

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 53 NO. 10 November 2020

Regular Meetings

**Second & Fourth Mondays
“ZOOM” until we can all
get together again
11/9 & 11/23**

Upcoming Events

**Digital Net Mondays at 9:00 PM
PSK on 80 or 10 meters
CW training Net, Thursday at 9:00 PM
Watch for Email announcements.**

Meeting Schedule

Regular Meeting: 7:30—9:00 PM
2nd & 4th Monday
of each month at the
New Providence Hall
Elkwood Ave. NP

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 2018

President: W2PTP Paul Wolfmeyer
201-406-6914
Vice President: K2GLS Bob Willis
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
First & Third 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

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Editor: K2EZR Frank McAneny
Contributing Editors:
WB2000 Rick Anderson
W2PTP Paul Wolfmeyer
K2UI Jim Stekas

Climatological Data for New Providence for September 2020

The following information is provided by
Rick, WB2000, who has been recording daily
weather events at his station for the past
39 years.

TEMPERATURE -

Maximum temperature this September, 82 deg.
F (September 3)
Last September (2019) maximum was 84 deg.
F.
Average Maximum temperature this September,
73.9 deg. F
Minimum temperature this September, 40 deg.
F (September 22)
Last September (2019) minimum was 51 deg. F.
Average Minimum temperature this September,
58.6 deg. F
Minimum diurnal temperature range, 8 deg.
(73-65 deg.) 9/29
Maximum diurnal temperature range, 28 deg.
(68-40 deg.) 9/22

Average temperature this September, 66.3
deg. F
Average temperature last September, 66.1
deg. F

PRECIPITATION -

Total precipitation this September- 3.64"
rain.
Total precipitation last September- 1.64"
rain.

Maximum one day precip. event this September
-
September 29, 1.25" rain
Measurable rain fell on 8 days this Septem-
ber, 9 days last September.

YTD Precipitation - 33.71"

=====
Rick Anderson
10/20/2020
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.

President's Column October 2020

As, I did at our first October ZOOM meeting let me report out on our October Officers Meeting. I wrote in my column last month that I wanted to discuss with the officers and hear your input on how we were doing in NPARC dealing with the pandemic. Should we be doing things differently?

I got little input in response to the column. The officer's met October 5th and, with some tweaking, concluded we should "stay the course". At the first October ZOOM, that approach seemed to be affirmed by meeting attendees. More specifically,

Meetings—keep going with ZOOMs. We'll try for a "you tube" if a "live" speaker is not available. (Let me know if you have a program to offer.) We don't see any options for in-person meetings. The NP meeting space we were using is not big enough to have social distancing. (Those of us who have organizations who previously met in municipal space, churches, VFWs, etc are not finding either willingness and/or ability to meet the Governor's assembly requirements to resume meetings.) We'll try to change style a bit on the ZOOMs—less "round-robin", maybe add "show and tell" as an opportunity to share—as we did at the second October ZOOM meeting.

Auction—don't think we can safely do it in February indoors. Let's collectively think about an outdoor auction when the weather would be warmer.

Field Day—we expect it to be like this year—perhaps a bit more liberal in terms of very small groups. Perhaps we can have some folks who can't operate from home join with one or two others. We'll see what evolves.

Banquet—already deferred until Spring, we are wondering about that, even. We DO plan to do "awards" and recognition at our December ZOOM meeting. Let me, or an officer know of any recognition candidates.

All of this requires us to keep our ears to the ground and staying flexible!

Elections are coming up. **Give any candidate suggestions to Tim Farrell KD2EKN.** Sam has decided not to run again for Activities Chairman so that is a particular position without a candidate. Other officers have agreed to another year, but other nominations are welcome.

Speaking of programs: Thanks to Brian KA2MPG for some good youtube suggestions, Bob K2GLS ran two on 5G (which I found really "hit the spot" for me, but some thought a bit controversial.) At the second October meeting we saw the start of mobile telephone service; I enjoyed the old cars and seeing mobile telephone installations that I had as an AT&T district operations manager in the 70's.

Upcoming events:

November 9 ZOOM #14 Bob Willis K2GLS on Kwajalein (he was deployed there by Bell Labs in the late 60s).

Thanks to Dave K2YG, Al K2AL, and David KC2WUF for running the great weekly nets.

Please participate!! Call us if you need help getting on them. Bob K2GLS just helped me test out "fldigi" so I think I can get back on the digital net again!

Finally, dues are still \$20—you can send your renewal check direct to Dave Barr, our treasurer, at 29 Montrose, Summit, NJ 07901-01556.

So stay safe...the next ZOOM meetings are November 9 and November 23--hope to see you...

73

Wolf W2PTP

201-404-6914 or W2PTP@arrl.net

Audio CW Filtering Jim Stekas - K2UI

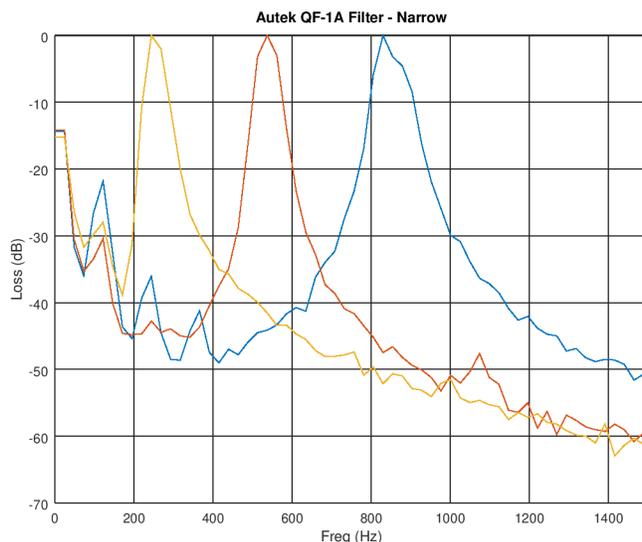
Many years ago I acquired a non-working IC-720A at a local hamfest. Getting it working involved straightening a bent pin and reconnecting a few dangling wires. The rig was a great performer, and its close in dynamic range put it high up on Sherwood's receiver list, two slots below the IC-7600 and three slots above the JRC NRD-515. Not bad for a 40 year old rig.

While performance of the 720A is outstanding its ergonomics are stone age. So I replaced my 30 year old tank with a more modern 10 year old IC-718. My first purchase from QTH.com.

The IC-718 is a very basic rig with simple controls and all the features you need for casual operating. No need to pour over a 200 page manual to figure out how to change the CW sidetone frequency. My rig came equipped with an oven controlled reference oscillator, DSP notch-filter, voice synthesizer (the previous owner was blind), and an InRad 2.8 kHz crystal filter. Unfortunately, the IC-718 has room for only one additional filter, and the InRad is soldered into that slot.

Operating CW with an SSB filter gets old pretty quickly. Even in the absence of QRM, the background hiss is annoying and tiring. Before performing the surgery required to install a \$100 CW filter I figured I would try audio filtering.

The Autek QF-1A (right) is a simple analog filter using OP amps that received very good reviews, better than many of the DSP based alternatives. When a clean one came up for sale at a reasonable price on QTH.com I pulled the trigger.

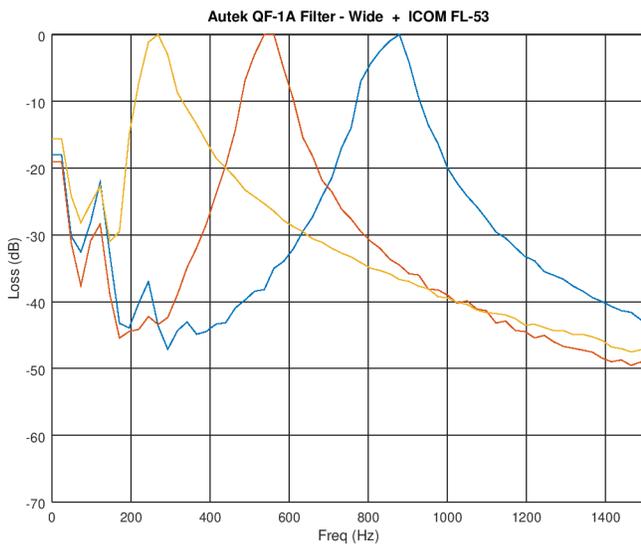
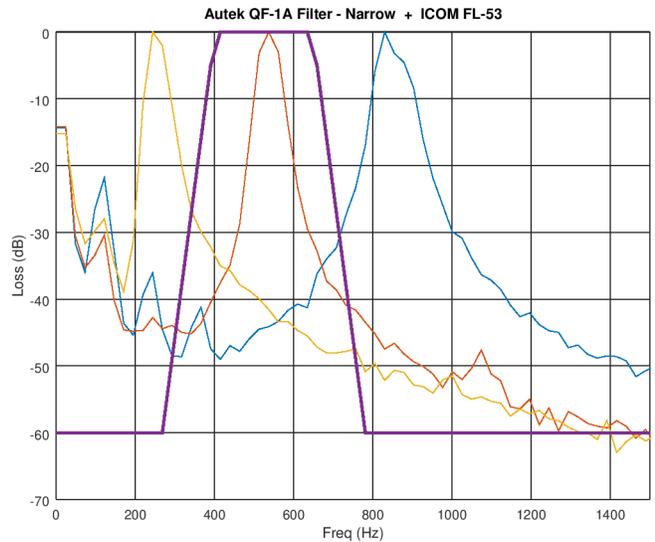


The figure at left shows the QF-1A filter response at three different frequencies for the narrowest bandwidth (~250 Hz) setting in Peak mode.

The skirts are fairly broad, but annoying broadband noise out of the passband is strongly suppressed. Note that the bandwidth scales with frequency, which is similar to the way the ear works.

The sound of the filter reminds me of the Q-multiplier on my HQ-110 receiver.

The ICOM FL-53 CW filter (250 Hz) has much better stopband performance than the audio filter. More importantly it will suppress IMD products from signals outside the passband. By the time signals reach the audio stage of a receiver the IMD products are already present and audio filtering can't remove them.



At left is the filter response of the QF-1A for the wide bandwidth setting in Peak setting mode. Not as good at suppressing QRM as the narrow setting, but effective at eliminating background hiss.

The ideal receiver will have narrow bandwidth filtering as early in the receiver chain as possible to remove unwanted signals before they get the chance to produce IMD products. Audio filtering is no substitute for crystal roofing filters and 8-pole IF filters, but it can provide useful selectivity.

The audio stages of ham receivers don't always get the attention they deserve. Noisy audio stages can add noise back into frequencies that had been blocked by the IF crystal filter. An audio filter is the only option to suppress noise generated in the audio stages of a receiver short circuit modification.