# 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. 12 Dec. 2022

<u>Regular Meetings</u> Second & Fourth Mondays 1/9 & 1/23

# **Upcoming Events**

Digital Net Mondays at 9:00 PM PSK on 80 or 10 meters CW training Net, Thursdays at 9:00 PM

	Climatological Data for New Providence for
Martha Caladda	November 2022
Meeting Schedule	The following information is provided by
Regular Meeting: 7:30-9:00 PM	Rick, WB2Q0Q, who has been recording daily
2nd & 4th Monday of each month	weather events at his station for the past
Watch for Emails	43 years.
<b>Everyone is Welcome</b> If a normal meeting night is a holiday	TEMPERATURE -
If a normal meeting night is a holiday, we usually meet the following night. Call one of the contacts below	Maximum temperature this November, 75 deg. F
or check the web site	(November 5)
	Last November(2021) maximum was 63 deg. F.
Club Officers for 2022 President: W2PTP Paul Wolfmeyer	Average Maximum temperature this November,
201-406-6914	55.7 deg. F
Vice President:W2EMC Brian DeLuca 973-543-2454 Secretary: K2AL: Al Hanzl	Minimum temperature this November, 21 deg. F
908-877-5071	(November 21) Last November(2021) minimum was 26 deg. F.
Treasurer: K2YG Dave Barr 908-277-4283	Average Minimum temperature this November,
Activities: KC2OSR: Sam Sealy 973-462-2014	38.6 deg. F
	Minimum diurnal temperature range, 9 deg.(64
— <b>On the Air Activities</b> <u>Club Operating Frequency</u> 145.750 MHz FM Simplex	-55 deg.)11/1;(33-24)11/20 Maximum diurnal temperature range, 23 deg.
	(74-51 deg.)11/7; (55-32)11/30
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	Average temperature this November, 47.2 deg.
Digital Net	Average temperature last November, 42.7 deg.
Mondays 9 PM 28,084 — 28,086	F
28,084 — 28,086 Will be using PSK and RTTY Net control K2YG	PRECIPITATION -
	Total precipitation this November- 3.23"
Club Internet Address	rain
Website: http://www.nparc.org Webmaster KC2WUF, David Bean	Total precipitation last November- 1.02"
Reflector: nparc@mailman.qth.net Contact KC2WUF, David	rain; 0.1" snow
	Maximum one day precip. event this November-
MOUNTAIN SPARK GAPS	
Published Monthly by NPARC, Inc. The Watchung Mountain Area Radio Club	November 30, 1.00" rain. Measurable rain fell on 10 days this Novem-
P.O. Box 813	ber,9 days last November.
New Providence, NJ 07974 ©NPARC 2010 All Rights Reserved	
Editor: K2EZR Frank McAneny Contributing Editors:	YTD Precipitation - <u>42.07"</u>
WB2QOQ Rick Anderson W2PTP Paul Wolfmeyer	Note: Do to being hospitalized between 11/9
K2UI Jim Stekas	and 11/18, some data has been estimated,
	based on local reporting stations.
	Rick Anderson
	12/19/2022 243 Mountain Ave.
	New Providence, NJ
	(908) 464-8911
	rick243@comcast.net

J

# **Prsesidents Column**

#### Reflections on Six Years--2017-2022

So what has NPARC done and where has it gone in six years? Location changes and the pandemic have been the impediments to overcome, but **we have persevered** with meetings, programs, auctions, field days, holiday luncheons, and camaraderie...

Auctions: in 2017 we were at New Providence High School on a Friday evening; we moved to Saturday afternoon with solid attendance. Then a scheduling problem forced a change to Salt Brook School. We had great cooperation from the school and, after skipping a year for the pandemic, we are still there. Joe Reid K2JAO has continued as our Master Auctioneer! As usual, club members have willingly stepped up to fill the many other roles.

Field Days: We keep going at Governor Livingston HS, except for two years due to the pandemic. Again volunteers made set up and tear down go quite fast. I like to say I'm getting too old for this, but offering the opportunity for new and recent hams to actually get on the air is my main "driver". And we've had successes in that direction, although more is desired. We do well in results, benefitting too from bonus points. Securing the location has had its "hiccups" but we seem to be on a positive roll. Meetings: We liked the NP Senior Center; it worked well with comfort and a kitchen for coffee. But, reportedly, neighbors didn't like any evening meetings there. So we moved to NP municipal space and then the pandemic hit…so it was off to ZOOM, which held us together through the pandemic. In my view, it was a great way to connect when we couldn't be together in person. Now we're at Salt Brook once a month, with a hybrid option, and ZOOM for the second meeting. Not as comfy as the Senior Center, but we can be together.

Programs: We had a strong variety of youtubes for a year or so with some great member programs thrown in. Where the pandemic and ZOOM actually helped us was with some of the "premier" programs that Sam KC2OSR arranged: Bob Heil, Gordon West, Tim Duffy, and Vice Admiral Scott Redd (thanks to Heather KD2VZA). So programs have been solid: thanks Sam KC2OSR! Other Activities: Bringing in youth is a tough challenge. We had good Kids Days before the pandemic and a special Makers Day at the NP Library in 2019—Kevin N2TO was a "star" working with youth on Morse Code! And we tried our hand at Fox hunting in 2018.

Holiday luncheons: Popular with the membership—thanks to the Kerns for arranging them. We missed one year, due to the pandemic but that year we had our awards on ZOOM with even "real" awards, like ARRL handbooks.

Club administration: We did some cleanup of our by-laws, particularly on membership processes, and got electronic meetings into the bylaws. And we introduced budget management again. Membership: We named three Honorary Life Members: Barry K2JV, Guy K2EFB (SK), and Bill W2UDT. Sadly we mourned the death of some members and former members: Jim Brown, Jon Paw-lik, Andy Stillinger, Guy Brennert, and Sister Irma. We remember their friendship and contributions to. As always, our members have stepped up to help each other on operating, equipment, activities (like the auctions and field days), and just being good friends. Members: our great asset! Well, I probably missed some things in "wrapping up" the years. We have tried to stay-the-course and adapt to the virus situation as best we could. I'd say we did pretty well.

Thanks to those who have served as officers, to K2EZR for the Spark Gaps, to KC2WUF for the website, and to all of you members! 73 and Best Wishes, Paul Wolfmeyer W2PTP w2ptp@arrl.net 201-404-6914

#### 2022 NPARC AWARDS

Congratulations to the following members who were honored at our annual Holiday Luncheon on December 3 at the Vintage Tavern in Gillette.

#### 2022 Ham of the Year

Awarded to N2TO, Kevin Glynn

Kevin has contributed his time and expertise as Station Manager for NPARC Field Day, has been active operating in the "Parks on the Air (POTA)" event and has been a mentor to youth at our Club programs.



# 2022 Wouff Hong Award

Congratulations to KC2HLA, Hillary Zaenchek, for being awarded this year's prestigious Wouff Hong Award. Hillary has served the Club as an officer, has been active in ham licensing instruction and testing events and has been a steady participant in our Field Days and other events over the years.



K2AL

# Using fldigi With Multiple Rigs on Raspberry Pi Jim Stekas - K2UI

NPARC members use a wide variety of different rigs, antennas, logging programs, and computer operating systems. But when the NPARC digital net meets on Monday evenings everyone checks in using *fldigi*. Configuring a rig and *fldigi* for digital operations can be pretty frustrating, but with some help from NPARC members we all have gotten through it. Members run *fldigi* on Windows, the Raspberry Pi, or both.

Up until recently, I logged into the digital net with my IC-7300 connected to *fldigi* on the Raspberry Pi. I had *fldigi* and *flrig* icons on my desktop to start up in digital mode. When my IC-7610 arrived my goal was to get it running on *fldigi* without stepping on the IC-7300 configuration. After a bit of hacking I now have desktop *fldigi* icons for both rigs. What follows is a description of the steps to be taken to run a second rig with *fldigi* on your Raspberry Pi.

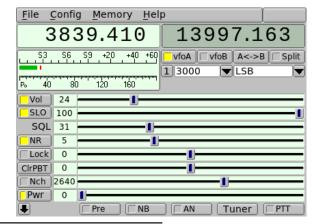
By default, *fldigi* stores configuration info in the directory ~/.*fldigi* and *flrig* stores configuration info in the directory ~/.*flrig*<sup>1</sup>. To add a another rig we open a terminal window and create two new configuration directories<sup>2</sup>:

\$ mkdir .fldigi-7610 .flrig-7610

We begin by configuring *flrig* using the .flrig-7610 directory to store the configuration. In a terminal window type :

\$ flrig --config-dir .flrig-7610

In the **Xcvr** tab select the rig and configure as you would if it was the only rig you have. (Consult the web and fellow club members for help if you need it.)



[					
Rig: IC-7610	Retries 4 4 2 DB				
Ser Port //dev/serial/by-id/usb-S	i 🔻 Retry intvl 🕊 🚺 50 🕨				
Baud: 115200	Cmds 4 5 DW				
✓ 1 2 -StopBits Poll intvl ◀ 200 )					
✓ Echo	Byte intvl 🕊 🌒 🕨				
PTT via CAT      RTS/CTS	0x98 CI-V adr Default				
○PTT via RTS					
OPTT via DTR ♥DTR +12 v	USB audio				

Xcvr Trace TCPIP PTT Aux Poll Send Cmds Restore Close

If your settings are correct, pressing **Init** will bring up controls for your rig. (See figure at left.)

Press the **PTT** button and verify that your rig goes into transmit mode.

Exit *flrig* and it will write the configuration preferences to the directory *.flrig-7610* .

1 Remember, ~ is an abbreviation for the home directory */home/pi* .

2 Pick directory names that incorporate the name of the rig they apply to.

Now it is time to setup <i>fldigi</i> . Type the following c	ommand into a terminal window:
<pre>\$ fldigiconfig-dir .fldigi-76</pre>	10
When <i>fldigi</i> opens, you will be forced to enter configuration information. Click <b>Next</b> and enter your operator info. ====================================	Station / Operator Station Callsign: K2UI Operator Callsign: K2UI Operator Name: Jim Antenna: OCF Station QTH: Murray Hill, NJ Station Locator: FN20 State New Jersey V NJ County Union VIIO
Fldigi configuration wizard – 🛛	Clisie Next
Audio	======= Click <b>Next</b> again and select the sound ard(s) handling the audio to/from your rig.
OSS     Device:       ♥ PortAudio     Capture:       USB Audio CODEC: - (hw:1,0)       ♥ PulseAudio       Server string:       ● File I/O only	
Device supports full duplex     Sclose State     Action	
Click Next again and soloct firig for transcoiver	Fldigi configuration wizard – 😣 ig rig RigCAT Hamlib Hardware PTT GPIO
	firig is the preferred method of tranceiver control  Finable firig xcvr control with fidigi as client  firig xmlrpc server parameters these controls are mirrored on the IO configuration tab  127.0.0.1 Addr 12345 Port Default Reconnect  "Disable PTT keys modem if multiple instances of fidigi (client) are connected to a single firig (server).  Firig PTT keys modem
	[
Step through the other configuration menus and clie	ck <b>Finish</b> when you are done.

Once you finish the mandatory configuration items, the main *fldigi* screen will open. Now we will configure *fldigi* to automatically start *flrig* so that it uses the configuration directory we setup above. Operator UI Waterfall Modems Rig Audio ID Misc Web Autostart IO PSM Select Configure⇒Rig Control⇒Autostart Auto start programs with fldigi Enable Test flrig: flrig --config-dir .flrig-7610 Locate ۲ In the *flrig* slot enter: flamp: Locate Test flrig --config-dir .flrig-7610 flnet: Locate Test fllog: Locate Test and check the Enable checkbox. Prog 1: Locate Test Finally click **Save** and **Close**. Prog 2: Locate Test Prog 3: Locate Test Restore defaults Save Close The last step is to create a Desktop icon to fire off *fldigi* (and *flrig*) when it is selected. In the Desktop directory use a text editor to create a file (Fldigi-7610 in my case) that will become the clickable icon. File Edit Search View Document Help [Desktop Entry] Name=IC-7610 Exec=fldigi --config-dir .fldigi-7610 Icon=fldigi Terminal=false Type=Application Path=/home/pi

Note the following:

- Name= defines the label under the icon on the desktop.
- Exec= defines the program and options that will be executed when the icon is clicked. It is identical to the command entered in the terminal window to configure *fldigi*.
- Path= specifies the directory where *fldigi* will be executed.

When the icon first appears on the Desktop it will be labeled with the filename. It will not have the label defined by Name= until the the next login.

General Permissions		op Entry	elect prop	erties. You should see the the following tabs
2	File: Fl Name: [0 /h de 12 4. 12 12	ldigi-7610 C-7610 home/pi/Desktop lesktop configuration fil 25 bytes (125 bytes) .0 KiB (4,096 bytes) 2/30/2022 08:45 2/30/2022 00:19	е	General information about the desktop file includes the names of the file and icon label. If you started with an <i>fldigi</i> desktop file that was working with your old rig you can use this properties ta to give it a label identifying it.
General Permission: Owner: pi Group: pi Access Control View content: Change content: Execute: Hidden file	s Deskto Anyone Only ow Anyone	vner	•	Permissions should be set as shown on the left.
	fldigico minal emu al window /home/p	v open after command e	OK Browse	The Desktop Entry tab shows the command that will be executed when the icon is clicked. It should match the Exec= field in the desktop file. The working directory is as specified in the Path= field in the desktop file.

At this point the desktop icon can be used to fire off *fldigi* with the new rig.

### **Caveats and Tips**

- If your rig provides an internal USB sound card, starting *fldigi* with the rig off or the USB cable unplugged will likely break the sound card configuration leaving *fldigi* configured for the default analog audio.
- The above situation will also break the *flrig* configuration, leaving the Serial Port set to NONE.
- With the configuration described here, *fldigi* starts *flrig* automatically. But exiting *fldigi* does not terminate *flrig* so you will need to exit both programs separately.