

# MOUNTAIN SPARK GAPS

NPARC—The Radio Club for the  
Watchung Mountain Area



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

VOLUME 47 NO. 01 January 2012

## UPCOMING EVENTS

### Regular Meetings

**Mon. Feb. 13 & 27, 2012 7:30 PM**  
**Salt Brook School**

### **ANNUAL NPARC AUCTION**

**Friday 2/24**  
**Snow date 3/2**  
**New Providence Municipal**  
**Center Gym**  
**7:00 PM**  
**Inspection 6:30**

## Meeting Schedule

**Regular Meeting:** 7:30—10:30 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 2012

President: N2KDK Paul Campano  
908-508-9595  
Vice Pres.: K2MUN David Berkley  
908-500-9740  
Secretary: K2JV Barry Cohen  
908-464-1730  
Treasurer: K2YG Dave Barr  
908-277-4283  
Activities: Open—Any Volunteers?

## 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

## 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  
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WB2QOO Rick Anderson  
WB2EDO Jim Brown

Climatological Data for New Providence for  
December 2011

The following information is provided by  
Rick, WB2QOO, who has been recording  
daily weather events at his station for the  
past 29 years.

### TEMPERATURE -

Maximum temperature this December, 60 deg. F  
(December 6)

Last December (2010) maximum was 61 deg.  
F.

Average Maximum temperature this December,  
47.5 deg. F

Minimum temperature for this December, 19  
deg. F (December 18)

Last December (2010) minimum was 15 deg. F.

Average Minimum temperature this December,  
30.0 deg. F

Minimum diurnal temperature range, 7 deg.  
(45 - 38 deg.) 12/20

Maximum diurnal temperature range, 29 deg.  
(56 - 27 deg.) 12/28.

Average temperature this December, 38.7 deg.  
F

Average temperature last December, 29.7 deg.  
F

### PRECIPITATION -

Total precipitation this December - 4.05"  
rain; no snow.

Total precipitation last December - 3.12"  
rain; 20" snow.

Maximum one day precip. event this December;  
December 7; 1.86" rain.

Measurable rain fell on 8 days this Decem-  
ber, 3 days last December.

=====  
Rick Anderson

1/16/12

243 Mountain Ave.  
New Providence, NJ  
(908) 464-8911

[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

## 2012 Dues

Membership applications and dues payments were due on January 1st, 2012.

If you have not yet done so, please fill out the application form COMPLETELY and return it to K2JV along with a check for your dues. Instructions and address are on the form which is reproduced on the web site.

## KIDS DAY

Participation was not quite as good as in previous years but all who were there seemed to have a good time.



Maycee was our champion of HF. She made about 8 good QSOs in about a half hour, as far west as Milwaukee and south to Georgia.

Michael Tang, KD2APR,  
and his helper, Olivia, kept  
busy on VHF



## SCIENTIFIC TIDBITS

Could a fundamental principle of physics be wrong? That tantalizing question has been roiling the scientific community since physicists at the CERN laboratory in Geneva said they had clocked subatomic particles called neutrinos moving faster than the speed of light. Albert Einstein's special theory of relativity, which established the foundation of modern physics in 1905, holds that nothing in the cosmos can outrun light, which travels at 186,282 miles per second. If neutrinos can move faster than that, they could, in theory, arrive at a destination before they had even left, thus, opening the prospect of time travel. That idea is so shocking that most physicists cannot believe the results are correct.

Even the CERN team is skeptical. "We wanted to find a mistake" in the study that would leave Einstein's theory intact, but "we didn't," says lead researcher Antonio Ereditato. He and his colleagues did not set out to test relativity; they only wanted to learn more about neutrinos. But when they shot the neutrinos from Geneva through the Earth to a lab beneath Italy's Gran Sasso mountain, about 454 miles away, the particles consistently arrived about 60 nanoseconds faster than a beam of light could have. CERN's tests were exhaustive: Over three years, the researchers tallied the speed of some 16,000 neutrinos, then spent six months searching their calculations and measurements for errors.

That precision has many scientists wondering if there is the chance the finding actually is "a doorway into something fundamental and deep we don't know about nature," says Matthew Strassler, a theoretical physicist at Rutgers University. Perhaps no cosmic speed limit exists, or maybe neutrinos travel through an undiscovered fifth dimension, separate from the three dimensions of space and the one of time that we know about. Physicists at Fermilab, the Department of Energy facility in Illinois, will spend the next six months to a year trying to overturn CERN's results. But what if they can't? "All the great revolutions in science," Strassler says, "start with an unexpected discrepancy that wouldn't go away."

A tantalizing question, you bet!

Jim WB2EDO

We recently received an update from Nick, KC2ONP, which is reproduced below.

Dear NPARC,

While I am settling back into my dorm room up here in Boston I figured it would be a good opportunity to send you all an update of what I have been up to and what is coming down the line for me.

I finished last semester quite successfully with a perfect 4.0 GPA which I am very proud of and will be of great use to me when I apply for co-op opportunities a year from now. Like I may have said earlier I took Chemistry, Calculus 2 (Integration and Infinite Series), American Architecture, and a General Engineering Course that also focused on two dimensional and three dimensional drafting and modeling. My classes were pretty interesting but nothing that I couldn't handle.

This semester is a little different with more lab based courses and therefore less work each night but more reports and papers. I have Physics 2 (Waves, Electricity and Magnetism), Multivariable Calculus, College Writing, and another General Engineering course where we learn basic programming with MATLAB and C++ used in a lab with a lab-based class structure. It's pretty interesting so far and I find it an easier way for me to learn the code than just writing software.

This semester I am also engaged in a program called Gordon Scholars which is a small group of 20 freshman engineers selected by the university's research center (out of a pool of applicants) that is focused on undergraduate research and K-12 outreach programs. So this semester I will likely be involved with some research being done on campus. I am trying to get a position with the Center for High Rate Nanomanufacturing which would be an IE/ME type position in a lab focused on the optimal production methods and new uses for carbon nanotubes. If you are unfamiliar with carbon nanotubes, they are a new technology - strands of carbon rings bonded together on a tiny scale and pulled into "wires" that conduct electricity mostly and can have other functions also. With K-12 outreach I will most likely be helping a former professor of mine with a math and science after school program that she runs at a middle school a few blocks away. It is a pretty exciting program and hopefully I will be able to be involved in something that I can continue doing or springboard to something else.

Looking forward a bit, and tying in to amateur radio, I have signed up to be a volunteer with the Marathon Amateur Radio Club for the Boston Marathon. Traditionally held on Patriots Day (a Boston holiday), I will be positioned somewhere along the race course much like the New York Marathon and will have similar duties, I would assume. I will keep you all updated as to how it is compared to NYC.

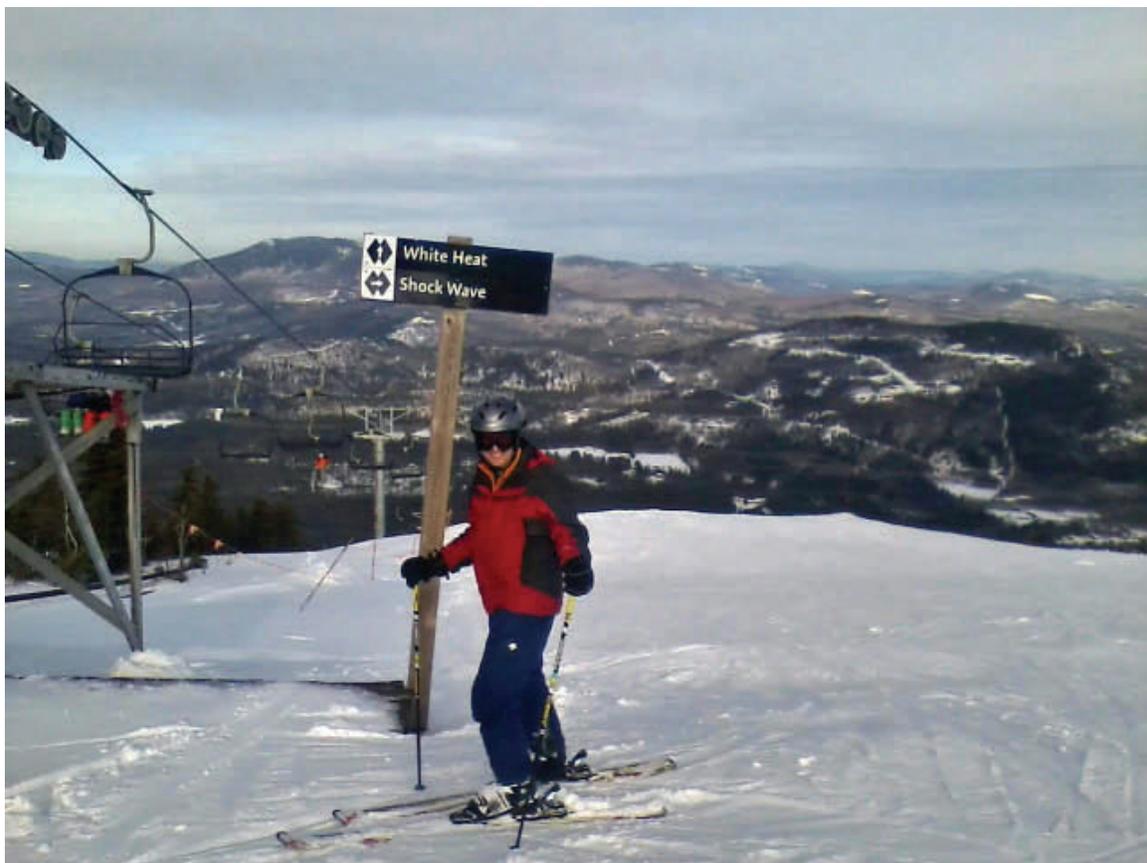
Finally, I just accepted my first job as an engineer for this coming summer. I will be working as a mechanical and civil engineer for Conti Construction - a company that is well known for its work in infrastructure and government contracts on the East Coast that has been expanding and bidding on projects across the company. It will be a 12 week paid internship that might take place in the NJ area but could possibly take me somewhere like New Orleans to work on the levee system or the west coast to work on air force fueling systems.

I won't know my assignment until sometime in April but no matter where I am the experience should be great and will help me when I apply to co-ops and real jobs in the future.

Well, a lot has been going on up here and Monday through Friday are pretty busy so that I can go north and enjoy the snow and skiing on the weekends as much as possible. I will be sure to keep you all updated on my whereabouts and goings-on. It seems like the club is as active as ever and once I get a chance I will try to get on the Sunday Night net via Echolink.

73 for now

Nick Esposito KC2ONP



Nick apparently checking the physical properties of snow somewhere in New England.