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)

VOLUME 55 No. 3 March 2022

Regular Meetings

Second & Fourth Mondays
4/11/22 Salt Brook School Cafeteria
4/25/22 Zoom

Upcoming Events

Digital Net Mondays at 9:00 PM
PSK on 80 or10 meters
CW training Net, Thursday at 9:00 PM
Watch for Email announcements.
Memorial Day Parade

New Providence Memorial Day Parade

NPARC members are invited to participate in this years Memorial Day Parade, taking place on Monday, May 30. Our club has participated in this town event, for many years, prior to the Covid pandemic, with the parade being cancelled the past two years.

This is the one public event where hundreds of town's people get to see the club members, and a good attendance is most welcomed. In 2019 there were 12 members participating in our parade unit.

Our unit will walk the parade route, down Springfield Ave., between Central Ave. and Academy St. Please consider taking part in this community event. More details to follow. Please contact Rick, WB2QOQ, if you will be participating in the parade or have questions.

rick243@comcast.net; (908) 464-8911. Thanks Much !

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 2022

President: W2PTP Paul Wolfmeyer
201-406-6914
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
973-462-2014

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 K2JV, Barry

MOUNTAIN SPARK GAPS

Published Monthly by NPARC, Inc.
The Watchung Mountain Area Radio Club
P.O. Box 813
New Providence, NJ 07974

Editor: K2EZR Frank McAneny
Contributing Editors:
WB2QOQ Rick Anderson
W2PTP Paul Wolfmeyer
K2UI Jim Stekas

Climatological Data for New Providence for February 2022

The following information is provided by Rick, WB2QOQ, who has been recording daily weather events at his station for the past 40 years.

TEMPERATURE -
Maximum temperature this February, 65 deg. F (February 23)
Last February(2021) maximum was 46 deg. F.
Average Maximum temperature this February, 42.4 deg. F
Minimum temperature this February, 10 deg. F (February 1)
Last February(2021) minimum was 13 deg. F.
Average Minimum temperature this February, 23.5 deg. F
Minimum diurnal temperature range, 8 deg. (36 - 28 deg.)2/24
Maximum diurnal temperature range, 35 deg. (60 - 25 deg.)2/18

Average temperature this February, 33.0 deg. F
Average temperature last February, 30.6 deg. F

PRECIPITATION -
Total precipitation this February- 3.45" rain/snow melt; 2.3" snow
Total precipitation last February- 5.28" rain/snow melt; 33.9" snow.

Maximum one day precip. event this February-

February 13, 2.0" snow; February 25, 0.98" rain.
Measurable rain fell on 6 days this February,7 days last February.
Measurable snow fell on 2 days this February.

YTD Precipitation - 3.63"

==========

Rick Anderson
3/20/2022
243 Mountain Ave.
New Providence, NJ
(908)464-8911
rick243@comcast.net

President's Column March 2022

First, member news.
Guy Brennert K2EFB died early in the month. When we elected him to honorary lifetime membership, we said: "Guy has received the Wouff Hong Award in 2008 and 2019 and received the Grand Old Ham Award in 2010. These awards were given to Guy in recognition of his many years of dedicated service to the Club. Guy has served as an officer of the Club including Activities Manager and Field Day Manager. For many years, Guy took on the role of chairman of the officer Election Committee each November when officer elections were due. He often undertook the task by himself. He was always present at Field Day and Kids Day, ready to lend a helping hand." We will miss him.
The Executive Committee has decided to purchase an "ARRL brick" in Guy's memory. You may contribute to the purchase ($250) with a contribution made out to NPARC and sent to Treasurer Dave Barr, 29 Montrose Ave, Summit, NJ 07901. (Contributions are still welcome for the brick purchased for Andy Stillinger WA2DKJ, as well.)
We have also, through the diligent work of Sam KC2OSR, learned that Sister Irma, KC2MFL, is now at an extended care facility in Cedar Grove. A card would be appreciated. The address will be sent out in the reflector.

We are glad to welcome new member Laura Black KD2TEN. And—at our hybrid meeting in early March and/or our February ZOOM meeting, we welcomed potential members: Giri Sonty KD2YYO, Dave Warde KD2YYF, Ken Difrenza KD2YLB and son Cameron, and John Bialoglow.

Our ZOOM meeting in March featured Tim Duffy K3LP of DX Engineering on limited space antenna. It turns out he was in Germany working with hams on the Ukrainian crisis and talked to us at 1:30 AM his time. We appreciate the work he is doing and were glad to hear a few words about the work first hand.
After a two year hiatus for covid, the New Providence Memorial Day Parade is back on and we are planning to march in it!! Rick Anderson WB2QOQ will again be coordinating our appearance.

And finally—**GOOD NEWS for NPARC Field Day**!! Thanks to Heather KD2VZA making some contacts, it looks like we will be able to hold Field Day at the Governor Livingston High School site. There are a few i's to be dotted and t's crossed, but it's looking very good. Thanks Heather.

Our next meeting is April 11 and planned to be hybrid—watch the reflector for meeting info. And our April 25 meeting is on ZOOM and features a key ARRL LOTW leader Bart Jahnke W9JJ updating us on LOTW.
73

Wolf W2PTP 201-404-6914 or W2PTP@arrl.net

73

Raspberry Pi 400

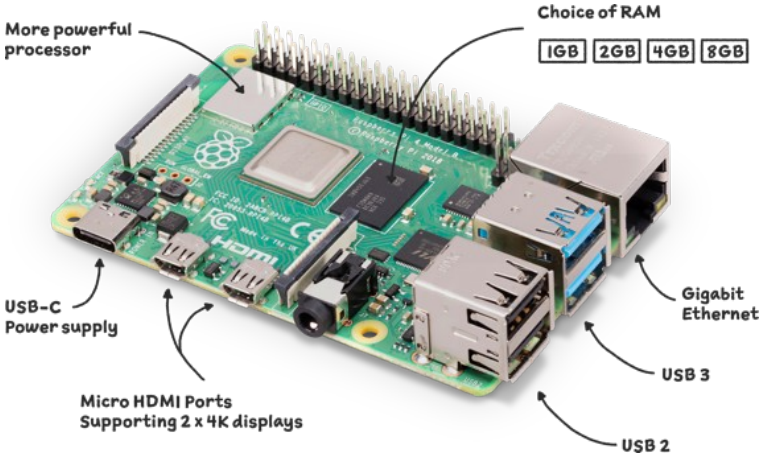
Jim Stekas - K2UI

The goal of the Raspberry Pi development team was to develop a low cost computer platform that would open the world of robotics and DIY electronics to school children. The first generation Raspberry Pi, released in 2012, delivered an 800 MHz 32-bit CPU with 512 MB of RAM in package the size of a deck of playing cards for $35. This was comparable to the specs of the Dell Dimension 4100 tower I used every day.

The RPi-1B (right) had an HDMI interface as the main display interface, as well as composite video and audio output. Two USB ports supported a keyboard and mouse and an ethernet port provided LAN connectivity. A header allowed easy connection to general purpose I/O ports for interfacing to external hardware. Best of all, it ran a full blown Linux OS from a Micro SD card.

Price and features proved irresistible. I bought two boards and was blown away by the power of the the first RPi, but it was not without its warts. The USB interface was problematic. Drivers supported only a limited subset of USB devices and my wireless Microsoft wireless keyboard and mouse was not supported. A powered USB hub was added to add a few more ports without overloading the 5V supply. The display on my HDTV was impressive, but response was too sluggish to use as an interactive desktop computer. Those two boards are still waiting to find something useful to do.

Since its initial release the RPi has gone through multiple generations of hardware and software releases. A year or two ago I acquired a RPi-4 with a 1.5GHz 64-bit quad-core ARMv8 and 4GB of RAM for about $60. Two micro-HDMI ports provide for display(s) and two USB-2 and two USB-3 ports provide external interfaces. Networking is supported by WiFi and 1Gbps ethernet interfaces.



The Rpi-4 with a wireless keyboard and a small HDTV makes a very acceptable personal computer.

The RPi uses a MicroSD as a disk drive for the OS and data storage. Faster is better when it comes to SD cards, and fortunately they are pretty cheap. A few weeks ago I bought three fast 64GB Samsung MicroSD cards for just $10 each.

Many specialized OS loads are available for download: standard RPi OS, various ham loads, media servers, etc. The MicroSD cards make it easy to switch between multiple OS's. (There is even an embedded Windows load available for those with a masochistic tendency.)

Recently I visited Amazon to review my orders and look up the specs of RPi-4 boards I bought. I was shocked to find the current sales price for a 4GB RPi-4 I got for $60 is now priced at $180+! The price on Adafruit is only $55, but they are out of stock on almost every version of RPi.

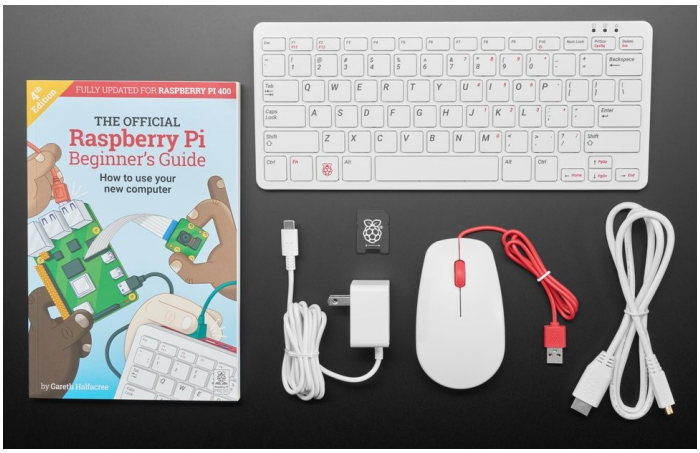
Poking around I discovered the existence of something new, the Raspberry Pi 400, described as a "computer in a keyboard". The RPi 400 is a Raspberry keyboard with a built in 4GB RPi-4-ish single board computer with and elongated form factor.

The keyboard has the look and feel of an Apple Bluetooth keyboard. The back of the keyboard has, from left to right, a GPIO header, MicroSD card socket, two micro HDMI ports, a USB-C power input, two USB-3 and one USB-2 port and a Gigabit ethernet port. Wireless interfaces for IEEE 802.11b/g/n/ac and Bluetooth 5.1 are also included.

The RPi 400 ships with a USB mouse, 5V power supply (USB-C), micro-HDMI to HDMI cable, 16GB SD card with OS installed, and a very nice Beginner's Guide.

The entire RPi-400 system sells for $100 and is in stock on Amazon and Adafruit! A stand-alone RPi-4 with case, keyboard, mouse, power supply and HDMI cable will cost more than twice that.

It was an offer I couldn't refuse, so I pulled the trigger and ordered from Amazon. Shipping estimates were 1-2 weeks, but the box shipped from NJ and arrived in only two days. Installation is trivial. Just plug the cables into the matching sockets and power up.



I have an old 1024x768 LCD display (two in fact) so I bought an HDMI-to-VGA adapter and the display works fine with the RPi-400. It's just like running Linux on my Dell tower. But without the tower.