

# MOUNTAIN SPARK GAPS

**NPARC—The Radio Club for the  
Watchung Mountain Area**



**Website: <http://www.nparc.org>  
Club Calls: N2XJ, W2FMI**

VOLUME 48 NO. 4 April 2013

## UPCOMING EVENTS

### Regular Meetings

**Mon. 5/13 & Tue. 5/28 7:30 PM  
Salt Brook School Cafeteria**

**Monday 5/27 Memorial Day Parade  
See Page 3**

**Field Day  
June 22 & 23**

## Meeting Schedule

**Regular Meeting:** 7:30—9:00 PM  
**2nd Monday of each month** at the  
Salt Brook School Cafeteria  
Springfield Ave. and Maple St.  
New Providence

**Informal Project Meeting:** 7:30—9:00 PM  
**4th Monday of each month** at the  
Salt Brook School Cafeteria  
Springfield Ave. and Maple St.  
New Providence

### Everyone is Welcome

If a normal meeting night is a holiday,  
we usually meet the following night.  
Call the contacts below.  
When Schools are closed,  
Meetings are held in the Recreation  
Department Meeting Room in Borough Hall

## Club Officers for 2013

President: K2MUN David Berkley  
908-500-9740  
Vice President: K2WUF David Bean  
973-747-6116  
Secretary: K2HLA Hillary Zaenchik  
908-244-6202  
Treasurer: K2YG Dave Barr  
908-277-4283  
Activities: W2PTP Paul Wolfmeyer  
201-404-6914

## On the Air Activities

Club Operating Frequency  
145.750 MHz FM Simplex

Sunday Night Phone Net  
Murray Hill Repeater (W2LI) at 9:00 PM  
Transmit on 147.855 MHz  
With PL tone of 141.3 Hz  
Receive on 147.255 MHz  
Net Control K2AL

Digital Net  
First & Third Mondays 9 PM  
Details as announced.

## Club Internet Address

Website: <http://www.nparc.org>  
Webmaster K2MUN David Berkley  
Reflector: [nparc@mailman.qth.net](mailto:nparc@mailman.qth.net)  
Contact K2UI, Jim

## MOUNTAIN SPARK GAPS

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Editor: K2EZR Frank McAneny  
Contributing Editors:  
WB2QOO Rick Anderson  
WB2EDO Jim Brown

## Climatological Data for New Providence for March 2013

The following information is provided by Rick, WB2QOO, who has been recording daily weather events at his station for the past 32 years.

### TEMPERATURE -

Maximum temperature this March, 61 deg. F  
(March 30)  
Last March (2012) maximum was 79 deg. F.  
Average Maximum temperature this March,  
48.1 deg. F  
Minimum temperature for this March, 23  
deg. F (March 18, 22)  
Last March (2012) minimum was 20 deg. F.  
Average Minimum temperature this March,  
29.6 deg. F  
Minimum diurnal temperature range, 7 deg.  
(41-34 deg.) 3/25  
Maximum diurnal temperature range, 27 deg.  
(54-27 deg.) 3/9; (60-33 deg.) 3/29

Average temperature this March, 38.9 deg. F  
Average temperature last March, 49.4 deg. F

### PRECIPITATION -

Total precipitation this March - 7.75"  
snow; 2.74" rain/melted snow.  
Total precipitation last March - 1.43"  
rain, no snow.

Maximum one day precip. event this March;  
March 8, 6" snow.  
Measurable rain fell on 3 days this March,  
10 days last March.  
Measurable snow/sleet fell on 3 days this  
March.

=====  
Rick Anderson  
4/16/13  
243 Mountain Ave.  
New Providence, NJ  
(908) 464-8912  
[rick243@comcast.net](mailto:rick243@comcast.net)

**Lat = 40 degrees, 41.7 minutes North**

**Long = 74 degrees, 23.4 minutes West**

Elevation: 380 ft.

CoCoRaHS Network Station #NJ-UN-10

## New Providence Memorial Day Parade

NPARC members are invited to participate in this years Memorial Day Parade, taking place on Monday, May 27. Last year there were 12 members taking part in our parade unit; and we'd like to see an improved showing this year. This is the one public event where hundreds of town's people get to see the club members, and a good attendance is most welcomed. As in prior years youth club members are more than welcome to join us, whether you're licensed or not. I have been contacted by the parade committee and I have submitted the entry form for our club to participate.

Our unit will walk the parade route, down Springfield Ave., between Central Ave. and Academy St. Please consider taking part in this community event. Contact me to be placed on the club parade participation list or with questions. As an incentive, free hot dogs, drinks, dessert, after parade; at NP Senior Center for all participants!

Please contact Rick, WB2QOQ.  
rick243@comcast.net; (908) 464-8911.



2012 Marchers



## PRESIDENTS COLUMN

By K2MUN



This is intended to be my last column highlighting the background of our new officers. In this column, I will introduce Hillary Zaenchik, KC2HLA, our NPARC Corporate Secretary. I am not intending to do a column on Dave Barr, K2YG, since he certainly doesn't fall into the category of 'new officer' having been Treasurer for much of living memory. However, if people want me to finish the job, just let me know and I'll pester Dave to find out what hides behind that cool exterior. The NPARC Secretary has an amazingly long list of duties, including the obvious but also extending to handling club publicity and other surprising activities

Hillary was introduced to ham radio by her Uncle Dave (K2ULF) -- a little too young to get hooked on the hobby but still remembering the odd voices coming out of the radio. A few years later Hillary began her lifelong involvement with boating. By 1979 she began serious study of the subject, becoming a Red Cross Sailing Instructor and after bare boat charter sailing in the Chesapeake, Virgin Islands and Newport, begin dreaming of living on a boat in the Islands.

As Hillary dug into what was involved in the island dream she read books about what was required and one of them mentioned the use of HF radio on marine nets. This thought stayed in her mind for a number of years until attending some boat shows, first in Javits center, to see boats, and then in Atlantic City for the classes. One of those classes turned out to be a ham radio class for which she studied in the calm of a Casino. The class was taught by Gordon West and after two mornings Hillary passed the Tech test (but not the code) and then the Novice test (but still not the code).

Hillary persisted, found NPARC, and continued her ham radio education. She participates actively in the Emergency Response Team and provides radio communications for the New Providence Memorial Day Parade, Fireworks, Berkeley Heights 5K, New York Marathon and the D & R Canoe and Kayak race (for which she has organized the communications for three years). Hillary is also a member of the NJIT radio club (K2MFF) and ARC2, the Red Cross radio club run out of the Fairfield Chapter.

Two years ago Hillary passed her General Exam and, subsequently, obtained an HF Radio, an Omni D, a G5RV and the cable to put it together into an HF station. Soon she will be able to hear the voices with odd accents that her Uncle Dave introduced her many years ago and even talk to them herself. Thanks to Hillary for providing the background information used in creating this story about her.

Next month's column will be devoted to Field Day (June 22 - 23). Field Day is one of the key events we sponsor as a Club and one that has introduced many hams to the thrill of concentrated, focused, radio operation. From the beginning, planning and setting up stations, operating and taking it all apart again, this is a great cooperative event. I encourage you to come to the planning meetings, contribute your expertise or just your muscle. You will enjoy every minute of it!

### Bet you didn't know this!

As incredible as it sounds, men and women took baths only twice a year (May and October). Women kept their hair covered, while men shaved their heads (because of lice and bugs) and wore wigs.

Wealthy men could afford good wigs made from wool. They couldn't wash the wigs, so to clean them they would carve out a loaf of bread, put the wig in the shell, and bake it for 30 minutes.

The heat would make the wig big and fluffy, hence the term 'big wig'. Today we often use the term 'here comes the Big Wig' because someone appears to be or is powerful and wealthy.

## SCIENTIFIC TIDBITS

This article excerpt is taken from an article published in “American Chemical Society Publication” and was submitted by Jim Bushnell N2TSJ

Graphene, carbon nanotubes and other exotic materials are seriously challenging for inclusion in current electronic devices. Smaller, faster and cheaper has been a goal of electronic manufacturers for decades and for the most part they have achieved it. However, if the momentum is to continue, companies will need an arsenal of new materials to further shrink the size and price of components while adding properties such as flexibility.

Exotic materials such as graphene, carbon nanotubes, bendable glass, and high performance polymer films all applied with traditional printing techniques could be an answer. These new materials can help print circuitry, semiconductors, and other electronic components on paper, plastic or glass with methods similar to those used to make books and magazines. This method would be much cheaper than the deposition and etch methods need for conventional electronics. The process can yield very inexpensive devices for lighting, data storage, radio frequency identification tags, and a myriad of others.

Graphene is a substance that is a one-atom thick sheet of honeycombed carbon that boasts exceptional mechanical (high surface area and bendability) and electronic properties (conductivity). Some of the proposed uses for things that could be produced with graphene are printed electronic sensors in aircraft to diagnose failing parts, printed heaters embedded in wings to ward off ice formation, computer and cell phone touch screens and other bendable displays. One other intriguing idea is the development of super-capacitors. Due to graphene's high surface area relative to its volume, it provides the ability of a capacitor to store huge amounts of power that makes them simple, lighter and cheaper competitor to lithium-ion batteries. They also charge much faster, which makes them a real contender for the electric car market and brings the electric car closer to the internal combustion engine in performance. Graphene has started to play a role in conductive inks, which are needed to connect components in printed electronics.

Carbon nanotubes are further along in development than graphene as the optical and electronic properties of this substance has been substantially improved to where it is now becoming a competitive option in touch-screen film applications. It has already proven that its super strength attributes are valuable in metal alloys and artificial fibers. To improve the electrical performance properties of replacement films, the combination of carbon Nano-tubes and graphene is a definite possibility.

It is obvious that the surface of this new technology has barely been scratched and that the possibilities that the current research has uncovered suggest enormous changes in electronic circuit and component design and manufacture are appearing on the horizon. For us as ham radio operators, the era of homebrew equipment might be pushed further into the background as this new era of printable components becomes more prevalent. Can disposable transceivers be coming soon?

Jim WB2EDO