

2022 Annual Report

Amateur Radio Digital Communications



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Letter from the Executive Director



Hello, and welcome!

2022 has come and gone in a flash. Within that bolt of lightning, ARDC had a great year where we got quite a bit accomplished, including:

- Approval of over \$6 million in grants, and distribution of about \$8 million. These helped projects big and small.
- An assessment of 44Net usage, garnering over 1700 responses – WAY more than we thought! The report will be out in early 2023.
- Bringing on ARDC's technical director, Jon Kemper KA6NVY, who comes from decades of engineering management and is already helping us get our systems in order.

On a personal note, 2022 was a year of tremendous difficulty – including two deaths in my immediate family and one near-death. I am incredibly grateful to ARDC's excellent staff, volunteers, and board for ensuring that ARDC flourished in 2022, and to our grantees for making the work worthwhile. It's incredible to see ARDC grow into a small but mighty and resilient team. The lesson: in this work and in this world, we are all in it together.

I am taking this lesson with me as we look forward to 2023, which I expect to be another year of funding excellent projects, while also beefing up our technical resources and support for 44Net.

In the meantime, I hope you enjoy looking back at our accomplishments in 2022.

73,

Rosy

Rosy Schechter – KJ7RYV
Executive Director
Amateur Radio Digital Communications (ARDC)
ampr.org

Cover Photo: Rhizomatic Developers at work. Credit: Rhizomatica





Our support of the 2022 Youth on the Air (YOTA) Camp allowed these young radio amateurs to hone their soldering skills and have a lot of fun in the process.

ARDC Mission

The mission of Amateur Radio Digital Communications (ARDC) is to support, promote, and enhance digital communication and broader communication science and technology, to promote Amateur Radio, scientific research, experimentation, education, development, open access, and innovation in information and communication technology.

ARDC Values

Our staff, contractors, and volunteers strive to uphold the following values:

- Curiosity
- Experimentalism
- Respect
- Accountability
- Openness & Transparency
- Inclusiveness
- Fairness
- Generosity & Gratitude

Read more about our values here: <https://www.ampr.org/about/values/>



2022 Summary



ARDC employees get stuff done and have fun while we're at it! Top row, left to right: Chelsea Parraga KF0FVJ, Grants Manager; Dan Romanchik KB6NU, Communications Manager; John Hays K7VE, Outreach Manager. Bottom row: left to right: Jon Kemper KA6NVY, Technology Director; Merideth Stroh KK7BKI, Operations Manager; Rosy Schechter KJ7RYV, Executive Director.

In 2022, ARDC took some big strides towards fulfilling [our grantmaking goals](#) and fulfilling [our mission](#).

Organizational Highlights

- Our staff grew to include a Director of Technology (Jon Kemper - KA6NVY) and a Technology Management Consultant (Tim Požar - KC6GNJ). Both are welcome additions who are already helping us to beef up our technical capacity.
- [Bob McGwier served his final term as a Board Member for ARDC](#) to pursue some exciting technical projects. We will miss having him around and also know he will not be a stranger!
- We enhanced our internal policies, procedural documentation, and bookkeeping system. These might sound small, but are helpful frameworks that help to solidify our organizational foundation. We look forward to continuing this work in 2023.
- We held two community meetings, in January and July, creating more opportunities for open discussion about our work with the greater ARDC community.



Outreach and Communications

- The ARDC team attended a number of amateur radio events – including HamCation, Hamvention, ARRL/TAPR DCC, the GNU Radio Conference, and the QSO Today Virtual Expo – and expanded our reach into the hacker community by attending DEFcon and the Hackaday Supercon.
- Members of our team appeared on podcasts and YouTube shows, including ICQ Podcast and HamRadio 2.0.
- Our newsletter grew to more than 600 subscribers.

44Net and Technical Advisory Committee (TAC) Work

- With the help of [Two P](#), a network consulting service run by Tim Požar (keep reading learn more about Tim!) ARDC conducted an assessment of 44Net usage, including a survey that garnered over 1700 responses and a couple of excellent conversations with 44Net users, including regional coordinators. The report will be publicly available in Q1 2023.
- The TAC developed an excellent [feature requirements document for portal development work](#), which received praise from the 44Net mailing list. Implementing their plans is a key priority in 2023.

Grantmaking

- ARDC is helping to support development of Hypha, an open source submission management platform used to receive and manage grant applications under funding consideration. Hypha was developed by the Open Technology Fund (OTF) as well as community partners. The application provides a streamlined workflow based approach to the grant review process that is easy to use and secure.
- Volunteers reviewed close to 200 proposals, of which 101 were ultimately funded.
- ARDC awarded more than [\\$8 million](#) to organizations whose projects and programs align with our goals.



A message from our Technical Director



Hello everyone!

As the newest staff member, it has been my pleasure getting to know the ARDC team and community members, including the many volunteers who share a common passion for amateur radio and network technologies. I am excited about working with everyone to help evolve 44Net and other technology initiatives. Thank you all for your continued support!

Warm wishes and 73,
Jon

Jon Kemper – KA6NVY
Technical Director
Amateur Radio Digital Communications (ARDC)
ampr.org

Tech Team

ARDC's technical work would not be possible without our team of contractors, some of whom also sometimes support ARDC's work as volunteers.



Chris Smith, G1FEF, runs our IT through his company, [The Communication Gateway](#). He also, as a volunteer, is in charge of assigning IP address assignments on 44Net.



Tim Požar, KC6GNJ, helps ARDC with IT and network policy through his company, [Two P](#). He also volunteers on various projects, advising on grants and the TAC.

Additional thanks is due to Two P colleagues Matt Peterson K6MPP and Reid Lewis K6BRL for their work on the 44Net assessment. Many thanks are also due to [Open Tech Strategies](#) for their work developing Hypha, an open source grant management system that ARDC is now using to track grant applications.



Technology Work

As we wind up 2022 and transition into 2023, some of the key takeaways are that the 44Net technology remains a valuable resource for enabling amateur radio connectivity and experimentation. It can also require a high level of technical expertise to implement and is not widely known by the amateur radio community at large. ARDC has listened to feedback from both existing 44Net users and the broader ham community. We are addressing these points by working on new methods to lower the barrier to entry, improving documentation, and making additional investments in open source software as well as infrastructure improvements. This will include a new groups.io mailing list, updated Wiki, and an ardc.net website re-launch.

In 2022, the Technical Advisory Committee along with ARDC staff, consultants and 44Net community members, worked together to complete the following efforts:

- A detailed review of the existing 44Net Portal,
- Development of a [requirements specification document](#) for a new 44Net Portal,
- Work on a comprehensive 44Net survey, and
- Identification of initiatives for 2023 TAC work.

For 2023, ARDC and the TAC plans to engage the following projects:

- Development of a new 44Net Portal with administrative features not currently available
- Advancement of community supported 44Net Wiki knowledge base documentation
- A proof-of-concept point-of-presence (PoP) infrastructure initiative for test and research
- Sponsorship of a community sourced 44Net “easy router” concept



Outreach and Engagement

In order to fulfill our mission, it's very important to engage with the amateur radio, education, and scientific research communities. We do this by:

- Sponsoring, attending, and presenting at conferences and hamfests.
- Appearing on podcasts and YouTube channels.
- Issuing press releases.
- Publishing monthly newsletters.
- Conducting bi-annual community meetings.
- Direct outreach to organizations that we'd like to help.

Conferences and Hamfests

Our participation in conferences and hamfests is to increase awareness of ARDC and its activities. A common topic at all of these events has been presentations to outline our grants program and to report out our giving and activities.

We also use these events to meet with our community including current and prospective grantees. It is an opportunity to build relationships with other organizations including, but not limited to, the ARRL, IARU, RSGB, DARC, TAPR, and national/regional societies.

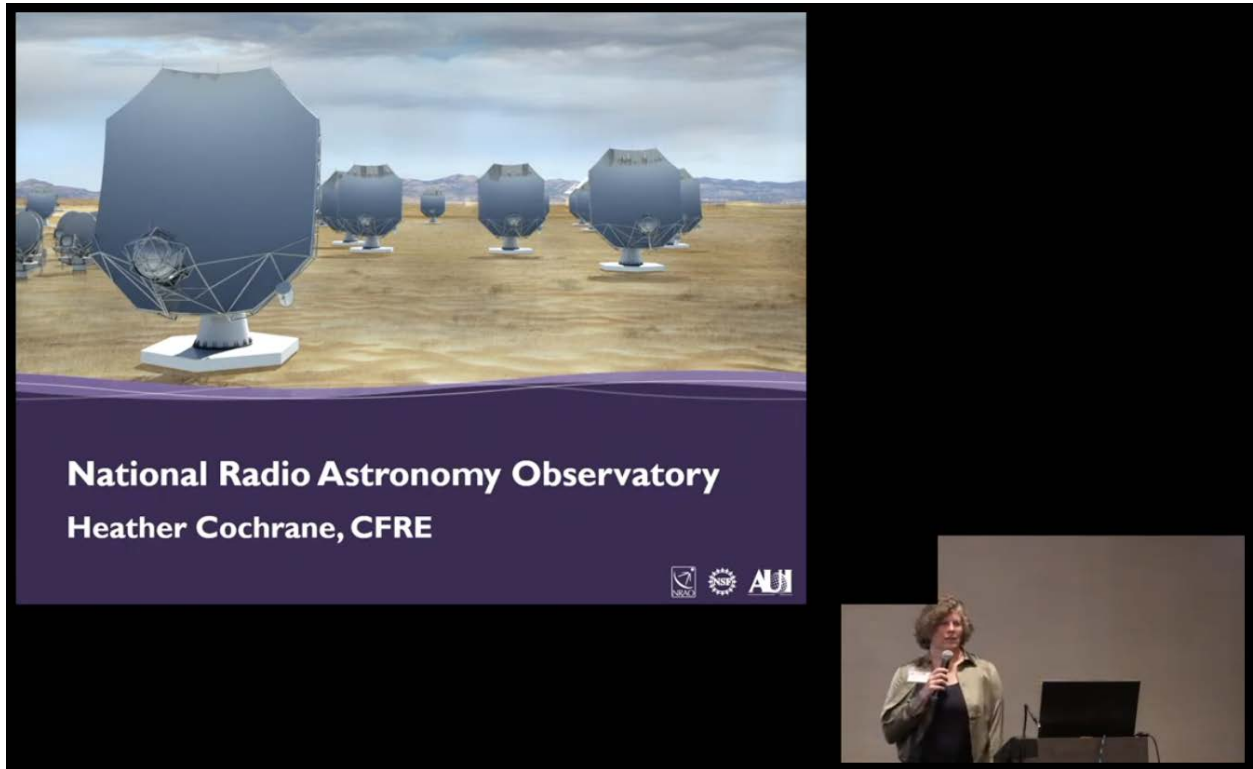
We attended the following events in 2022:

- [HamCation](#) - February in Orlando, FL ❖
- [CubeSAT](#) - April in San Luis Obispo, CA
- [QSO Today](#) - March and September online virtual Hamfest
- [Utah DCC](#) - March in Sandy, UT ❖
- [Hamvention](#) - May in Xenia, OH ❖
- [SEA-PAC](#) - June in Seaside, OR ❖
- [Ham Radio 2022](#) - June in Friedrichshafen, Germany ❖
- [DEFCON 30](#) - August in Las Vegas, NV
- [Huntsville Hamfest](#) - August in Huntsville, AL ❖
- [Northeast HamXposition](#) - August in Marlborough, MA ❖
- [GNURadio Conference](#) - September in Washington, DC ❖ \$
- [TAPR DCC](#) - September in Charlotte, NC ❖ \$
- [Pacificon](#) - October in San Ramon, CA ❖
- [Hackaday Supercon](#) - November in Pasadena, CA ❖
- Hackers Conference - November in Santa Cruz, CA (Private/Invitation Only)

❖ Presentation \$ Sponsor Booth or Table



At the TAPR Digital Communications Conference, we hosted the [Sunday Seminar](#) and had excellent presentations by five of our grant recipients.



Heather Cochrane of the National Radio Observatory (NRAO) spoke at our DCC Sunday Seminar about NRAO and their program to teach young people about the electromagnetic spectrum via amateur radio.

Podcasts and YouTube Channels

We appeared on the following podcasts and YouTube channels in 2022:

- [Ham Radio 2.0](#)
- [Linux in the Ham Shack](#)
- [ICQ Podcast](#)
- [Ham Radio Now](#)
- [Hack-a-Day](#)

Press Releases

Our press releases were published in the following publications:

- [QST, ARRL Letter](#)
- [CQ](#)
- [Amateur Radio Newsline](#)
- [This Week in Amateur Radio](#)



- [QRZ.Com](#)
- [eHam.Net](#)
- Various local news publications

Monthly Newsletters

We published 12 monthly [newsletters](#) and increased the number of subscribers from less than 400 to more than 600.

Community Meetings

We held well-attended community meetings in January and July 2022. Community meetings are held via Zoom. Anyone interested in ARDC's work is invited to attend and discuss what we've been doing and where we are going.

Direct Outreach

Reaching out directly to organizations in the amateur radio, education, open source, and scientific research communities, we solicited grant proposals, many of which have resulted in active grants.



2022 Financial Overview

In 2022, we approved nearly \$6.7 million in grants, and distributed nearly \$7.7 million. This amount feels to us like a healthy average following 2020, where we didn't distribute nearly enough, and 2021, where we were able to make up the difference.

Yearly Grants Distribution		
Year	Grants & Gifts Approved	Grants & Gifts Distributed
2022	About \$6.7 million	About \$8 million
2021	\$9,028,886	\$8,050,000
2020	\$3,199,481	\$3,004,625
2019	\$120,000	\$120,000

What is the difference between approved vs. distributed amounts?

We provide both approved vs. distributed amounts here because some versions of both of these show up on our annual 990-PF as cash vs. accrual accounting.

- **Approved amounts:** These are the amounts of grants that were approved by our GAC and Board. By the end of the year, some of these grants may still be in contracting, but funds may not be distributed until the following year.
- **Distributed amounts:** These reflect the funds that have actually been distributed for payment in a given year. In 2022, some of the grants approved in 2021 were distributed in 2022, which is why the number is higher than the approved amount.

More exact values will be available after we complete our yearly audit and file our 2022 990-PF. For past 990s and financial statements, visit ampr.org/about/legal/. Additional information regarding the foundation's expenses will be available there as well.



Detailed Look at Grants

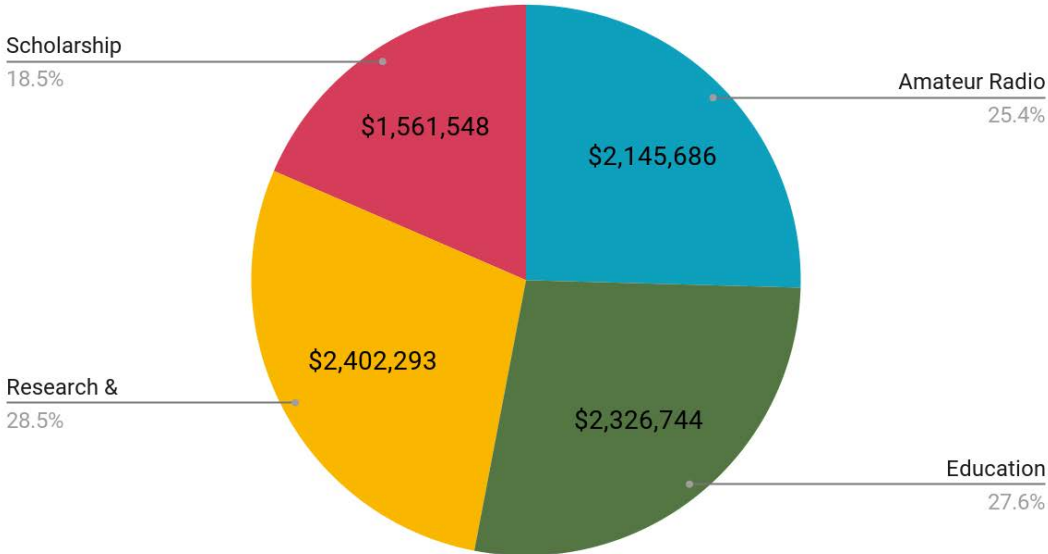
Total grants distributed in 2022: 101
Total amount approved in 2022: ~\$6.7 million
Total amount distributed in 2022: ~\$8 million

More detailed numbers to be provided in our 2022 audit.

ARDC grants now impact over 71,193 people worldwide. You can read full descriptions of all of our 2022 awarded grants [on our website](#). ARDC’s 2022 grants were distributed in four categories: Amateur Radio, Education, Scholarships, and Research & Development.

The below charts show how funded projects are distributed across ARDC’s 2022 Categories.

2022 ARDC Grants By Category - Dollars



Granting Category	Dollars Given	No. Grants	Percent of funding
Amateur Radio	\$2,145,686	47	25%
Education	\$2,326,744	32	28%
Scholarships	\$1,561,548	8	19%
Research & Development	\$2,402,293	14	29%

In 2022, we expanded our international grant making to 13% of our funded projects. This is an increase from 9% of our projects in 2020, and an area where we are aiming for additional growth next year.





Countries impacted by ARDC Grants (2019-2022)

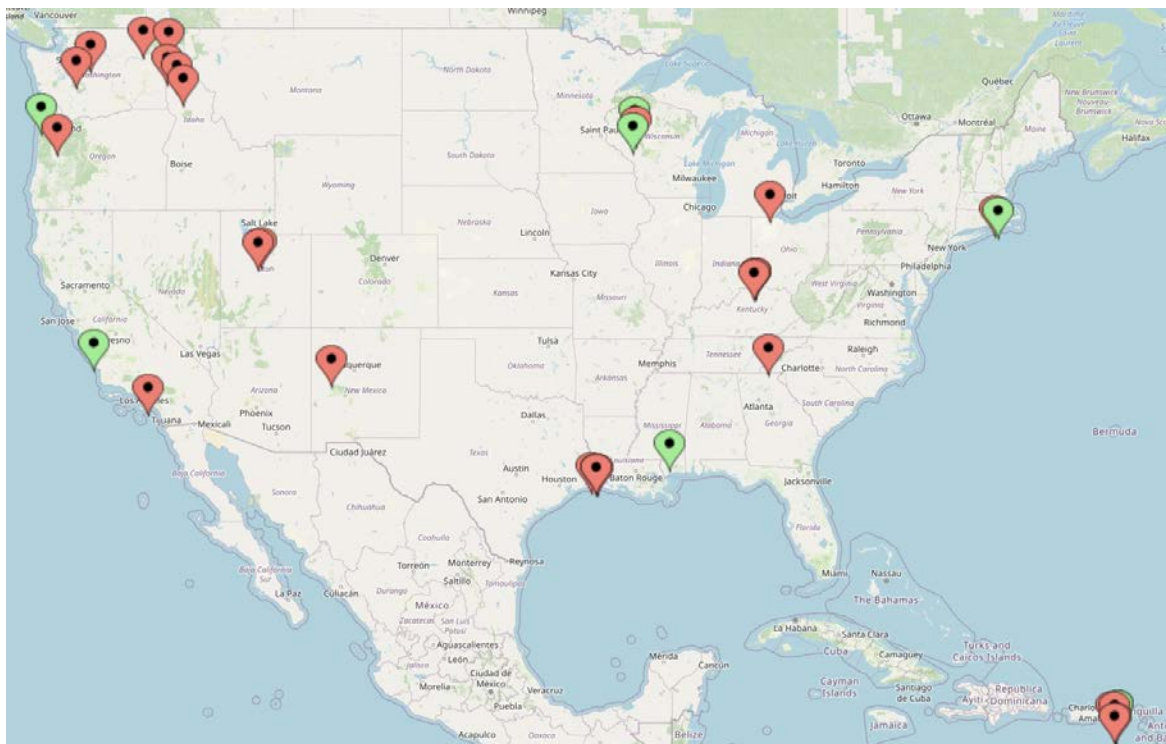
Amateur Radio

In 2022, ARDC made 47 grants in this category, almost half of the total projects funded. These included 9 college amateur radio club projects and 33 community amateur radio club projects. These projects involve things like network build outs, equipment upgrades, and repairs to old equipment. Communications vehicles were especially common to apply for, meaning that they were more competitive and difficult to get funding for.

Clubs often share with us that these projects re-energize their membership and activities. Our reviewers focused on selecting projects with strong outreach plans or opportunities to bring new people into the hobby. Projects with unique approaches and ones that aim for big impact stood out from the crowd. At the same time, we made sure to fund plenty of bread-and-butter club projects to continue to support typical groups enjoying the hobby.

An example of a stand out project is the one proposed by Bay Area Mesh (BAM). BAM's goal is "to install a resilient, high speed, wireless network throughout San Francisco and the greater Bay Area for use during disasters, emergencies, and large community events by responders, volunteers, and served agencies." They're building this network using inexpensive, commercial-grade WiFi equipment running open-source software developed by the Amateur Radio Emergency Data Network (AREDN). Using AREDN software allows BAM volunteers to set up a node with minimal expertise and effort, and because the software configures the network automatically, advanced network technology is not needed.





Repeater repairs and installs remain one of the most commonly proposed and funded ARDC grant projects. Above, newly built repeaters are mapped in green, while repairs and upgrades are mapped in red. Repeater projects pictured are from 2020-2022.

Organization	Grant Amount
Central Michigan Emergency Network - <i>Mi6WAN Project</i>	\$250,945
The University of Scranton - <i>Amateur Radio Station for the New W3USR University of Scranton Amateur Radio Club</i>	\$196,241
Highline Amateur Radio Club inc. - <i>Digital Radio Infrastructure</i>	\$183,229
Pleasant Valley Amateur Radio Club - <i>Ventura County, California Ham Radio Network Expansion/Upgrade</i>	\$154,000
San Francisco Wireless Emergency Mesh - <i>Sierra Lassen Plumas Interoperability Network</i>	\$147,144
Healthcare Community Amateur Radio Club - <i>Portable Stations</i>	\$126,564
Espoo Radio Club OH2CH - <i>Multipurpose Digital Ham Radio WAN</i>	\$99,915
Marin Amateur EmComm Support - <i>North Bay Area Mesh</i>	\$92,000
Boeing Employees Amateur Radio Society - <i>Enhanced Scalable Repeater For Emergency Communications</i>	\$84,362
RICOMU - <i>Rhode Island Emergency Mesh Network and Digital Voice Repeater Network</i>	\$83,000
Healthcare Community Amateur Radio Club - <i>Build and Install a Robust Winlink Network Across Alabama</i>	\$72,382



Tellico Lake Amateur Radio Club - <i>Chilhowee Mountain Ridgeline Tower Replacement</i>	\$64,087
ECE Repeater Group, Inc. - <i>Williams Hill Relay Site</i>	\$46,800
Maine Amateur Radio Foundation Incorporated (MARF) - <i>Maine Ham Radio Mesh Network</i>	\$41,798
Duval County Amateur Radio Emergency Service, Inc. - <i>ARES Auxiliary Communications Unit</i>	\$40,000
RICOMU - <i>Rhode Island Emergency Mesh Network Supplemental, Fire Towers</i>	\$37,700
Michigan State University Amateur Radio Club W8SH/W8MSU - <i>Antenna restoration and equipment upgrade</i>	\$29,237
Bonner County Amateur Radio Club Inc. - <i>North Idaho Repeater Group Antenna System Replacement Project</i>	\$26,150
Northeastern Indiana Amateur Radio Association - <i>Amateur Radio Communications Trailer</i>	\$24,927
New England Amateur Radio, Inc. - <i>Equipment for New England Division RFI Teams</i>	\$23,640
Eau Claire Amateur Radio Club - <i>Connecting, Promoting, Serving, and Educating our Community with Amateur Radio</i>	\$23,516
ECE Repeater Group, Inc. - <i>Simulcast System Upgrade</i>	\$22,801
Salem Amateur Radio Club - <i>Repeater System and Instructional Equipment</i>	\$22,000
Hancock County Government - <i>Project Hancock Connect</i>	\$20,455
Tellico Lake Amateur Radio Club - <i>East Tennessee Repeater Association, Increase Chilhowee Mountain Ridgeline Tower Replacement Project</i>	\$18,645
Providence Radio Association, Inc. - <i>W1OP System Upgrade</i>	\$18,500
Louisiana Delta Radio Club, INC - <i>LDRC Mobile Communications Trailer KC5DR</i>	\$18,493
West Virginia University - <i>The West Virginia University Amateur Radio Club (WVUARC)</i>	\$14,988
University of South Florida Amateur Radio Club - <i>Amateur Radio Club at USF (WB4USF)</i>	\$14,900
University of Notre Dame - <i>Development Tools and Test Equipment</i>	\$14,200
Emergency Communications In Calabasas, a Fire Safe Council - <i>EPIC-FSC Emergency Communications</i>	\$14,106
Northern Kentucky Amateur Radio Club - <i>Southern Area 2M Repeater Coverage</i>	\$13,000
Alumni and Friends of Gator Amateur Radio - <i>University of Florida Gator Amateur Radio Club</i>	\$12,700
Center for Amateur Radio Learning - <i>State of the Art Equipment</i>	\$12,601
Gloucester County Amateur Radio Foundation - <i>Proposal for Funding for Club VHF/UHF Radios and Equipment</i>	\$11,148
Hampden County Radio Association - <i>Amateur Radio Presence and Awareness Raising at the Eastern States Exposition</i>	\$10,000
Lehi Amateur Radio Club - <i>Equipment Upgrades</i>	\$9,664
Montrose Colorado Amateur Radio Club - <i>Club Trailer</i>	\$8,850
Sondehub - <i>Weather Balloon Monitoring</i>	\$8,300



Kay County Amateur Radio Club (KCARC) - <i>Club Revitalization, Experimentation and Growth</i>	\$5,360
University of Michigan - <i>The Efforts to Repair, Improve, Preserve and Advance Amateur Radio Activities at the University of Michigan</i>	\$5,026
Randolph Amateur Radio Club Inc - <i>Increasing Amateur Radio in Randolph County</i>	\$5,000
Navajo Technical University - <i>Navajo Amateur Radio Club</i>	\$5,000
University of Arizona - <i>Digital Modes Education</i>	\$4,304
Lehi Amateur Radio Club - <i>Eagle Mountain Project</i>	\$4,184
Cibola County Amateur Radio Club - <i>VARA FM DIGI REPEATER</i>	\$2,000
Sangamon Valley Radio Club - <i>Proposal for Amateur Radio Direction Finding equipment</i>	\$1,824

Education

In 2022 ARDC made a total of 32 grants in the education category. 72% of our education grants target youth or college students.

Program strategies include publishing children’s books, equipping makerspaces, giving radio astronomy tours, building museum displays, developing curriculum, mentoring programs, YOTA camps, and all kinds of hands-on classes.

Andrew VA7ASI, a teacher at Fernwood Elementary uses amateur radio as a classroom tool. As a classroom, they celebrated YOTA month and made over 100 contacts using FT8 and mapped contact locations. Students enjoyed it so much they plan to return for the event next year. They built an RF connection for AREDN, and are getting other schools and youth groups involved so they all can talk on the air. Our grant is anticipated to impact over 300 students over the next several years at Fernwood Elementary School in Canada. *(Picture on right courtesy of Fernwood Elementary.)*



Education	Amount
Internet Archive - <i>Building the Digital Library of Amateur Radio & Communications</i>	\$889,405
National Radio Astronomy Observatory - <i>Ham Radio in Context</i>	\$315,123
Deep Space Exploration Society - <i>Facility Upgrade</i>	\$299,959
Software Freedom Conservancy - <i>Outreachy</i>	\$200,000



African Community Housing and Development - <i>Summer Intensive: Inspiring African Diaspora Youth with HAM Radio</i>	\$60,492
Deutscher Amateur Radio Club (DARC) e.V. - <i>YOTA Camp in Croatia</i>	\$56,763
Science is Elementary - <i>Jasmine and Jose Build a Radio</i>	\$52,600
Middle East Technical University - <i>An Open-source Software Framework for Teaching and Experimenting Distributed Algorithms on Wireless Networks (AHC)</i>	\$43,200
Southeast Community Development Corporation - <i>SELA Electronic Radio Project</i>	\$36,048
Electronic Applications Radio Service, Inc - <i>Youth on the Air</i>	\$35,566
TOBB ETU University of Economics and Technology - <i>SDR-Powered Education</i>	\$32,059
K2BSA Amateur Radio Association - <i>K2BSA Operations 2023 National Jamboree</i>	\$31,683
New England SciTech - <i>Attracting Youth and Home School Communities to Amateur Radio</i>	\$29,900
Tooele County School District - <i>Space + Radio: Engaging and Youth in Amateur Radio via Kinesthetic Space Related Activities</i>	\$29,640
National VOA Museum - <i>STEM Lab (RADIO PRIMER)</i>	\$25,500
The University of Scranton - <i>Support of Diverse Participation in the 2023 HamSCI Workshop</i>	\$25,245
Western Wayne Schools - <i>Lincoln Middle/High School Amateur Radio Club</i>	\$22,275
Museum of Information Explosion - <i>A State-of-the-Art Operating Position for the Museum of Information Explosion</i>	\$16,495
Texas A&M Foundation AggieSat - <i>Expansion and Equipment Upgrade</i>	\$15,904
Von Braun Astronomical Society - <i>Engaging the Public with Amateur Radio Astronomy</i>	\$14,321
South Mountain Radio Amateur Club - <i>Amateur Radio Educational Program</i>	\$13,452
Spout Springs Repeater Association - <i>Amateur Radio for Kids (ARK)</i>	\$11,859
Artisans Asylum - <i>RF Workstation</i>	\$11,781
Harlan County High School - <i>Amateur Radio Club Grant</i>	\$11,000
801Labs - <i>HF, SatNOGS, and NFC/RFID tools</i>	\$10,911
Radio Scouting, Inc. - <i>Solar Power educational display for Scout Ham Trailer</i>	\$8,000
Illini Solar Car - <i>Illini Solar Car Bridgestone World Solar Challenge 2023</i>	\$6,300
Seckman Middle School - <i>Operation Hamulanch II</i>	\$5,141
Elko County School District Spring Creek Middle School - <i>Amateur Radio Class</i>	\$5,027
Perryville High School - <i>Eagle Scout Project, Radio Communications Kit (RCK)</i>	\$4,095
Fernwood Elementary - <i>HF/ ARDEN station</i>	\$4,000
Case Western Reserve University - <i>Engineering Undergraduate Senior Project Support</i>	\$3,000



Scholarships

In 2023, ARDC is funding 95 scholarships, bringing our all-time total to 313 ARDC scholars. All of our scholarship grants successfully reach at least one underserved group, and most of our funded programs make selections based off of a mix of need and merit. Many students write to us to let us know that they would not be able to attend college without scholarship assistance.

As one example, Washington Women In Need (WWIN) is managing 13 ARDC scholarships for women pursuing degrees in STEM. These women are often first-generation students and mothers. In addition to the scholarship funds, participants in the program are provided career coaching, access to workshops, and networking opportunities to help them transition from students to high wage earners.

Pictured on right: Hampton University ARDC scholarship recipients

Scholarships	Amount
The ARRL Foundation	\$500,000
Society of Women Engineers	\$365,000
Native Forward	\$250,000
Hampton University - 2023	\$203,800
Hampton University - 2022	\$200,748
Washington Women in Need	\$85,000
American Indian Science and Engineering Society	\$72,000
OMIK Scholarship Fund	\$30,000



Research & Development

In 2022 ARDC made a total of 14 grants in the research & development category. All of ARDC's supported research projects are open source. A majority of projects focus on improving or developing new amateur radio tools and technology. Other projects use radio for CubeSat development or innovate in the communications field more broadly.

Research & Development	
Tucson Amateur Packet Radio, Inc - <i>Great Scott Gadgets, A Low-Cost Open-Source Universal Radio Test Instrument</i>	\$296,760
AlterMundi - <i>LibreRouterOS: Mesh-wide vision</i>	\$294,000
SETI Institute - <i>GNU Radio Usability Enhancements</i>	\$263,011
Colorado School of Mines - <i>Electromagnetic visualization</i>	\$250,000



Deutscher Amateur Radio Club (DARC) e.V. - <i>GPRS</i>	\$249,424
Kyushu Institute of Technology - <i>Democratization of Space via Opensource CubeSats</i>	\$236,400
Deutscher Amateur Radio Club (DARC) e.V. - <i>M17</i>	\$228,900
Deutscher Amateur Radio Club (DARC) e.V. - <i>Linux</i>	\$179,690
Tucson Amateur Packet Radio - <i>TangerineSDR</i>	\$125,540
University of California, Santa Barbara - <i>Community Network Characterization: Exploring New Metrics for Innovative Internet Connectivity Solutions</i>	\$109,648
AMSAT- <i>3U Open Source CubeSat Space Frame With Deployable Solar Panels</i>	\$93,975
Oesterreichischer Versuchssenderverband Dachverband (Austrian Radio Amateur Society) - <i>Wireless Regional Area Network in Sub-GHz Bands as Last Mile for HAMNET</i>	\$68,435
Mercatus - <i>Paradox Space Agency Additional award for Cubesat</i>	\$4,560
Bradley University - <i>DAEmod-915: Open-Source Open-Hardware 915MHz Digital Transceiver</i>	\$1,950



2022 Board & Advisory Committees

Board

ARDC thanks our 2022 board members for their leadership, expertise, and time. ARDC would not exist without our board members. ARDC would like to give a special thanks to Dr. Robert “Bob” McGwier, who served his final year as an ARDC Board Member in 2022. Bob’s passion, extensive knowledge, and experience were an incredible asset to our team.

- President/CEO: [Phil Karn](#) — KA9Q
- Treasurer: [Bdale Garbee](#) — KBOG
- Secretary: [John Gilmore](#) — W0GNU
- Founding Director: [kc claffy](#) — KC6KCC
- Director: [Keith Packard](#) — KD7SQG
- Director: [Robert McGwier](#) — N4HY – 2021-2022

Grants Advisory Committee (GAC)

ARDC succeeded in making these grants thanks in no small part to the Grants Advisory Committee (GAC):

- Chair: Bob Witte – K0NR
- Dewayne Hendricks – WA8DZP
- Douglas Kingston – KD7DK
- Hank Magnuski – KA6M
- Steve Stroh – N8GNJ
- Brian Milesosky – N5ZGT
- Leandro Soares Indrusiak – G5LSI
- Randy Neals – W3RWN
- Don Prosnitz – N6PRZ
- Dave Pascoe – KM3T

Technical Advisory Committee (TAC)

ARDC is grateful to the Technical Advisory Committee for their part in guiding the development of the 44Net and their hard work on the portal specification and 44Net survey.

- Chair: Pierre Martel – VE2PF
- Tim Požár – KC6GNJ (who was brought on as contractor mid-year and left the TAC)
- Adam Lewis – KC7GDY
- Zachary Seguin – VA3ZTS
- Rob Janssen – PE1CHL
- Paul (Chip) Eckardt – W9OQI

You can see our whole team listing [here](#).



Looking ahead: 2023

Much got done in 2022, and 2023 has a great deal more in store for us! Here's a quick look:

Operations

- Continue our long-term strategic work, including implementation of a vision statement.
- Continue developing a Code of Conduct.
- Continue work developing fundamental policies, including policies related to 44Net usage.

Grantmaking

- We will be reviewing applications four times a year in 2023, with proposals due on February 1, April 1, July 1, and October 1 (including scholarships).
- Applications received after October 1, 2023 will be reviewed February 1, 2024. If you are submitting a proposal for a scholarship program, we'd prefer to evaluate that proposal during our October 1st deadline. More information about this process is available at ampr.org/apply.
- We plan to increase our impact internationally and to continue to invest in high-impact research and development projects. Amateur radio proposals are likely to become more competitive, so it will be important to have a thorough project plan when applying.

Technology

- Release a minimum viable product release of the Portal.
- Proofs of concept for Points of Presence (PoPs).
- Continue working on Hypha implementation.
- Develop an experimental gateway to 44Net.

Communications

- Relaunch our website to make it easier to access information about ARDC on mobile devices and to apply for a grant.
- Set up a forum to allow grantees to connect with one another and for the amateur radio community to discuss the future of amateur radio technology and the service in general.
- Showcase our grantees and their work at more amateur radio events, such as the Dayton Hamvention and other events.
- Reach out to related groups, such as the hacker community, to spread the word about amateur radio, to draw on their expertise to strengthen amateur radio, and to further develop the digital communications part of our mission.

And that's just a start!

To get involved, ask a question, or share your thoughts about something you'd like to see in 2023, reach out any time: contact@ardc.net



Final Remarks from our President



It's great to see the good things ARDC has done in 2022. My thanks to our staff and volunteers who made everything happen.

I'd also like to thank our hard-working grantees. They're mostly volunteers doing labors of love. This includes R&D work like M17; numerous radio club development grants; and bringing young people and under-represented groups into amateur radio. Reading the thank-you letters from recipients of ARDC-funded college scholarships will never get old.

Expect more of the same from ARDC in 2023. We're very proud of our role in supporting and promoting amateur radio and digital communications, and we pledge to do even more in the years ahead.

73,

Phil

Phil Karn - KA9Q
President
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