

Friday, May 17th, 2024

TIME	ROOM	FORUM
9:15 AM to 10:35 AM	Room 1	TAPR - Topics in Digital Radio
		Moderator: Scotty Cowling, WA2DFI, TAPR President
		Speakers: Stana Horzepa, WA1LOU, TAPR Secretary/PSR Editor; John Ackermann, N8UR; Mooneer Salem, K6AQ; Dr. Hyomin Kim, KD2MCR
		Scotty Cowling, WA2DFI, TAPR President will give a TAPR Activities Update. Stana Horzepa, WA1LOU, TAPR Secretary/PSR Editor will present "Write for PSR!" John Ackermann, N8UR will present "Frequency Control for Next Generation SDRs." Accurate and stable frequency control is important to the quality of results for radio-based space science experiments. John's presentation discusses some of those requirements, and low cost frequency references to help meet them. Mooneer Salem, K6AQ will present "Using ezDV to get on the air with Digital Voice." A How-to guide to using ezDV with a standard transceiver to get on the air with digital voice. Dr Hyomin Kim, KD2MCR will present "Introducing the TAPR/HamSci Magnetometer." A description and deployment of the TAPR Magnetometer.
9:15 AM to 10:10 AM	Room 2	Linux and Ham Radio Software
		Moderator: Andy Stewart, KB1OIQ
		Andy Stewart (KB1OIQ) has created a software collection for ham radio operators called "Andy's Ham Radio Linux". It is based on Ubuntu Linux, with a lot of additional software for ham radio use. In this talk, Andy will discuss at a high level the different programs which are available in this software collection. Andy has been distributing this software on Sourceforge since 2011, with over 100,000 downloads to date.
9:15 AM to 9:50 AM	Room 3	ARES, SAFECOM, and Building Relationships
		Moderator: Josh Johnston, KE5MHV, ARRL Director of Emergency Management
		In 2023, ARRL was elected to serve on SAFECOM®, a program of the US Department of Homeland Security. SAFECOM supports the public safety community to improve the emergency communications ecosystem. In this Amateur Radio Emergency Service® (ARES®) forum, you'll learn about the importance of building mutually beneficial relationships with local emergency management officials, and the importance of our partnerships with served agencies. This forum is part of the 2024 ARRL National Convention track.
9:15 AM to 10:35 AM	Room 4	Digital Contest Forum
		Moderator: Ed Muns, WOYK
		Speakers: Tim Shoppa, N3QE; Dennis Egan, W1UE; Courtney Krehbiel, KD6X
		Thursday Night Fun with WRT, Tim Shoppa, N3QE Thursday Night Fun with FT NCCC Sprint, Dennis Egan, W1UE SO4R with RigSelect PRO, Courtney Krehbiel & Ed Muns, WOYK
10:00 AM to 10:50 AM	Room 3	Instructor Academy with Gordon West
		Moderator: Gordon West, WB6NOA, ARRL National Instructor
		Join "Gordo" as he shows off many new training tools to help YOU lead your next lively ham radio license classes. Discover a wealth of resources, from fresh newsletters to PowerPoint supplements tailored for Zoom sessions. Whether you're guiding radio clubs or individuals, tap into the ARRL National Instructor Program to elevate your ham radio classes. <i>This forum is part of the 2024 ARRL National Convention track.</i>
10:20 AM to 11:35 AM	Room 2	Xenia and Beyond - A History of Violent Tornadoes in Ohio and a Look Ahead at the Future of Tornado Forecasting
		Moderator: Brandon Peloquin, Warning Coordination Meteorologist, National Weather Service Wilmington, OH
		Speakers: Thomas Johnstone, KJ4FYN, Meteorologist-In-Charge, NWS Wilmington OH and Gary Clark, KC8TND, Dayton Skywarn
		In this presentation we will look back at some of the more memorable violent tornadoes to strike the Buckeye State including those that occurred 50 years ago last month. We'll also dig a little deeper into the unique place Greene County and Xenia hold in Ohio tornado history and lore and take a look at upcoming technological changes related to detecting and warning for the worst hazards mother nature has to offer. Dayton Skywarn will also be available to talk about how they have evolved over the years.
10:45 AM to 12:15 PM	Room 1	Elecraft K4D Users Group
		Moderator: Scott Wright, KOMD

		<p>Speakers: Bob Wilson N6TV, Eric Swartz WA6HHQ, others</p> <p>The forum will feature a Tips and Tricks for K4D owners and users, Discussion on new features with the K4D including remote operation and updates from Eric about the K4HD. The forum will have ample time for Q/A and will have a working model of the radio present to demonstrate its features and techniques.</p>
10:45 AM to 11:45 AM	Room 4	<p>How to Grow an Amateur Radio Club from Nearly Dead to Amazing!</p> <p>Moderator: Chris Perry, KY4CKP</p> <p>Speaker: Brian Perry, KY4BDP</p> <p>Lake Cumberland Radio Association (LCARA): KY4BDP Brian Perry and Chris Perry KY4CKP present ten steps any club can implement to grow their membership and get their members active and involved in club events. Consistently hold activities such as workdays, skills training, field days and social gatherings (don't forget to have lots of great food). A club that is active together grows together!</p>
11:00 AM to 11:50 AM	Room 3	<p>Youth Outreach Through Amateur Radio STEM Education</p> <p>Moderator: Steve Goodgame, K5ATA, ARRL Education and Learning Manager</p> <p>Discover how amateur radio can engage students in STEM education disciplines (science, technology, engineering, and math), igniting their passion for higher education and careers in technological fields. Steve will cover strategies to involve youth in ham radio, from learning about how-radios-work and building things, to communication via satellites and with astronauts -- promising a journey of skill development and friendship. ARRL is empowering the next generation of STEM leaders! <i>This forum is part of the 2024 ARRL National Convention track.</i></p>
11:45 AM to 1:15 PM	Room 2	<p>BalloonSat - Taking Amateur Radio to New Heights</p> <p>Moderator: Bill Brown, WB8ELK</p> <p>Speakers: Mason Mills KQ4GQB, Todd McKinney KN4TPG</p> <p>Presentations will include 1) STEM Amateur Radio Balloon flights 2) Science Under Totality: Ballooning During the North American Solar Eclipse 3) Using Amateur Radio Pico Balloons for Weather Research A Pico balloon will be launched right after the Forum.</p>
11:55 AM to 12:45 PM	Room 4	<p>Kit Building Techniques for Success</p> <p>Moderator: Joe Eisenberg, K0NEB</p> <p>A look at tools, tips and techniques to give kit builders from beginning to advanced the best chance of success. I will cover ways to handle different parts as well as sorting parts and even dealing with the growing number of surface mount parts as well as hints on winding toroids. Kits appropriate for beginners up to advanced builders as well as kits appropriate for group kit building experiences.</p>
12:00 PM to 12:50 PM	Room 3	<p>Enhancing Transmitter Performance: The ARRL Clean Signal Initiative</p> <p>Moderators: Mike Ritz, W7VO, ARRL Second Vice President; George Spatta, W1GKS, ARRL Laboratory Manager; Rob Sherwood, NCOB, Sherwood Engineering Inc.</p> <p>Join us as we examine an ARRL initiative aimed at improving amateur transmissions: The ARRL Clean Signal Initiative (CSI). We'll explore how this work will drive improvements to transmitter design, while educating amateurs on the new standards being created. This forum is part of the 2024 ARRL National Convention track</p>
12:25 PM to 1:50 PM	Room 1	<p>Fine Tuning Your SOTA Experience</p> <p>Moderator: Keith Schlottman, KR7RK</p> <p>Speakers: Charlie Brown, NJ7V & Brian Betz, W7JET</p> <p>Are you ready to maximize your fun in the Summits On The Air program? This forum will explore the latest techniques and innovations to help you get the most out of your SOTA adventures. Bring your ideas and questions, because this forum will be interactive with the audience. Whether you're a seasoned SOTA veteran or just getting started, this forum will provide you with valuable insights and practical advice that will help you take your SOTA adventures to new heights. Don't miss out on this opportunity to learn from experienced activators and connect with fellow SOTA enthusiasts.</p>
12:55 PM to 1:55 PM	Room 4	<p>Instructor's Forum</p> <p>Moderator: Carole Perry, WB2MGP</p> <p>Speakers: Tim Duffy, K3LR</p> <p>The Instructors' Forum welcomes teachers, instructors, scout leaders, youth group leaders and any ham looking for ideas on how to go into a school or on how to recruit and retain young hams. Carole Perry WB2MGP will speak about all the free resources for instructors through her RCA Youth Activities Program. Tim Duffy K3LR from Dx Engineering will speak about the YDXA at K3LR in 2023 and about introducing young hams to contesting.</p>

1:00 PM to 1:50 PM	Room 3	How to Control Your Ham Shack with A Node-RED Dashboard
		Moderator: Kyle Krieg, AA0Z Node-RED is an easy to learn flow-based programming language that ham radio operators can use to build simple web-based dashboards which provide command, control, and automation in their ham shack. In this presentation we will learn how to get started with Node-RED, what you can control, and some example dashboards. No programming experience necessary as there are ham radio flows already programmed for major manufacturers to get you started. This forum is part of the 2024 ARRL National Convention track.
1:25 PM to 2:30 PM	Room 2	Remote HF Station Ideas and Buiding Blocks or New Hams & Remote Operating
		Moderator: Michael Walker, VA3MW Mike VA3MW will delve into the intricacies of Remote HF Radio Operation. He will compare the challenges and strengths of each approach, providing an understanding of what it takes to achieve reliable remote HF radio performance. This session is perfect for those interested in exploring remote HF radio operations. Also, the Chesapeake Amateur Radio Service club will present on a distributed server network for its members to utilize five FlexRadios located across the Hampton Roads area and North Carolina.
2:00 PM to 4:00 PM	Room 1	Antenna Forum
		Moderator: Tim Duffy, K3LR Speakers: Dr. Nathaniel Frissell, W2NAF; Guy Olinger, K2AV; Greg Ordy, W8WWV Presentations will include 1) Dr. Nathaniel Frissell, W2NAF; First Results of the 2023-24 HamSCI Festivals of Eclipse Ionospheric Science; 2) Guy Olinger, K2AV; 160 Meters RF Loss, 5/16 Wave Single Wire Folded Counterpoise and Some Antennas; 3) Greg Ordy, W8WWV; AUTOEZ: A Revolution in the Evolution of Antenna Modeling
2:00 PM to 2:50 PM	Room 3	Ground is a Myth!
		Moderator: Kristen McIntyre, K6WX, ARRL First Vice President Ground is something you stand on, but in an electrical sense, the meaning is much less clear. When it comes to hams and ground, things get really confused. We drive rods into the earth, but why? Let's take a look at whether any of this makes sense, and what theory tells us about "ground," and if it exists in any sensible way at all. We'll talk about DC grounds, RF grounds, and even about gravity. This forum is part of the 2024 ARRL National Convention track.
2:05 PM to 3:30 PM	Room 4	Women Building Community Through Amateur Radio
		Moderator: Anne Manna, WB1ARU Young Ladies Radio League is pleased to present a forum for all women interested in ham radio, whether licensed or not. The format will include presentations showcasing the connections that women are making through many varied amateur radio activities. There will also be time for meeting and networking with other YLs.
2:40 PM to 3:45 PM	Room 2	New Adventures using TCP/IP on 44Net (AMPRnet) and an ARDC Update
		Moderator: John Hays, K7VE, ARDC Outreach Manager Speaker: Jon Kemper, KA6NVY ARDC Technical Director ARDC has been very busy improving 44Net and will present new techniques for accessing and using the 44Net addresses for Amateur Radio projects needing TCP/IP connectivity. ARDC will also give a short update and review on its activities and grant making program. The forum will conclude with the opportunity for participants to share their projects done in conjunction with ARDC and to interact with ARDC leadership.
3:00 PM to 3:50 PM	Room 3	Gaming the Amateur Radio Modes
		Moderator: David A. Minster, NA2AA, ARRL CEO Delve into the world of radiosport gaming! Whether you're a seasoned operator or just starting out, enjoy these tips and tricks covering station design, operating, instruction, and mastering the art of amateur radio modes including FT8. Push the boundaries of radiosport gaming, and level up! <i>This forum is part of the 2024 ARRL National Convention track.</i>
3:40 PM to 5:00 PM	Room 4	Foxhunting/ Transmitter Hunting
		Moderator: Dick Arnett, WB4SUV Speaker: Bob Frey, WA6EZV

		<p>New to fox hunting? Then come and learn what it takes to get started on mobile or on-foot hunts. Basic fox hunting equipment, mobile setup, as well as tips for getting started “on the Cheap” will be covered. Additional topics will include ARDF/Radio-Orienteering. Available receivers, antennas, attenuators, and transmitters for both mobile and radio-orienteering events will be discussed.</p>
4:00 PM to 5:00 PM	Room 1	The Law and Amateur Radio
		Speakers: Bob Famiglio, Esq., K3RF, ARRL Atlantic Director, Fred Hopengarten, Esq., K1VR, Past ARRL New England Director
		<p>Bob Famiglio, Esq., K3RF, ARRL Atlantic Director, “What the ARRL Legal Defense Fund Can Do for You”</p> <p>Fred Hopengarten, Esq., K1VR, Past ARRL New England Director, “Amateur Radio is Not a Personal Wireless Service”</p> <p>The panel will present an update and Q&A for the pending ARRL HOA Bill.</p>
4:00 PM to 5:00 PM	Room 3	Five Steps to a Successful POTA Activation
		Moderator: Michael Martens, KB9VBR, @KB9VBRAntennas on YouTube
		Parks on the Air® draws thousands of hams to the great outdoors for portable operating fun! Activating a park takes a bit of planning: from park selection, equipment, setup, logging, and reporting. Michael will share tips and tricks he uses along the way for smooth activations. This forum is part of the 2024 ARRL National Convention track.
3:55 PM to 5:00 PM	Room 2	HamSCI: The Ham Radio Science Citizen Investigation
		Moderator: Nathan Frissell, W2NAF
		<p>HamSCI is an international project to bring together the amateur radio and professional space science communities to advance both science and ham radio. This forum will highlight just a few of the activities HamSCI has been conducting over the past year, with talks on the recent Solar Eclipse experiments, the HamSCI Personal Space Weather Station, and collaborations with the ARDC-funded National Radio Astronomy Observatory Ham Radio Project.</p> <p>Presentations will include</p> <ol style="list-style-type: none"> 1) HamSCI: Bringing the Amateur Radio and Professional Scientific Communities Together – Nathaniel A. Frissell, W2NAF 2) Results from the 2023/2024 Festivals of Eclipse Ionospheric Science and Solar Eclipse QSO Parties – Gary Mikitin, AF8A 3) Solar Eclipse Observations Using the HamSCI Grape Personal Space Weather Station Network – Rachel Boedicker, AC8XY 4) WSPRDaemon, KA9Q-Radio, and the HamSCI Personal Space Weather Station - Rob Robinett, AI6VN 5) The NRAO Exploring the EMS/Ham Radio Project: Progress and the Way Ahead – Jesse Alexander, WB2IFS

Saturday, May 18th, 2024

TIME	ROOM	FORUM
9:15 AM to 10:20 AM	Room 1	<p>Ham Nation and Friends</p> <p>Moderator: Josh Nass, KI6NAZ</p> <p>Speaker: Gordon West, WB6NOA</p> <p>Ham Nation discussion with past guests and youtube creators.</p>
9:15 AM to 12:00 PM	Room 2	<p>Youth Forum</p> <p>Moderator: Carole Perry, WB2MGP</p> <p>The 2024 Youth Forum will showcase 6 young hams who will each speak about what fun activities they are passionate about in Ham Radio. There will also be a prominent surprise guest speaker. You must be present to receive one of the many door prizes.</p> <p>Ian Alkema KI8AN Topic: "Fun with POTA – Perfect Opportunity To Adventure"</p> <p>Brianna Wall KO4NLR Topic: "4-H Clubs and Ham Radio for Kids"</p> <p>Cameron Frey KD9VGV Topic: "Working Outside the Shack with POTA and Satellites"</p> <p>Anderson Ray K4RAY Topic: "All the Fun of Youth on the Air YOTA"</p> <p>Elise Campbell KE8TYU and Katie Campbell KE8LQR Topic: "How I Got Introduced to and Licensed in Ham Radio Through Our School Club K8LPS"</p>
9:15 AM to 10:50 AM	Room 3	<p>Good Operators and Interference</p> <p>Moderator: Bart Jahnke, W9JJ, ARRL Regulatory Information Manager</p> <p>Participants: Lark Hadley, KA4A, Director, Region Three, FCC Enforcement Bureau; Riley Hollingsworth, K4ZDH, ARRL Volunteer Monitor Program Administrator; George Spatta, W1GKS, ARRL Laboratory Manager</p> <p>This session will include advice for helping each other maintain high standards on the air. Topics will include an update on the ARRL Volunteer Monitor Program and a summary of the program for 2023; how to use the FCC Enforcement Bureau Complaint Portal, for what kinds of cases, and what can be expected after a complaint is filed; ARRL's process for helping members with RFI issues, and ARRL's role in protecting the amateur radio spectrum. This forum is part of the 2024 ARRL National Convention track.</p>
9:15 AM to 10:15 AM	Room 4	<p>Getting Started with FreeDV Digital Voice and Web GUI Construction Set for Every Ham</p> <p>Moderator: Mel Whitten, K0PFX</p> <p>Speakers: Mooneer Salem, K6AQ and Bruce Perens, K6BP</p> <p>Ever tuned around the voice part of the bands and heard a buzzing sound, especially close to 14.236 MHz? It turns out that you may be missing out on an exciting way of making voice contacts with less power and QRM! Mooneer (K6AQ) will talk about how to get started with FreeDV, an up and coming digital voice mode designed for use on HF. What if you could create a web control panel for your station, no matter what equipment you had, and without programming? You'd add your rotators and antenna switches, controls for all of the modes you use, and maybe control a remote station or two. All at the same time, from the same screen, and on any hardware and OS that supports a modern web browser.</p>
10:25 AM to 11:35 AM	Room 4	<p>Fast Scan ATV</p> <p>Moderator: Art Towslee, WA8RMC</p> <p>Speakers: Gordon West, WB6NOA</p> <p>Art and Gordon will present Digital ATV basics with a comparison of DVB-S, DVB-T and analog ATV operation.</p>
10:30 AM to 11:40 AM	Room 1	<p>Parks on the Air</p> <p>Moderator: Matt Heere, N3NWV</p> <p>Matt will be discussing the Parks on the Air program. He will give an overview of the program and provide the info you need to get started in the exciting world of park operation. There will also be "lessons learned" from experienced POTA operators as well as an update on how POTA faired in 2023. The session is designed so that there's something for everyone from brand new to POTA to the seasoned participant. There will be time for Q&A and questions are most certainly welcome</p>
11:00 AM to 12:00 PM	Room 3	<p>ARRL Membership Forum</p> <p>Moderator: Scott Yonally, N8SY, ARRL Director — Great Lakes Division</p> <p>Panelists: Rick Roderick, K5UR, ARRL President; Kristen McIntyre, K6WX, ARRL First Vice President; David A. Minster, NA2AA, ARRL CEO</p>

ARRL is the National Association for Amateur Radio®. No other organization works harder to promote and protect amateur radio! At this session, you'll hear from representatives on several key areas of membership interest including ARRL initiatives to engage more youth in amateur radio through STEM education programs and free ARRL membership for students; efforts to recruit and develop greater participation in the ARRL Amateur Radio Emergency Service® (ARES®); ARRL's work to help hams who are faced with involuntary limitations that limit their amateur radio operations, and more. Members and prospective members are all welcome! This forum is part of the 2024 ARRL National Convention track.

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| 11:45 AM to
12:45 PM | Room 4 | <p>VHF/UHF/Microwave Forum</p> <p>Moderator: Tony Emanuele, K8ZR</p> <p>Speakers: Joel Harrison, W5ZN; Rus Healy, K2UA; and Jay Baack, N1AV</p> <p>The forum discusses current topics related to the amateur bands from 50 MHz thru the mm-Wave bands. Presentations will include 1) A Summary of WRC23 by Joel Harrison, W5ZN IARU Secretary 2) TBD by Rus Healy, K2UA and 3) 902 MHz WAS Chase & the March 2024 EME Dxpedition to Hawaii by Jay Baack, N1AV:</p> |
| 11:50 AM to
1:50 PM | Room 1 | <p>DX Forum</p> <p>Moderator: Brian Bathe, AD8FD</p> <p>Speakers: James Gallo, KB2FMH; Adrian Ciuperca, KO8SCA; Gene Spinelli, K5GS and Cezar Trifu, VE3LYC</p> <p>DXPedition Reviews including 1) KH8RRC presented by KB2FMH 2) W8S presented by KO8SCA 3) TX5S presented by K5GS 4) V62S & V62P presented by VE3LYC</p> |
| 12:10 PM to
1:10 PM | Room 2 | <p>ARISS: Celebrating 40 Years of Amateur Radio on Human Spaceflight Missions</p> <p>Moderator: Frank Bauer, KA3HDO</p> <p>Speakers: Tanya Anderson, KD9BQZ; Randy Berger, WA0D; Jim Reed, N4BFR; and Rosalie White, K1STO</p> <p>In December 1983, Astronaut Owen Garriott, W5LFL, talked to the world via amateur radio and transformed astronaut communications forever. Prior to Garriott's flight, only selected mission controllers and heads of state could talk to an astronaut. In this forum we will reflect on our past accomplishments and provide a vision of future ham radio operations and youth education on new and existing human spaceflight vehicles. Prepare for voyages in low Earth orbit and Deep Space! Expect some surprise guests and new announcements.</p> |
| 12:55 PM to
1:55 PM | Room 4 | <p>Integrating the Internet with Amateur Radio</p> <p>Moderator: Tom Loughney, AJ4XM, QCWA President</p> <p>Just as the number of Hams is growing, so is the information on the Internet. This forum provides an overview of the types of things most useful to Hams. It covers some sites you will know and some you will not. Plus, information on remote stations and using the Internet for remote control of your own station. All the sites mentioned, plus hundreds more, will be supplied in an interactive PDF file sent to your email address. This lets you select what interests you and just click on it. Door prize supplied by MFJ.</p> |
| 1:00 PM to 4:00
PM | Room 3 | <p>ARRL Youth Rally Activities</p> <p>Moderator: Steve Goodgame, K5ATA, ARRL Education and Learning Manager</p> <p>Connect with other young hams at Hamvention! We'll get to know each other, and we'll explore a variety of amateur radio interests and activities. Learn about satellite communications, participate in a short sprint contest, make contact with a parachute mobile station, and other fun! Bring a 2-meter handheld radio if you have one. This session is limited to students ages 11 – 21. Pre-registration is recommended at www.arrl.org/expo.</p> |
| 1:20 PM to 2:50
PM | Room 2 | <p>AMSAT</p> <p>Moderator: Phil Smith, W1EME</p> <p>Speakers: Robert Bankston, KE4AL; Jerry Buxton, NOJY; Alan Johnston, KU2Y; Drew Glasbrenner, KO4MA; and Frank Karnauskas, N1UW</p> |

AMSAT Forum Hamvention 2024 AMSAT Status Report: Robert Bankston KE4AL, AMSAT President, will highlight recent activities within AMSAT and discuss some of our challenges, accomplishments, projects, and any late breaking news.

AMSAT Engineering Program: Jerry Buxton, N0JY, AMSAT Vice President for Engineering, will talk about the Current and upcoming satellite missions.

AMSAT Education: Alan Johnston, KU2Y, AMSAT Vice President Education Relations will talk about the AMSAT CubeSat Simulator.

AMSAT Operations: Drew Glasbrenner, KO4MA, Vice President Operations, will discuss current satellites and operations.

AMSAT Development: Frank Karnauskas, N1UW, Vice President of AMSAT Development, will report on AMSAT Youth Initiative and its features.

2:00 PM to 3:50 PM	Room 1	<p>Contesting</p> <p>Moderator: Doug Grant, K1DG</p> <p>Speakers: Mike Wetzel, W9RE; Mark Bailey, KD4D; Mark Haynes, M0DXR; Rus Healy, K2UA; John Dorr, K1AR; Paul Bourque, N1SFE; and Bart Jahnke, W9JJ.</p> <p>This Forum will include presentations on various topics related to Radiosport including: 1) "VP2VMM - A low-power effort with big results" - Mike Wetzel, W9RE and Mark Bailey, KD4D 2) "WRTC2026 Update" - Mark Haynes, M0DXR 3) "Contest Antiques Roadshow" - Rus Healy, K2UA 4) "The Evolution of Contesting in the 21st Century" - John Dorr, K1AR, Paul Bourque, N1SFE, and Bart Jahnke, W9JJ.</p>
2:05 PM to 3:30 PM	Room 4	<p>Arduino - Building Projects with Microcontrollers</p> <p>Moderator: Glen Popiel, KW5GP</p> <p>Join ARRL author Glen Popiel, KW5GP, in an all-new presentation as he demonstrates how to build projects with the Arduino and other microcontrollers. Learn just how easy it is to create your own feature-rich microcontroller-based projects for your home and ham shack.</p>
3:00 PM to 5:00 PM	Room 2	<p>System Fusion</p> <p>Moderator: Mark Thompson, WB9QZB</p> <p>Speakers: John Kruk, N9UPC, Sales Manager, Amateur Radio Sales Division, Yaesu USA</p> <p>Yaesu and their System Fusion Technology offers an easy to use, amateur radio operator designed, digital voice technology. As many new amateurs enter the hobby a draw is the usage of digital voice and for it to be easy to use. Yaesu System Fusion offers a unique way to connect without the use of a repeater or aftermarket device. Join Yaesu and learn about WiRES-X during this two-hour education course. This course will provide the knowledge on connections, the software, and how to utilize a connection to the world using Yaesu System Fusion.</p>
3:40 PM to 5:00 PM	Room 4	<p>A Fun and New Way to Learn Morse Code</p> <p>Moderator: Howard Bernstein, WB2UZE</p> <p>Speakers: Mike Padron, N1CC and Jim Crites, W6JIM</p> <p>Long Island CW Club (LICW) instructors will share how you can have fun learning and using Morse Code. You too can take part in the recent resurgence of Morse Code. LICW has molded their curriculum from the best of the past 100 years of CW instruction history and their own experience for the benefit of their students. They will discuss topics that include Head Copy, QSO Protocol, Sending, Instant Character Recognition, Speed, Plateaus, Keys, Fear of getting on the Air and More! Please come with your questions. Dit-Dit</p>
4:00 PM to 5:00 PM	Room 1	<p>Software Defined Radio</p> <p>Moderator: Stephen Hicks, N5AC, CTO of Flex Radio</p> <p>Multiple speakers will discuss new advances in Software Defined Radio (SDR) technology and software defined radios. At the close of the forum, speakers will form a panel and will take questions from the audience regarding SDR technology, products, advances or other topics relating to software defined radio.</p>
4:00 PM to 5:00 PM	Room 3	<p>ARRL Collegiate Amateur Radio Program (CARP)</p> <p>Moderators: Tony Milluzzi, KD8RTT, Advisor, ARRL Collegiate Amateur Radio Initiative; Andy Milluzzi, KK4LWR, Advisor, ARRL Collegiate Amateur Radio Initiative; Bob Inderbitzen, NQ1R, Staff Liaison, ARRL Collegiate Amateur Radio Initiative; Steve Goodgame, K5ATA, Staff Liaison, ARRL Collegiate Amateur Radio Initiative</p>

Since the ARRL Collegiate Amateur Radio Program (CARP) was established in 2017, we've been growing our community of participating students and ham radio clubs at colleges and universities. CARP holds monthly Zoom meetups and make connections through our CARP Facebook group and Discord. Join us! We're (re)inspiring ham radio among our nation's colleges and universities, meeting other students, and developing career connections. Students, alumni, and faculty are all welcome! The ARRL Collegiate Amateur Radio Program is sponsored in part by the W1YSM Snyder Family Collegiate & ARRL Affiliated Club Endowment Fund. This forum is part of the 2024 ARRL National Convention track.

Sunday, May 19th, 2024

TIME	ROOM	FORUM
9:15 AM to 10:15 AM	Room 1	<p>The Fast Track to Getting Started in HF</p> <p>Moderator: Michael Burnette, AF7KB</p> <p>Usually the new ham who just upgraded from Technician to General is suddenly faced with a lot of choices. What transceiver? What feed line? What antenna? How do I operate HF? Michael outlines a sensible, economical philosophy and action plan for beginning to participate on the HF bands. He even includes solutions for those who are impeded by space considerations or... gulp... the dreaded HOA rules.</p>
9:15 AM to 11:00 AM	Room 2	<p>Lightning, Grounding and Radio Frequency Interference (RFI)</p> <p>Moderator: Jim Bacher, WB8VSU and Bruce Sparrow, N2KTV</p> <p>Jim Bacher, WB8VSU, will speak on outside lightning protection. Jim was licensed as a Novice in the mid 70's and currently holds an Extra Class License. In the early 70's he passed and held an FCC First Class RadioTelephone Operator License with Radar Endorsement. Retired as a Senior Engineer from Avery Dennison in 2015, where I was responsible for product Safety, EMC and transmitter certifications on a world wide bases.</p> <p>Ward Silver, NOAX, will speak on Inside lightning Protection and RF Management which deals with the effects of bonding and cable management on RFI. Ward has been licensed since 1972, is the Lead Editor of the ARRL Handbook and the ARRL Antenna Book, and is the author of all three ARRL License Manuals and study guides. He released the well-received "Grounding and Bonding for the Radio Amateur" in 2017 and recently authored the third edition of Ham Radio for Dummies. Ward is an electrical engineer and has received the Hamvention Technical Achievement Award.</p> <p>Bruce Sparrow, N2KTV will speak on how ferrite can be used to reduce common mode interference (a typical cause of manmade RFI). Bruce was first licensed in 1971 as a Novice and enjoys QRP CW to this day. Late in his sales career he achieved a lifelong dream by working for Fair-Rite Products in a product management position. Helping hams understand the many applications of ferrite in our hobby has been his passion over the last six years.</p>
9:15 AM to 9:50 AM	Room 3	<p>Tips for Successful Radio Clubs</p> <p>Presenter: Mike Walters, W8ZY, ARRL Field Services Manager</p> <p>ARRL Affiliated Clubs are the lifeblood of amateur radio at the local level. This forum will include a discussion of ideas and opportunities for radio clubs that are seeking growth and greater member participation. Topics will include recruitment, licensing, training, engagement, and leadership development. This forum is part of the 2024 ARRL National Convention track.</p>
9:15 AM to 10:05 AM	Room 4	<p>Zero Configuration Radio - Why are we still programming radios?</p> <p>Moderator: William Franzin, VE4VR</p> <p>Amateur radio has transitioned from an analog-only hobby to one that includes many digital modes, digital radios, and digital radio modes that are incompatible with each other and created a great deal of additional work to accomplish what was easy years ago. We'll dig into some of the work I've done related to "zero configuration radio" where radios ping other hams around them to discover the necessary settings for operation in that area. This is mainly a concept applicable to handheld and mobile radios operating on VHF frequencies and above, it allows the radios to skip the steps we're spending effort on today. No need for programming repeaters, tones, offsets - or spending time to create DMR codeplugs.</p>
10:00 AM to 10:50 AM	Room 3	<p>ARRL Contest Program Update</p> <p>Moderators: Bart Jahnke, W9JJ, ARRL Radiosport Manager; Paul Bourque, N1SFE, ARRL Contest Program Manager</p> <p>ARRL Contests drive activity to the airwaves, and encourage all hams to develop their stations and skills for optimum performance. This forum will include an update on what's new for ARRL Contests, including new contests and new categories of participation for HF and VHF/UHF/SHF contests. We'll wrap up with update on 2024 ARRL Field Day (more operating event than contest), which will be held June 22 – 23. Get a free 2024 Field Day sticker for attending this forum, while supplies last. This forum is part of the 2024 ARRL National Convention track.</p>
10:15 AM to 11:05 AM	Room 4	<p>Using your HT and netbook for radio messaging and e-mail</p> <p>Moderator: Sholto Fisher, K7TMG</p> <p>Sholto will explain how to configure and use the Winlink network and software for in-the-field email and messaging.</p>

- 10:30 AM to 11:30 AM Room 1 Power, Current, Voltage, and Resistance (PIER) Review Method of Circuit Analysis
Moderator: Eric Nichols, KL7AJ
The PIER Review method of circuit analysis. Eric will demonstrate that any electronic circuit can be analyzed by first writing down the Power, Current, Voltage, and Resistance (PIER) of every component. This method is quite original, and Eric will share how he has been teaching it to electronics students for years with success.
- 11:00 AM to 12:00 PM Room 3 Beyond Repeaters: See How Far Your Tech License Will Take You
Moderator: John McAuliffe, KD2ZWN, ARRL Lab Digital RF Engineer
Explore the full scope of operating privileges and ham radio activities that can be done with a Technician Class license. We'll cover 3 parts: UHF use and potential projects/activities that can be enjoyed beyond 70 cm; 10-meter digital modes, satellite, and long-range communication; and HF CW privileges which will include a short guide on how to build your own CW encoder/decoder. This forum is part of the 2024 ARRL National Convention track.
- 11:10 AM to 12:00 PM Room 2 The DX Marathon Program
Moderator: Mark Wohlschlegel, WC3W
The DX Marathon Program in 2023 experienced an unprecedented growth of +50% which followed a +46% growth in 2022 making this program the fastest growing DX program in ham radio today. The growth metrics represent increase in participation worldwide with 1/3 coming from North America and 2/3 from the rest of the world. The forum will explain in very simple terms what this program is all about, and why it makes sense to participate. Various awards including beautiful plaques and certificates are awarded each year to various categories including highest point total for entry classes, highest mode scores, highest band scores. Participation is free and the program complements the other DX'ing that you do during the year such as DXCC and contests. Mark will explain how the program is global, simple, and fun. He will also discuss the 2023 results.
- 11:15 AM to 12:00 PM Room 4 DMR - How The Packets Get Your Voice From Here To There!
Moderator: Matt Genelin, NOYNT
Speaker: Jeff Hochberg, W4JEW
Once you have programmed your code plug and your hotspot is connected to the Internet, or you're using a DMR repeater, your voice is transformed into packets that get carried on into the DMR network to which you are connected when you key up your radio. Those packets are sent through myriad paths within or across multiple DMR networks. Join us as we discuss the complex web of interconnecting DMR networks.