

MOUNTAIN SPARK GAPS

NPARC-The Radio Club for the Watchung Mountain Area

Website: <http://www.nparc.org>



N2XJ

Club Callsign

VOLUME 44

October 2009

NO. 7

UNCOMING EVENTS

Regular Meeting
Monday Oct. 26, 2009
7:30 PM
Salt Brook School

Annual Holiday Luncheon
Date to be determined
Probably at Charlie Browns
In Chatham Township
(Same as last year)

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

4th Monday of each month: 7:30—9:00
PM
Informal Project Meeting, 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 2009

President: K2UI Jim Stekas
908-665-0299
Vice Pres.: N2KDK Paul Campano
908-508-9595
Secretary: WB2EDO Jim Brown
973-829-1892
Treasurer: K2YG Dave Barr
908-277-4283
Activities: W2UDT Bill Hudzik
908-580-0493
Past President: KB2FCV James Kern
908-219-4016

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>
Reflector: nparc@mailman.qth.net
Webmaster: KC2RLM, Ralph

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Climatological Data for New Providence for September 2009

The following information is provided by Rick, WB2QOQ, who has been recording daily weather events at his station for the past 28 years.

TEMPERATURE -

Maximum temperature this September, 78 deg. F (September 4,5,23,24)
Last September (2008) maximum was 87 deg. F.
Average Maximum temperature this September, 70.2 deg. F
Minimum temperature for this September, 47 deg. F (September 30)
Last September (2008) minimum was 48 deg. F.
Average Minimum temperature this September, 57.0 deg. F

Minimum diurnal temperature range, 5 deg. (61-66 deg.) 9/16
Maximum diurnal temperature range, 20 deg. (48-68 deg.) 9/20

Average temperature this September, 63.6 deg. F
Average temperature last September, 66.7 deg. F

PRECIPITATION -

Total precipitation this September - 1.98"
Total precipitation last September - 7.34"

Maximum one day precip. event this September - September 27, .55"
Measurable rain fell on 9 days this September
Measurable rain fell on 7 days last September.

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Rick Anderson
10/18/09

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.

Elevation: 380 ft.

**The following was contributed by
Jim Brown – WB2EDO**

FUTURISTIC OLED

The Dutch electronics company Phillips, the world's largest lighting maker, has begun selling do-it-yourself kits with little glowing wafers called "Lumiblades". They come in red, white, blue or green for anyone who wants to pay nearly \$100 per square inch. The company's aim is to get designers, architects and other creative types; thinking about how these flat lights can be used, and to start collaborating on early products.

General Electric, Siemens and Royal Philips Electronics, which are developing OLEDs (organic light emitting diodes), believe the technology will eventually be more efficient than traditional incandescent bulbs, energy-saving compact fluorescent lights and even the LED lights just now reaching the market. OLEDs have a key advantage in that they emit light evenly from a whole surface, rather than a single point. That eliminates the need for lampshades and other coverings that scatter light and protect eyes from glare. Creating light and then immediately shading it is an inefficient way of doing things from an engineering standpoint.

Lumiblades run for about \$100 for a small square to \$700 for a piece the size of a mobile phone as the bigger the piece, the brighter the emission. When switched off, Lumiblades resemble small mirrors with an aluminum backing inside two glass plates. When switched on, a microscopic layer of organic material inside begins to emit light, and the Lumiblade glows. Only the faintest hint of warmth is perceptible.

When used at recommended currents, the lights are designed to last for 10,000 hours, at which point they will have faded to half their original brightness. That compares with a life span of 1,000 hours for an incandescent bulb, and is about the same as the current generation of compact fluorescent lights.

Philips eventually hopes to market window panes that are transparent during the day and emit light at night. Similarly, GE, which is developing cheap, flexible OLEDs encased in plastic, imagines a rollable, light-emitting window blind.

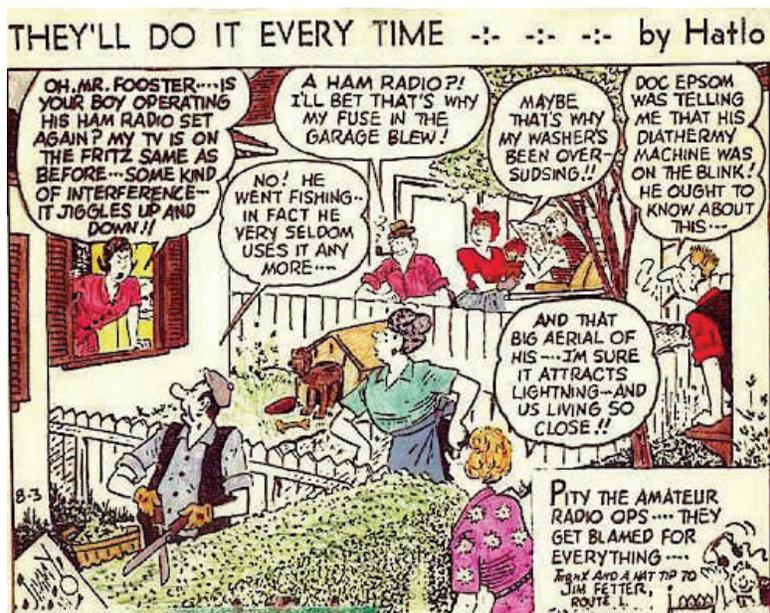
However, the OLEDs that have been used by individuals who have purchased the kits offered by Philips have found that the light intensity is much less than other forms of lighting and take several panels to create enough light to be used as a lamp. This drawback does not in anyway diminish the possibilities of this new technology as it is developed over the next several years.

For those who want to delve further into this area, you will find additional information by looking under "OLED" on your favorite search engine on the internet. Unfortunately, I was unable to find the electrical specifications listed.

Two aspects of Ham Radio



As we have done in the past, on September 20 some NPARC members supplied communications for the Berkley Heights 5K fitness race. It was a great day for a race—clear and not too warm. The race went off without a hitch.



On Friday, October 16th through Sunday, October 18th, members of the [New Providence Amateur Radio Club](#) (NPARC) operated from the [Great Swamp National Wildlife Refuge](#) using Special Event Call sign W2R. Our Special Use Permit allows us to operate during daylight hours (10am - 4pm, EDT - 1400-2000Z) on each of the three days. Special thanks to Refuge Manager Bill Koch and Deputy Manager Steve Henry for their assistance in obtaining our Special Use Permit for this event, and for their support in accommodating our needs.

This is a nationwide event with ham radio activities taking place at National Wildlife Refuges around the country.

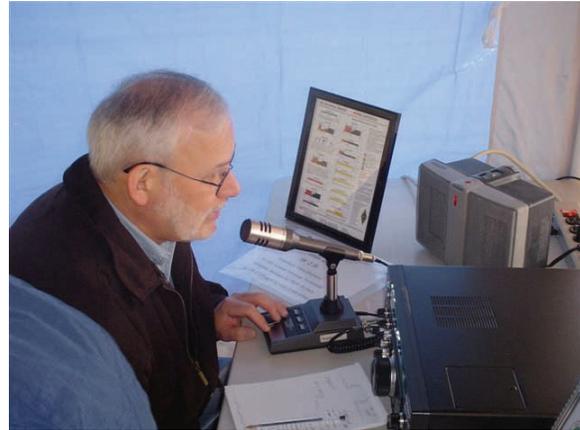


This is the operating position. Unfortunately, none of the three days were as bright as the picture makes it look. They were probably the coldest on record for the period. Good thing we had the pavilion!

Over the three day period the stations operated a total of 11 1/2 hours and made 97 contacts on HF and 19 on 2 meters. The best DX was Zambia in south Africa. If anyone is misidentified blame K2EZR.



K2JV and W2VU



W2UDT



AB2WF and N2FYE



Keegan, a new recruit from the New Providence summer camp.



K2AL with the new visitor center in the background.

THIS JUST IN!

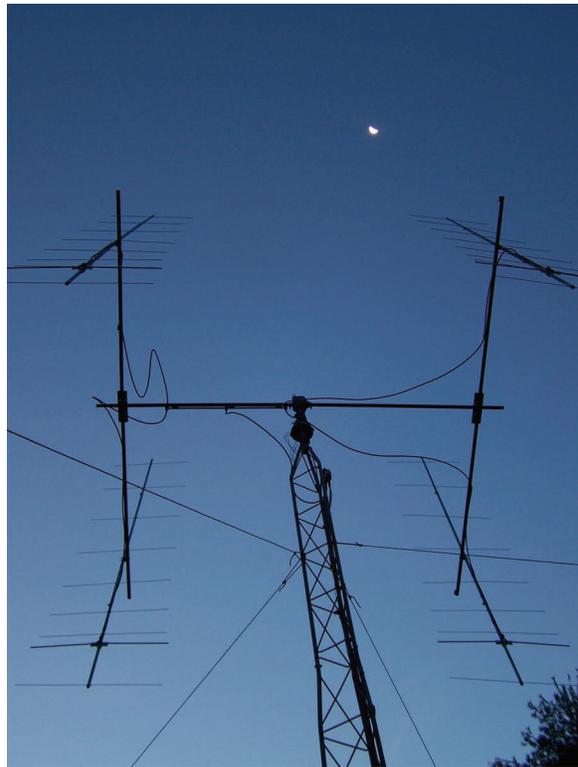
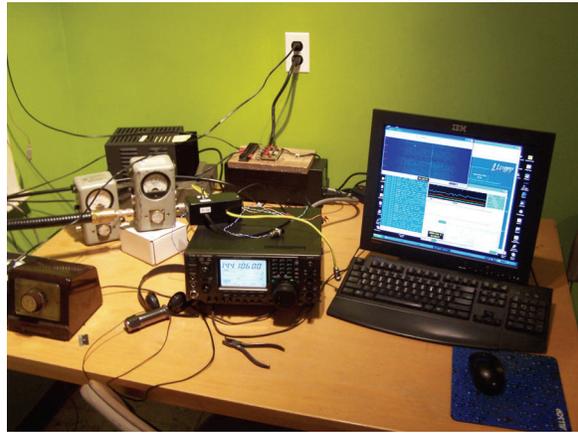
PRELIMINARY MOONBOUNCE TESTS COMPLETED

The weekend of October the 10th was the ARRL EME contest. This was the weekend I set as the goal to get on the air and make contacts via 2 Meter moonbounce. With the help of Andy WA2DKJ and "South Pole Bob" WB3EFT, we were able to get the antenna array finished off, cables tested, assembled, and receiving signals off the moon. This is a project I started off roughly two years ago that I have been working on and off as time permitted. The last week or so before the contest things kicked into high gear as we checked off remaining items that had to be completed.

The antenna array consists of four 9 element homebrew yu7ef design yagis, which combined have about 20db of gain. These feed into a mast mounted relay and pre-amp. The power amplifier is a homebrew W6PO design amplifier which runs a 3CX1500A7 (8877). Everything on the TX side is ran through a sequencer to switch everything safely and to avoid blowing out the preamp. The most common mode by far is the JT-65B digital mode using a computer, followed by the next most popular mode Morse Code. We designed the system to do both, as running Morse requires more power and antenna gain. We were quite close to getting transmit capability, however we experienced problems with input matching the IC-746 PRO to the amp. By the time moonrise came around 11pm Saturday night we had both worked several days solid on getting the last things completed. When you're exhausted and its late at night, it's not the right time to start popping open covers on a 3000 volt system! A few days later we found out that there is a small mod that allows the amp to match up much better to today's solid state rigs, as the original design dates back to the late 60's or early 70's.

Moving forward the plan is to be on the air and making QSO's sometime in the spring of next year. Before the array goes back up the amp issues will be worked out and fully tested and we will perform some reception tests in order to test the gain and to make sure the phasing is set correctly. We consider the weekend to be a success as we copied stations off the moon. We copied the following stations: RU1AA, EA6VQ, KB8RQ, RK3FG, DK3EE and PY2SRB. Some were copied more than once through the night. Several other QSO's were monitored but they were already beyond the callsign exchange. Many thanks to Andy WA2DKJ, "South Pole Bob" WB3EFT and Bob Sutton ZL1RS . Bob ZL1RS is a very experienced EME'er who has helped in antenna design, construction tips and has a vast knowledge of EME who has been able to answer just about every question! I hope to report back sometime next year with some updates.

73,
James KB2FCV



I do not have titles for these pictures. Ask KB2FCV