



THE FRANKFORD RADIO CLUB NEWSLETTER

PROFICIENCY THROUGH COMPETITION

CALENDAR

September 2005:

- 3-4 All Asian DX Contest, SSB
- 10-11 Worked All Europe Test, SSB
- 11 NA Sprint, CW
- 13 FRC Main Meeting, Phila**
- 13 Rexy Meeting B**
- 15 T.I.T.S. Meeting, Noon**
- 17-18 Scandinavian Contest, CW
- 18 NA Sprint, SSB
- 24-25 CQWW DX Contest, RTTY
- 24-25 Scandinavian Contest, SSB
- 27 Rexy Meeting B**

October 2005:

- 1-2 Oceania DX Contest, SSB
- 1-2 California QSO Party
- 8-9 Oceania DX Contest, CW
- 8-9 Pennsylvania QSO Party
- 11 FRC Main Meeting, Phila**
- 11 Rexy Meeting B**
- 15-16 Worked All Germany Contest
- 20 T.I.T.S. Meeting, Noon**
- 25 Rexy Meeting B**
- 29-30 CQWW DX Contest, SSB**

November 2005:

- 5-6 ARRL Sweepstakes, CW
- 8 FRC Main Meeting, Phila**
- 8 Rexy Meeting B**
- 12-13 Worked All Europe, RTTY
- 17 T.I.T.S. Meeting, Noon**
- 19-20 ARRL Sweepstakes, SSB
- 22 Rexy Meeting B**
- 26-27 CQWW DX Contest, CW**

CHANGES

Email: **W2OX**—w2ox@verizon.net

Deadline for October issue:

Sunday, September 25, 2005

President's Column

This month, we received official word that the club won both the CQWW and the ARRL DX contests. This is a great accomplishment. I want to thank all those who go on and contributed scores to the effort. I also want to thank all the others who contributed to the win, our families. They all contributed and deserve our thanks also.

This month, the meetings return to the college. Sig, **N3RS** and Dave, **N3RD** will be doing a presentation on station automation. I am looking forward to learning from these two great operators. I hope to see many of you there. At the October meeting, Alex, **W2OX/V47KP**, will be doing a presentation on DX contesting from the DX side.

The CQWW is rapidly approaching. Doug, **W3CF**, is providing a very valuable service to the club by publishing a listing of who will be operating and from where. I want to thank Doug for providing this service to the club. If you are going to be on, let Doug know. If you need a place to operate or just want to try operating from a multi-op, there are stations looking for operators.

73 – John – K3ZV

2004-2005 Club Score Results

CQWW

Frankford Radio Club	387,506,863
Yankee Clipper Contest Club	331,489,157
Potomac Valley Radio Club	169,644,326
Northern California Contest Club	116,712,815

ARRL DX

Frankford Radio Club	212,875,509	148 entries
Yankee Clipper Contest Club	199,789,977	196 entries
Potomac Valley Radio Club	113,772,354	143 entries

CONGRATULATIONS TO ALL!!!!

MEETINGS

Main Meeting in Philadelphia

The main monthly meeting of the **Frankford Radio Club** will be held Philadelphia on Tuesday, September 13 at 8 PM. Location is Rosenburger Hall, Room 102 at the University of the Sciences.

Program: Station Automation by Sig, **N3RS** and Dave, **N3RD**

October program: Alex, **W2OX/V47KP** on DX contesting from the "other side"



T.I.T.S. meeting—The Trexlertown International Transmitting Society meets on Thursday, September 15 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.



I have a 48' aluminum self supporting tower for sale. It sits on a four foot steel base for a total height of 52 feet, It is a crank over and comes down to the ground. It was made by Heightstowers.com. I am asking \$1,395.00 for it. Includes a Yaesu Rotor - G-400 RC. Also, a foldover hinge, 1" acme threaded gear driver and the four foot steel base. It is on the ground and in 6 eight foot length sections. It can be cranked down in 20 Minutes, Never climb a tower again. See manufacturer site at www.heightstowers.com for more information. I am selling it because I am moving out of the area. **Contact Van, K3CP**

DXpedition:

Joe, **K3NM** and Alex, **W2OX** will again be on V4 for CQWW SSB and Bob, **KQ2M** and Alex will be on for CQWW CW. (Ed. Note: Any others?)

Higher Amateur Radio vanity call sign application fee now in effect

The application fee for an Amateur Radio vanity call sign rose to \$21.90 effective for applications received on or after Tuesday, August 23. The FCC's Wireless Telecommunications Bureau released a new Fee Filing Guide this week, and WTB personnel have confirmed that the new vanity fee is in effect.

In a Report and Order and Order On Reconsideration (R&O) in the assessment and collection of regulatory fees for fiscal years 2004 and 2005 released July 7, the FCC raised the vanity application fee for FY 2005 from \$20.80 to \$21.90 for the 10-year license term. The FCC said it had adjusted FY 2004 "payment units" for each service to better reflect expected FY 2005 payment liabilities. The fee went up from \$16.30 to \$20.80 a year ago.

A reevaluation in the number of anticipated vanity call sign applications--or "payment units"--accounts for this latest fee hike. The FCC says it anticipates 7600 vanity applications--up only slightly from a year earlier.

More information on vanity call signs is available on the ARRL Web site, www.arrl.org/arrlvec/vanity.html.

Photos from August meeting at K3ZV (thanks to W2YR)



FRC Annual Contribution Listing

Contributors as of August 23, 2005					
AA1K/AB1P/KB3FEE		K3ATO	K3ZV	N3KR	W2RD
AA2WN	K3BU	KB3MM	N3NR	W2RDS	W3MF
AA3B	K3CP	KC3WX	N3RD	W2REH	W3MM/W3RAT
AD3Z	K3CT	KD2RE	N3RW	W2TV	W3SOH
K2DM	K3FMQ	KQ2M	N3ZA	W2UDT	W8FJ
K2FL	K3II	KQ3F	N9GG	W2UP	WA2VYA
K2GN	K3JGJ	N1RK	NO2R	W2YC	WA3LRO
K2JF	K3ND	N2LT	NQ3N	W2YR	WB3CIW
K2NG	K3NL	N2MR	NW3Y	W3AP	WE3C
K2OWE	K3NZ	N2TK	NY3C	W3BGN	WQ3E
K2PS	K3OO/K3OOO		N2VW	NZ3O	W3KV
K2QM	K3PH	N3DXX	W1GD	W3CF	W2OF
K2SB	K3TEJ	N3ED	W2CG	W3EA	K3VA
K2TW	K3WW	N3GNW	W2GD	W3FV	N2AB
K2UT	K3YD	N3KN	W2LE	W3FVT	K3CY
KD3TB	K2SG	N2NC	N3AD	K3MD	W3CC

Contributions appear to be down from last year. If you haven't yet contributed this year, please consider making a contribution for FRC.

FRC Contest Award Winners

(please email editor with additions/corrections)

2004 CQWW CW

AA1K	6th place USA SOAB (HP)
K2PS	7th place USA SOAB (LP)
K3BU	2nd place USA 7 MHz
K3WW	1st place USA SOA
K2NG	2nd place USA SOA
K3PH	8th place USA SOA
KQ3F	9th place USA SOA
W2UP	10th place USA SOA
K3OO	4th place USA M/S
N3RS	2nd place USA M/2
P40W (W2GD)	3rd place World SOA (HP)
PJ4M (K2QM)	6th place World SOA (HP)
V26K (AA3B)	2nd place World SOA (LP)
VY2NT (N2NT)	6th place World SO

2005 ARRL SSB

AA1K	4th place US/VE SO
W3BGN	6th place US/VE SO
K3WW	2nd place US/VE SOA
AA3B	4th place US/VE SOA
NN3Q	6th place US/VE SOA
N2MM	8th place US/VE SOA
K3MD	5th place US/VE M/S
NE3F	7th place US/VE M/S
N3RS	1st place US/VE M/2
W3PP	6th place US/VE M/M
N3AD	8th place US/VE M/M
P40W	1st place DX SOHP
WP2Z	2nd place DX SOHP
V47KP	1st place DX M/M

Additions

K3MD	8th place US/VE M/S ARRL CW
NE3F	9th place US/VE M/S ARRL CW
W2ZQ (K2QM, WW2Y)	9th place US/VE M/S ARRL CW
DL1IAO	10th place DX SOHP ARRL CW
V26G	2nd place DX SOA ARRL CW
P40W	1st place World SOA
K3JGJ	8th place US/VE 80m

Who did I miss? (it's not personal)

EASY GROUND RADIAL INSTALLATION

By Gale Steward, K3ND

The next few years will find contesters utilizing the low bands more than ever. Often the MUF will drop below 7 MHz at night leaving 80 and 160 meters the only nighttime “game in town”. If you don’t already have a good low band vertically polarized antenna, you might want to seriously consider one. Whether you use a commercial antenna, like the HF2V, or something homemade, all verticals have one thing in common – the need for a good radial system. A “good” radial system doesn’t have to be 120 half wave radials installed in a perfect circle. This is the ideal textbook system. Realistically, anything over 60 quarter wave radials is probably not worth all the extra effort. I have a home made 60 foot vertical, top and linear loaded, that I have used with great success on 75, 80, and 160 meters. The radial system presently consists of 50 to 60 radials of varying lengths and I add to it every year. Over the years, I have installed (and reinstalled) ground radials many times. I’ve tried many different methods of installation, but the one described in this article is the easiest one that I’ve found. It’s so easy that my eleven year old daughter installs them!

I lay my radial wires on top of the lawn and hold them down with home made “staples” or “clips”. These can be made from steel wire, copper wire, old wire coat hangers, or what ever else you might find suitable. I recently found a bunch of three foot lengths of small diameter brass tubing in the scrap and have also used this material. I make up a few hundred of these at a time and have a small bucket full before I start any radial installation. I make my “staples” by cutting a six inch length of material and then bend it into a “U” shape by grabbing the center with long nose pliers and then bending them by hand (use gloves!). This gives you a staple about three inches long. I’ve heard that some fellows have used large bobby pins which are slightly shorter than my home made staples. You might find them at one of the dollar stores.



Left - staple made of small diameter brass tubing
Center - staple made of #14 copper wire (house wire)
Right - staple made of steel electric fence wire



Bucket ‘o staples

Here’s how I install a radial wire. First, I get out the lawn mower and mow the lawn in the area where the radial is going to be placed. No need to cut the lawn real short. I attach one end of the radial to my aluminum radial plate at the base of the antenna. I pull the radial wire in the desired direction until I get to an obstruction (tree, driveway, garden, etc.) and cut the wire at that point. I pull the wire slightly taut and put a brick over the wire end to hold it in place. I go back and start “stapling” the radial wire down to the lawn, working my way out to the end of the wire. I normally use a staple every couple of feet, following the contour of the ground. As you can see, you can use up a LOT of these staples! Thankfully, they are cheap and easy to make.

(continued)



Radial wires connected to aluminum base plate



A partially installed staple over a radial wire

Sometimes the staple can be simply pushed into the ground. If you find that you have hit an obstruction under the surface (rock or tree root), move the staple a few inches and try again. I've found the easiest way is to "tap" the staple in with a small mallet or hammer. This method seems to work well even if the ground is dry and fairly hard. Also, a good set of knee pads is real handy unless you like kneeling down (and up) a lot. The grass quickly grows over the radial and they pretty much bury themselves. A few months later you can't even see them. Using this installation method, I've mowed over radials a few days after installation without any problems.



Staple installation complete

So there you have it. Get those radials installed and boost your low band signal.

73, Stew K3ND

CONTESTING — TIPS, TECHNIQUES, RESOURCES

Reprinted with permission from the August 10, 2005 ARRL Contest Rate Sheet

There is a new Web-based version of ARRL contest Line Scores available to both ARRL members and non-Members. This listing is generated on-demand directly from the score data base, so any corrections are always included. (Previously, printed and downloaded line scores were only available in fixed form as part of the QST article PDF and were not updated.) The new line score format is presented as HTML, so a PDF reader program is not required. The font size is a tad larger than the QRPP 6-point used in the magazine, too. Get your copy of the line scores by clicking "Printable Line Scores" on the ARRL Contest Results Web page at <http://www.arrl.org/contests/results/>. This format is available for ARRL contests with an on-line database, beginning with the 2001 ARRL November CW Sweepstakes.

Tabor Software (<http://www.taborsoft.com/>) has a deal for new users of the WinCAP Wizard 3 package, which includes GeoAlert and Beacon Time Wizard. Register the program during August or September and receive the approaching major upgrade free. Further, if you state that you saw this offer in the "Contester's Rate Sheet" there's a \$15 discount.

About a year ago Carl K9LA wrote a short article titled Propagation Planning for DXpeditions. It discussed six areas to help with propagation issues on your DXpedition. This document is available at <http://www.arrl.org/tis/info/pdf/propplan.pdf>. Now he has written a short article titled Propagation Planning for Contests. It goes one step farther, and outlines a short process using VOACAP to come up with a band plan for those contest categories requiring a decision as to what band to be on at any given time. It takes advantage of the inherent statistical nature of propagation predictions, and it is available at <http://www.arrl.org/tis/info/pdf/propcontest.pdf>.

Gene AD3F suggests that this would be "an opportune time to remind all about Mark N1LO's great tome on antenna and tower references - <http://www.qsl.net/n1lo/towers.txt> . It's probably as close to anything as you'll come to a real text-book on the subjects of tower design, installation and maintenance. It's a large text file so it will take a while to download on all but the fastest of connections."If you'd like to be able to just send CW from your keyboard without firing up a whole logging program, CW Type is just such a program. It can key the radio via either a serial or parallel interface and can send from the keyboard or a paddle plugged into the parallel port. Hank K8DD has checked it out on Windows XP and the price is right - free! CW Type is available from DXsoft at <http://www.dxsoft.com/en/products/cwtype/>.

Reprinted with permission from the August 24, 2005 ARRL Contest Rate Sheet

Although the low-band DXers will grumble that it's too soon, <http://www.dxc.com/solar> reports that the first signs of solar cycle 24 was observed on August 12 when a small bipolar region (with polarities reversed compared to cycle 23 regions) emerged in the northeast quadrant. A couple of tiny spots were observed during the evening, these had decayed to just pores by midnight when the region was spotless. This observation hints at a solar minimum sometime between April and October in 2006.

<http://www.qsl.net/lz1jz>



CONTESTING — TIPS, TECHNIQUES, RESOURCE

Several conversations about using antenna SWR analyzers on 160-meter and 80-meter antennas prompt me to point out a few cautions. Antennas of this size can pick up a substantial amount of RF from local broadcast stations. This often upsets the RF detector circuits in the analyzer, giving completely erroneous readings. You can tell that something funny is going on by using a transmit power meter to make a few measurements and comparing them to what the analyzer says. Significant disagreements in SWR levels or in changes with frequency indicate a problem. I often use a broadcast-reject receive filter (see next item) at the output of the analyzer, but remember that the filter will "color" the results as the filter cutoff frequency is reached. Sometimes, there is no substitute on 160-meters, particularly, for using a transmitter at 10 W output or less to test antennas. Remember, too, that with a wavelength measured in hundreds of feet on the low bands, you may be electrically closer than you think to interacting antennas, metal buildings, and parallel conductors.

To get rid of a strong local AM-BC station signal, Bill W4ZV recommends the Par Electronics BCST-HPF broadcast reject 7-pole elliptic receiving filter, available from Universal Radio at <http://www.universal-radio.com/catalog/filters/4426.html>. The minimum attenuation below 1700 kHz is 41 dB. The housing has an SO-239 receptacle for both input and output. There is also a bypass toggle switch to take the filter out of line.

Here's a reminder to those of you engaging in the summer activity of putting down radials. Farm supply stores stock 14-gauge galvanized electric fence wire in ¼-mile lengths at very reasonable prices. For holding the radials down, Phil KB9CRY suggests folding a short length sideways over one's hand so that it looks like a bobby pin and can be used for pinning the radials down. Once the grass grows over them, radial and pins, he reports that they simply disappear into the grass.

Finding noise sources on power poles often takes a VHF directive antenna. Several models that are designed for hand-held use are available at <http://www.arrowantennas.com/>. They have a 3-element 2-meter model and the 7-element 70 cm model that work well for finding RFI-producing hardware, especially the 70cm model, which is very directional.

Outdoor antenna and feed line projects often require small enclosures that often turn out to be surprisingly expensive. A pair of my favorite low-cost suppliers for items like this are All Electronics (<http://www.allelectronics.com/>) and Marlin P. Jones & Associates (<http://www.mpja.com/>). The mailing lists and email notifications for both of these vendors are worth signing up for. Another tip - waterproof enclosures, plastic and metal, can often be found at ham-friendly prices in the local industrial surplus emporium, plus you'll have a great time digging through all the interesting stuff.



Work Wanted:

Experienced tower climber immediately available to perform antenna and tower maintenance.

Install/repair/remove antennas, replace feedlines and cabling, rotator servicing, guy wire renewal, new tower installations (guyed and self-supporting), and tower removal.

Make your tower look "like new" this year with a fresh coat of paint.

Reasonable hourly rates and scheduling that meets your needs.

Contact: John Crovelli W2GD

w2gd@hotmail.com

(908) 996 3043

Higher Vanity Call Sign Application Fee Now in Effect

The application fee for an Amateur Radio vanity call sign rose to \$21.90 effective for applications received by the FCC on or after Tuesday, August 23. The FCC's Wireless Telecommunications Bureau released a new Fee Filing Guide <<http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-260618A1.pdf>> this week, and WTB personnel have confirmed that the new vanity fee is in effect.

In a Report and Order and Order On Reconsideration (R&O) in the assessment and collection of regulatory fees for fiscal years 2004 and 2005 released July 7, the FCC raised the vanity application fee for FY 2005 from \$20.80 to \$21.90 for the 10-year license term. The FCC said it had adjusted FY 2004 "payment units" for each service to better reflect expected FY 2005 payment liabilities. The fee went up from \$16.30 to \$20.80 a year ago.

A reevaluation in the number of anticipated vanity call sign applications--or "payment units"--accounts for this latest fee hike. The FCC says it anticipates 7600 vanity applications--up only slightly from a year earlier.

The fee applies to applications for new vanity call signs as well as to license renewals for current vanity call sign holders. Vanity call sign licenses issued in 1996 when the FCC resurrected its vanity program will be coming up for renewal starting in mid-2006. Under current rules, Amateur Radio licensees may only file renewal applications within 90 days of their license expiration date.

More information on vanity call signs is available on the ARRL Web site <<<http://www.arrl.org/arrlvec/vanity.html>>>.

RTTY/digital "Most Needed" DXCC Entities Survey Underway

RTTY DXer and editor Don Hill, AA5AY, has invited RTTY and digital-mode DXers to take part in the 2005 RTTY Most Needed DXCC Entities Survey. "It has been three years since the last RTTY Most Needed DXCC Entities Survey was conducted," Hill says. According to the 2002 poll, Scarborough Reef (BS7) topped the wish list of RTTY DXers--which include those who chase DX via other digital modes such as PSK31 or AMTOR. For the 2005 Hill wants input from hams worldwide who operate RTTY and other digital modes by September 18, 2005. As in 2002, a Web form with check boxes will be provided, but for only 240 DXCC entities, not all 335. To take part in the survey, visit the 2005 RTTY Most Needed DXCC Entities Survey Web site <<<http://aa5au.com/rttysurvey2005.html>>>.

Let the Seller Beware!

The ARRL again cautions anyone selling Amateur Radio and related equipment via Radios On-Line or QST Ham Ads (or via on-line auction sites or other advertising media) to beware of so-called "advance fee fraud" (or 4-1-9) payment schemes <<<http://www.secretservice.gov/alert419.shtml>>> aimed at ripping you off. We continue to receive reports from ARRL members who have received responses to their ads from individuals offering to overpay for goods via bank check with instructions to deduct the cost of their item(s) from the overpayment (typically quite substantial) and return the "change" to the buyer or another individual. The "bank check" is bogus, however, and the seller ends up holding the bag. This is a well-known scam. There's additional information on the Scam Victims United Web site <<<http://www.scamvictimsunited.com/>>>. Remember: Transact carefully, and protect yourself from fraud!

Notes From Your Editor

Full DX season is upon us and I thought it would be a good time to take a look at where we are in the solar cycle to give some general idea of what kind of conditions we can expect this Fall and Winter. Below you will find a chart showing the current and the previous two sunspot cycles. (I can't believe I have kept up with this data for 25 years now!) I plot the average monthly Solar Flux as opposed to Smoothed Sunspot numbers, as I believe the Solar Flux numbers are a more appropriate indicator of the kind of propagation information of interest to DXers and contesters. Any antenna improvements aside, the conditions you will experience this DX and contest season are probably going to be similar to what you experienced in similar months during the Fall '97-Winter '98 season. So, pull up the old logs and see what

bands you were working your best DX on back then.

60 METERS HONOR ROLL LISTING
 Zero response to the question of a 60 Meters listing to the FRC DX Honor Roll. N2TK made the original request. Sorry, Tony, looks like there is no other interest.

CURRENT OFFICIAL ARRL DXCC STATISTICS

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

KH7K – KURE

A US led multinational team will be setting up 4 stations for an all band, all mode DXpedition operation from Sep 24th to Oct 6th. Call sign to be used is **K7C**. Don't forget to modify your logging software to show K7C as



Kure, otherwise you might miss the callouts. The expedition promises unique real time feedback and interactivity. Go to: http://www.cordell.org/htdocs/KURE/KURE_pages/KURE_Index.html And click on DXA. The QSL info can also be found at this site.

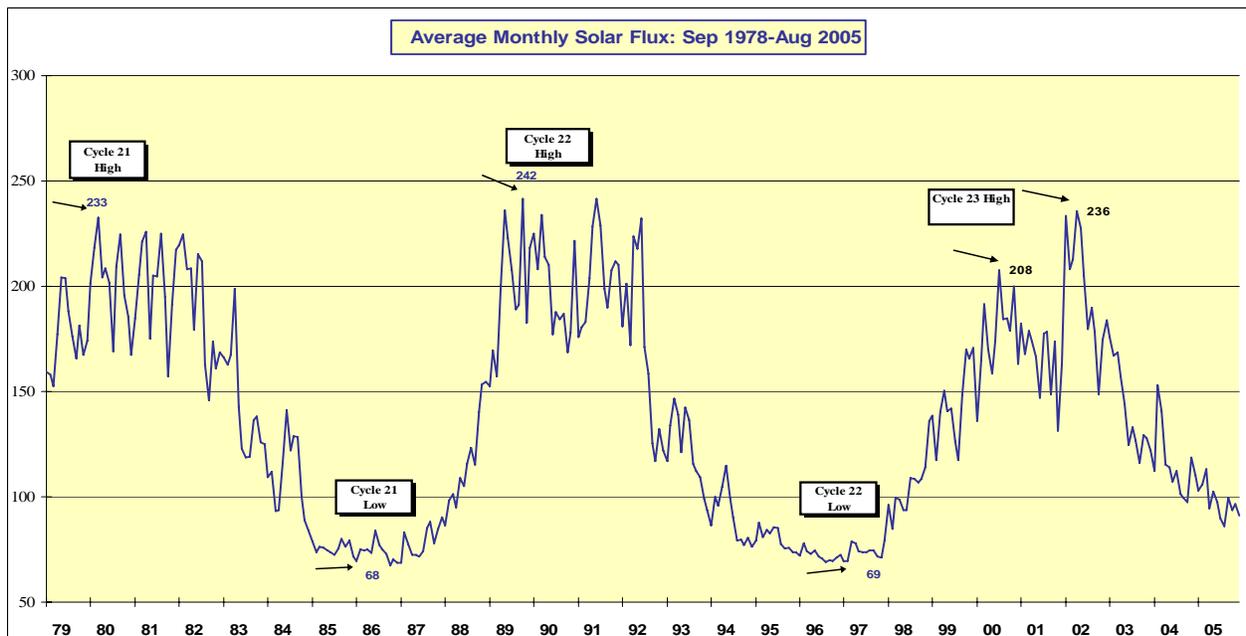
DX ALERT LEGEND

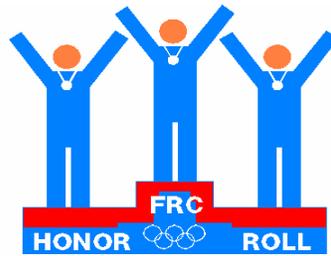
- 160 METER ALERT
- IOTA ALERT
- RTTY ALERT
- WARC BAND ALERT

"S"pecial "S"alute
 Have you made your contribution yet? Contribute to your Newsletter and get the "S" "S".
 ©

73, Tony N2SS

You can reach me as follows:
 H:856-227-4896 C:609-221-4899
n2ss@n2ss.com
argargano@comcast.net





SEPTEMBER **CONDUCTED by N2SS** **2005**

WARC BANDS

<u>30 Meters</u>	<u>17 Meters</u>	<u>12 Meters</u>
K2FL .. 332	K2FL...335	N2TK ..328
N2TK328	N2TK ..335	K2FL..... 326
N2LT318	N2LT 332	N2LT..... 321
W3BGN ...313	W3CF 331	W3BGN ... 313
K2RW296	W3BGN ... 326	W3CF 303
W2YC296	K2RW 324	N2SS..... 302
N2SS289	N2SS 320	K2RW 300
W8FJ287	W2UP 304	W2YC 273
K2PS284	K2PS 303	K2PS..... 268
W2UP264	W2YC 300	W2UP 256
N3RD245	W8FJ 291	W8FJ 228
N2MM233	N2MM..... 268	N1RK..... 218
K3II229	N1RK 253	KQ3F 217
W2LE212	KQ3F 252	K3II 202
KQ3F195	K3II 240	N3KN 191
NZ3O188	NZ3O 233	K2NJ 190
AA2WN...171	W2LE 202	NZ3O 188
W2RQ144	W2YR 202	W2YR 187
AB2E132	K2NJ 179	N2MM 185
W2YR132	K2JF 168	W2LE 176
K3CT126	N3KN 168	NA2U 154
N3KN119	NA2U 162	K2JF 135
K2NJ113	W2RQ 142	AB2E 92
K2JF112	K3ND 124	K3CT 76
NA2U105	AA2WN ... 116	W2RQ 62
N1RK97	AB2E 114	K3GYS 30
K3ND85	K3CT 91	N2VW 27
N2VW71	K3GYS 85	AA2WN 20
W3CF61	N2VW 65	W2CG 1
K3GYS17		

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

W3BGN293	K2PS 106
AA1K287	K2RW 93
WT3Q254	AB2E 90
N2LT248	W2CG 85
N2TK244	W2YR 81
K3SX229	N2SS 79
NO2R216	NA2U 78
W8FJ207	N2VW 77
K3JG190	W3CF 77
W2UP189	K3NL 70
N2MM182	K3CT 63
K3NZ172	K2NJ 59
W2YC171	KQ3F 57
K3NM156	NZ3O 55
N3RS156	N1RK 42
K3II149	AA2WN 36
K2FL143	K2JF 34
K3ND136	W2LE 28
W2RQ123	N3KN 28
	K3GYS 12

W3BGN continues as the undisputed Top of Top Band.

Digital

W2UP337	W2YR 139
N2LT332	KQ3F 132
K2PS287	K2JF 113
K2RW266	W2LE 85
W2YC242	N2SS 53
K2NJ235	N1RK 39
AA2WN187	K3GYS 15
N3KN179	W8FJ 12

MOBILE DX

W2YC276	K3GYS 143
AA1K270	AA2WN 131
N2SS234	W2YR 21
K2JF150	

1.5K Club

K2FL..... 1708	KQ3F1453
W3BGN 1696	K2NJ1406
N2TK 1688	W3CF1403
N2LT 1684	AA2WN1369
W2UP 1664	K2JF1350
W2RQ 1623	NA2U1335
K2RW 1610	W2CG1305
N3RS 1603	N1RK1287
W8FJ 1593	N2VW1258
K3II 1573	K3CT1229
W2YC 1542	W2YR1148
N3RD 1525	W2LE1141
NO2R 1525	N3KN1111
N2MM 1524	K3NM1107
K2PS 1521	NZ3O1088
N2SS 1520	AB2E1074
K3ND 1501	

Islands On The Air

K2FL..... 989	NZ3O317
N2SS 818	N2VW259
W2YC 604	W3CF253
W8FJ592	W2YR234
N1RK540	K3GYS215

6 METER DXCC

N2LT106	N2SS55
K2NJ100	N3KN52
K2PS100	K2RW42
AA1K 98	W2YR41
K2JF 94	W2YC19
K3SX 75	AA2WN15
K3OO 71	K3GYS10
N1RK57	N2TK8



THE FRANKFORD RADIO CLUB NEWSLETTER

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



Affiliated Club

The Frankford Radio Club

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Secretary, **W2RDS**, Rick Stoneking..... 609-265-0885
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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
144.930 W2JT
144.950 K3ZV
145.010 N3ED
145.530 K3WW
145.530 AA1K
145.570 WT3Q
145.570 K2TW
145.590 N2NT
145.650 K2TD
145.670 W3PP
145.730 N2BIM
147.495 W3MM

Telnet DX Cluster

k2ut.gofrc.org
k3ww.gofrc.org 7300
w3frc.gofrc.org 7300