THE FRANKFORD RADIO CLUB
NEWSLETTER
PROFICIENCY THROUGH COMPETITION

CALENDAR

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**

December 2005:

2-4	**ARRL 160 Meter Contest**
10	**FRC Main Meeting, KofP**
10-11	ARRL 10 Meter Contest
13	**Rexy Meeting B**
15	**T.I.T.S. Meeting, Noon**
27	**Rexy Meeting B**

CHANGES

See New Members Box

Deadline for November issue:

Sunday, October 23, 2005

President's Column

This month we take the first step in defending our win in last year's CQWW contest. We will need a big turnout to accomplish this. With conditions declining, this will not be an easy contest to stay focused on. So, we all need to make a big effort to get on and remember the old **FRC** saying – Be There, Be Loud, Beat YCCC !!!

We have two new members to the club who joined at the last two meetings. Bob Nelson – **K2QPN** from Burlington, NJ and Trevor – **W7TDC** from Wind Gap, PA. Welcome to these new members.

At the September meeting, Dave, **N3RD** and Sig, **N3RS** shared some of their accomplishments in automating their stations. This was a great presentation and those there all learned some great new tips. Thanks Dave and Sig.

At this month's meeting, Alex – **W2OX** is planning to give a talk about DX contesting from the DX side of the mike. If you are interested in learning how to attract your call to the DX station, attend this meeting and learn from Alex.

Hopefully, by now, everyone has their plans set for the CQWW phone contest. If you still need a station to operate from there are seats available at the multi-ops. Let Doug, **W3CF** know your plans. Thank you Doug for keeping up with the list.

Lets go get them again this year !!

73 – John – K3ZV

NEW MEMBERS

Robert Nelson - **K2QPN**
(Wife Marie)
112 Sunset Road
Burlington, NJ 08016
609-386-9619 (home)
609-304-2872 (work)
email: k2qpn@arrl.net

Trevor Conroy - **W7TDC**
1330 Jacobsburg Road
Wind Gap, PA. 18091
503-961-2966 (home)
Email: w7tdc@w7tdc.com

MEETINGS

Main Meeting in Philadelphia

The main monthly meeting of the **Frankford Radio Club** will be held Philadelphia on Tuesday, October 11 at 8 PM. Location is Rosenburger Hall, Room 102 at the University of the Sciences.

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, October 20 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 CQWW DXPeditions:

Joe, **K3NM** and Alex, **W2OX** will again be on V4 for CQWW SSB and Bob, **KQ2M** and Alex will be on for CQWW CW.

George, **K2DM**, will be operating J7DM in CQWW SSB with his brother (K3ZM), AD4J and W4GKA. They will be in the Multi-Single category.

Frank, **WA2VYA** and Jack, **N2VW** will on Provo, Turks & Caicos Islands from 25 October to 1 November, as VP5T, for the CQ WW SSB Contest, 29-30 October. Probably Multi-Multi. WARC and CW before and after contest weekend as VP5/homecall. QSL VP5T to N2VW. VP5/homecall to homecall. Buro OK. SWL OK. LOTW, too if N2VW can ever get it to work for him.

John, **W2GD** will be operating P40W for CQWW SSB and CQWW CW.

John, **K3TEJ** and **K3CT** will be going to WP2Z for CQWW CW.

John, **K3MD** will be operating KP2/K3MD for CQWW CW.

Bud, **AA3B** will be operating V26K in CQWW CW.

FRC Mailing List Announcement

Are you an **FRC** member but not receiving the **FRC** mailing list postings? If so, please let me know so I can add you. New members are often not added quickly enough, so if you've joined in the last few months, just email me: bob@k2ut.org

The list won't bury you with postings, and it's spam filtered. I run the list on my server, so nobody's email address is ever sold or given to others. 73 Bob, K2UT

FRC Annual Contribution Listing

New Contributor: WA3YOB

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 Winner Additions

2004 CQWW CW

K3JGJ 8th place US/VE 80m

2005 ARRL SSB

N2RM 3rd place US/VE M/S
W3MF 6th place US/VE M/S
Op. W3MF, K3PH

IC-765 Bulb Tip

Has the meter bulb in your IC-765 burned out? **N2NT** told Gerry, **K1GD**, that he has used a miniature bulb available ar Radio Shack. Gerry picked up a 12 V, 25 mA miniature bulb (272-1141). It took a little trimming of the plastic that protects the two leads, but it fit just fine. Gerry also put a 75 ohm resistor from his junk box in series with the V+ lead to drop the voltage from 14 V to 12 V. Works just fine. (*Thanks to **K1GD***)

FRC Worked All Europe CW Claimed Scores

Call	QSOs	QTCs	Mult	Score	Class
AA3B	1,161	1,159	140	865,360	SO
K3ND	155	155	64	46,190	SO
K3WW	1,133	1,117	139	823,500	SO
KD2HE	173	169	126	43,092	SO
N2NC	120	116	169	39,884	SO
N2RM	223	220	68	30,134	SO
	Op. N2NC				
N3RD	1,550	1,547	169	1,398,940	M/S
	Ops. N3RS, N3RD				
NO2R	403	396	87	190,961	SO
W2UP	535	534	106	276,612	SO

A Solid State PTT Buffer Circuit for Icom Radios

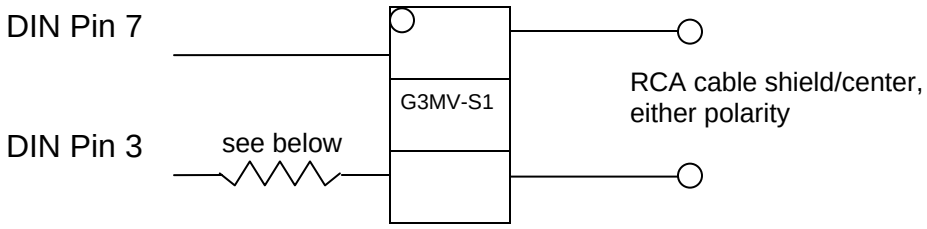
by John Bednar, K3CT

Many of the newer Icom HF radios have voltage and current limits on the PTT RCA jack that are exceeded by popular amplifiers. A good example is the ratings of the PTT jack on the IC-756Pro3 which is 16V / 0.5amp. When my Alpha 91B amplifier is unkeyed, the voltage is 21V.

In addition to buffering the PTT line, there are several solutions to this problem since Icom provides power, ground, and a SEND in either DIN plug. I decided to build a solid state switch built into the hood of a 7-pin DIN connector. Since the required pins for this circuit are common in both ICOM DIN plugs, and a 7-pin DIN plug will plug into an 8-pin DIN connector without damage, it can be plugged into either Icom DIN plug.

If you are comfortable working with small components you can build this solid state PTT buffer switch which has a rating of 60V and 0.3amps. Instead of placing the components in the DIN connector hood, they can be placed in a small box.

Shown below is the schematic and parts list. The total parts cost is about $7 and Mouser does not have a minimum order requirement.



Parts List

- Omron G3VM-S1 Mosfet switch, Mouser p/n 653-G3VM-S1

- Neutrik 7-pin DIN connector, Mouser p/n 568-NYS323 (this is a nice metal hood connector)

- Kobiconn 72” RCA cable with stranded leads, Mouser p/n 172-1103

- Resistor 1.2 k ohm to 1.3 k ohm 1/8 watt (1/8w is the minimum, anything larger probably won’t fit)

The Omron G3VM-S1 device was selected so the load placed on the Icom radio SEND pin is not exceeded and the relay switch current is maximized. The mosfet switch places a 10ma load on the Icom SEND pin. This is half of the 20ma rating. The datasheet for the Omron switch can be found at:

http://www.angliac.com/omron/datasheets/relays/solid_state/mosfet/G3VM-S1.pdf

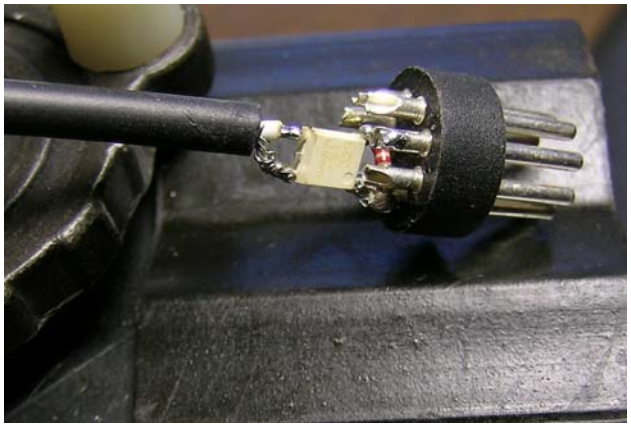
Assembly

To allow the assembly to be compact, I recommend trimming pin #7 to half height. First solder the resistor placing it flush with the connector body. Bend the resistor leads short the leads do not touch the remaining DIN plug pins. The solid state switch has a dot on the body at pin 1. This pin is soldered directly to pin 7 of the DIN connector.

The cable strain can be removed to make the assembly easier. Be careful, the plastic connector body will chip if you apply force in the wrong direction. If this happens, some epoxy can be used to secure the strain relief after the parts and cable are attached. Below you will find a photograph of the solid state switch and resistor tucked underneath.

I found that removing half of the strain relief clamp as shown below will allow more room for the coax and allow the clamp to be formed around the cable easier. The clamp on the left is original and the clamp on the right has been trimmed with a small cutters.

Next slide the connector hood over the cable and solder the coax to the remaining two pins of the solid state switch. The polarity is not important so the shield can be attached to either pin. It's important to trim the coax leads short so the cable clamp can be crimped on the outer covering of the RCA cable. Here is the completed assemble prior to attaching the strain relief clamp.



Here is a photograph of the final assembly just prior to sliding the metal hood over the connector. I found that some silicon bath tub caulk squirted into the rubber boot after the hood is in place will provide an additional strain relief and make the assembly more robust.

The Neutrik metal hood DIN connectors are very sturdy and they don't pull apart when you remove the plug from the radio. This is very common with the cheap plastic hood connectors. Even though this assembly is very sturdy and has a cable strain relief, I do not recommend that the DIN plug ever be removed by pulling on the cable. Pulling on the cable may place a strain on the solid state switch possibly breaking off a lead.

Reprinted with permission from the September 7, 2005 ARRL Contest Rate Sheet

Phenolic plastics are handy for a number of applications but are rarely found in the home improvement and hardware stores. John W0UN points out that these materials can be found at <http://www.professionalplastics.com/cgi-bin/main/co_disp/displ/pgrfnbr/3/sesent/0000. Close to a dozen can found by using the pull-down menu "Search By Name". Joe W4TV also recommends McMaster Carr at <http://www.mcmaster.com/>.

L.B Cebik's Web site has a good article on making your dipole a bit more broadbanded: <http://www.cebik.com/trans/wb.html>. While you're there, take in the article on the venerable Zepp antenna at <http://www.cebik.com/gup/gup12.html>. (Thanks, Tom W7WHY and Tony KT0NY)

For code practice, it's handy to convert text files to Morse WAV files that can be played on most computers. A program to do just that is available at <http://www.winmorse.com/>. (Thanks, Henry WA0GOZ)

This neat tip for making nice, straight cuts in potentiometer shafts could also be put to use cutting any kind of metal rod. Chuck the rod in a drill press or drill that is locked in a vise. Turn the drill on at low speed and use a hacksaw blade to cut them while they rotate - like cutting them with a lathe. (Thanks Rick KC8AON)

Coax connectors go on so much easier if you cut and strip the coax correctly. Some good examples can be found at <http://www.hyperlinktech.com/web/cable_tools.php> or <http://www.paladin-tools.com/>. The RF Connection also has a couple of inexpensive models at <http://www.therfc.com/>. (Thanks, Joe KK0SD, Jim W6RMK, and Pete N4ZR)

Synchro displays, used most often by hams on prop pitch rotators, are a source of mystery about their inner workings. Puzzle no more! Jim W6RMK contributes three good articles about them:

<http://www.polysci.com/docs/SynchroApplGuide.pdf>

<http://techaidproducts.com/PDFs/Tech-AidSynchroArticle.pdf>

<http://www.phy.davidson.edu/instrumentation/Files/NEETS/Mod15%20-%20Principles%20of%20Synchros%20Servos%20and%20Gyros.pdf> (This last one is the NEETS handbook - all 200 pages!)

Need a small clock to place on your computer desktop? Bill W6WRT contributes a freeware program from Alpha Clock (<http://www.irnis.net/soft/aclock>) that he thinks is "just right" - not too big, not too small, and just enough controls to make it look the way you want.

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

Director/Vice Director Election Set in ARRL Atlantic Division

There will be contested elections for ARRL Director and Vice Director seats in the Atlantic divisions for the term beginning next January 1. Current Vice Director William C. Edgar, N3LLR, faces a challenge from Scott J. Bauer, W2LC, for the Director's seat. The winner will succeed Bernie Fuller, N3EFN, who is not seeking reelection to another term. Competing to replace Edgar on the back bench are Maryland-DC Section Manager Thomas J. Abernethy, W3TOM, and Thomas G. Valosin, WB2KLD.

Ballots will go out by October 1 to all full ARRL members on record as of September 10, 2005, in the Atlantic division. The deadline to receive completed ballots at ARRL Headquarters is noon Eastern Time Friday, November 18, 2005.

Any member entitled to a ballot and who has not received one by November 1 should request a duplicate ballot from the Secretary, ARRL, 225 Main St, Newington, CT 06111.

ARRL Cooperating in BPL System Experiment

BPL has come to ARRL Headquarters, and preliminary indications are that the newly installed Motorola Powerline LV system will prove Amateur Radio-friendly. Motorola approached ARRL last fall seeking input on a BPL design that could avoid many or most of the interference problems that have plagued some other BPL systems. This past May, Motorola introduced its Powerline LV wireless-to-low voltage BPL solution at the United Telecom Council's "Telecom 2005." The ARRL said at the time that it was "encouraged" by Motorola's approach but reserved judgment until it had the chance to see a system up close. A Motorola Powerline LV system was put into operation at Maxim Memorial Station W1AW in late August.

"Theory is great, but the final proof is in how things work out in practice," says ARRL Laboratory Manager Ed Hare, W1RFI, who's been working with Motorola Principal Staff Engineer Dick Illman, AH6EZ.

Motorola says its Powerline LV system, which unites its Canopy wireless broadband Internet platform with enhanced ham band-notching HomePlug technology, drastically reduces the potential for widespread BPL interference. Illman says it does this by restricting the application of high-frequency RF to low-voltage (220 V ac) power lines instead of to medium-voltage wires that line many residential streets.

In addition, Motorola took the HomePlug modem concept to the next step by adding tunable hardware filters to deepen the notches and improve the immunity of the system to nearby ham transmitters.

At ARRL, a Motorola Canopy wireless link was set up between ARRL Headquarters and W1AW across the parking lot. The system's connected into the League's local area network on the Headquarters side and into a 220 V ac power drop on the W1AW end. Hare and Illman then spent several days checking whether the system affected reception on the Amateur Radio bands at W1AW.

"Although more testing needs to be done over the coming weeks, the initial results for Amateur Radio were positive," Hare said. "While it would be hard to envision a BPL system closer to more antennas and receivers, we found only a few dB of BPL noise on one ham band using the highest-gain antenna at W1AW aimed right at the W1AW building."

Hare and Illman also looked into the Powerline LV system's immunity to the interference from nearby transmitters. As they were testing the system, Hare recounts, W1AW fired up its bulletin transmissions, putting out with more than 1000 W simultaneously on seven bands.

"I could hardly imagine a more difficult environment, with part of the BPL-system wiring 30 feet from W1AW's antennas," Hare remarked, "but the system continued as if the station wasn't even on the air."

Hare says that based on what he's seen so far, Amateur Radio operators should be able to operate fixed and mobile in close proximity to a Motorola Powerline LV installation. The Powerline LV system will remain at ARRL while Hare continues to test the system.

Amateur Radio Antenna "CC&R Bill" Reintroduced in Congress

New York Congressman Steve Israel has reintroduced legislation that could make it easier for radio amateurs living in communities with deed covenants, conditions and restrictions (CC&Rs) to erect suitable antennas. Arkansas Congressman Mike Ross, WD5DVR, signed aboard as an original cosponsor of the "Amateur Radio Emergency Communications Consistency Act" (HR 3876). ARRL Hudson Division Director Frank Fallon, N2FF, attended Israel's public announcement of the bill September 19 on Long Island.

"Unfortunately if all new housing developments contain deed restrictions forbidding outside antennas there will probably come a time when there will not be enough ham radio operators to help their neighbors and countrymen," said Fallon. He believes Israel's bill will help to ensure that Amateur Radio will continue to be able to provide emergency communication should a disaster occur.

Fallon, who heads up the League's grassroots lobbying initiative, noted the bill's introduction comes in the immediate aftermath of positive media coverage of Amateur Radio's response to the Hurricane Katrina disaster. He was on hand for Israel's public announcement, which took place at the home of ARRL New York City-Long Island Emergency Coordinator Tom Carrubba, KA2D.

The one-sentence measure is identical to the text of the CC&R bill that has been introduced in the last two sessions of Congress: "For purposes of the Federal Communications Commission's regulation relating to station antenna structures in the Amateur Radio Service (47 CFR 97.15), any private land use rules applicable to such structures shall be treated as a state or local regulation and shall be subject to the same requirements and limitations as a state or local regulation." The measure would put private land-use regulations, such as homeowners' association rules, on the same legal plane as state or local zoning regulations under the FCC's PRB-1 limited federal preemption. PRB-1 now applies only to states and municipalities.

ARRL President Jim Haynie, W5JBP, this week encouraged League members to write their elected representative and ask that they cosponsor and support the bill, especially given two hurricane emergencies in short order.

"Amateur Radio is certainly a part of this nation's communications infrastructure," Haynie said. "What we're asking for is just a fair shake so we can put up antennas and help our fellow citizens." While the League has ramped up its efforts to educate members of Congress about Amateur Radio, Haynie said lawmakers respond best to individual members.

HR 3876 has been assigned to the House Energy and Commerce Committee. Information about the bill and a sample letter to use when contacting your representative are available on the ARRL Web site <<http://www.arrl.org/govrelations/hr3876/>>.

In his formal announcement this week, Israel said that "often unsung" Amateur Radio volunteers were instrumental in helping residents in the hardest hit areas in the wake of Hurricane Katrina, including saving stranded flood victims in Louisiana and Mississippi.

"State and local governments, as well as disaster relief agencies, could not possibly afford to replace the services that radio amateurs dependably provide for free," said a statement from Israel's office. "However, the hundreds of thousands of Amateur Radio licensees face burdensome regulations that make it extremely difficult to provide their public services."

N2SS
FRC DX NEWS
Editor

OCTOBER 21ST YEAR 2005

Notes From Your Editor

As I have listened to the bands these past couple of days of 81 Solar Flux numbers, I can't help wishing it were a couple of years from now. The dichotomy, of course, is that at my age I now want be slowing down the flipping of the calendar pages! Conditions have been pretty crappy at this level of Solar Flux value and unfortunately we have several years to go before things start to turn in a positive direction. By the way, in case you were not aware of just how low 81 is, the lowest possible Solar Flux number is 60 – that is a quiet sun with no spots whatsoever. Having said that I have worked the Kure DXpedition, which is active as I write this, on several bands but I guess I just miss those days of wall to wall stations on 10 meters and having 15 meters open virtually around the clock! Oh well, to paraphrase an oldtimer DX columnist whom some of you may remember, "…the Palos Verde sundancers assure us that those spots will rise again…" All is not lost, though because in the mean time, though, those Topbanders out there such as W3BGN and AA1K are beginning to have some fun.

CURRENT OFFICIAL ARRL DXCC STATISTICS

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

A5 – BHUTAN

ON5SY will be active as **A52SY** from Oct 3rd to 10th. Operating times will be his local evenings and weekends. ON4ON will handle the QSLing chores.

FH – MAYOTTE

Oct 10th to 14th will find F6AML signing as **TX5M** on 40 thru 10 Meters, CW and SSB. QSL via his home call.

P2 – PAPUA NEW GUINEA

G3KHZ will be roughing it as **P2/** with only a multi-band vertical for 40 thru 10 Meters. This CW only operation will be active from Oct 23rd to Nov 6th. QSLs should to his home call, direct only.

VK9X – CHRISTMAS ISLAND

WØYG plans to be operating as **VK9XG** from Oct 23rd to Nov 7th. Look for him to concentrate on 160 and 80 Meters. QSL to home call direct only.

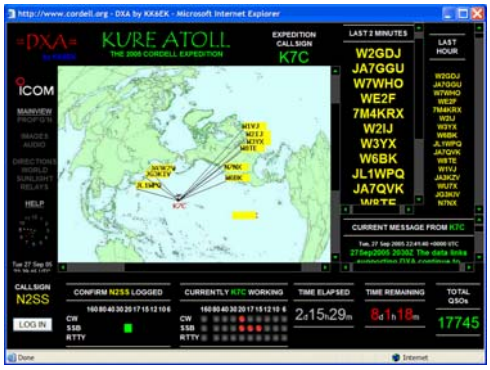
Virtually overlapping these same dates (Oct 25th-Nov 6th) is VK2CZ who will be operating as **VK9XD**. VK6NE will handle his QSLs

VU – CAMBODIA

ON4AJV and ON6TZ are DXpeditioning to Koh Tas Is (AS-133) where they will sign **XU7TAS** from Oct 30th to Nov 10th. QSLs will be handled by ON4JAV.

DXA!

For those of you who have not seen it here's a screen shot of the DXA program that the recent Kure Island DXpedition used. This was available real time during the operation. The map shows parts of the world the ops were then working. To the right of that is a listing of the stations worked in the last 2 minutes and to the right of that is a scrollable list of the stations worked in the past hour. At the bottom you can see the bands/modes you have worked them on (I took this screen shot shortly after my 1st Q with them on 20 Meters). To the right of that is a grid that shows the bands they are currently working. Also shown is the total number of Q's thus far and the time remaining until the DXpedition goes QRT. Pretty cool marriage of on DXing and the internet! (Do I hear a controversy brewing by the oldtimer DX purists?)



DX ALERT LEGEND

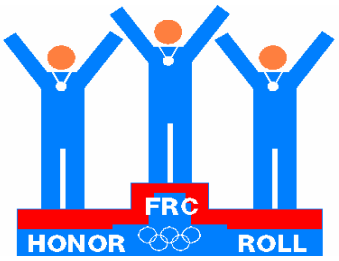
- 160 Meter Alert
- IOTA Alert
- RTTY Alert
- WARC Band Alert

"S"pecial "S"alute

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

73, Tony N2SS

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



OCTOBER conducted by N2SS 2005

WARC BANDS

30 Meters		17 Meters		12 Meters	
K2FL	**332**	**K2FL**	**335**	**N2TK**	**328**
N2TK	328	**N2TK**	**335**	K2FL	326
N2LT	318	N2LT	332	N2LT	321
W3BGN	313	W3CF	331	W3BGN	313
K2RW	296	W3BGN	326	W3CF	303
W2YC	296	K2RW	324	N2SS	302
N2SS	290	N2SS	320	K2RW	300
W8FJ	287	W2UP	304	W2YC	273
K2PS	284	K2PS	303	K2PS	268
W2UP	264	W2YC	300	W2UP	256
N3RD	245	W8FJ	291	W8FJ	228
N2MM	233	N2MM	268	N1RK	218
K3II	229	N1RK	253	KQ3F	217
W2LE	212	KQ3F	252	K3II	202
KQ3F	195	K3II	240	N3KN	191
NZ3O	188	NZ3O	233	K2NJ	190
AA2WN	171	W2LE	202	NZ3O	188
W2RQ	144	W2YR	202	W2YR	187
AB2E	132	K2NJ	179	N2MM	185
W2YR	132	K2JF	168	W2LE	176
K3CT	126	N3KN	168	NA2U	154
N3KN	119	NA2U	162	K2JF	135
K2NJ	113	W2RQ	142	AB2E	92
K2JF	112	K3ND	124	K3CT	76
NA2U	105	AA2WN	116	W2RQ	62
N1RK	97	AB2E	114	K3GYS	30
K3ND	85	K3CT	91	N2VW	28
N2VW	76	K3GYS	85	AA2WN	20
W3CF	61	N2VW	67	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	**293**	K2PS	106
AA1K	287	K2RW	93
WT3Q	254	AB2E	90
N2LT	248	N2VW	85
N2TK	244	W2CG	85
K3SX	229	W2YR	81
NO2R	216	N2SS	79
W8FJ	207	NA2U	78
K3JJG	190	W3CF	77
W2UP	189	K3NL	70
N2MM	182	K3CT	63
K3NZ	172	K2NJ	59
W2YC	171	KQ3F	57
K3NM	156	NZ3O	55
N3RS	156	N1RK	42
K3II	149	AA2WN	36
K2FL	143	K2JF	34
K3ND	136	W2LE	28
W2RQ	123	N3KN	28
		K3GYS	12

W3BGN continues as the undisputed Top of Top Band.

RTTY Digital

W2UP	**337**	W2YR	139
N2LT	332	KQ3F	132
K2PS	287	K2JF	113
K2RW	266	W2LE	85
W2YC	242	N2SS	53
K2NJ	235	N1RK	39
AA2WN	187	K3GYS	15
N3KN	179	W8FJ	12

MOBILE DX

W2YC	**276**	K3GYS	143
AA1K	270	AA2WN	131
N2SS	234	W2YR	21
K2JF	150		

1.5K Club

K2FL	**1708**	KQ3F	1453
W3BGN	**1696**	K2NJ	1406
N2TK	**1688**	W3CF	1403
N2LT	**1684**	AA2WN	1369
W2UP	**1664**	K2JF	1350
W2RQ	**1623**	NA2U	1335
K2RW	**1610**	W2CG	1305
N3RS	**1603**	N1RK	1287
W8FJ	**1593**	N2VW	1270
K3II	**1573**	K3CT	1229
W2YC	**1542**	W2YR	1148
N3RD	**1525**	W2LE	1141
NO2R	**1525**	N3KN	1111
N2MM	**1524**	K3NM	1107
K2PS	**1521**	NZ3O	1088
N2SS	**1520**	AB2E	1074
K3ND	**1501**		

Islands On The Air

K2FL	**989**	NZ3O	317
N2SS	819	N2VW	261
W2YC	604	W3CF	253
W8FJ	592	W2YR	234
N1RK	540	K3GYS	215

6 Meter DXCC

N2LT	**106**	N2SS	55
K2NJ	**100**	N3KN	52
K2PS	**100**	K2RW	42
AA1K	98	W2YR	41
K2JF	94	W2YC	19
K3OO	77	AA2WN	15
K3SX	75	K3GYS	10
N1RK	57	N2TK	8

THE FRANKFORD RADIO CLUB

NEWSLETTER

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

Affiliated Club

The Frankford Radio Club

Club Officers

President, **K3ZV**, John Lindmeier ….856-768-5348 Email: k3zv@hotmail.com
Vice Pres, **N3DXX**, Art Hitchens ..…... Email: art19703@yahoo.com
Secretary, **W2RDS**, Rick Stoneking…. 609-265-0885 Email: w2rds@arrl.net
Treasurer, **KQ2M**, Bob Shohet……..203-270-8456 Email: kq2m@earthlink.net

Committee Chairman

Repeater, **K3NL**, Nick Leipold .....… 610-449-8910
Packet, **N3RD**, Dave Hawes .....…… 610-935-2684
Activities, **N3AD**, Alan Donziger ……610-581-7032
Awards, **K2QM**, Dan Marlow ….....… 609-683-5633
Membership

Newsletter & Roster

Editor, **KQ3F**, Joe Stepansky .....… 717-657-9792 Email: kq3f@comcast.net
Printing, **W2RDS**, Rick Stoneking….. 609-265-0885 Email: w2rds@arrl.net

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