THE FRANKFORD RADIO CLUB
NEWSLETTER
PROFICIENCY THROUGH COMPETITION

CALENDAR

December 2004:

3-5	ARRL 160 Meter Contest, CW
11-12	ARRL 10 Meter Contest
14	**FRC Main Meeting, Phila**
14	**Rexy Meeting B**
16	**T.I.T.S. Meeting, Noon**
28	**Rexy Holiday Meeting B**
29	**Pizza Bash, Noon**

January 2005:

8-9	No. Amer. QSO Party, CW
15-16	No. Amer. QSO Party, SSB
11	**FRC Main Meeting, Phila**
11	**Rexy Meeting B**
20	**T.I.T.S. Meeting, Noon**
26	**Rexy Meeting B**
29-30	CQ 160 Meter Contest, CW

February 2005:

5	No. Amer. Sprint, SSB
5-6	Delaware QSO Party
8	**FRC Main Meeting, Phila**
8	**Rexy Meeting B**
12	No. Amer. Sprint, CW
17	**T.I.T.S. Meeting, Noon**
19-20	**ARRL DX Test, CW**
22	**Rexy Meeting B**
26-27	CQ 160 Meter Contest, SSB

CHANGES

None this month

Deadline for January issue:

Sunday, December 26, 2004

President's Column

First let me wish everyone and their families a very happy, safe and delicious Thanksgiving.

We are just days away for the 2004 CQWW CW CONTEST and the club is in very good shape after the Side band portion compared to the yccc. We have a strong chance of beating them if we ALL pull together and give it OUR best possible efforts. It just takes a few extra hours from each of us to stop them "from kicking butt" again this year. Evan if you think you are not a CW operator, just get on the air and work the packet call outs. Every score counts and will help the club to achieve its ultimate goal of winning both Sideband and CW. It sure would be nice to beat the club up north and do some butt kicking ourselves. Also, do not forget to work the state side zones for the mult -- it's easy extra points.

Be sure to work all our DXPeditions on as many bands as you can spot them. One last thing, please send your scores to k3ww@fast.net as soon as available and I hope everyone has a good contest.

73, Joe K3NM

FRC CQWW DXpeditions:

V26K, AB2E/EI, WP2Z, V31RM, PJ4M, P40W, V47KP, VP2M, HS0ZDJ, VY2NT, A61AJ

Listen for them…...work them…..everywhere.

MEETINGS

Main Meeting Back in Philadelphia

The main monthly meeting of the **Frankford Radio Club** will be held Philadelphia on Tuesday, December 14 at 8 PM. Location is Rosenburger Hall, Room 102 at the University of the Sciences.

T.I.T.S. meeting—The Trexlertown International Transmitting Society meets on Thursday, December 16 at 12:00 noon. Location is the Hometown Diner on Route 222 in Trexlertown..

Rexy Meeting B—The Rexy's **FRC** Meeting B meets about 8 PM on the second and fourth Tuesdays of each month..

FRC Pizza Bash— The bash will be at the Crossroads Hotel in Hellertown, PA at noon on Wednesday, December 29.

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A free reference on the use and selection of ferrite materials is available from Fair-Rite Materials at <http://www.fair-rite.com/>. Click on the big, red "Catalog" and download it - more than 160 pages including reference tables and technical articles. Good stuff!

A discussion on eliminating noise caused by cheap PC supplies led back to an article by John W0UN - <http://dayton.akorn.net/pipermail/rfi/1998-May/000195.html>. By replacing the ac power cord connector with a filtered variety, John had great success in turning noise generators into docile shack-friendly beasts.

Floyd K8AC reports success in removing scratches on plastic parts and meter faces with "Mother's brand 'Mag and Aluminum Polish', available at auto parts stores. It's a white paste that does an amazing job on meter faces and other shiny plastic parts. You can also use it to restore the sheen to small metal parts, such as screw heads. I find that a back and forth linear polishing motion works much better than a circular motion and doesn't leave noticeable marks. I strongly advise you to resist the urge to use any sort of power equipment when doing this job. The surface may heat up too much and permanently damage the plastic." Randy N1KWF uses Maguire's Plastic Polish, also an auto parts store item. Bob W9GE recommends an eyeglass cleaner called "Plexus" and reminds us that a wiping or rubbing action can build up a significant station charge. Others have used toothpaste as the cleaning agent, since it often contains a mild abrasive. Deep scratches in thermoplastic materials sometimes respond to the very cautious use of a heat gun, but as Aunt Lexie used to say, "There's kindy a knack to it" and you can easily overheat and ruin the part.

Here are a couple of interesting Web links to sites about building one-turn transmitting loops. These are sometimes useful in restricted circumstances as antennas that don't need an extensive ground system, although there are still ground losses due to the proximity of the antenna and ground. <http://home.datacomm.ch/hb9abx/loop1-e.htm>, <http://www.standpipe.com/w2bri/>, and <http://www.kr1st.com/magloop.htm> both have detailed instructions. <http://www.iri.tudelft.nl/~geurink/magnloop.htm> has a number of good links. AA5TB is frequently mentioned as having a good site on the subject, but the links are currently down, so his site may be moving.

Jim N5IB writes, "With the large solar flare recently rekindling interest in things solar, do a Web search for "jam jar magnetometer." You will find several articles showing how very common materials can be used to make an extremely sensitive detector of the direction (not intensity) of the Earth's magnetic field. It is sensitive enough to detect some disturbances associated with big flares and aurora events."

FRC 2004 CQWW SSB CLAIMED SCORES

Station	Class	Score
AA1K	A	4,906,588
AA2WN	M2	1,827,626
Ops AA2WN W2YC WA2LET		
AA3B	AA	3,414,630
AB1P	L28	2,697
K2DM	A	3,566,297
K2NG	AA	4,578,318
K2OWE	MS	3,000,995
Ops K2OWE K2JF N2NRD		
K2PS	LA	1,779,085
K2SB	AA	574,929
K3BU	L7	120,734
K3CP	AA	1,120,441
K3FMQ/VE2	M2	1,669,175
Ops K3FMQ KD3RF KD3TB		
K3GYS	LA	122,610
K3HRO	LA	882
Op N9GG		
K3II	MM	4,646,202
Ops K3II K3CT K3PP		
K3JG	AA	1,156,896
K3LR	M2	20,854,320
Ops K3LR K1AR K3UA K4SQR K5NJ KI7WX N2NC N3GJ N3SD N4HY W9ZRX WM5R		
K3MD	A	2,857,914
K3OO	AA	6,926,752
K3TEJ	A	857,592
K3VA	A	342,006
K3WW	AA	6,534,164
KB3FEE	LA	23,700
KB3MM	LA	90,138
KB3TS	A	939,645
KC1XX	MM	21,942,879
Ops KC1XX K1EA K1GQ K2RED K3EST K6AW KM3T N2AA W1FV W2RQ WA1Z		
KD2HE	AA	272,568
KG2MY	LA	16,368
KQ2M	A	8,311,356
KQ3F	MS	4,341,785
Ops KQ3F KC3WX		
M/AB2E	LA	449,280
Ops AB2E		
N1RK	AA	2,069,224
N2BA	L21	470,400
N2MM	MM	3,758,986
Ops N2MM, K2UT, K2QM		
N2MR	A	1,045,836
N2RM	A	3,693,372
N2VM	A	74,654

Station	Class	Score
N3AD	MM	9,122,652
Ops N3AD K3IPK K3ZV N3DXX		
N3BNA	MS	1,426,992
Ops N3BNA KC3VW KD3CN N3ONM WB3CTD		
N3KN	LA	510,696
N3KR	A	632,555
N3MX	MS	1,698,672
Ops N3MX K3YD		
N3NR	A	1,004,850
N3RJ	A	890,016
N3RS	M2	14,833,810
Ops N3RS N2SR N3ED N3NA N3RD W8FJ WA3LRO		
N3ZA	AA	2,322,759
NA2U	AA	3,120,180
NE3F	MS	3,084,830
Ops NE3F K3ATO KS3F N3OW NT3V		
NN2W	MS	3,858,304
Ops AA2MF N2WKS NY6DX		
NN3Q	AA	3,439,790
NO2R	AA	3,376,268
NY3C	AA	1,064,574
P40W	A	10,527,777
Ops W2GD		
V26B	MM	23,657,110
Ops KA2AEV KM9M N2ED N2KEN N3OC W2SN		
V47KP	MM	11,216,127
Ops K3NM W2OX		
VP5T	MM	2,340,000
Ops N2VW W2OF		
W1GD	AA	3,283,641
W2LE	AA	1,365,651
W2RD	AA	798,252
W2RDS	LA	1,100,756
W2RE	AA	7,143,840
W2REH	LA	137,858
W2TV	AA	1,612,288
W2UDT	A	907,705
W2UP	AA	1,279,680
W2YR	AA	1,008,128
W3AP	A	87,285
W3BG	AA	655,980
W3BGN	A	4,839,813
W3BYX	A	56,000
W3CC	AA	1,619,460
W3CF	AA	2,317,592
W3EA	AA	1,089,859
W3FV	AA	2,623,850
W3FVT	A	527,136

Continued on page 4

FRC 2004 CQWW SSB CLAIMED SCORES

Station	Class	Score
W3GM	AA	2,084,850
Op K3ND		
W3IZ	A	24,148
W3MF	MS	3,081,358
Ops W3MF K3PH		
W3PP	M2	6,094,162
Ops W3PP KD5FWV N2ME N3GN N3KW N6ZO NW3Y W2GJ WV8RS		
W3RJ	A	136,670

Station	Class	Score
W8FJ	AA	52,080
WA2C	A	939,720
WE3C	M2	8,763,524
Ops WE3C KQ3V N3FTI NM3E W3SZ		
WP2Z	M2	14,532,910
Ops K2TW N2TK		
FRC total		**230,251,906**

Scores reported as of Nov 19, 2004. If your score is missing, please contact **K3WW**. Note: multi op scores are equally split by CQ and only the portion belong to club members who live within the defined radius count towards the **FRC** aggregate.

Holiday Greetings from the Newsletter Staff:

Joe, KQ3F, Editor ***John, K3ZV, Print Edition Printer***

Contesting as the Solar Indices Plummet (Part V)

by Fred Laun, K3ZO

Reprinted with permission from PVRC (January 2004 Newsletter)

Last month I promised that in this segment I would discuss how interesting major geomagnetic storms can be for propagation junkies like me. I have now observed quite a number of them over the years, enough to have learned that there are propagation patterns that can reliably be predicted to occur any time a major storm takes place. Just prior to a major geomagnetic storm, conditions are usually quite good. Often there will be several consecutive three hour reporting periods where the K index remains K = Zero.

This is what I call "the calm before the storm". It happens in various forms in nature. There is the eerie calm just before a strong thunderstorm hits. There is the quiet period before a hurricane arrives (which incidentally can be a good time to work long-distance tropo on VHF - I recall working several stations in Florida on 2 meters just prior to one hurricane's passage up off the East coast.) There is the drawing back of the ocean water away from the beach just before an earthquake-generated tsunami hits.

In the case of the Sun we still have a lot to learn yet about the solar wind and the way it flows, but I believe we will ultimately be able to predict major solar storms with much greater accuracy and lead time than we can today by applying aspects of fluid theory to the segment of space contained within our solar system.

A geomagnetic storm will often be preceded by an ionospheric blackout (SID) 48 or so hours ahead of it. After the blackout, the bands will return to normal within an hour or so, and stay that way until the storm hits. DXers on relatively quiet bands such as 10 and 15 meters will often notice long bursts of white noise marking waves of intensity of the solar wind. At the beginning of a major geomagnetic storm there is strong aurora propagation on six and two meters, and even 222 MHz and 432 MHz can get into the act. Under such VHF conditions you can point your beam straight north and leave it, but experienced VHFers have learned that to get maximum results out of an aurora you are continuously moving the beam around to peak up signals you are hearing. Your optimal beam heading to a particular station depends to some extent on where he is beaming. As either he or you change the orientation of your beams, you reflect signals from a different part of the aurora curtain.

However, in general it can be said that the best heading for maximum signal strength in an aurora is north-northeast at the beginning, and the optimal heading gradually moves further west as the geomagnetic storm continues. At the midpoint of a major storm you have two options; you can beam generally straight north and work W8s/W9s/VE3s, or you can beam further to the west, often as far as 315 or 330 degrees, and work W4s in GA, NC, SC and TN, W5s and W0s. Many VHFers have yet to realize that this is the case and often I find myself with a clean shot at a W5 or W0 even while the band is loaded with aurora signals. You can tell where other east coast stations are beaming by where their signals peak up. When beaming north you will hear one set of loud W1/W2/W3 signals, and then when you point at 330 degrees a completely different group of W1/W2/W3 signals will become prominent. Because of the way the auroral oval wraps around the Northern Geomagnetic Pole, it is more common for an aurora to take place any time of day from mid-afternoon through early evening than at other times of the day. Only during very severe geomagnetic storms -- the kind that occur only a dozen times in a ten-year period -- will an aurora last all day long. For this reason one can often predict the existence of auroral propagation here by observing on DX Summit that European stations are enjoying aurora propagation during their late afternoon/early evening.

Meanwhile the geomagnetic storm is having an effect on the HF bands, also. The effect on ten meters is actually quite similar to that on six meters, and you can have aurora-reflected QSOs on 10 also, though the tone is not as harsh and hissy as it is on the VHF bands. At the beginning of a solar storm, before the path to Europe is shut down by the aurora, you will notice strong backscatter with an aurora screech on the signals of DXers working Europeans on 15, 20 and 40 meters.

At the same time signals on 160 from Southern Europe often become quite strong just as the storm starts, but the signals will be skewed slightly to the south of true path. I recall once breaking into a round-table of Italians on 160 meter SSB under such conditions and completely surprising them. I don't speak Italian but I speak Spanish fluently and was able to ascertain that the handle of one member of the group was Luigi, so when one fellow let his VOX drop I yelled: "Hey Luigi" and the surprising QSO began.

Signals to the South are enhanced on all MW and HF bands during most of a solar storm. Even on the standard AM broadcast band, in the evening hours during a solar storm, South American and Caribbean stations predominate on non-local channels. You can tell that this is the case when you tune across the broadcast band because you will hear lots of heterodynes due to the offsets of the Latin American BC stations from the center frequency of each channel. Most government authorities in that part of the world are much less demanding than the FCC about the frequency tolerance that their BC stations are required to maintain, and an offset of several hundred Hertz is not uncommon. Also on the standard AM broadcast band, at the beginning of a geomagnetic storm, during the evening hours, signals on the high end of the band from out of the area will exhibit rapid flutter, while later on in the storm semi-local stations which are normally obliterated by out-of-town signals during hours of darkness will be heard. For example, let's take the frequency 1560 KHz. During the evening hours around here the station which normally dominates that channel is WQEW Radio Disney in New York. At the beginning of a geomagnetic storm, during hours of darkness WQEW, whose night time antenna pattern sprays most of its RF toward the aurora curtain, will be heard with a strong aurora flutter. Later on in the storm during hours of darkness, WQEW will be largely replaced by a small station in La Plata, MD which is normally wiped out by WQEW, along with heterodynes from offset Latin Americans.

On 75/80 meters if you tune to the segment between 3650 and 3750 you will hear lots of the round-tables of LU stations who use that part of the band in a very similar fashion to the way we use the 75 meter band here. Under such conditions I often search through our 40 meter phone band and find local QSOs going on in South America which would normally be way down below the signal level of the local QSOs taking place around here. Though we often feel that the only way to work DX on 40 meter phone is to work split, in point of fact many South Americans retreat from the bottom 100 KHz of the band to the part that we use in order to have local ragchews without being bothered by DXers or nets. Since I speak Spanish, during geomagnetic storms I usually find several such QSOs going on between 7150 and 7250, and with the magic word "permiso", which means the same as when we say "break" in such circumstances, I am welcomed into the roundtable by often very surprised hams in Chile or Argentina, who had no idea their local QSO would be monitored all the way up here. It is not uncommon in such circumstances to be told: "You are my first ever QSO with the United States." Conditions on 20, 15 and 10 will likewise yield strong signals from South Americans at times like this.

Six meters is worth discussing as a special case. At the beginning of the geomagnetic storm, as I have already said, you will have strong aurora on six meters. The beam heading is not as sharp as it is on two meters or the higher bands, and one northerly heading will be sufficient for any number of QSOs all over the Eastern half of the country. As the aurora propagation continues, it will often be accompanied by what is known as "auroral E" propagation; that is, portions of the ionosphere's E layer will be engergized to reflect"short skip" signals just as if we were dealing with a summer "Sporadic E" opening. The difference is that "auroral E" most often occurs late at night, or sometimes even in the wee hours of the morning. I can recall once during a VHF contest when Dave, K1RZ, stole a march on everyone else around here because he was still awake when the band opened up to VE5, VE6 and VE8-land while everybody else was already in bed. Yes, auroral E is most common for stations in the northern tier of U.S. states and in Canada.

Also on six meters I have learned that during really major geomagnetic storms, just after the aurora quits, it pays to turn one's beam south, because it is not uncommon under such conditions to have F-layer propagation to Northern South America and Southern Central America. Frequently this will mean an hour-long or so opening to HK, YV, HP and TI stations, even during geomagnetic storms in low-sunspot years. During daylight hours on the day following the geomagnetic storm, it is also quite common to have six meters open to all of South America. On that day the morning will often bring very strong signals from the Caribbean and Northern South America, while early- and mid-afternoon will bring in moderately strong signals from Brazil, Argentina, Uruguay and Chile. I hope this month's column has inspired you to look around a little more rather than turning the radio off when you find a major geomagnetic storm in progress. Conditions at such times are certainly different, but they can be fascinating. And remember, you only have a couple dozen opportunities in a lifetime to observe them, so enjoy them and exploit themwhen you get the chance!

Reprinted with permission from the November 3, 2004 ARRL Contest Rate Sheet

What's best to stuff in the end of your cable conduits? The consensus seems to be that bronze and stainless-steel wool (both available at marine supply stores) keep the critters out without rusting. Gene K2QWD, an electrician, says another easy way to seal conduits with cables installed is to buy a brick of duct seal. It's moldable like putty and easy to remove when one wants to add another cable run.

If you're contemplating using surplus 75-ohm hardline in your station and are concerned about the resulting impedance mismatch, you have several options. 50:75-ohm transformers designed by W2FMI are sold by Amidon and other vendors. You can use 1/12th wavelength transmission line transformers. Cutting your hardline to an integral number of ½-wavelengths will replicate the antenna impedance at the shack end of the line, regardless of line impedance. There was a good article on the subject, "Matching 75-Ohm CATV Hardline to 50-Ohm Systems" in the Sep 1978 issue of Ham Radio by K1XX. Have at it!

A portable L/C/R tester is a handy thing for troubleshooting or checking out components from that dusty bin at the hamfest. The "Atlas LCR40 Passive Component Analyzer" (<http://www.anatekcorp.com/testequipment/atlaslcr.htm>) is a compact unit, a little smaller than size of a pack of cigarettes. Connect the two leads to a resistor, capacitor, or inductor, and the device tells you the R, L, or C in a few seconds.

If you like to build things out of PVC, furniture grade PVC is more resistant to UV light than regular schedule 40 or 80 so it doesn't discolor or become brittle quickly. This grade also may be a little stronger than regular plumbing-grade PVC pipe. The material is available from Patios To Go (<http://www.patiostogo.com/>) and they will ship to you

Get a grip! So how DO you put on a cable grip, anyway? "The cable is pulled taut, then starting at the thimble end the "big grip" is wound over the cable doing one turn on each side at a time. The "Big Grips" used on Phillystrand do the first 3 turns on one side, then the three on the other. After that it's one turn on each side at a time. Think of the grip acting similar to a Chinese Handcuff." They normally come with instructions. If you don't have one, ask your grip supplier for one

Sherwood Engineering has a new report out on receiver performance measurements.

(http://www.sherweng.com/images/MeasurementAccuracy&SampleVariation.p df <http://www.sherweng.com/images/MeasurementAccuracy%26SampleVariation.pdf>) This is always good reading!

I wasn't sure whether this was News or Technical, but maybe it's both. For those of us that have tried to move Big Stuff by ourselves, this is a very interesting concept - <http://www.theforgottentechnology.com/>. A descriptive article can be read from the Detroit Free Press at <http://www.freep.com/money/tech/mwendland4e_20041004.htm>. Could this really be the way Stonehenge and the Pyramids were built?

A winter or so ago I reported on finding the Atlas gloves with the rubber-coated palms and fabric mesh back and wrists. This year, I'm pleased to report that Atlas also makes an insulated version - the "Therma Fit". Just the thing for that cold/wet weather tower work. They seem to be available at most hardware and home improvement stores.

Analog Devices has just made available a new "Ask the Engineer" about wideband CMOS switches - the kind of thing routing signals around modern RF gear. Fascinating reading at <http://www.analog.com/library/analogdialogue/archives/38-10/wideband_> switch.html.

FCC Resumes Processing Amateur Service Applications

The FCC is back in the business of issuing Amateur Service license grants after a shutdown of several days. The Commission's Wireless Telecommunications Bureau (WTB) halted processing of Amateur Service applications November 5 after a Universal Licensing System (ULS) <<http://wireless.fcc.gov/uls/>> computer programming problem caused application grants to go awry. Besides creating an application backlog, the glitch resulted in the issuance of nearly 130 out-of-sequence Group D (2x3) amateur call signs. Those erroneous grants now have been set aside, and licensees have been issued new, in-sequence call signs.

"The Commission appears to have corrected the earlier erroneous call sign assignments," ARRL Volunteer Examiner Coordinator Manager Bart Jahnke, W9JJ, said November 11. "In the past 24 hours, the FCC has issued 1915 Amateur Service grants, some of which were corrections for the earlier call sign anomalies." Jahnke says the rest of the grants represented the application backlog and an initial run of some 600 applications for license renewal, license modification, vanity call signs and administrative updates the WTB did November 10 to check out the system.

WTB personnel auditing the results of that initial run apparently were satisfied that the trouble wouldn't resurface and removed the "alert" posted on the ULS Web site five days earlier to announce the suspension of Amateur Service grants.

Jahnke says that each of the 130 or so licensees issued out-of-sequence call signs will get a set-aside letter from the FCC via Certified Mail, pointing out the assignment error and listing the corrected call sign. The problem seems to have affected only new 2x3 call sign grants. The 130 affected licensees can learn their new call signs by searching the ULS database by licensee name or by FCC Registration Number (FRN), if they know it. Records of the erroneous call sign grants will be maintained in the ULS archive.

The difficulties began in late October, when a ULS software change shunted all amateur applications from the nation's VECs into "Pending 2" status and flagged them for manual review without any justification. Attempts to correct the error only seemed to make things worse, however. After regrouping, the WTB thought it had things under control by November 2, and it reprocessed all the applications in the queue. That time, the system not only failed to grant some routine requests for new sequential call signs but erroneously began issuing out-of-sequence Group D call signs from brand-new call sign blocks in several districts. At that point, the WTB stopped amateur processing altogether. Despite the processing error, Jahnke emphasized, the anomalous Group D call sign grants, which included numerous WQ-prefixes, were legal to use on the air.

ARRL-National Weather Service SKYWARN Recognition Day is December

The sixth annual ARRL-National Weather Service SKYWARN Recognition Day (SRD) <<http://hamradio.noaa.gov/>> event takes place Saturday, December 4. SKYWARN Recognition Day pays tribute to Amateur Radio SKYWARN volunteers for the vital services they provide during weather-related emergencies. During the 24-hour activity, radio amateurs set up stations at National Weather Service (NWS) offices and work as a team to contact other hams around the world.

The 2004 activity gets under way December 4 at 0000 UTC (Friday, December 3, in US time zones) and continues until 2400 UTC. The object is for amateur stations to exchange QSO information with as many National Weather Service stations as possible on 80, 40, 20, 15, 10, 6 and 2 meters, and 70 cm. Contacts via repeaters and Voice over Internet Protocol (VoIP) modes also are permitted. Operators will exchange call sign, signal report, QTH, and a one or two word description of their weather, such as "sunny," "partly cloudy," "windy," etc. Participants in the 2003 SRD logged nearly 19,000 QSOs.

A number of NWS stations will utilize EchoLink and the Internet Radio Linking Project to make contacts during SRD 2004. IRLP reflector node 9219 will be utilized for QSOs with NWS stations and also will be bridged to the EchoLink WX-TALK conference room so that IRLP stations can talk to EchoLink stations using a common point of contact.

ARRL Participating in IEEE, Industry Efforts to Set BPL Standards

Working with industry through the IEEE Broadband over Power Line (BPL) Study Group <<http://grouper.ieee.org/groups/bpl>> and in other venues, the ARRL is taking part in efforts aimed at defining and establishing key BPL technical standards. Among other issues, these standards will address the avoidance of interference from BPL to licensed radio services. The study group has held three meetings this year, and the next session is set for January 14 in San Diego. The study group met most recently in Piscataway, New Jersey, on October 13, the day before the FCC adopted new Part 15 rules to govern BPL deployment. ARRL Lab Manager Ed Hare, W1RFI, told those attending that gathering that any BPL standards must address issues of electromagnetic compatibility (EMC).

"The consensus of the committee is still that dealing with emissions and EMC is very high on the importance list," Hare said later. In terms of EMC, he said, the components of any IEEE BPL standard should "include the needs of the BPL industry to have a workable environment in which to manufacture and market BPL technology while addressing the need for licensed radio services to operate in an environment that does not result in harmful interference."

Hare's presentation focused on explaining why the BPL industry's measurements using spectrum analyzers and test probes differ from the impact BPL emissions have on communications receivers attached to typical amateur antenna systems. "I also continued to extend our offer to work cooperatively with industry representatives," Hare said. The ARRL and the FCC's Enforcement Bureau have a long history of cooperating in resolving Part 15 interference complaints resulting from power line noise.

Hare and ARRL Chief Technology Officer Paul Rinaldo, W4RI--who attended a July study group meeting in Piscataway--have been charged with drafting the part of the IEEE study group's "white paper" dealing with affected radio services, including Amateur Radio. Other aspects of the document will include safety; compatibility between access BPL and in-home BPL; compatibility with utility distribution systems, and security, privacy and authentication issues.

Following the July study group meeting, Rinaldo said the consensus of participants was that the core issue confronting the BPL industry was dealing successfully with the issue of interference from and to BPL. "BPL won't survive unless that fundamental problem is solved soon," Rinaldo asserted.

Rinaldo also took part in a Power Line Communications Association (PLCA) Strategic Summit and Business Briefing in late October in the DC area. His presentation concluded, among other things, that best practice for the BPL industry would be to avoid Amateur Radio spectrum at the equipment design level.

A few days earlier, Rinaldo had represented the League at a meeting of the National Association of Regulatory Utilities Commissioners (NARUC) Broadband over Power Lines Task Force.

20th Year

N2SS
FRC DX NEWS
Editor

20th Year

DECEMBER 20TH YEAR 2004

Notes From Your Editor

Best wishes from the N2SS household to you and yours during this holiday season. Could that large, wrapped present be an Icom IC7800!?

Happy Holidays

! ANNOUNCEMENT !

HOLIDAY MEETING B REXY'S

This year's annual holiday Meeting B is scheduled for Tues, Dec 28th at 7PM. If you would like to attend, I need your name, guest's name if you are bringing one, and dinner choices by Dec 24th. Contact me (see below) and let me know. I will collect the night of the dinner. As in past years I expect our President will designate this as an official FRC meeting.

Details:

Place: Rexy's, Black Horse Pike, (Rt 168 below WW Bridge)

Menu: Choice of Chicken Marsala, Chicked Parm, Stuffed Flounder, Filet Mignon or Prime Rib

Incl: Soup or salad, rolls and butter, coffee/tea and ice cream

Price: $21.50 for chicken or flounder
$24.00 for Filet or Prime Rib

Drinks: Cash bar on your own

POST SCRIPT

During my run for ARRL Division Director several years ago, when I spoke at club meetings my principal topic was a looming problem that I foresaw called BPL. My 'platform' was the need to energize the amateur community, the ARRL, equipment manufacturers and other affected services to fight against this technology. Most that I spoke to were unfamiliar with BPL at that time. If you haven't the read details of the FCC Report and Order adopting BPL rules last month, let me paraphrase for you:

When implementing BPL services power companies are precluded from using certain frequency bands – these do not include the amateur bands. The amateur bands are neither protected by exclusion nor notching. Amateur bands are ***"to be protected on a complaint basis"***. Good luck dealing with your local power company! We can only hope that newer wireless solutions will eventually demonstrate that BPL is not commercially viable. In the mean time, perhaps you should return that new Christmas present until you are sure it that it wont become a $10K boat anchor!!

CURRENT OFFICIAL ARRL DXCC STATISTICS

Active Count	335
Deleted Count	58
Last Addition	VP6/D
Last Deletion	STØ

5T – MAURITANIA

Yves/F6GDC, Pierre/F6CQX and Eric/F5SSM will be active as **5T5DY** on 10 thru 40 Meters December 26th to January 9th. QSLs go via F6GDC.

FO/M – MARQUESAS

Look for **FO/F6COW**, **FO/F6EPY** and **FO/F6GNZ** signing from Hiva Hoa Island in the Marquesas. Operation will take place from December 11th to 23rd and QSLs go to their respective home QTHs

VP8HS – THAILAND

With an emphasis on 160, 80 and the WARC bands, DL3DXX, DL5LYM, G4ODV, G4UZN, HSØZDX, HSØZDZ, HS1CKC and WA6CDR are be signing as **HS72B** now thru December 12th. QSL to E2ØNTS

Also, from Dec 1st to 7th look for **HSØZCY** by AA4XR who will also be focusing on the low bands on CW, RTTY and PSK31.

VU – ANDAMANS & NICOBAR

VU2DBP, VU3DVS, VU2MYH and VU3RSB have received permission to operate from the Andamans and Nicobar Islands as **VU4NRO** and **VU4RBI**. Their permission is valid from December 3rd to 31st. At this writing they have not firmed up the actual on air dates. So, the best advice is to watch the bands and the callouts for this rare one and perhaps Santa will give you a new country or several new band countries.

DX ALERT LEGEND

- 160 METER ALERT
- IOTA ALERT
- RTTY ALERT
- WARC BAND ALERT

"$"pecial "$"alute

Have you made your contribution yet? Contribute to your Newsletter and get the "$" "$".

©

73, Tony N2SS

You can reach me as follows:
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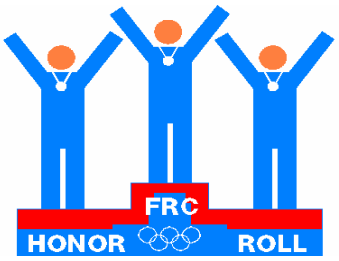

DECEMBER conducted by N2SS 2004

WARC BANDS

30 Meters		17 Meters		12 Meters	
K2FL	**330**	**K2FL**	**335**	**N2TK**	**327**
N2TK	326	N2TK	334	K2FL	326
N2LT	313	N2LT	331	N2LT	319
W3BGN	309	W3CF	329	W3BGN	311
K2RW	296	W3BGN	325	N2SS	301
W2YC	287	K2RW	324	K2RW	300
W8FJ	286	N2SS	319	W3CF	282
N2SS	284	K2PS	302	W2YC	272
K2PS	281	W2YC	292	K2PS	268
W2UP	239	W8FJ	290	W2UP	239
N3RD	223	W2UP	288	N1RK	217
K3II	222	N1RK	252	W8FJ	226
W2LE	212	KQ3F	240	KQ3F	213
AA2WN	171	K3II	237	K3II	202
KQ3F	161	NZ3O	214	K2NJ	190
NZ3O	150	W2LE	202	W2YR	186
W2YR	130	W2YR	194	W2LE	176
AB2E	124	K2NJ	179	N3KN	176
K2NJ	113	K2JF	168	NZ3O	167
K2JF	112	NA2U	162	NA2U	154
NA2U	105	N3KN	147	K2JF	135
N1RK	90	K3ND	119	AB2E	92
N3KN	85	AA2WN	116	K3GYS	30
K3ND	76	AB2E	105	N2VW	27
N2VW	71	K3GYS	85	AA2WN	20
W3CF	55	N2VW	65	W2CG	1
K3GYS	17				

K2FL and N2TK still duking it out for that elusive, undisputed **KING OF WARC**

Rules for FRC Honor Roll Listings.
Provide me with your total IOTAs worked, or countries (including deleted) worked for: WARC Bands, 160 Meters, Digital modes, Mobile, 6 Meters or your total for 80,40,20, 15 and 10 for 1.5K Club. Countries do not count until HQ Awards Committee takes action and announces a start date for a new country.

160 Meters

W3BGN	**291**	K2RW	93
AA1K	285	AB2E	87
N2LT	244	W2CG	85
N2TK	240	W2YR	80
K3SX	224	N2SS	78
W8FJ	200	NA2U	78
NO2R	197	N2VW	77
K3JJG	186	W3CF	77
W2UP	183	K3NL	70
K3NZ	172	K2NJ	59
W2YC	165	KQ3F	47
K3NM	156	N1RK	40
N3RS	156	AA2WN	36
K3II	149	K2JF	34
K2FL	141	W2LE	28
K3ND	136	NZ3O	13
K2PS	106	K3GYS	12

W3BGN continues as the undisputed Top of Top Band.

RTTY Digital

W2UP	**335**	W2YR	122
N2LT	329	K2JF	113
K2PS	285	W2LE	85
W3SB	268	N2SS	53
K2RW	266	N1RK	39
K2NJ	235	KQ3F	26
W2YC	229	K3GYS	15
AA2WN	187	W8FJ	12
N3KN	165		

MOBILE DX

W2YC	**276**	K3GYS	143
AA1K	266	AA2WN	131
N2SS	234	W2YR	21
K2JF	150		

1.5K Club

K2FL	**1706**	K2NJ	1406
W3BGN	**1694**	W3CF	1403
N2TK	**1685**	AA2WN	1369
N2LT	**1676**	K2JF	1350
W2UP	**1657**	NA2U	1335
K2RW	**1610**	W2CG	1305
W8FJ	**1588**	N1RK	1277
N3RS	**1581**	N2VW	1258
W2YC	**1527**	K3CT	1177
N2SS	**1517**	W2LE	1141
K2PS	**1516**	W2YR	1138
NO2R	**1511**	W3SB	1132
N3RD	**1506**	K3NM	1107
K3ND	1496	NZ3O	1069
KQ3F	1429	N3KN	1065
		AB2E	1055

Islands On The Air

K2FL	**984**	NZ3O	259
N2SS	808	N2VW	259
W2YC	574	W3CF	253
W8FJ	573	W2YR	230
N1RK	537	K3GYS	214

6 Meter DXCC

N2LT	**106**	N1RK	57
K2NJ	100	N2SS	55
AA1K	98	K2RW	42
K2PS	96	W2YR	41
K2JF	94	W2YC	16
K3SX	75	AA2WN	15
K3OO	71	K3GYS	10
N3KN	61		

THE FRANKFORD RADIO CLUB

NEWSLETTER

P. O. Box 431 Alburtis, PA 18011-0431

Affiliated Club

The Frankford Radio Club

Club Officers

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Packet, **N3RD**, Dave Hawes .....…..… 610-935-2684
Activities, **N3AD**, Alan Donziger ……610-581-7032
Awards, **K2QM**, Dan Marlow ….....… 609-683-5633
Membership

Newsletter & Roster

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Printing, **K3ZV**, John Lindmeier ..…...856-768-5348

Repeater - 2 meters, 147.27/147.87 Output PL tone, 114.8
Home Page - www.gofrc.org

Meetings

Meetings are held on the 2nd Tuesday of each month (Sep through May) at 8 PM at the University of the Sciences, Philadelphia. Summer meetings are held at member homes (one Saturday/ Sunday per month).

Packet Cluster Contest/DX System

144.930 W3FRC
145.010 N3ED
145.650 K2TD
145.530 K3WW
145.530 AA1K
145.570 WT3Q
145.570 K2TW
145.590 N2NT
144.950 K3ZV
145.730 N2BIM
147.495 W3MM
145.670 W3PP
TBA W2JT

Telnet DX Cluster

k2ut.gofrc.org
k3ww.gofrc.org 7300
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