Repeater frequencies and use the audio output as background noise through the day, often not really registering what is being said, by whom. Whatever works for you, eh?

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Closing statements (from the Editor):



Well, I hope you found it all entertaining. Any offers of original material? Any articles? Any pictures? Any suggestions? I'm trying to keep all these *plates spinning*, I certainly could use some help!

For your ideas, your thoughts, your dreams, your kind words or even your epithets, I can be contacted at TheEditor@KC2RC.com .

- The Editor -