

The Ham Radio Evangelist

Teaching Ham Radio to Hackers

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January 21, 2025

Bringing Ham Radio to Hackers

- In Spring 2022, I was approached by Justin, N8FCC, Secretary of Ham Radio Village to teach a one-day Tech class at DEFCON. There were about 40 attendees.
- We did this again in 2023 and had more than 50 attendees.
- In May 2023, I retired from ARDC, and that September, I applied for a grant from ARDC to “reach out to engineering, scientific, hacking, maker and STEM/STEAM conferences that we feel would be fertile ground for recruiting radio amateurs.”

Bringing Ham Radio to Hackers

- The proposal requested \$18,000 to send two people to four events.
- One person (i.e. me) would give a talk on amateur radio or teach a one-day Technician class or both.
- The second person was to be a Ham Radio Village volunteer to set up and run a VE test session at the event.
- The grant was awarded to HRV in the fall of 2023.

What is Amateur Radio Digital Communications (ARDC)?

- ARDC is a private foundation whose mission is “to support, promote, and enhance digital communication and communication science and technology, to promote Amateur Radio, scientific research, experimentation, education, development, open access, and innovation in information and communication technology.”
- The history of ARDC goes back all the way to 1981 when Hank Magnuski, KA6M, requested a block of IP addresses for use by licensed amateur radio operators. At that time, there was little demand for these IP addresses, and Hank was assigned the class A 44/8 netblock of 16.7 million IP addresses.



What is Amateur Radio Digital Communications (ARDC)?

- From 1981 to 2011, a group of volunteers informally administered this block of addresses, which was called AMPRNet, then later 44Net.
- ARDC was founded in October 2011 and formally took over ownership and management of the address space.
- Realizing that radio amateurs were never going to use even half the address space, and that this block of addresses was very valuable, ARDC sold the 44.192.0.0/10 block to Amazon in 2019.
- With the proceeds, ARDC established an endowment to fund its grants program. In 2020, ARDC went from being a 501(c)(3) public charity to a private foundation.

What is the Ham Radio Village?

- An organization whose mission is to deliver high-quality and innovative amateur radio-related educational content, hands-on experiences, and license testing sessions online and in person.
- Formed in 2019 to operate the ham radio village at DEFCON.
- Basically, these guys are a bunch of mostly young(er) hackers who are out there promoting ham radio at hacker cons.



Hackers on Planet Earth XV (HOPE XV) - NYC, July 2024

- Organized by the people that publish *2600* magazine, HOPE welcomes hackers of all types: makers, artists, educators, experimenters, tinkerers, and more!
- Held at St. John's University, Queens, New York.
- Wide range of villages, including Anarchist Hackers, Black Girls Hack, Calyx Privacy Village, Car Hacking Village, Dev Kitty Village, Hackerspace Village, Lockpick Village, Physical Security Village, and Script Kitty Village.



Hackers on Planet Earth XV (HOPE XV) - July 2024

- More than 100 attended my talk on Friday, “Ham Radio for Hackers.”
- 25 people attended the one-day Tech class on Saturday. All 25 passed the test.



DEFCON - Las Vegas, August 2024



- Approximately 30,000 attendees.
- 32 villages, including ham radio, wireless, hardware hacking, and soldering villages.
- 90 students showed up for the class on Thursday at the Clark County Library.
- More than 100 attended my talk.
- HRV had approximately 5,000 visitors. 252 exams given, 137 passed, including 85% of those that pre-registered for the class.

JawnCon - Philadelphia, October 2024

- Much smaller event. Maybe 300 - 400 attendees overall and approximately 200 visitors to the ham radio village.
- 15 attended the one-day Tech class.
- Overall, 15 exams were given and 8 passed.



B-Sides Delaware - Newark, DE November 2024

- Even smaller event. Maybe 200 - 300 attendees, with approximately 100 visitors to the ham radio village.
- 25 - 30 attended my talk.
- 5 attended the one-day Tech class.
- 7 exams were given and 2 passed.

What have I learned?

- Hacker cons are very fertile ground for amateur radio. Many attendees already have amateur radio licenses.
- These are the kind of people that we want in amateur radio.
 - They are generally younger than the current ham population.
 - They are interested in doing things, not just yakking on the radio.
- We need to figure out a way to get students more prepared for the class.

What's ahead for the Ham Radio Evangelist?

- New proposal due February 1, 2025
- Philadelphia Maker Faire - April 2025
- I'm hoping to teach at one STEM conference this year.
- I want to teach other HRV people to teach one-day classes.

Links

- Amateur Radio Digital Communications (ARDC): <https://ardc.net>
- Ham Radio Village: <https://hamvillage.org>
- Hackers on Planet Earth (HOPE): <https://hope.net>
 - Ham Radio for Hackers: https://ia800601.us.archive.org/10/items/hope2024/12_Ham_Radio_for_Hackers.mp4.
- DEFCON: <https://defcon.org>
- JawnCon: <https://www.jawncon.org/>

Thanks for your attention!

Questions?