Do you have a story, humorous or otherwise, about amateur radio? If so, please contact the newsletter editor (*w8kdb@arrl.net*) and get it published in **FEEDBACK!**

If you would like to place a classified ad to sell, purchase or swap amateur radio related items, please contact the editor.

Board of Directors:

President
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nk2m@arrl.net

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mel1853@hotmail.com

Treasurer
Daniel Whipple, KE8DW

Member at Large
Daniel Pesch, WB8KC

Inside this issue:

Club News

Membership Renews

Just a friendly reminder that Membership Dues are coming up. These can be paid at a Club Meeting (on the 3rd Thursday of every month) or sent in to the Club's PO Box. The amount is still $15.00 for one year, $125 for 10 years, $250 for 20 years, and $300 for Lifetime. Donations to the club can also be sent into the PO Box or taken care of at the Club Meeting.

SMARS
P.O. Box 934
Battle Creek, MI 49016

Other News

Amateur Radio Saves Family in Death Valley National Park

Death Valley National Park is in a remote desert in southern California, where mobile phone networks are spotty at best. On Saturday, April 6, a radio amateur and his family were enjoying the park when their vehicle became stuck in mud in a dangerous area. Without access to a cell network, the ham called for help on the 10-meter band.

According to a news release from the Black Swamp Amateur Radio Club, Caleb Gustwiller, KD8TGB, jumped into action.

Gustwiller was monitoring from Ohio when he picked up the distress call. He was able to hear the call sign and the general location of the ham in distress. He lost the signal to the noise, so he wrote a post in the Parks on the Air® Facebook group asking for other hams to listen for the calls.

Several hams contacted emergency officials in southern California, which led to the ham and their family being rescued within a few hours by park rangers. The club stated in their Facebook post: "Without Caleb hearing this distress call, it could have quickly become a very deadly situation for the operator and his family."

Article courtesy of https://www.arrl.org/news/amateur-radio-saves-family-in-death-valley-national-park

The Most Hackable Handheld Ham Radio Yet

All right, confession time. I don't use my handheld ham radio for much more than eavesdropping on the subway dispatcher when my train rumbles to a mysterious halt in a dark tunnel. But even I couldn't help but hear the buzz surrounding a new handheld, Quansheng's UV-K5.

It caught my attention in part because for over a decade, Baofeng has been the name in Chinese handhelds. In 2012 Baofeng made waves with its UV-5R radio, upending the sleepy handheld-transceiver market. Prior to the 5R, the price tag of the cheapest VHF/UHF handheld was a little north of US $100. The 5R sold for a quarter to a third of that. Hams groused about the 5R's so-so technical performance—and then bought a couple anyway, so they'd always have a radio in their car or workplace.

Now it's Quansheng that's making a splash. The UV-K5, released last year, might be the most hackable handheld ever, with a small army of dedicated hams adding a raft of software-based improvements and new features. I had to have one, and $30 later, I did.

Like Baofeng's 5R, Quansheng's K5 as a radio transceiver is fine. (I'm using K5 here to refer to both the original K5 and the new K5(8) model.) The key technical distinction between the 5R and K5 is a seemingly minor design choice. With Baofeng's 5R, the firmware resides in read-only memory. But Quansheng stores the K5's firmware in flash memory and made it possible to rewrite that memory with the same USB programming cable used to assign frequencies to preset channels.

This feature has opened the door for improvements to the K5 that are well beyond what Quansheng offers out of the box. Hopefully, this design will inspire other radio makers to offer more support for modders, in turn bringing more innovation to the VHF and UHF radio bands.

Quansheng probably thought of its design purely in terms of fixing software bugs or adjusting for regulatory changes—it offers a free install tool for uploading official firmware releases to the radio. But the prospect of an updatable radio dangled an irresistible temptation for folks to start reverse engineering the firmware and hardware so they could try writing their own code. Modifications to date have generally taken the form of patches to the official firmware, rather than wholesale rewrites. With the official firmware taking up most of the radio's 64 kilobytes of flash memory, such mods have to fit into less than 3 KB. And the CPU is not brimming with compute power—it's a 48-megahertz, 32-bit ARM-based processor with 8 KB of RAM. Nonetheless, I found the results impressive.

For example, one mod installs a fairly sophisticated graphical spectrum analyzer: You can adjust the bandwidth, set a threshold for tuning into detected peaks automatically, and specify frequencies to ignore, among other things. Another mod allows you to exchange text messages between K5s. Other mods improve the K5's ability to receive AM signals, meaning you can, say, listen in on aviation bands more clearly. And there are plenty of fun little mods that do things like change up the system fonts or replace the start-up message with a

Upcoming Hamfests & Conventions

04/20/2024
Centreville Michigan Hamfest
Location: Centreville, MI
Type: ARRL Hamfest
Sponsor: St. Joseph County MI Amateur Radio Club

05/04/2024
AC8RC Mini-Swap and Trunk Sale
Location: Dorr, MI
Type: ARRL Hamfest
Sponsor: Allegan County Radio Club
URL: http://ac8rc.org

05/05/2024
Lucas County ARES Trunk Sale & Swap Meet
Location: Toledo, OH
Type: ARRL Hamfest
Sponsor: Lucas County ARES
URL: http://lucasares.org

05/17/2024 – 05/19/2024
Dayton Hamvention
Location: Xenia, OH
Type: Hamfest
Sponsor: Dayton Amateur Radio Association
URL: https://hamvention.org

line-art image of your choice.

Installing many of these mods is ridiculously easy. Normally at this point in a Hands On article that involves hacking some consumer electronics, things get pretty heroic as I futz with the hardware or unravel a software-installation enigma. But not this time.

A modder known as whosmatt has created a Web-based patcher/flasher for the K5 that lets you pick a selection of mods from a menu. It then combines them with the official firmware to create a custom image for uploading (as long as you don't exceed the total amount of memory).

In fact, if you're using Chrome, Edge, or Opera, you don't even need to use Quansheng's installer to upload the firmware: You can update the radio's flash memory directly from the browser via the built-in Web Serial API and the USB programming cable. (The instructions say this will work only on Linux and Windows, but I was able to do it using a Mac as well.) Web Serial could do with some improved error handling, though. The first USB programming cable I used was a bit flaky, but where Quansheng's installer would halt and flag a communications error with a failed upload, Web Serial would silently crash and take the whole Windows operating system with it.

There are even more K5 mods available than are in whosmatt's online patcher. If you want to play with those or start writing your own mods, Python-based toolchains exist to assist you.

Of course, allowing unfettered modding of the K5's transceiver does raise the possibility of abuse. For example, the Quansheng firmware blocks transmitting on the aviation band, to prevent illegal and hazardous interference. But this block can be removed by a patch (although to be a significant threat, you'd likely need an amplifier to boost the K5's 5-watt signal).

However, hams have always had the ability to behave badly, with or without firmware blocks. Such blocks are convenient for guarding against accidental abuse, but the truth is that unless problematic signals are persistent enough to allow a transmitter's location to be triangulated, amateur radio must continue to rely on an honor system, whether that means not jamming a neighbor's TV or transmitting on forbidden frequencies.

Many of the most exciting uses of ham radio today involve digital processing, and that processing is normally done using a computer connected to a transceiver. With embedded controllers becoming ever more powerful, the K5 modding scene points toward a future where more processing happens in-radio and where you can add new functions the way apps are added to smartphones. Here's hoping manufacturers embrace that future!

Article courtesy of https://spectrum.ieee.org/quansheng-uv-k5-hacking

Meeting Minutes 03/21/2024

Meeting called to order at 7:00 PM

Secretary's Report: Motion made to accept, Motion was passed.

Treasurer's Report: Motion made to accept, Motion was passed. $3,007.00 earned after Hamfest.

COMMITTEE REPORTS:
- **Hamfest** – Thank you again team ham fest and Matt especially for a job well done. Branching out community reports ham fest regional convention an ARRL next year Possibility.
- **Skywarn** – Skywarn meeting presentation from JMZ Jim step-by-step of the February 28 tornado and aerial footage of destruction. Also mentioned the seismometer at the reservation detected local activity on March 14 looking forward to hearing more on that. Great presentation. Also Skywarn is looking for some help with nets if anyone is interested contact Bret white.
- **Field Day** – Coming up. Still need to do a site visit and take care of the paper work. Discussion about the state of the trails happened as well, including work we would like to have done when it gets nice out.
- **VE Session** – Upcoming VE session April 25 7 PM United Methodist Church on capital Avenue.
- **Repeaters** – Repeaters all good thanks Don and Matt
- **DSTAR** – Nothing to report
- **POTA** – POTA is on fire with Contacts and activation. on Saturdays at Whitford lake pavilion The Fort.breakfast at Café Tal 8 AM before activation. New prefixes for countries for POTA example. Canada CA United States US Mexico MX

OLD BUSINESS
- Looking to do some sealant on the trailers re-organizing for field day need some TLC and spring cleaning. Hardware for antennas and levelers scissor jacks to be installed with no objections on this. We will put together a team and get her done.

NEW BUSINESS
- New QSO cards are in and look great. Thank you to our anonymous donor for the new cards.
- Again we are so sorry for the loss of Dave W8RDX. He will be missed. A moment of silence was had.
- Coney Island is now open in the evenings just food for thought.

SILENT KEY
- W8RDX – David Smith

Meeting Adjourned at 8:00 PM

Respectfully Submitted,
Melanie Lake, KE8TPQ
SMARS Secretary

Board Meeting Minutes 04/04/02024

Checking $6119.83
Savings $6.94
Upcoming outs $185.85 for diesel or Internet

I'm making a quick note that we would like to see a little more net presence from board members.

Poda 9 AM for activation 8 AM breakfast Café Tal Whitford lake fort custard Battle Creek Michigan.

Field day Gary and Zack will set up a meeting and finalize and walk through Calhoun County Fairgrounds following walk-through we will set up a layout for field day.

Also reminder spring cleaning and set up of trailers team effort Saturday and May get inventory and price list for what is needed for trailers.

Zack to contact Michigan ARRL for invite to field day.

Set up will be Friday, June 21 for field day lunch will be at noon Saturday, 22 June

Also note trailers for field day question on drilling holes or fixing band clamps.

So next meeting will be focused on a field day coming up soon…

New business reminder to also talk about Raffle drawing Zack and Gary will be heading this up.

Respectfully Submitted,
Melanie Lake, KE8TPQ
SMARS Secretary

SOUTHERN MICHIGAN AMATEUR RADIO SOCIETY FEEDBACK

S.M.A.R.S. W8DF Club Repeaters

2m Repeater 146.66MHz, -600KHz offset, CTCSS 94.8Hz

2m DStar 146.79 MHz, -600 KHz offset

*1.25m Repeater 224.240 MHz, -1.6 MHz offset, CTCSS 94.8 Hz

APRS Digipeater/Igate, 144.39 MHz

*70cm Repeater 443.950 MHz, +5 MHz offset, CTCSS 94.8 Hz

70cm DStar Repeater 442.7625 MHz, +5 MHz offset

***Note:** 70cm & 1.25 meter repeaters are linked.

All repeaters are available via EchoLink (70cm and 1.25m are W8DF-R; 2m is W8DF-L)

Other Repeaters

2m Repeater 147.120 MHz, +600 KHz offset, CTCSS 186.2 Hz

70cm Repeater 442.350 MHz, +5 MHz offset, CTCSS 186.2 Hz

Club Meeting	SKYWARN Coffee	BLB Luncheon	SMARS Breakfast
3rd Thursday of every month Maple United Methodist Church 342 Capital Avenue NE Battle Creek, MI 49017	1st Saturday of every month Immediately after Siren Test Coney Island, N.E. Capital Battle Creek, MI	1st Thursday of every month Coney Island, 962 Capital Ave NE, Battle Creek, MI	2nd Saturday of every month Coney Island, 962 Capital Ave NE, Battle Creek, MI

SMARS Nets:
   Monday—Friday 11:30 AM, 146.66 MHz
   Sunday Evening 8:00 PM, 146.66 MHz
   Monday 8:00 PM, 224.24 / 443.95 MHz
   Wednesday 7:00 PM, 224.24 /443.95 MHz
   Wednesday 8:00 PM, 28.365 MHz
   Saturday 8:00 PM, 224.24 / 443.95 MHz

Other Nets:
  Skywarn Net: Tuesday 7:00 PM, 147.12 MHz

Please see previous page for offsets and CTCSS tones

Upcoming Events:

  Club Meeting: April 18th @ 7:00pm
  BLB Luncheon: May 2nd @ 11:30am
  Board Meeting: May 2nd @ 6:30pm
  Club Breakfast: May 11th @ 8:30am
  VE Session: April 25th @ 7:00pm