



# THE FRANKFORD RADIO CLUB NEWSLETTER

*PROFICIENCY THROUGH COMPETITION*

## CALENDAR

### August 2007:

- 4-5 No. American QSO Party, CW
- 5 Summer Meeting, K2AX**
- 11-12 Worked All Europe Test, CW
- 11-12 Maryland-DC QSO Party
- 14 REXY Meeting B**
- 18-19 No. American QSO Party, SSB
- 18-19 New Jersey QSO Party
- 15 Summer Meeting, N3RD**
- 16 T.I.T.S. Meeting, Noon**
- 25-26 YO HF DX Contest
- 28 REXY Meeting B**

### September 2007:

- 1-2 All Asian DX Test, SSB
- 8-9 Worked All Europe Test, SSB
- 9 North American Sprint, CW
- 11 FRC Main Meeting, Phila**
- 11 REXY Meeting B**
- 15-16 Scandinavian Test, CW
- 16 North American Sprint, SSB
- 20 T.I.T.S. Meeting, Noon**
- 22-23 Scandinavian Test, SSB
- 25 REXY Meeting B**
- 29-30 CQWW RTTY Contest

### October 2007:

- 6-7 Oceania DX Contest, SSB
- 6-7 California QSO Party
- 9 FRC Main Meeting, Phila.**
- 9 REXY Meeting B**
- 13-14 Oceania DX Contest, CW
- 13-14 Pennsylvania QSO Party
- 18 T.I.T.S. Meeting, Noon**
- 20-21 Worked All Germany Contest
- 23 REXY Meeting B**
- 27-28 CQWW SSB DX Contest**

## CHANGES

None this month

**Deadline for September issue:**

Sunday, August 26, 2007

## From the Editor

After talking with Art, **N3DXX** at the summer meeting at **N3RD**, I'm sorely tempted to write a small column and sign his call at the bottom. But I just can't do it. If I COULD do it, though, I might write something from my favorite movies or TV shows (hey, it would be his call at the bottom, correct?):

"You're all worthless and weak. Now drop and give me 20." (meters? mults?) or "I love it when a plan comes together."

But I can't. What I can do is encourage one and all to try out some of the contests coming up before CQWW SSB. Each one listed to the left is "civilized" and provides a good training opportunity for CQWW. As always, make sure to have fun.

*73, Joe KQ3F*

## MEETINGS

**T.I.T.S. meeting**—The Trexlertown International Transmitting Society meets on Thursday, August 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.

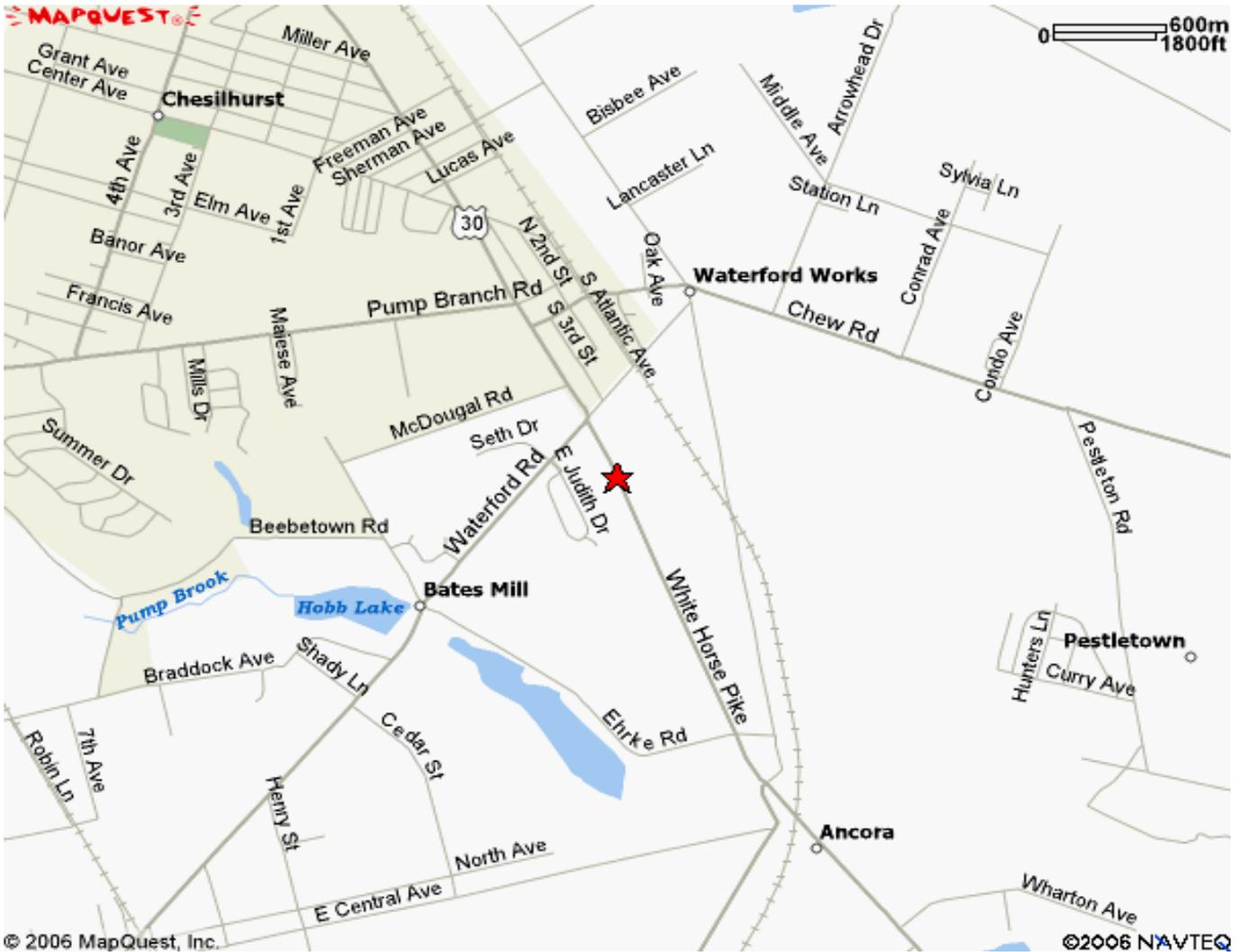
*Summer Meeting*



**Sunday, August 5—Mark, K2AX.**

**Starts at 1 PM. Map and directions on page 2.**

**Summer Meeting at K2AX—Sunday, August 5**



**From the Delaware Memorial Bridge:**

Take I-295 North to Exit 29 (Route 30 East) toward Berlin. Stay on Route 30 East until you see Blue Anchor Road. Just past Blue Anchor Road, look for a large sign on the left with green lettering on a white background that says "A Touch Of Grass". Turn left into the driveway and park where directed.

**From the Walt Whitman Bridge:**

Take Rt. 42 South to I-295 North. Take I-295 North to Exit 29 (Route 30 East) toward Berlin. Stay on Route 30 East until you see Blue Anchor Road. Just past Blue Anchor Road, look for a large sign on the left with green lettering on a white background that says "A Touch Of Grass". Turn left into the driveway and park where directed.

**From the Ben Franklin Bridge:**

Take I-676 South to Rt. 42 South. Take Rt. 42 South to I-295 North. Take I-295 North to Exit 29 (Route 30 East) toward Berlin. Stay on Route 30 East until you see Blue Anchor Road. Just past Blue Anchor Road, look for a large sign on the left with green lettering on a white background that says "A Touch Of Grass". Turn left into the driveway and park where directed.

## 2006 FRC Fund Drive



The 2006 **FRC** Annual Fund Drive is now officially underway. This issue should contain a stamped envelope for your contribution.

Here a few reminders when getting ready to make your annual contribution to help keep our club running...

- 1) **PLEASE** make **ALL** checks payable to **FRANKFORD RADIO CLUB, and NOT KQ2M.**
- 2) **PLEASE** write your return address and callsign on the envelope.
- 3) **PLEASE** write your callsign/callsigns on the check.
- 4) **PLEASE** seal the envelope.

Each year quite a few people forget to do at least one of the above and we lose some contribution checks. Also, some people make a much-needed contribution but then do not receive credit for making it. Clearly no one wants that, so **PLEASE** take a few extra seconds to make sure that you follow #1 - 4 before you mail the envelope.

If for some reason you don't get an envelope, or you misplace it, you can send your contribution to:

Robert L. Shohet, KQ2M  
51 Scudder Road  
Newtown, CT 06470

As you know, these are contributions and not "dues" so there is no fixed rate. To set the scale, however, it may help you to know that the cost of operating the club last year was about \$45.00 per member

### List of FRC Contributors as of July 14, 2007 (New Contributors in **Bold**)

AA2WN	K3OO/K3OOO	W3GNQ/W3LRS	W3MM/W3RAT	
AA3B	K3II	N2CQ	<b>NA2U</b>	W3CC
AB2IO	<b>K3JGJ</b>	N2LT	<b>NC1A</b>	<b>W3CF</b>
<b>K2AX</b>	<b>K3MD</b>	<b>N2TK</b>	<b>NO2R</b>	<b>W3EA</b>
K2DM	<b>K3ND</b>	N2VW	NW3Y	W3FV
K2FL	K3PH	<b>N3BNA</b>	W2CG	<b>W3FVT</b>
K2JF	<b>K3TEJ</b>	<b>N3ED</b>	W2LE	W3KV
K2NG	<b>K3VA</b>	N3KR	W2OF	W3MF
K2PS	K3WW	<b>N3NR</b>	W2RD	<b>W3PA</b>
<b>K2SG</b>	<b>K9RS</b>	<b>N3RD</b>	<b>W2REH</b>	W3SOH
K2UT	<b>KC2NB</b>	<b>N3RW</b>	W2UDT	<b>W4AA</b>
K3ATO	<b>KD2I</b>	<b>N3VV</b>	<b>W2UP</b>	<b>W8FJ</b>
<b>K3CT</b>	KD2RE	<b>N3YW</b>	W2YC	<b>WA2VYA</b>
<b>K3CY</b>	KQ2M	N3ZA	<b>W2YR</b>	<b>WQ3E</b>
K3FMQ	<b>KQ3F</b>	N8NA	W3AP	
K3GYS	N2BA	<b>N9GG</b>	W3BGN	

### Reprinted with permission from the July 11, 2007 Contest Rate Sheet

Andy N2NT writes, "With thanks to those of you who took the time to fill out the survey results for contest software, Here is the link to the results of the survey [http://www.kkn.net/~n2nc/CTU\\_2007\\_Logging\\_Programs](http://www.kkn.net/~n2nc/CTU_2007_Logging_Programs) Unfortunately the survey was designed to take text based answers, so it was very difficult to sort the better than 500 responses. Because of this, I included the raw data spreadsheet. The callsigns are omitted to maintain anonymity. You can read the responses and comments directly on the spreadsheet if you have the patience. The program choices in Column D are 1= CT, 2=TRlog, 3=Writelog, 4=NA, 5=N1MM, 6=Wintest, 7=SD. I also included the Contest University (CTU) PDF presentation given in Dayton."

Based on the open logs of CQ WW 2006 (<http://cqww.com/cwlogs/>) analysis is available at <http://www.mydarc.de/dl6mhw/> You need a Flash-player plug-in to Internet browsers to play the movies. The radius of the displayed circle is logarithmic (base 2). (Thanks, Michael DL6MHW)

ARRL DX CW results have been posted at <http://arrl.org/contest/results>. ARRL Sweepstakes, 160 Meter, and 10 Meter contest certificates are arriving in mailboxes as are those for the 2007 January VHF Sweepstakes and 2006 10 GHz contests. The printers were burning up the toner at HQ!

The 2006 CQ WW 160 results article is now up on the CQ Web page at <http://www.cq-amateur-radio.com/awards.html>. Select the CQ WW 160 contest then select the results. (Thanks, Dave K4JRB)

In a big pileup, pause before starting your call. With the majority of call signs being four or five characters, a two or three-character pause leaves some of your call in the clear when everybody else's has ended. Since you are messing with the pileup rhythm, be sure to listen first. Once you've given your call, listen to see how the counter-rhythm is working - don't just keep transmitting.

SteppIRs can be automatically tuned to the frequency of an attached transceiver, but in an SO2R contest station there may be two radios that use different communications protocols. Switching even a single controller between the two radios isn't simple, much less multiple controllers. Dick WC1M has solved this problem with a custom microprocessor-based control that intercepts the protocol streams between the transceivers and logging program and translates them into a single protocol. It knows which radio has the antenna and sends the appropriate tuning commands to the SteppIR controller. There's a complete description on my Web site at <http://www.wc1m.com/>.

Two from Tom W8JI: Beware of short cuts when wiring the power connection to that new amplifier. It is illegal and a shock hazard to use the ground wire as a neutral connection. The ONLY point the neutral can be connected to the safety ground is at the main breaker box. Use the proper plug and socket wiring so that you'll be around to enjoy Cycle 24. There is an article on power wiring at [http://en.wikipedia.org/wiki/NEMA\\_connector#NEMA\\_10](http://en.wikipedia.org/wiki/NEMA_connector#NEMA_10) [http://en.wikipedia.org/wiki/NEMA\\_connector](http://en.wikipedia.org/wiki/NEMA_connector) that explains the proper use of power plugs. On RF relays: The key to good RF relays are short wide leads to contacts, low capacitance, and good RF path insulation.

Modern solid-state rigs often have one electromechanical component left in them - the amp keying relay. If operated with current or voltages close to (or above) the relay contact ratings, erratic performance will result due to contact pitting and arcing. Eventually the relay will fail. Cleaning the contacts will often bring a marginal relay back to life until it can be replaced. No fancy equipment is required, just cut a strip of clean paper with a bit of texture - white typing paper, grocery bag, index card - and slide it between the contacts. While holding the contacts closed, gently pull the strip out. You'll probably see some oxide on the strip. Repeat until the strip comes out clean. I used to have to do this to one or two TS-930's every Friday afternoon before the big CQ WW multi-multi's at W7RM! (Thanks, QRP reflectorees)

If you're checking out a QTH and want to know maximum and average wind speed, there is a link at <http://www.championradio.com/> under "Tech Notes" that gives TOA-222 wind information on a county-by-county basis. You can also call your local county building office. (Thanks, Jim K0XU and Steve K7LXC)

### Reprinted with permission from the July 25, 2007 Contest Rate Sheet

International Radio (<http://www.qth.com/inrad>) is now selling a roofing filter mod for the IC-756PRO2. This roofing filter can help reduce the third order Intermodulation from multiple strong signals in the 2 to 20 kHz region either side of the tuned frequency. If you're confused about roofing filters and what they do, there is a PDF document titled "A few words about Roofing Filters" on the Inrad Web site in the Icom section. (Thanks, Trey N5KO and Mark AG9A)

One contest-worthy product I somehow overlooked at Dayton was the SPE 1K-FA amplifier available from Array Solutions (<http://www.arrayolutions.com/>). Phil AD5X (<http://www.ad5x.com/>) has posted a detailed review of the amp. "It includes an internal auto-tuner and a 4-port antenna switch. You can connect it to two transceivers and it will automatically pick the transceiver that is keyed and switch it to the antenna you've specified for that transceiver."

Jim K8MR posted a link (<http://tinyurl.com/yugurz>) to a New York Times on-line review of eight different models of noise-canceling headphones. You'll have to register on the NYT site, but it's free. The review includes the gold-standard Bose model and several other models costing as little as \$40.

CT users that are fans of the "Enter-Sends-Message" mode in TR-LOG and N1MM Logger contest software may find this combination of remapped keys useful. Use the CT DEFINEKEY command to remap:

semicolon (;) Sends call+exchange (remapped INSert)

quote (') Send TU message (remapped + key)

period (.) Calls CQ (remapped F1)

comma (,) Sends a Question Mark (remapped F7)

backslash (\) Sends my call (remapped F4)

Bob N6TV finds this combination to require a lot less hand motion than the usual CT keys. Or you can try your hand at making up your own set of preferred key-function combos.

Here's another useful analysis of the open CQ WW contest logs - duration of operation. Chris DL8MBS has posted some interesting histograms of on-time for the RDXC 2005-2007 and CQ WW SSB 2006 contests. For all the interest in "going the distance", not very many of us crack the 90% on-time barrier!

The use of a gin pole is a "given" to hoist heavy antennas and tower sections into place above the lower tower sections. But how do you move the gin pole, itself? Rusty K0FE asked just such a question on the Towntalk reflector and was answered by Dave K1TTT as follows:

1. Loosen the tower leg clamps on the gin pole (not on the tower) and slide it down through the clamp so the top pulley of the gin pole is just above the clamp of the gin pole (it's still firmly clamped to the tower leg).
2. Tie the top of the gin pole to your belt (if it's light enough - Ed) or have some other clamping arrangement to hold it while you move it up the tower, then disconnect the clamps on the tower leg. The gin pole is now free and hanging from your belt or the tower.
3. Hoist the gin pole up to the top of the section you just installed and clamp it on. It should be easy to clamp on because most of the weight is below the tower leg clamp (keeping it vertical).
4. Push the gin pole's pipe up through the tower leg clamp so it is sufficiently above the top of the tower and tighten the clamps.
5. Disconnect the gin pole from the supporting rope or strap.

The key is lowering the gin pole through the tower leg clamp so that it hangs in the proper and stable position while being lifted and repositioned.

## CONTESTING — TIPS, TECHNIQUES, RESOURCES

### Reprinted with permission from the July 25, 2007 Contest Rate Sheet

Here's alternative to the "rotation loop" of coax at the tower top, used to allow the antennas to turn without pulling on the feed line. Coil the coax loosely around the mast a couple of times between the antenna and where the cable is attached to the tower. As the mast rotates one way, the cable will loosen and in the other direction tighten - that's why it should be quite loosely wrapped. You may have seen a similar arrangement on TV camera trucks where the microwave feed line is coiled around an extendable mast. That's done because of vertical extension and has many more turns, but the mental picture is similar. Tangling may result if more than a couple of cables are coiled this way without bundling the cables together. (Thanks, Towertalk reflector readers)

If you're fresh out of UV-resistant cable ties, why not raid the junk box? You'll probably find a few feet of solid copper wire, such as from short pieces of house wiring cable that you, like me, are too cheap to throw away because, "They might be good for something!" Here's what they're good for - strip out the wire and use it as a twist-tie. I guarantee it will never wear out from UV.

If you live near an airport and are considering putting up a tower, the FAA on-line calculator for determining whether notice is required can be found at <http://tinyurl.com/37xxrl> If you need the exact text of the rules, those are found at <http://tinyurl.com/3bjcpg> and should you need to give notice, the appropriate form is FAA Form 7460-1 is online at <http://forms.faa.gov/forms/faa7460-1.pdf> (Thanks, Dave AB7E)

When waterproofing coax connections, a self-vulcanizing wrap is recommended, but where to find the tape? George N4UA recommends Scotch 130C Linerless Splicing Tape. It's available at electrical distributors and often at Lowe's and Home Depot.

Pat AA6EG contributes an interesting Web site (<http://www.lbagroup.com/>) with lots of RF tidbits, products, and papers. Look for the "Learning Services" link.

If you're trying to decide whether a new run of low-loss coax is a good investment, here are a few "coax calculators" that compare different types of cable.

<http://www.timesmicrowave.com/cgi-bin/calculate.pl>

<http://www.rfparts.com/commcoax.html>

[http://harriscountyaes.org/resources/training/training\\_coax\\_comp\\_chart.pdf](http://harriscountyaes.org/resources/training/training_coax_comp_chart.pdf)

(Thanks, Ev W2EV and Mike KA5CVH)



### Antenna Season is Here!!!

#### 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.

Reasonable hourly rates and scheduling that meets your needs.

Contact: John Crovelli W2GD

w2gd@hotmail.com

**New Reach Number: 908 391 5611 (Mobile)**

## QST DX/Contesting Coverage

DXCC Honor Roll, DX Phone Contest Coverage in QST: The DXCC Honor Roll listing, which normally appears in the August issue, will be in the September 2007 issue of QST. In addition, the ARRL International DX Phone Contest Results that normally appear in the September issue will instead appear in October.

## Solar Flux to Bottom Out in July as Cycle 24 Gets Closer

The National Oceanic and Atmospheric Administration's (NOAA) Space Environment Center (SEC) released their monthly forecasts of sunspot number and 10.7 cm radio flux, including high and low bounds to their forecasts. The SEC forecasts that the smoothed sunspot number reached its low value of 11.7 in March 2007, and predicts that the solar flux will reach its low of 75.4 this month. This is the fourth month in a row that the SEC predicts the solar flux will bottom out in July. Based on the SEC predictions, this is probably at the bottom of Cycle 23 and extremely close to the beginning of Cycle 24. Two events will mark the beginning of the next sunspot cycle: The observation of the first opposite magnetic polarity sunspots compared to Cycle 23 sunspot polarity, and the observation high solar latitude sunspots -- the Cycle 23 sunspots are now very near the solar equator. The SEC predictions table <<<http://www.sec.noaa.gov/ftpdir/weekly/Predict.txt>>> and sunspot number and solar flux prediction graphs <<<http://www.sec.noaa.gov/SolarCycle/>>> are available on the SEC's Web site.

### Upcoming Hamfests (Thanks to Glenn, K3SWZ)

August 5	Berryville, VA
August 12	Matamoras, PA
August 19	Westminster, MD
August 19	Pleasant Hill, PA
September 8	Stroudsburg, PA
September 16	Gloucester County, NJ
Contact: aa2wn@arrl.net	
September 30	Wrightstown, PA
October 6	Brownstown, PA
October 7	Howard County, MD
October 21	Sellersville, PA
October 28	Westminster, MD

### Watt Meters



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# THE FRANKFORD RADIO CLUB NEWSLETTER

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



Affiliated Club

## The Frankford Radio Club

### Club Officers

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Awards, **K2QM**, Dan Marlow ..... 609-683-5633  
Membership

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**Repeater** - 2 meters, 147.27/147.87 Output PL tone, 114.8

**Home Page** - [www.gofrc.org](http://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

144.950 K3ZV  
145.530 AA1K  
145.530 K3WW  
145.570 WT3Q  
145.670 W3PP

### Telnet DX Cluster

[k2ut.gofrc.org](http://k2ut.gofrc.org)  
[k3ww.gofrc.org](http://k3ww.gofrc.org) 7300  
[kf3b-2.gofrc.org](http://kf3b-2.gofrc.org) 7300