President's Corner

In May we has another successful TAPR presence at the 2025 Hamvention. We talked with many of you at the booth or one of of our events or just walking around the fairgrounds.

This year we have been featuring several projects. We had a TAPR Forum presenting developments. Speakers were myself, Dave Larsen, KV0S, and Paul Elliott, WB6CXC, TAPR Vice-president and owner of Turn Island System (https://turnislandsystems.com).

I covered some of the history of the developments using ka9q-radio, wsprdaemon and simple hf usb receivers to create wonderful hf propagation monitors that are being used by our friends in HamSci. Paul has been developing a set of small peripherals to improve the basic receiver. He has also developed an eight-channel multiband FST4W/WSPR transmitter (see his website if you want more details). The talks were recorded and they are posted on YouTube (https://www.youtube.com/watch?v=MtshxuryHlc&list=PLMHGu3dyFovYjflC50bOQh2dRYqHvZkEc).

We are continuing developing with Phil Karn, KA9Q, and ka9q-radio nd Rob Robbinett, AI6VN, Wsprdaemon (http://wsprdaemon.org) and to produce new tools. We have a weekly Monday night Zoom call on the HamSci server to discuss these developments. Also we hosted the TAPR/AMSAT Banquet this year and had Phil Karn, KA9Q, as the speaker. He reviewed his participation in Ham Radio and how that lead to ka9q-radio.

We are maintaining many of the basic projects in our store. We are planning to continue to serve you via our webstore.

73, Dave Larsen, KV0S

###

TAPR is a community that provides leadership and resources to radio amateurs for the purpose of advancing the radio art.

Call for Nominations

Three Director positions on the TAPR Board of Directors are now open for nomination and nominations may be submitted now.

TAPR Board members serve three-year terms and their responsibilities include:

1) Attendance at both in-person board meetings each year. [One is held at the Hamvention in May, the other at the Digital Communications Conference (DCC) in September.]

2) Regular participation in the continuous board session, which is conducted over the Internet.

3) Active engagement in TAPR's management.

To place a person in nomination, please remember that he or she must be a member of TAPR. Also, confirm that the individual is willing to have his or her name placed in nomination. By October 25, 2025, send that person's name (or your own if you wish to nominate yourself), call sign, mailing address, e-mail address, phone number(s), and a biographical sketch (250 words maximum) via contact@tapr.org or via snail mail to TAPR, 1 Glen Ave., Wolcott, CT 06716-1442. Nominations can also be made during the October 25th Annual Membership Meeting via Zoom.

An online election will be held from November 8 to November 21, 2025.

###

2025 Membership Meeting

TAPR's Annual Membership Meeting will be held via Zoom on the afternoon (EST) of October 25, 2025. At the meeting, TAPR officers will discuss the current and future state of the organization and will answer questions and comments from the membership.

Information on how to access the meeting will be posted on our website approximately one week before the meeting.

###

TAPR Forum on YouTube

The 2025 TAPR Forum at Hamvention may be viewed on YouTube (https://www.youtube.com/watch?v=MtshxuryHlc&list=PLMHGu3dyFovYjflC50bOQh2dRYqHvZkEc).

###

Our booth at Hamvention 2025

Intelligent Protocol 400 (IP400) Network Project

By Steve Stroh, N8GNj

IP400 is a project begun in early 2025 to create a "Packet Radio Revolution of the 21st Century). (That phrase should sound familiar to long time TAPR members.) The "400" refers to the Amateur Radio 400 MHz band (420-450 MHz in most of the US, 430-450 MHz in Canada). IP400 development is sponsored by the Alberta Digital Radio Communications Society (ADRCS). A grant from Amateur Radio Digital Communications (ARDC) has been approved for advanced development of IP400.

IP400 was enabled by a new generation of chipsets for data communications / Internet of Radio Things that made development of IP400 hardware much less complex (though, of course, not without its unique challenges) than previous data radio systems for Amateur Radio data communications.

The two primary features of IP400 are that it will operate at speeds of 100 kbps, minimum, and will incorporate mesh networking technology. There is a roadmap for the development of IP400 that will integrate Orthogonal Frequency Division Multiplexing (OFDM) in the radio (not audio) domain, and a variant that can add IP400 connectivity to typical FM or digital voice repeaters.

The current development of IP400 (late July 2025) is focused on manufacturing early development units and integrating a KISS interface [https://en.wikipedia.org/wiki/KISS_(amateur_radio_protocol)] to allow applications for Packet Radio (such as Bulletin Board Systems, APRS, and many others) to operate via IP400 networks. AX.25 and TCP/IP will be transported via IP400 using encapsulation of those packets within IP400 packets. Two subcontractors named by ADRCS are Praebius Communications Inc. (Calgary, AB) ZUMRadio (San Diego, CA).

Production units of IP400 radios (100 mW, form factor of a Raspberry Pi Zero 2 W) are projected to be available by end of Summer, 2025.

More information on IP400 - https://ip400.adrcs.org

###

HydraSDR RFOne:
New Design Software Design Receiver

By Steve Stroh, N8GNJ

The RFOne is a new Software Defined (SD) Receiver announced in Summer 2025. It has the distinction of being manufactured in the US, and distributed by DigiKey. Its performance is similar to many other SD receivers - 10 MHz bandwidth, tuning range of 24 MHz to 1.8 GHz, but it also has a number of unique features such as a standard metal case, and a custom USB-C to USB-A cable with integral ferrite filters. The case can accommodate a total of three RFOne boards for a three receiver phase coherent unit, though that option is not currently available.

As of the release of the RFOne, software support includes a fork of SDR++ with specific support for RFOne, a GNU Radio driver for RFOne, and SoapyHydraSDR, and other ported applications.

The Tech Minds YouTube channel did a pretty thorough review of this unit -

https://www.youtube.com/watch?v=UvMIeRP8L4s

HydraSDR donated two RFOne units to ZRDC 2025 which were given away to conference attendees.

More information on the RFOne:

https://hydrasdr.com.

###

M17 Challenges and Changes

By Steve Stroh, N8GNJ

M17 is the first, and primary Digital Voice system for Amateur Radio VHF / UHF that is entirely open source. M17 was developed by Amateur Radio, specifically for Amateur Radio. Unlike all the other VHF / UHF digital voice systems in use in Amateur Radio that are based on the proprietary AMBE Coder Decoder (CODEC) technology by DVSI, Inc., M17 uses the open source Codec 2 CODEC (https://github.com/drowe67/codec2).

M17 has been gaining momentum with open source advocates in Amateur Radio interested in experimenting with Digital Voice VHF / UHF including Amateur Radio Over Internet activities and repeaters that are enabled for M17, through the use of Multi Mode Digital Voice Modem (MMDVM) hardware and software.

M17 is now officially supported by the M17 Foundation (https://m17foundation.org) and a new M17 Project website (https://m17project.org).

In mid-July 2025, M17 fans were dealt a setback when the primary developer of MMDVM, Jonathan Naylor G4KLX, removed support of M17 from his MMDVM codebase without warning. Because many / most MMDVM units were configured for automatic updates for new features, bug fixes, and security updates, this had the effect of causing MMDVM systems such as Internet hotspots and repeaters to no longer function with M17.

Naylor eventually explained that he no longer wished to support M17 in his work on MMDVM. For more details, see my story in Zero Retries 0211 -

https://www.zeroretries.org/p/zero-retries-0211

Fortunately, some MMDVM functionality has been restored thanks to the swift action of M17 fans, and especially Michael Clemens DK1MI to develop the WPSD-M17 Community Fork: https://wiki.m17foundation.org/index.php?title=WPSD_M17_Community_Fork

This allows most or all MMDVM units to restore functionality with M17 to allow use of M17 radios to work with MMDVM hotspots and repeaters.

M17 Foundation is sponsoring the inaugural M17 Conference 2025 on September 6th and 7th in Nowy Dwór Mazowiecki, Poland. More information on M17Con 2025 -

https://m17foundation.org/m17-conference-2025/

###

Write Here!

Your *PSR* editor is always working on the next issue of *PSR* and hopes to find a few good writers, particularly ham radio operators working on the digital side of our hobby, who would like to write about their activities and have them published here in *PSR*.
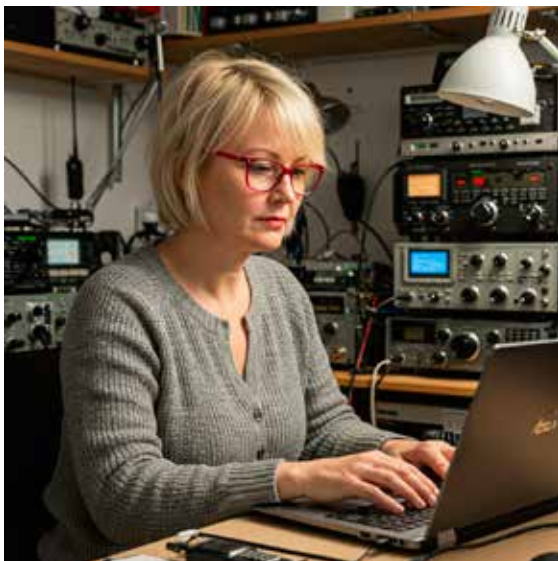
You don't have to be Hiram Percy Maxim to contribute to *PSR* and you don't have to use *Microsoft Word* to compose your thoughts.

Your *PSR* editor can handle just about any text and graphic format, so don't be afraid to submit whatever you have to stanzepa@sbcglobal.net – she can handle it!

The deadline for the next issue of *PSR* is November 15, so write early and write often.

###

On the Net

By Mark Thompson, WB9QZB

Facebook

As you may know, TAPR has a Facebook page, www.facebook.com/TAPRDigitalHam.

However, I also created a TAPR Facebook Group, www.facebook.com/groups/TAPRDigital.

If you have a Facebook account, "Like" the TAPR Facebook page and join the TAPR Facebook Group.

If you join the group, click on the Events link and indicate you're Going to the events.

YouTube

TAPR now has its own channel on YouTube: the TAPR Digital Videos Channel: www.youtube.com/user/TAPRDigitalVideo.

At this time, there are a slew of videos on our channel including many from the TAPR-ARRL Digital Communications Conference (DCC) that you may view at no cost, so have at it!

###

Submission Guidelines

TAPR is always interested in receiving information and articles for publication. If you have an idea for an article you would like to see, or you or someone you know is doing something that would interest TAPR, please contact the editor (stanzepa@sbcglobal.net) so that your work can be shared with the Amateur Radio community. If you feel uncomfortable or otherwise unable to write an article yourself, please contact the editor for assistance. Preferred format for articles is plain ASCII text (OpenOffice or *Microsoft Word* is acceptable). Preferred graphic formats are PS/EPS/TIFF (diagrams, black and white photographs), or TIFF/JPEG/GIF (color photographs). Please submit graphics at a minimum of 300 DPI.

Production / Distribution

PSR is exported as Adobe Acrobat and distributed electronically at www.tapr.org

PSR Editor: Stana Horzepa, WA1LOU

E-mail stanzepa@sbcglobal.net

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Membership Application

TAPR

1 Glen Ave., Wolcott, CT 06716-1442

Phone +1 972 413 8277, Monday–Friday, 9AM–5PM Eastern Time

E-mail contact@tapr.org   URL www.tapr.org

Join or renew online at https://tapr.org/product/tapr-membership

Benefits of a TAPR Membership:
- *Subscription to the quarterly PSR*
- *10% off most TAPR kits and publications*
- *Access to the TAPR digital library*
- *Latest information on TAPR R&D projects*
- *Co-sponsor of the annual TAPR-ARRL Digital Communications Conference (DCC)*

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