

MOUNTAIN SPARK GAPS

NPARC - The Radio Club for the Watchung Mountain Area

VOLUME 39

March 2004

NO. 3



N2XJ

Club Callsign

A New/Old Digital Transmission Technique

Monday March 8th, at the Salt Brook School

From: The Prez

Field Day...Already?

With the temp in the 60's the last few days my thoughts, believe it or not, turn to Field Day. (I must be a die hard Ham! Aren't there other things in Spring?)

Traditionally, we have held our Field Day at Governor Livingston. It is a great location for height and some privacy. I have always had a very good time there and love the site. Last year, for the first time, a Class F station was also set up at the New Providence Fire House on Floral Avenue and the club scored very well there even if it was not the perfect location.

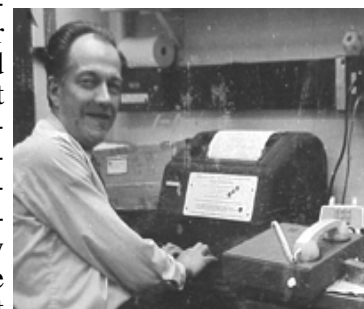
I do not think it is too early to start thinking about FD '04. I think we can easily do the Class F station again (There are several club members who have taken a leadership role in the Class F operation). And we can set-up an operation at GL again. Each operation has its own unique appeal. Do we do both? Do we simply operate an expanded "Class 2F" station? Do we run high power (100 watts) or QRP? Do we look for a new Class F site or do it again at the Firehouse? What is your opinion? In order to line up and reserve sites, we should decide sooner rather than later.

In other matters, I attended the Hudson Division Cabinet Meeting last month in Paramus. It was run by Frank Fallon, N2FF, with Joyce Birmingham, KA2ANF. Many Section Managers from NJ and New York were there including NNJ SM Bill Hudzik, W2UDT. The main topics were "Restructuring II" and a proposed mentoring program which will among other things help new hams find their way. It ended with a discussion by club presidents on how to improve their clubs. (One suggestion was to decrease the amount of club business discussed at meetings - I think we do a good job in that regard!). I met a lot of interesting and helpful

(Continued in next column)

RTTY, an Original Digital Mode

John, K2AGI will attempt to lug in to our meeting enough good old TELETYPE equipment to give us a live demonstration of Amateur Radio Radioteletype operation. This is not the current digital stuff you may be using today on the ham bands. John doesn't even pretend to know all of the abbreviations or lingo for the modern stuff. He goes for "the smell of the oil" and the clatter of the "good old" printers, tape punches and readers.



John, K2AGI at the Green Keys

John's real interest goes into what are known as RTTY PIX or "pictures" made up of standard Teletype characters. These happen to be all upper case letters along with the numbers and punctuation marks. He will show us a few of his collection of over 400 pictures gathered from all over the world over many years.

He will give us a little bit of the history of how all of this got started and what happened to it all.

people there and came away with some new ideas and fresh perspectives.

Another reminder about the Club Auction on April 30th. Forget about Ebay! Bring your stuff to the Auction for instant results! It will be at the Salt brook School.

And did anyone take part in the ARRL DX CW Contest several weeks ago? I made a few contacts and worked 7 new countries on 5 watts. I am up to 50 countries worked on my K-1 QRP rig. Great fun.

Finally, "welcome aboard" to new club member Rich, N2AUG. Rich has been to all our club meetings this year so take a moment and say hello when you see him.

73 es 88 de K2AL

Meeting Schedule

2nd and 4th Monday of each month
7:30 - 10:00 PM at the Salt Brook School Cafeteria, Springfield Ave. and Maple St. New Providence.

2nd Monday meeting will generally be a program or Guest Speaker on a Ham Radio subject.

4th Monday meeting will be an Informal Project Meeting, and for ARISS Planning and Preparation.

Everyone is Welcome

If a normal meeting night is a holiday we usually meet the following night. Call the contacts below.

Club Officers for 2004

President: K2AL Al Hanzl
908-464-1323

Vice Pres: K2GLS Bob Willis
973-543-2454

Secretary: KC2HLA Hillary Zaenchik
973-543-2454

Activities Mgr:

Past President: AB2CM Harry Schwill
908-322-8867

Treasurer: K2JV Barry Cohen
908-464-1730

On the Air Activities

Club Operating Frequency

145.750 MHz FM Simplex

Sunday Night Phone Net

Whippany Repeater at 9:00 PM
Transmit on 147.63 MHz
Receive on 147.03 MHz
Net Control: KB2IKC

RTTY Net

Sunday evenings 8:00 to 9:00 PM
60 WPM Baudot 145.75 MHz
Net Control: K2AGI

Club Internet Addresses

Website: <http://www.qls.net/nparc>
Reflector: nparc@mailman.qth.net
Webmaster: KC2RLM, Ralph

MOUNTAIN SPARK GAPS

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Climatological Data for the Watchung Mountain Area Provided by WB2QOQ, Month of February



	2004	2003
Maximum Temp.. °F:	59	50
Minimum Temp. °F:	9	7
Average Temp. °F:	32.0	28.9
Total Precip Rain/Snow (in.):.	2.3/1.0	4.7/23.3

The above information was provided by WB2QOQ, who has been recording daily weather events at his station for the past 22 years.

Calendar of Coming Events

March 8th: **REGULAR MEETING** at the Salt Brook School at 7:30PM
John Sheetz K2AGI will talk about RTTY

March 22nd: **PROJECT MEETING** at the Salt Brook School at 7:30 PM
One Subject: Antenna Mounts for Salt Brook School

April 12th: **REGULAR MEETING** at the N.P. Rec. Commission at 7:30PM
Presentation on Short Vertical Antennas by Jerry Sevick W2FMI.
Rehearsal for his Dayton Hamvention Presentation.

April 16th: **HOBBY DAY** at Mountain Park School Berkeley Heights
Friday afternoon, about 1300 hours.

April 26th: **PROJECT MEETING** at the Salt Brook School at 7:30 PM

April 30th: **AUCTION** at the Salt Brook School. Get your stuff ready!!!

May 14 - 16: **DAYTON HAMVENTION**. It's not too soon to think about attending this year!

Salt Brook School Kids Select a Name for their Radio Club

They worked on it, they did it themselves, and they came up with the name:

“Salt Brook Statics”

which has become the official name for the Radio Club at the Salt Brook School. This group of extraordinary bright and interested kids also came up with a Club Motto:

“Get Connected”



TeeShirt design committee in brainstorm mode.
Left to Right: Arjun Hans, Andy Hughes, Nick Esposito and Bryce Vogel, all 5th and 6th graders.

Now they are hard at work designing the art work for the Club's Tee Shirt which hopefully will be completed and manufactured before the school year is finished.

Of course they do all this in addition to learning Ham Radio Communications, Morse Code, how to

track a satellite with a directional antenna, and actually getting on the air. If YOU have not seen this group in action, be sure to get to a “Statics” meeting at 3PM on the second and fourth Monday of every month.

Report on a K1 Problem

by Andy WA2DKJ

At the 26 January meeting I brought in a pile of test gear and two Elecraft K1 high-frequency transceivers to demonstrate some of my recent ham activities. I had been testing both radios to align and compare them. During alignment of the radio owned by Al, K2AL, I discovered that it didn't quite meet the manufacturer's spec for receive sensitivity and transmit output power. The newer radio just completed by Steve, KC2KJK, performed noticeably better. For normal use, the receive sensitivity should not be a big issue but the difference was a significant amount.

Not being one to avoid opening a can of worms, I searched for why the newer K1 was about 5 dB more sensitive. Fortunately, I was able to measure the tuned sections, the filters, of each radio on a nice Hewlett-Packard network analyzer. What I found was that the older K1 filter board has slug-tuned, rectangular-metal-can-type inductors where the newer K1 board has toroids. The network analyzer showed clearly that the filters with the slug-tuned coils, even when properly adjusted, had higher insertion loss than the toroids. Since using the analyzer, I have been told that it is standard practice to use toroids for maximum efficiency, particularly in QRP gear such as these K1 rigs.

Perhaps what's going on with the inductors is that the toroids are best for containing the magnetic field within the core. The slug-tuned coils have a surrounding field outside the core that can cause lossy eddy currents in the shield enclosure and the field can also radiate energy. I also guess that the boys at Elecraft who designed the updated board knew there was room for improvement and switched from slug-tuned to toroidal inductors. Oh, by the way, the filters are used for both receive and transmit, so when the new filter board was put in the older radio for a test, both the receive sensitivity *and* the transmit output power improved.

73, Andy, WA2DKJ

Change of Location for our April 12th Meeting

Because the Salt Brook School will be closed during the week of April 12th, our regularly scheduled meeting will be held at The New Providence Recreation Commission Meeting Room, in the Lincoln Community Center on Academy Street.

The Featured Speaker for this meeting will be Jerry Sevick W2FMI, who will give us a preview of the talk which he will present at Dayton in May. The subjects of this talk will be Short Vertical HF Antennas and Ground systems

Hobby Day at Berkeley Heights Friday April 16th

We have been invited to take part in "Hobby Day" at the Mountain Park School in Berkeley Heights. Last year we set up an HF station at that school, and W5RRR (The NASA Houston Club Station) was one of our best QSOs. Hobby Day will

be Friday April 16, and there will be further announcements in Spark Gaps, plus a flyer.

We will need operators for this event as well as some help in setting up a temporary antenna on the roof of the school.



March Project Meeting on Antenna Mountings

The roof of the Salt Brook School poses several problems for mounting antennas. We will need an HF antenna for the "Statics" and a directional Yagi array for the ARISS program.

We'll discuss the various possibilities at the March 22nd Project Meeting

Dayton Hamvention May 14-16

Every year a group of NPARC members make the trek to Dayton. 2004 will be no different. There will be at least three cars going, so we won't have any problem bringing back the necessary Boat Anchors.

Hotel rooms and rides to Dayton are probably still available, for those who are interested enough to go this year. Contact K2JV.

TCRA Events for March

For more information and directions to their locations, see the TCRA website at: www.w2li.org

March 13th: "VE TEST SESSION" 8AM at the Union County College Cranford Campus.

March 15th: "ARRL/HUDSON DIV. UPDATE" Frank Fallon, N2FF Director ARRL Hudson Division will discuss the latest events going on at the ARRL. (8PM AT THE CHURCH)

Note: Jeff, NJ5R will discuss basic soldering techniques after the meeting.

The Way Things Were. Looking backward at Ham Radio.

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Comment les Appeler?

(How shall we call them?)

By Lloyd Jacquet, 2KT

FRENCH amateurs are getting the unmistakable radio bug. Here they were tickled to death by getting into communication with fellows in the same city, and then with other hams in surrounding "departments." And even after a few really good hams, such as 8AB, 8AC, and a few more, have developed DX stations, they couldn't believe that they could ever reach England, or Holland, or Spain for that matter.

At present, there are only Dutch, English, Spanish and French amateurs to muss up the ether of Europe. Imagine what will happen when the whole large family get going at once! It appears, however, that the French amateurs have so far been the champions in long distance communication, and they have reached out in all of the above mentioned countries, besides Germany, and Italy.

Now there is one thing which is worrying the French methodical and scientific mind, and which is causing considerable thought in amateur radio circles, and which, further, has caused their own amateur society to appoint a commission to study the question. And the big question is this: How shall we tell who is who, when the Americans, the English, and the French are transmitting? In other words, supposing 8AA in the U.S. is calling 2OM in London, will 8AA in Paris answer 2OM in N. J., U.S.A.???? Or will 2OM, whoever he happens to be, be flatteringly insulted because 8AA won't give him a tumble? There may arise international complications, which these diplomatic French amateurs are anxious to avoid from the beginning. Now, they have suggested a very sensible answer to the problem.

They have looked over the method used by American and Canadian operators, to distinguish between communications from either kind of stations, and frankly, they do not like it. It is done this way, as many of us know: American stations use the word "de" between their call and the station called, if working in their own country. If they are in communication with a Canadian station, they will say "aa" and in answer will get "fm." Canadian stations working between themselves use a "v." Don't you see the number of various signs that would have to be made up to accommodate all of the amateurs in the world? You would need a regular text book on "transmitting etiquette," besides your book on rules and regulations and the call book.

But here is what the S.A.T.S.F. has to say about that. Let the amateurs in each country use the initial of the name of their country, to precede their call, when they are calling a foreign station. Thus, U.S. stations could prefix their call letters with the letter "A" for America, the French "F," the English "E," the Canadians "C," the Dutch "H," the Spaniards "S," and so on. Thus, if you heard stations A1BKQ de F8AB, you would know that 1BKQ in the U.S. was being called

by 8AB in France. This would not in anyway affect the official call letters, and would provide a method of determining exactly what station was called.

Don't forget that the French amateur looks forward to international radio communication between amateurs of various countries as a certainty, and that he believes that it will come true and be a daily feat very shortly. He is anxious to get things straightened out from the beginning. And there is no use of us sitting back, and saying that we can't do anything about it. It is our place more than anyone else's, to see to it that radio amateur law is made and enforced. It is our duty to advise, point the way, and take the initiative.

How about some suggestions from you lawyers? How about getting down to business, and preparing material for that first International Amateur Congress, which is just as sure to take place as the exchange of messages across the Atlantic and Pacific?

[Editor's Note: Our A.R.R.L. Operating Department has the matter of international identification under study and expects to have a well-considered plan to put forward shortly. Mr. Deloy's proposal, as presented to American amateurs by Mr. Jacquet, is an excellent one, one which can be adopted at any time without legal complications, and one which is vastly superior to any system of arbitrary "intermediates" made up of numerals, accented letters, etc. It has the disadvantage, however, of lengthening the call materially and of increasing the possibilities of misreading a faint signal. Personally we favor a somewhat similar scheme of using the initials of the nations as the actual intermediate. For example, suppose we let U represent the United States, use C for Canada, Q for Cuba, G for Great Britain, F for France, N for Holland, A for Argentina, etc. Then U.S. amateurs working each other will use "u" for an intermediate instead of "de," as, for example, 6ZAC u 1BKQ. Similarly Canadians might use "c": 3BP c 3GN; the Frenchmen "f": 8AA f 8AB; the British "g": 2FZ g 2JK. Then when stations of different nationalities are working, the intermediate can consist of a combination of the two national intermediates, the called nationality first, followed by the national calling, the same as the order in which the calls themselves are given. Thus, a U.S. station calling France might use "8AB fu 1BHW," and the reply would be "1BHW uf 8AB." By this process the nationality of all calls would be instantly discernible if one knew the countries for which the single letters stood. At the present time, however, international law prescribes the use of "de" and the permission of our respective governments probably would have to be got for the change. What do our readers think?—K.B.W.]

Note from your Editor: Aren't we lucky that the French won this one!!! 73 de Barry K2JV