

MOUNTAIN SPARK GAPS

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



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

Club Calls: N2XJ, W2FMI

**Facebook: New Providence Amateur Radio Club
(NPARC)**

September 2023

Volume 56 No. 9

Regular Meetings

Second & Fourth Mondays

9/11/23 - Business Meeting on Zoom

9/25/23 - Technical Meeting on Zoom

Upcoming Events

Digital Net Mondays at 9:00 PM – 7.086 MHz (+/-)

CW Net, Thursdays at 9:00 PM – 7050+QRM

Check www.nparc.org for details.

Meeting Schedule

Regular Meeting: 7:30—9:00 PM
**2nd & 4th Monday
of each month**
Watch for Emails

Everyone is Welcome
If a normal meeting night is a holiday,
we usually meet the following night.
Call one of the contacts below
or check the web site

Club Officers for 2023

President: K2UI, Jim Stekas
908-868-4970
Vice President: W2EMC Brian DeLuca
973-543-2454
Secretary: K2AL: Al Hanzl
908-872-5021
Treasurer: K2YG Dave Barr
908-277-4283
Activities: KC2QSR, 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
Digital Net
Mondays 9 PM
28,084 — 28,086
Will be using PSK and RTTY
Net control K2YG

Club Internet Address

Website: <http://www.nparc.org>
Webmaster KC2WUF David Bean
Reflector: nparc@mailman.qth.net
Contact KC2WUF, David

MOUNTAIN SPARK GAPS

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Acting Editor: K2UI Jim Stekas
Contributing Editors:
WB2QOQ Rick Anderson

Climatological Data for New Providence for July 2023

The following information is provided by Rick, WB2QOQ, who has been recording daily weather events at his station for the past 43 years.

TEMPERATURE -

Average temp

July 2023, 77.3 F

July 2022, 80.1 F

Maximum temp

July 2023, 93 F (July 6)

July 2022, 99 F.

Average Maximum temp

July 2023, 85.8 F

Minimum temp

July 2023, 61 F (July 31)

July 2022, 61 F

Average Minimum temp

July 2023, 68.7 F

Minimum diurnal temp range, 4 F (77 - 73 F) 7/16

Maximum diurnal temp range, 23 F (87 - 64 F) 7/11

PRECIPITATION -

Total precipitation

July 2023 – 5.8” rain

July 2022 – 0.75” rain

Maximum one day precip. event

July 4, 1.48” rain.

Measurable rain fell on

11 days this July

7 days last July.

YTD Precipitation – 28.95”

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Rick Anderson

8/19/2023

243 Mountain Ave.

New Providence, NJ

(908)464-8911

rick243@comcast.net

Lat = 40 degrees, 41.7 minutes North

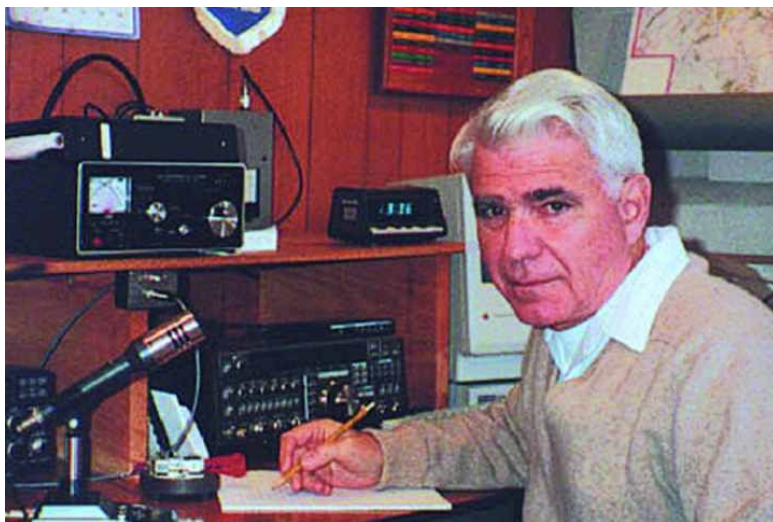
Long = 74 degrees, 23.4 minutes West

Elevation: 380 ft.

CoCoRaHS Network Station #NJ-UN-10

Dr. Barry Cohen, K2JV (SK)

On August 28, Barry Cohen, K2JV, became a Silent Key. Barry joined NPARC in 1968 and was a very active member, serving as a Club president, treasurer, activities manager, and ham radio ambassador. Barry maintained that ham radio was first and foremost about communication and he made many friends around the world from his radio shack.



Many new hams owe their start in ham radio to Barry. He was especially motivated toward attracting new blood to the hobby. He organized Kids Day events and ran the Get-On-the-Air station at Field Day to allow children to experience the thrill of communicating with other stations around the country. He also arranged for several contacts with the International Space Station where local school children communicated directly with astronauts.

To serve the community and demonstrate the value of ham radio, Barry formed the NPARC Emergency Response Team which provided communications for many community events such as the Memorial Day parade and July 4th fireworks display.

Barry will be sorely missed by NPARC and the greater ham radio community that knew him. Our sincere condolences to Norma and the entire Cohen family.

73 Barry,
Al (K2AL) and Jim (K2UI)



President's Column

This month NPARC formally advanced Sam Sealy (KC2OSR) from acting status to official Activities Chairman. Just to remind him how hard a job Activities Chairman is, the August speaker (Trees and Wire Antennas) canceled minutes into the start of the meeting.

The NPARC Fox Hunt had been an annual activity for many years that somehow disappeared from the schedule. A joint TCRA/NPARC Fox Hunt in Echo Lake Park a few years ago revived interest. This fall, James Kern (KB2FCV), will organize an NPARC Fox Hunt. He will review the ins-and-outs of fox hunting at one or more upcoming meetings. This is a great opportunity to homebrew (or acquire) some basic fox hunting tools: directional antenna, signal strength indicator, attenuator, ... Do a little web surfing and start planning!

The annual NPARC holiday luncheon is scheduled for December 9th. The venue is the usual one, the Vintage Tavern in Gillette, once known as the Chimney Rock Inn. Dave Barr, K2YG, is still firming up the final menu and price to be announced in mid-September. What is absolutely certain, however, is that Zitas ice cream cake will be served again this year.

73,
Jim - K2UI

September Contest Calendar

A selection of the more popular of the 150 contests held during the month of September, 2023. The QSO Parties, especially the individual state ones, are the most “friendly”.

<u>Contest Name</u>	<u>Modes</u>	<u>Date/Time</u>	<u>Exchange</u>
Colorado QSO Party	cw/phone/digi	Sat 9/2 9am to midnight	Name & State/Province ^[1]
Tennessee QSOP	cw/phone/digi	Sun 9/3 2pm to 11pm	RS(T) & State/Province ^[1]
WAE DX Contest	phone	Fri 9/8 8pm to Sun 9/10 8pm	RS + Serial nr + optional QTCs
Alabama QSO Party	cw/phone	Sat 9/9 11am to 11pm	RS(T) + State/Province ^[1]
Iowa QSO Party	phone/cw/digi	Sat 9/16 10am to 10pm	RS(T) + State/Province ^[1]
Texas QSO Party	all modes	Sat 9/16 10am to 10pm & Sun 9/17 10am to 4pm	RS(T) + State/Province ^[1]
Washington State Salmon Run	cw/phone	Sat 9/16 noon to 3am & Sun 9/17 noon to 8pm	RS(T) + State/Province ^[1]
New Jersey QSOP	cw/phone/digi	Sat 9/16 noon to midnight	RS(T) + county ^[2]
New Hampshire QSOP	cw/phone/digi	Sat 9/16 noon to 6pm & Sun 9/17 noon to 6pm	RS(T) + State/Province ^[1]
CQ WW DX Contest	RTTY	Fri 9/22 8pm to Sun 9/24 8pm	RST + CQ Zone
Maine QSOP	cw/phone	Sat 9/23 8am to Sun 9/24 8am	RS(T) + State/Province ^[1]

Notes:

1. For state qsoO parties, in-state (sponsoring state) stations send county instead of state, and out-of-state stations send their state, and may only work the in-state stations for that contest.
2. We are the in-state stations for the NJQP. We should call “CQ NJQP” and send 59(9) + our county. We can contact any stations, not just NJ. NJ County abbreviations are the first 4 letters of county name except Camden (CMDN) & Warren (WRRN). We receive RST and State or “DX” from stations we contact, and RST and county from other NJ stations.

Check the WA7BNM Contest Calendar at: <https://www.contestcalendar.com/contestcal.html> for entry classes, power, and more important information about these and other interesting competitions.

Good Luck
Dave, K2YG

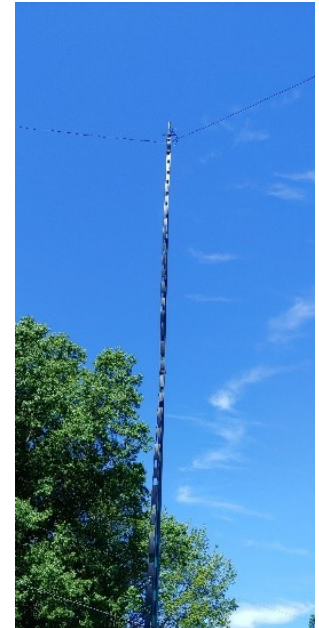
W4RNL (SK) 44' Doublet, Twenty-Three Years in the Making Kevin Glynn, N2TO



I used to use a 67' doublet setup as an inverted-vee, fed with Davis RF/Wireman 450 ohm stranded window line to an MFJ MFJ-901B tuner for portable work on 40M-10M. LB Cebik, W4RNL (SK) told me in 2000 to make a 44' doublet. I was not sure if my MFJ-901B tuner could handle 44' on 40M but LB told me it should work well. I never made one until this year.

I would setup the 67' doublet as an inverted-vee at John Paul Jones Park (aka Cannonball Park) with friends at the foot of the Verrazzano Bridge in Brooklyn. We worked all over North America and the world with 5W on CW and SSB. It helped that the antenna feed point was literally up 50'.

Last summer I bought two masts, with the idea of using one for a doublet. In May 2023 I made a new 44' doublet with 20 ga stranded insulated wire fed with the same window line. Setting up as an inverted-vee quadrant, I bring the window line to the MFJ-901B tuner to a 1:1 common mode choke to my Yaesu FT-857D (or Icom IC-703) rig. I do not use the 4:1 voltage balun in the tuner but rather feed the window line to the wire and ground posts.



Velcro cable ties hold the window line to the fiberglass mast. I have not noticed interaction. Feed point is only up 16' which was an experimental height, concerned about wind load. I plan on fully extending the mast to 22 ½' shortly.

LB told me the advantage of 44' vs. 67' on higher bands is that the radiation patterns are more predictable. We would not see higher lobes that will not work for us, for example. I have looked at this antenna for twenty-three years and finally made one, and very glad I did. Thanks LB!

I made a new doublet with PEX tubing as spreaders, held in place with 7" cable ties. Unfortunately, the 20 ga wire kept slipping. I thought a true window line antenna would have zero wind load. However, using Velcro cable ties makes wind load a moot point. Losses of such a short length of window line compared to open wire ladder line is negligible. If I were running 100' or more feed line I would go the homemade ladder line route.

I wanted a new 1:1 common mode choke using a Fair-Rite 2.4" Mix 31 toroid I had on hand. Thanks to Bob Willis, K2GLS for info on ABR Industries as a great source for coax assemblies. I am awful at PL-259 connectors as I do not have crimping tools or a large soldering iron. I bought a 6' RG-58 C/U assembly and wrapped 12 turns onto the toroid, held in place with cable ties.

In the past three months of POTA activations I have worked over 800 QSOs, 43 states and 18 DX entities at 20W SSB and 5W CW with the doublet. Performance is better than anticipated.

NJQRP Skeeter Hunt 2023

Al Hanzl - K2AL

The “NJQRP Skeeter Hunt” is a fun operating event that encourages you to go outdoors and operate QRP portable for a few hours on a late summer afternoon. The event took place on Sunday, August 27 from 1pm-5pm.



Again, this year, I ran a portable station, setup in my backyard on the patio table:

- MFJ-1982 66' long End Fed Dipole thrown over a tree branch up around 20 feet.
- Elecraft K-1 5W QRP transceiver (homebuilt kit)
- 12V/14AH Battery
- Bull Dog CW Mini Key
- Paper Mini Log

This year I was assigned Skeeter #158 (numbers are issued each year starting on the first day of summer). The main goal is to work other “Skeeters” but all QSO’s count. As expected, most signals are weak, which adds to the challenge but there is a rewarding feeling making contacts with only 5 watts with a minimal setup.

Anyone can participate, even from your indoor shack, but extra bonus points are earned for operating portable and using homebrewed radios or kits as an incentive to get outdoors.

Overall, I made 35 CW contacts on 40 and 20 meters, working 14 states and Canada, including QSO’s with several fellow NPARC members.

For more info see www.qsl.net/w2lj

History of TV Channel 1

Jim Stekas - K2UI

Recently the XYL and I paid a visit to InfoAge Science and History Museums in Wall Township. InfoAge has a wide range of artifacts on display, from crystal sets to tanks. There are also many knowledgeable guides eager to add technical and historical context to the exhibits.

One item on display that got my attention was an early FM radio (right). Note the frequency range of 42 - 50 Mc¹. This was the original frequency band assigned in 1939 for experimental FM tests, and later allocated for FM broadcasting in 1940. Edwin Armstrong built the first FM transmitting station, W2XMN, in Alpine, NJ. It broadcast on 42.8 Mc from a 500 foot tower that still stands.



In anticipation of practical television broadcasting, the FCC assigned the band 44 - 50 Mc to channel 1 in 1937. Television was demonstrated at the NY World's Fair in 1939 to a few hundred receivers and NBC began occasional broadcasts on channel 1 (44 - 50 Mc).

In 1940, with the allocation of the 42 - 50 Mc FM band, the FCC moved channel 1 to 50 -56 Mc, which was essentially channel 2. Television broadcasts shut down completely during the war, and by war's end RCA was hell bent on developing commercial television. To carry TV audio, RCA planned on using FM to avoid interference from the video signal. Armstrong offered to license his FM patents but RCA insisted on ownership. David Sarnoff, the President of RCA, played hardball. RCA violated Armstrong's patents outright, and Sarnoff used his connections in Washington to get the FM band moved. In 1946, the FCC moved channel 1 back to 44 -50 Mc (on top of the existing FM band) and moved the FM band to 88 - 108 Mc. In one fell swoop all the FM receivers in the US became doorstops.

So what happened to channel 1 on 44 -50 Mc? Channel 1 was designated for low power local broadcasts for which there was no interest. So in 1948, the FCC deleted channel 1 from the TV frequency band and reallocated the spectrum to the land mobile radio service.

Armstrong fought RCA's patent infringement for many years. Sarnoff vowed to fight until Armstrong ran out of money. Sarnoff won a pyrrhic victory in 1954 when Armstrong, nearly bankrupt, jumped to his death from the window of his 13th floor apartment. Armstrong's wife eventually won the war with RCA, winning \$1,000,000 in arbitration.

For the rest of his life, Sarnoff maintained "I did not kill Armstrong."

¹ Mc is what we now call MHz.