

MOUNTAIN SPARK GAPS

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



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

VOLUME 46 August 2011 NO. 8

UPCOMING EVENTS

Regular Meetings

**Monday Sept. 12 & 26 7:30 PM
Salt Brook School**

Upcoming Events

Trip to

Battle Ship New Jersey

in Trenton

Date to be announced

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 2011

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: KC2OSR Sam Sealy
973-635-8966

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
Contact K2UI, Jim

MOUNTAIN SPARK GAPS

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WB2QOO Rick Anderson
WB2EDO Jim Brown

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 July, 101 deg. F
(July 22)

Last July(2010) maximum was 104 deg. F.
Climatological Data for New Providence for
July 2011

Average Maximum temperature this July, 87.7
deg. F

Minimum temperature for this July, 56 deg. F
(July 1)

Last July(2010) minimum was 57 deg. F.

Average Minimum temperature this July, 67.7
deg. F

Minimum diurnal temperature range, 7 deg.
(74 - 67 deg.) 7/3

Maximum diurnal temperature range, 26 deg.
(82 - 56 deg.) 7/1.

Average temperature this July, 77.7 deg. F

Average temperature last July, 80.8 deg. F

PRECIPITATION -

Total precipitation this July - 2.41" rain.
Total precipitation last July - 2.03" rain.

Maximum one day precip. event this July;
July 8; 0.70" rain.

Measurable rain fell on 10 days this July,
11 days last July.

=====
Rick Anderson
8/3/11

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

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

SPECIAL NOTICE

Rick's official rain amount for

Irene was 9.2"

MISCELLANEA

More Field Day Pictures



GOTA Coach K2JV explaining Ham Radio to some young visitors.



WB2GEG, Barb Flynn (Red Cross Director), and N2KDK in GOTA Tent



Elected Officials Tom Getzendanner and Ellen Dickson (Summit City Council Members) with K2JV and N2KDK



Ellen Dickson (Summit City Council), Paul N2KDK (NPARC President) and Bill Hudzik W2UDT ARRL Hudson Div. Vice Director



Guy K2EFB and Sam KC@osr on 40 meters

SCIENTIFIC TIDBITS

3D PRINTERS WILL RESHAPE MANUFACTURING

3D printing is a new technology called additive manufacturing (AM), which can be used to print prototypes and niche products. This technology is also referred to as additive fabrication, additive processes, additive techniques, additive-layer manufacturing, and freeform fabrication. This new technology has huge potential for producing prototypes of all sizes from the very small to some very large pieces. Unlike subtractive manufacturing techniques, such as milling and machining that whittle away at material to form something and create waste, AM is a manufacturing technique that builds one plane of material on top of another with the help of a 3D printer and 3D software. This technique allows prototypes or finished products to be made from a fine powder of nylon, carbon-reinforced plastics, or metals such as titanium, steel, or aluminum. Computer-Aided-Design company Autodesk and partner Stratasys printed the entire body of the KOR EcoLogic Urbee car, a contender for the 2010 Automotive X Prize. European Aeronautic Defense and Space created the frame for a fully functioning Air-bike bicycle. Privately-held EOS produced a violin with their 3D laser-printing technology that fuses consecutive layers together. There have been several instances of organic products being made through the 3D method. One such instance took place in December of 2010, privately-held Organovo's 3D printers created the world's first "bio-printed" blood vessels. Another involves the French Culinary Institute that has been testing a Cornell University food-printing technology since October 2009. I witnessed a demonstration where an adjustable wrench was copied exactly by this process in a matter of minutes. The breadth of products that can be produced by AM is really astounding.

Currently, industries have been studying the use of AM in custom and short-run manufacturing. Although producing parts for end-use products is more difficult due to the sophisticated software and hardware needed, this technique will come into wide use over the next 10 years as it reduces manufacturing costs substantially and, therefore, bolsters profit margins. It is projected that by 2020 this technique could be responsible for 50% of all finished products. The potential here is absolutely enormous. (For those who have a bent for investment some of the companies that are heavily involved include Autodesk, Danaher, Hewlett-Packard, and Stratasys)

Jim WB2EDO