

# **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)**

**October 2023**

Volume 56 No. 10

## **Regular Meetings**

**Second & Fourth Mondays**

Oct 9 - Business Meeting on Zoom  
Oct 23 - Technical 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

NJDXA/NPARC Zoom Program – 8 PM Fri, Oct 13

Fox Hunt – Sat, Oct 28 (rain date, Oct 29)

## 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: 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  
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 KC2WUF, David

## MOUNTAIN SPARK GAPS

Published Monthly by NPARC, Inc.  
The Watchung Mountain Area Radio Club  
P.O. Box 813

New Providence, NJ 07974  
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Editor Emeritus: K2EZR Frank McAneny  
Acting Editor: K2UI Jim Stekas  
Contributing Editors:  
WB2QOQ Rick Anderson

## Climatological Data for New Providence - Aug 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 -

Maximum temp this August, 89 F (August 26)

Last August(2022) maximum was 96 F.  
Average Maximum temp this August, 79.7 F

Minimum temp this August, 59 F (August 2)  
Last August(2022) minimum was 60 F.  
Average Minimum temp this August, 65.2 F  
Minimum diurnal temp range, 8 F (74 - 66 F)8/24  
Maximum diurnal temp range, 27 F(89 - 62 F)8/26

Average temp this August, 72.5 F  
Average temp last August, 77.6 F

### PRECIPITATION -

Total precipitation this August— 5.96" rain  
Total precipitation last August— 2.97" rain

Maximum one day precip. - August 13, 1.35" rain.  
Measurable rain fell on 10 days this August  
6 days last August.

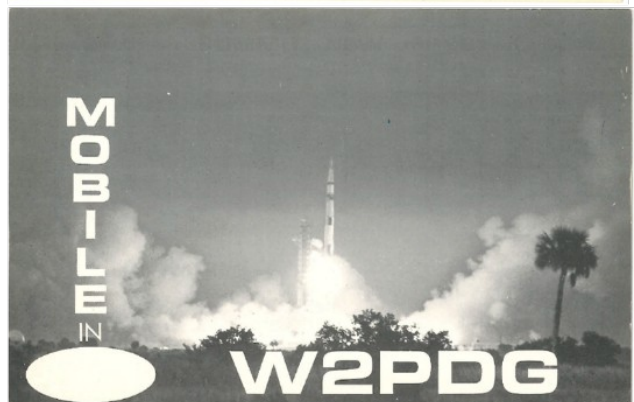
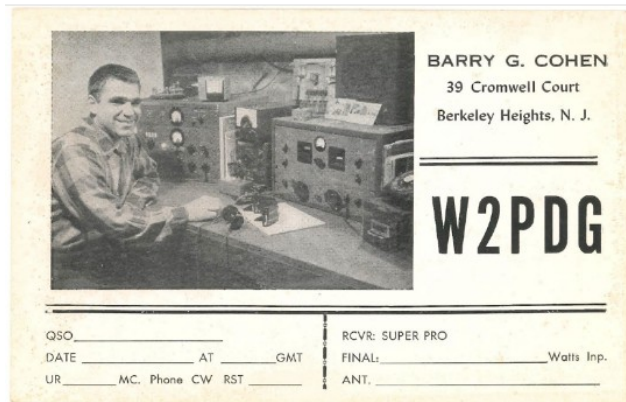
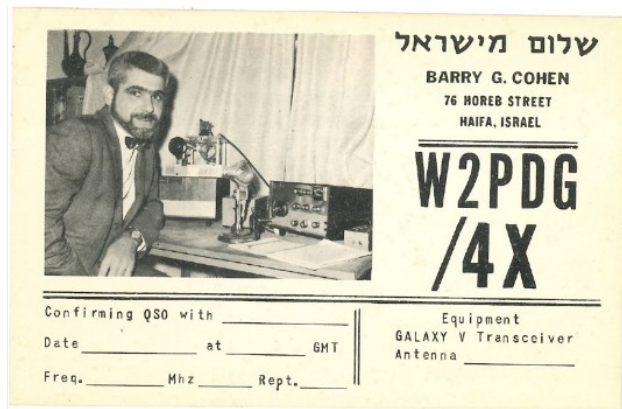
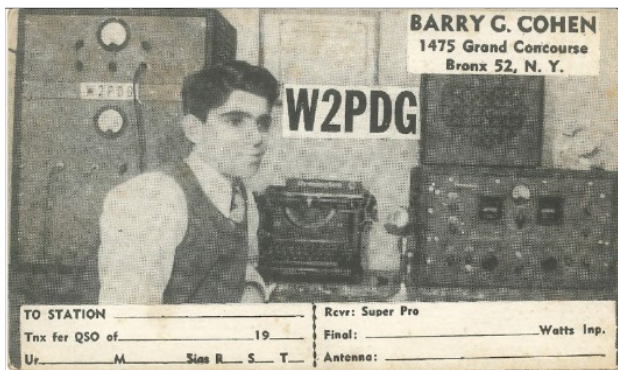
YTD Precipitation – 34.91"

=====

Rick Anderson 9/22/2023  
243 Mountain Ave.  
New Providence, NJ  
(908)464-8911  
[rick243@comcast.net](mailto: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

## K2JV: A Personal Remembrance Colin Phoon - AE3E

Barry Cohen, K2JV, became a Silent Key on August 28, 2023, at age 93. A longstanding member of NPARC (and recently-anointed Honorary Life Member), he touched a great many lives – including mine, as my father-in-law. I want to thank everyone who has supported our family and contributed to the celebration of his life. You all knew Dad from his wide-ranging activities in NPARC. An oral history reveals he got interested in ham radio when he came across an ARRL Handbook around 1943 or 1944. He obtained his license in 1945, right after WWII; he would've been 14 or 15 years old. Originally licensed as W2PDG, Dad has related that he built a 2-tube regen receiver and a 2-tube, 6V6-to-6L6 crystal-controlled CW transmitter as his first rigs. His equipment and activities evolved rapidly as he went to college, into the Navy, and to graduate school, and then settling into his home in Berkeley Heights. He received his K2JV callsign in the early 1970's. Wherever he went, Dad would operate and make new friends. And wherever he went, Dad would create new QSL cards specific to his location (see below).



I first met Dad in 1991, when he and his XYL Norma took Janet and me out to dinner in Little Portugal in Newark, NJ. Can you imagine his reaction when he learned I had my license? Janet and I were dating but not engaged at that point, but I think Dad saw “son-in-law material” immediately! It took him a dozen years to convince me to get back on HF, and I finally set up a shack again in 2003. We went to Ham Radio Outlet together in New Castle, DE, and he even had me listen to the different rigs (“See? That one sounds *quieter!*” – I ended up purchasing that Yaesu FT840 still in use today).

Bow and arrow in hand, Dad helped me get my inverted vee (a K2JV “special”) up into the trees. I made the pilgrimage to the Dayton Hamfest with Dad in 2010. As a Mile Captain, he got me to work two New York City Marathons. He helped me fix a VFO on a Ten Tec Argonaut 509 that I purchased off eBay. Dad was the smartest person I’ve ever known: He was of course “book smart,” but also “hands smart” (he could build and fix anything) and “people smart” (as evidenced by his ham radio friends all over the world). I could’ve picked his brain for decades on a broad variety of topics, but as always happens, one loses the chance. But I will cherish him most of all – along with Mom – for always embracing me as a part of their entire extended family. This was true whether it was a simple weekend visit, the NPARC barbecue, or Thanksgiving, or Passover Seder. He embraced many people though amateur radio, including kids in various activities such as ARISS... And there was no prouder grandfather than when my son Gordon, KC2SRV, earned his Technician license at age 9. I will miss K2JV deeply, and I will always think of Dad whenever I head to my own shack, pick up a QST (or a Haggadah!), or aspire to “arm chair” CW copy.

Barry G. Cohen  
39 Cromwell Court  
Berkeley Heights  
NJ 07922  
USA

**K2JV**

73 de Barry

CONFIRMING QSO WITH	DATE	UTC	MHZ	REPORT	MODE

Member: New Providence ARC  Pse QSL Trnx

Barry G. Cohen  
Hotel "Velina"  
4600 Velingrad  
BULGARIA

**LZ/  
K2JV**

73 de Barry

CONFIRMING QSO WITH	DATE	UTC	MHZ	REPORT	MODE

Pse Qsl via: K2JV, 39 Cromwell Ct. Berkeley Hts., NJ 07922 USA

Barry G. Cohen  
39 Cromwell Court  
Berkeley Heights, 07922  
Union County, New Jersey  
USA

**K2JV**

Life Member ARRL

Confirming 2 way QSO with: AE3A

Date	Time Z	Freq. MHz	Report	Mode
8 Feb 64	1500	3.890	3/3	SSB

*Hi Colin  
Love from  
Dad*

## President's Column

For many years the NPARC Fox Hunt was a yearly tradition. Members engaged in friendly competition with mostly homebrew DF equipment of varying sophistication. At my first fox hunt, John Sheetz (K2AGI) came with his doppler DF system which used 6-8 vertical antennas mounted on a large sheet of ½ inch plywood atop the roof of his car. Between the roof and plywood sheet, John inserted a large inner tube to prevent scratches and dents. The entire antenna system was held in place by ropes looped through the interior of the car and from front to rear bumper. What a pity there were no cell phone cameras in those days to capture the moment.

This year we hope to restart the tradition with an NPARC Fox Hunt scheduled for Saturday, October 28. In the event of rain the hunt will take place the following day. TCRA members will also be invited to join us.

James Kern (KB2FCV) will be organizing the hunt and preparing the “fox”, a battery powered 2m transmitter. James gave an excellent technical presentation on fox hunting equipment and techniques at the September 11 meeting. In case you missed his presentation, check the Reflector for a link to the Zoom recording.

73,

Jim - K2UI

## October 2023 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>
California QSOP	cw/phone	Sat 10/7 12n to Sun 6pm	Serial # + State <sup>[1]</sup>
Makrothen RTTY	rtty only	Fri 10/13 8pm to Sun noon (8 hrs on/8 off/8 on/8 off/8 on) <sup>[2]</sup>	4 Digit Grid Square <sup>[3]</sup>
Nevada QSOP	cw/phone/digi	Fri 10/13 11pm to Sun 5pm	RS(T) + State <sup>[1]</sup>
Solar Eclipse QSOP <sup>[5]</sup>	cw/phone/digi	Sat 10/14 8am to 6pm	6 digit Grid Square <sup>[1]</sup>
Arizona QSOP	cw/phone	Sat 10/14 11am to 1am (Sun)	RS(T) + State <sup>[1]</sup>
Pennsylvania QSOP	cw/phone	Sat 10/14 12n–12m, Sun 9-6	Serial # + State <sup>[1]</sup>
South Dakota QSOP	cw/phone/digi	Sat 10/14 2pm to Sun 2pm	RS(T) + State <sup>[1]</sup>
JARTS WW RTTY	rtty only	Fri 10/21 8pm – Sun 8pm	RST + your age
New York QSOP	cw/phone/digi	Sat 9/16 noon to 6pm & Sun 9/17 noon to 6pm	RS(T) + State <sup>[1]</sup>
Stew Perry 160m challenge	cw	Sat 10/21 11am – Sun 11am	4 Digit Grid Square
Illinois QSOP	cw/phone/digi	Sun 10/22 11am – 9pm	RS(T) + State <sup>[1]</sup>
CQ WW DX	SSB	Fri 10/28 8pm - Sun 8pm	RST + Zone +Stat <sup>[1]</sup>

### Notes:

1. For state QSO 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. For the Makrothen, there are three 8 hour sections separated by two 8 hour off periods: Friday 8pm to Saturday 4am; Saturday noon to 8pm; Sunday 4am to noon.
3. Send FN20 for most of us.
4. DX sends zone only, US/VE send zone and state/province
5. See rules for Solar Eclipse QSOP at [hamsci.org/seqp-rules](https://hamsci.org/seqp-rules)

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



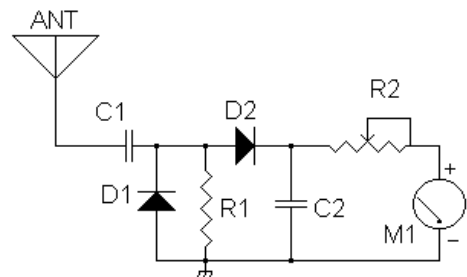
# The Field Strength Meter

## Jim Stekas - K2UI

A Field Strength Meter (FSM) is a device that detects RF fields and displays their strength on an analog or digital meter. In its simplest form an FSM is little more than a crystal radio that drives a meter instead of headphones. That's all you need to give an indication of radiated power from your station. It is also a handy device to have at a fox hunt.

My first rig was an Ameco AC-1, a single tube, crystal controlled CW transmitter with an adjustable antenna matching network. The proper way to tune up, was to set the antenna loading to zero and adjust the antenna tune for minimum plate current (dipping). This makes the antenna appear as a very high impedance. The next step is to increase the antenna loading and retune for minimum current, which will now be a bit higher. Loading and dipping is repeated until the plate current reaches the maximum rated value.

This classic tuning technique would work fine on the AC-1 except for the fact that it lacked a meter to read plate current! The reason for this critical omission is revealed in my 1968 Lafayette Radio catalog which lists the AC-1 kit at \$21.95 and a 100ma meter at \$2.95. So adding a meter to the AC-1 would add significantly to the price.



The work around was to build a simple FSM (above right) and use it to tune the rig for maximum RF field strength, which should correspond to maximum output power. The simple circuit shown requires no power and is all that you need to monitor a nearby transmitter. It worked like a charm and I made a lot of contacts with the AC-1.

In the final stage of a fox hunt, when you are closing in, the signal from the fox will be very strong and may pin the S-meter (or equivalent) of your receiver no matter what direction the antenna is pointed. The solution is to add attenuation between the antenna and receiver, adding more attenuation the closer you get.

Once you get to 60 dB or so of attenuation the signal from the fox might bypass the antenna completely and be received via leakage paths through the receiver's case. The solution is to replace the receiver with a FSM as you close in for the kill.

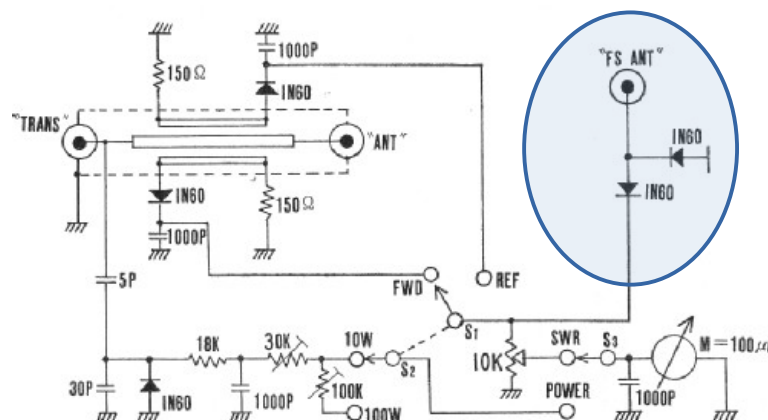
The figure at right shows the FSM I used in my first fox hunt<sup>1</sup>. The device is an SWR bridge design that was very popular in the 1960's and similar units are widely available at hamfests for \$5. Many very similar models of SWR bridge were offered by different manufactures, and many (like the one shown) included a FSM capability. These are distinguished by a screw-in antenna terminal for the FSM antenna (left).



To allow the fox hunt antenna to be directly connected to the FSM, I drilled out the screw-in terminal and replaced it with a BNC connector. The knob on the front that controls sensitivity in SWR mode also works in FSM mode.



If you happen to have a vintage SWR bridge without the FSR option it is a trivial matter to add it. Simply add a connector for the FS antenna and two diodes as shown in the figure below.



<sup>1</sup> My partner was Tony Lockhart, KB2BBP (SK), and we finished first!