

# **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)**

**March 2024**

Volume 57 No. 3

## **Regular Meetings**

**Second & Fourth Mondays**

Mar 11 - Business Meeting at SBS & Zoom

Mar 25 - Meeting at SBS & Zoom.

## **Upcoming Events**

*Check Reflector & [www.nparc.org](http://www.nparc.org) for details.*

Digital Net Mondays at 9 PM – 28.086 MHz (+/-)

CW Net, Thursdays at 9 PM – 28.050+QRM

## 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

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## Club Officers for 2024

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

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## 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](mailto:nparc@mailman.qth.net)  
Contact K2AL, Al

## MOUNTAIN SPARK GAPS

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Editor Emeritus: K2EZR Frank McAneny  
Acting Editor: K2UI Jim Stekas  
Contributing Editors:  
WB2QOQ Rick Anderson

## Climatological Data for New Providence - January 2024

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

### TEMPERATURE -

Maximum temp this January, 56 F (Jan 13)  
Last January(2023) maximum was 61 F.  
Average Maximum temp this January, 39.3 F

Minimum temp this January, 14 F (Jan 17)  
Last January(2023) minimum was 24 F.  
Average Minimum temp this January, 27.6 F

Minimum diurnal temp range, 4 F (37 - 33 F) 1/30  
Maximum diurnal temp range, 29 F (55 - 26 F) 1/9

Average temp this January, 33.4 F  
Average temp last January, 40.8 F

### PRECIPITATION -

Total precipitation this January 5.69" rain, 5.0" snow  
Total precipitation last January 5.05" rain/snow melt, 0.5" snow

Maximum one day precip. event - January 9, 2.35" rain.  
January 6, 2.5" snow.

Measurable rain fell on 13 days this January  
15 days last January.

YTD Precipitation – 5.69"

=====  
Rick Anderson 2/15/2024  
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

## President's Column

This year's NPARC auction saw much more equipment sold by the club than typical. Sadly, big auction years tend to be due to the passing of club members. Over the past year we lost Barry Cohen, K2JV, James Josenhans, W8FVI, and George Kelly, WA2SQO, and there was a great deal of equipment to be passed on from their estates. Al, K2AL, did the bulk of the work to test and catalog the items for sale. In addition to the jewels (three Icom IC-706Mkiig transceivers) there were a lot of miscellaneous smaller items that were not candidates for auction. To facilitate their sale we introduced a pre-auction flea market, which resulted in much confusion, but also found new homes for items that had been taking up space in Al's garage. The mix of auction and expanded flea market worked out well and is probably something we want to continue with and improve on in the future.

George Kelly's family donated all his equipment to the club, including two Icom IC-756Pro transceivers. We intend to use these for the HF stations during Field Day. They are excellent performers, with built in antenna tuners, DSP filters, and waterfall displays. We'll have to figure out how to use them for the digital modes.

Joe Reid, K2JAO, was unable to fulfill his traditional role as the NPARC auctioneer this year due to illness. Sadly, we learned that Joe became a silent key just a few days after the auction. He was a long time NPARC member and a legendary Elmer for new hams. He will be sorely missed.

73,

Jim – K2UI

## Popular Contests in March 2024

### Dave Barr – K2YG

Contest Name	Dates	Mode	Exchange	Notes & Websites
ARRL Inter. DX Contest	3/1 Fri 7pm to 3/3 Sun 7pm	SSB	W/VE: rs + QTH DX: rs + power	160-10 mtrs (No WARC) QRP/LP/HP Rules: <a href="http://www.arrl.org/arrl-dx">www.arrl.org/arrl-dx</a>
YB DX RTTY Contest	3/8 Fri 7pm to 3/9 Sat 7pm	RTTY	RST + Serial #	No power classes. 80 – 10 meters. Rules: <a href="http://rtty.ybdxcontest.com">rtty.ybdxcontest.com</a>
Stew Perry Topband Challenge	3/9 Sat 10am to <b>3/10 Sun 11am</b>	CW	Four character grid square.	160 meters only. QRP/LP/HP Rules: <a href="http://www.kkn.net/stew">www.kkn.net/stew</a>
Oklahoma QSO Party	3/9 Sat 10am - 9pm <b>3/10 Sun 11am-5pm</b>	CW Phone Digi (no FT)	OKs: RS(T) + County Others: RS(T) + State/Prov/Cntry	80 – 6 meters. HP/LP/QRP Rules: <a href="http://k5cm.com/okqp.htm">k5cm.com/okqp.htm</a>
TESLA Memorial HF CW Contest	3/9 Sat 1pm to 3/10 Sun 12:59 am (Saturday night)	CW	RST + Serial # + 4 character grid square	80m and 40m only. HP/LP/QRP. <a href="http://www.radiosport.yu1srs.org/rs/HFTeslaMemorial/index.php/rules">www.radiosport.yu1srs.org/rs/HFTeslaMemorial/index.php/rules</a>
Idaho QSO Party	3/9 Sat 2pm to <b>3/10 Sun 3pm</b>	CW Phone Digi (no FT)	IDs: County Others: State/ Prov/Country NO RST	160-10m (no WARC) QRP/LP 150w/HP. Rules: <a href="http://www.idahoqsoparty.org">www.idahoqsoparty.org</a>
Wisconsin QSO Party	<b>3/10 Sun 2pm-9pm</b>	CW Phone Digi (no FT)	IDs: County Others: State/ Province/Cntry NO RST	All Bands (no WARC) HP/LP/QRP Rules and county abbreviations at: <a href="http://www.warac.org/wqp/wqp.htm">www.warac.org/wqp/wqp.htm</a>
BARTG HF RTTY Contest	3/15 Fri 10pm to <b>3/17 Sun 10pm</b>	RTTY	RST + Serial # + UTC (4 digits)	80 – 10 M (No WARC) HP/LP/QRP Single Op 30 hour limit Rules: <a href="http://www.bartg.org.uk/">http://www.bartg.org.uk/</a>
Virginia QSO Party	3/16 Sat 10am-12m and <b>3-17 Sun 8am-8pm</b>	CW Phone Digital	VA: Ser # + Cnty Others: Serial # + St/Prov/Cntry	All Bands (No WARC) HP/LP/QRP Rules: <a href="http://www.qsl.net/sterling/VA_QSO_Party/2024_VQP/2024_VQP_Main.html">www.qsl.net/sterling/VA_QSO_Party/2024_VQP/2024_VQP_Main.html</a>
CQ WW WPX Contest, SSB	3/29 Fri 8pm to <b>3/31 Sun 8pm</b>	SSB	RS + Serial #	160-10 mtrs (No WARC) QRP/LP/HP Rules: <a href="http://www.cqwp.com/rules.htm">www.cqwp.com/rules.htm</a>

- Check [www.contestcalendar.com](http://www.contestcalendar.com) or contest specific websites for more information on these and many other radio contests.
- State QSO Parties require out-of-state stations to contact only in-state stations. In-state stations may contact any station. See websites for rule and county abbreviations.
- **Daylight Saving Time hours are shown in red.**

# Rethinking Field Day Antennas

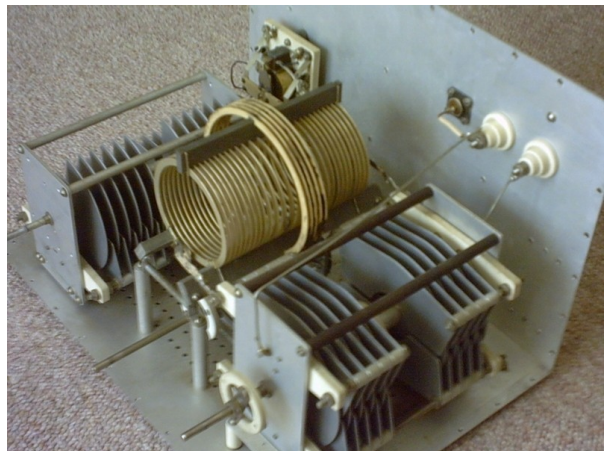
*Jim Stekas - K2UI*

For many years, our go to Field Day antennas have been double Zepps, essentially 80m dipoles with ladder line feeds. With the right balanced antenna tuner (a Johnson Matchbox, see below) the antenna can be operated from 80-10m. There have been many different takes on the double Zepp, including:

- the Extended Double Zepp, a  $\frac{5}{4}\lambda$  doublet with more gain than a  $\frac{1}{2}\lambda$  dipole,
- and the G5RV, a  $\frac{3}{2}\lambda$  doublet for 20m with a tuned feeder allowing it to handle multiple bands.

The double Zepp dates back to the 1920's, before 50 $\Omega$  coax. Ladder line was cheap and easy to make and exhibited very little loss, even at very high SWR. Vacuum tube transmitters had built in "antenna tuners" to match the antenna impedance to the power amplifier output impedance, typically around 2000 $\Omega$ . The tuner was usually link coupled to the ladder line, so balance was maintained.

When WW2 ended coax became cheap and plentiful and hams gobbled it up. It could be routed next to pipes, bent around corners, and through exterior walls. At frequencies that presented a low impedance at the input to the ladder line, a balun could be used to attach a coax that ran into the shack. As long as the SWR was reasonable (< 5) and the coax was not too long, loss would not be a problem.



Eventually, the world pretty much standardized on 50 $\Omega$  unbalanced (coax) interfaces. By the mid 1980s, almost all the rigs were "no-tune" solid state models expecting a 50 $\Omega$  load. Of course, many antenna systems did not present a 50 $\Omega$  load to the transmitter, so outboard antenna tuners were needed. Thanks to the increasing power and decreasing cost of microprocessors, tuners gained the ability to tune for a match automatically. Today it is hard to find a rig that doesn't include an autotuner, or have an option to add one. They are typically specified as able to tune anything with an SWR<3, but most will do much better so long as the antenna impedance doesn't present a pathological problem.

Given that we will be using two IC-756Pro transceivers for Field Day we should aim to put up autotuner-friendly antennas that will allow the operator to QSY with manual tuning. Further, we should get away from ladder line and move toward coax. Off-Center Fed (OCF) dipoles can be constructed to work multiple bands. A 40m Windom antenna was used on Kid's day on 40, 20, and 10m. My main antenna is an OCF that I designed to work on 40, 20, 15, and 10m. The SWR is across those bands is good enough to allow my IC-7300's autotuner to get a 1:1 match anywhere on those bands. An OCF is hands-off, is more robust than a double Zepp and doesn't require an outboard tuner to get a match on multiple bands.