MOUNTAIN SPARK GAPS

NPARC—The Radio Club for the Watchung Mountain area

Website: http://www.nparc.org Club Callsign: N2XJ

VOLUME 45 August 2010 NO. 8

UPCOMING EVENTS

Regular Meetings
Monday Sept. 13 & 27
7:30 PM
Salt Brook School
NOTE LOCATION!
Check Website to be sure

ARRL VHF QSO Party
September 11/12
Contact K2JV

Longhill Township Community Day
Sept. 4 at Riverside Park

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.

Club Officers for 2010

President: K2UI Jim Stekas
908-665-0299
Vice Pres.: N2KDK Paul Campano
908-508-9595
Secretary: K2JV Barry Cohen
908-464-1730
Treasure: K2YG Dave Barr
908-277-4283
Activities: W2UDT Bill Hudzik
908-580-0493

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

K2AGI Memorial Digital Net
First and Third Mondays at 9 PM (0100Z)
Look around 14,085 Khz for RTTY
Ops using AFSK should look around 14,086-7. Contact K2YG for details.

Club Internet Address

Website:http://www.nparc.org
Webmaster K2MUN David Berkley
Reflector: nparc@mailman.qth.net
Contact K2UI, Jim

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Editor: K2EZR Frank McAneny
Editor Emeritus: KQ2E Bruce Havourd
Contributing Editors:
WB2QOQ Rick Anderson

Climatological Data for New Providence for July 2010

The following information is provided by Rick, who has been recording daily weather events at his station for the past 28 years.

TEMPERATURE -
Maximum temperature this July, 104 deg. F (July 6)
Last July(2009) maximum was 87 deg. F.
Average Maximum temperature this July, 91.5 deg. F
Minimum temperature for this July, 57 deg. F (July 2)
Last July(2009) minimum was 57 deg. F.
Average Minimum temperature this July, 70 deg. F
Minimum diurnal temperature range, 4 deg. (77 - 73 deg.) 7/14.
Maximum diurnal temperature range, 33 deg. (92 - 59 deg.) 7/3.

Average temperature this July, 80.8 deg. F
Average temperature last July, 72.4 deg. F

Average temp. at this station for July, for the past 10 years:(2009=72.4) (2008=77.7) (2007=74.2; 2006=77.5; 2005=76.6; 2004=71.8; 2003=72.3; 2002=74.8; 2001=69.1; 2000=69.0; degrees.

Number of days this July with temperatures of 100 degs. or higher = 4.
Number of days this July with temperatures of 90 degs. or higher = 21;
last July = 0.

PRECIPITATION -
Total precipitation this July - 2.03 rain
Total precipitation last July - 5.27" rain

Maximum one day precip. event this July; July 13, 0.57” rain.
Measurable rain fell on 11 days this July, 12 days last July.

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Rick Anderson
8/15/10
Lat = 40 degrees, 41.7 minutes North
Long = 74 degrees, 23.4 minutes West
Elevation: 380 ft.
CoCoRaHS Network Station #NJ-UN-10

A few of the NPARC Members present at the Sussex County Hamfest, It was reported that many others were present, but unavailable for photographs. They included Lou WK2I, Vince KC2IZK, and probably some others who were not present on the Club Frequency, and therefore couldn't be contacted.

Last month KC2OSR, who is recovering from surgery, announced that he had acquired a new beam and needed help getting it erected. In the best traditions of ham radio an antenna party was scheduled and Sam had more than enough help. He reports that the new beam works well.

Ground assembly

The intrepid roof crew

The finished product

Those who helped

Thanks to all who were able to help.

SCIENTIFIC TIDBITS

The National Institute of Standards and Technology (www.nist.gov) recently announced the successful test of some novel antennas, developed in conjunction with the University of Arizona and Boeing Research & Technology, that break the rules relating to size versus signal. According to NIST, "The new antennas radiate as much as 95% of an input radio signal and yet defy normal design parameters. As we all know standard antennas need to be at least half the size of the signal wavelength to operate efficiently. At 300 MHZ, for instance, and antenna would need to be approximately half a meter long. The experimental antennas are as small as one-fiftieth of a wavelength and could shrink further."

The antennas employ a metamaterial that makes them behave like much larger ones by storing and reradiating the energy. Interestingly, these metamaterials are much more frequency agile according to NIST engineer Christopher Holloway. "It's possible we could tune them to work at any frequency we want on the fly." The new antennas are expected to be particularly useful in constantly shrinking wireless systems such as communications devices, microsensors, and ground-penetrating radars.

This could be exciting news for the amateur radio community, if these new antennas work equally well on reception as they seem to on transmitting. If they do, those who work 160 meters should be ecstatic as it would bring down the average size of their half wave antennas from around 246 feet to around 5 feet. It will also open up an entire new vista for those working the HF bands. This will be an interesting development to follow.

Jim Brown – WB2EDO