

2022 Forums Overall Schedule

FRIDAY May 20, 2022

	Room 1	Room 2	Room 3	Room 4
9:15 AM	TAPR Scott Cowling WA2DFI 9:15-10:35	HF Remote Operating Techniques Michael Walker VA3MW 9:15-10:15	ARRL Field Day: Ready, Set Go! 9:15-10:20	Using & Collecting Collins Radios Dave Knepper W3ST 9:15-10:15
9:30 AM				
9:45 AM				
10:00 AM				
10:15 AM				
10:30 AM		DMR – The Technology and Infrastructure John Burningham W2XAB 10:25-11:25	Digital Contesting Ed Muns W0YK 10:30-11:45	Instructor's Forum Carole Perry WB2MGP 10:30-11:30
10:45 AM	ARISS Frank Bauer KA3HDO 10:45-11:50			
11:00 AM				
11:15 AM				
11:30 AM				
11:45 AM		D-Star Robin Cutshaw AA4RC 11:35-1:00	Ballon SAT Bill Brown WB8ELK 11:55-1:05	Kit Building Joe Eisenberg K0NEB 11:45-12:50
12:00 PM	AUXCOMM: Future Advances in EMCMM John Peterson 12:00-1:50			
12:15 PM				
12:30 PM				
12:45 PM				
1:00 PM		National Weather Service Brandon Peloquin 1:10-2:30	ARRL Amateur Radio Emergency Service 1:15-2:25	Techniques of Best Operators Mitch Stern W1SJ 1:00-2:15
1:15 PM	Antenna Forum Tim Duffy K3LR 2:00-5:00			
1:30 PM				
1:45 PM				
2:00 PM				
2:15 PM		Amateur Radio and the Law Fred Hopengarten K1VR 2:40-3:45	ARRL Youth Outreach 2:35-3:45	YLRL Reunion 2:30-3:45
2:30 PM	Antenna Forum Tim Duffy K3LR 2:00-5:00			
2:45 PM				
3:00 PM				
3:15 PM				
3:30 PM		System Fusion Mark Thompson WB9QZB 3:55-5:00	Software Defined Radio Stephan Hicks 3:55-5:00	Summits on The Air Keith Schlottman KR7RK 3:55-5:00
3:45 PM	Antenna Forum Tim Duffy K3LR 2:00-5:00			
4:00 PM				
4:15 PM				
4:30 PM				
4:45 PM				
5:00 PM				

SATURDAY May 21, 2022

	Room 1	Room 2	Room 3	Room 4	
9:15 AM	Black Sky Events What Happens When Everything Goes Dark Bill Feist 9:15-10:15	2022 Youth Forum Carole Perry WB2MGP 9:15-12:00	Transmitter Hunting (Foxhunting) Dick Arnet WB4SUV 9:15-10:40	Legacy Kenwood Mark Gilger WB0IQK 9:15-10:30	
10:30 AM	The Impact of Ham Radio on the Innovations for treatment of COVID- 19 Scott Wright 10:25-11:25		Importance of Clean Articulate Audio and How to Get it Bob Heil K9EID 10:50-11:50	Fast Scan ATV Art Towslee WA8RMC 10:40-11:50	
11:45 AM	DX Forum Jay Slough K4ZLE 11:35-1:55		AMSAT Robert Bankston KE4AL 12:10-1:40	Good Operators and the ARRL Volunteer Monitor Program 12:00-1:20	VHF-UHF- Microwave Tony Emanuele K8ZR 12:00-1:30
12:00 PM					
12:15 PM					
12:30 PM			ARRL Membership Forum 1:30-2:30	Quarter Century Wireless Association QCWA Ken Oelke VE6AFO 1:40-2:40	
12:45 PM	Contesting Doug Grant K1DG 2:00-3:50	The Fast Track to Understanding Ham Radio Propagation Michael Burnette AF7KB 1:50-3:20	Parks on The Air Matt Heere N3NWV 2:45-3:50	HamSCI: Ham Radio Science Citizen Investigation Nathan Frizzell W2NAF 2:50-3:50	
1:00 PM					
1:15 PM					
1:30 PM					
1:45 PM					
2:00 PM	Having Fun With Morse Code Dan Romanchik 4:00-5:00	Digital Modes Mel Whitten KOPFX 3:30-5:00	ARRL Collegiate Amateur Radio Forum 4 :00-5:00	Instructors, The Actual New Technician Class Q & As! Gordon West WB6NOA 4:00-5:00	
2:15 PM					
2:30 PM					
2:45 PM					
3:00 PM					
3:15 PM					
3:30 PM					
3:45 PM					
4:00 PM					
4:15 PM					
4:30 PM					
4:45 PM					
5:00 PM					

SUNDAY May 22, 2022

	Room 1	Room 2	Room 3	Room 4
9:15 AM	Bicycle Mobile Hams Mike Nicholas 9:15-10:15	Take the ARRL Radio Club Health Checkup ARRL 9:15-10:20	Lightning Protection for Ham Radio Jim Bacher WB8VSU 9:15-10:15	Entry Level Licensing – What's Worked and What Hasn't Bruce Blain K1BG 9:15-10:20
10:30 AM	Operating Your Station Remotely Sholto Fisher 10:30-11:30	How to Comply with the FCC RF Exposure Rules ARRL 10:30-11:30	LF Techniques Eric Nichols KL7AJ 10:30-11:30	3Y0J Bouvet Island DXpedition Adrian Ciuperca KO8SCA 10:30-11:30
11:45 AM				

During this forum, Tucson Amateur Packet Radio (TAPR) President Scott Cowling, WA2DFI will give an activities update, and TAPR Secretary and Packet Status Register (PSR) Editor Stanely Horzepa, WA1LOU, will talk about writing for TAPR's newsletter, PSR. Additionally, John Ackerman, N8UR, will present on the "SynthDO GPS Disciplined Oscillator Project."
 John Hays, K7VE, will discuss Amateur Radio Digital Communications (ARDC) grants, and Jonathan Rizzo, KC3EEY, will present, "The Whistler Catcher, a VLF Module for the TangerineSDR."

9:15 – 10:15	Room 2	HF Remote Operating Techniques
		Moderator: Michael Walker, VA3MW
		HF remote operating has become a mainstream part of ham radio operations. This session will discuss how to get started, ideas for operating, and how to be successful.
9:15 – 10:20	Room 3	ARRL Field Day-Ready – Ready, Set, Go!
		Moderator: Bart Jahnke W9JJ
		Speakers: Bart Jahnke, W9JJ; Bob Naumann, W5OV, and Scott Roberts, KK4ECR
		During this session, you'll have a chance to learn about field day rules, including what's new this year, from ARRL Radiosport and Regulatory Information Manager Bart Jahnke, W9JJ; hear operating tips from ARRL Director of Operations Bob Naumann, W5OV, and let ARRL Public Relations Committee Member Scott Roberts, KK4ECR, teach you how to "get a boost" by promoting your Field Day activation.
		ARRL Field Day, ham radio's most popular on-the-air event, is June 25 – 26, 2022. Field Day is fun whether you're participating from the great outdoors with your radio club, or from your home or backyard. It's also a terrific opportunity to practice your personal radio communications readiness and to demonstrate amateur radio to the public. Hear from a panel of Field Day experts who will cover the educational, operating, and public relations objectives of a successful and fun Field Day.
9:15 – 10:15	Room 4	Using and Collecting Collins Radios
		Moderator and Speaker: Dan Knepper, W3ST
		Continue the legacy of preserving Collins amateur radio equipment for tomorrow's ham. Founder of the Collins Radio Association Dan Knepper, W3ST, will talk about the critical elements of purchasing, repairing, and maintaining Collins radios for decades to come.
10:25 – 11:25	Room 2	DMR Technology and Infrastructure
		Moderator: John Burningham, W2XAB
		Learn about DMR technology and the infrastructure that supports the networks, including repeaters, hotspots, Voice over Internet Protocol (VoIP), and user radios.

10:30 – 11:30	Room 4	Instructor's Forum
		Moderator: Carole Perry, WB2MGP
		Speaker: Bob Inderbitzen, NQ1R
		Carole Perry, WB2MGP, will discuss the free resources and networking opportunities available to recruit, retain, and showcase youth in ham radio through her RCA Youth Activities program. Bob Inderbitzen, NQ1R, will share information about current ARRL resources available to support instructors working with youth and beginners. This will be a great opportunity for sharing motivations and experiences.
10:45 – 11:50	Room 1	ARISS 2.0: A Next Generation Vision for Amateur Radio on the International Space Station
		Moderator: Frank Bauer, KA3HDO
		Speakers: Frank Bauer, KA3HDO; Randy Berger, WAØD; Rosalie White, K1STO, and Diane Warner, KE8HLD
		This year, ARISS celebrates 25 years as an international team. Our new vision, ARISS 2.0, will expand ARISS youth education outcomes, ham-in space operations, flight hardware systems, and even our space platform (in addition to ISS, think commercial space stations and lunar operations). Learn what ARISS is doing to support ham radio operations on human spaceflight vehicles – now and over the next 25 years. Expect some surprise guests and new announcements.
11:35 – 1:00	Room 2	D-STAR
		Moderator: Robin Cutshaw, AA4RC
11:45 – 12:50	Room 4	Kit Building
		Moderator: Joe Eisenberg, KØNEB
		Learn beginner and experienced tips and tricks for building kits with emphasis on techniques that increase your chances of success. Tools, including soldering and desoldering aids, will be discussed, as well as information about where these things can be found online and at Hamvention. Suggestions for group kit building supplies will also be covered.
11:55 – 1:05	Room 3	Amateur Radio High Altitude Balloons (ARHAB) Forum
		Moderator: Bill Brown, WB8ELK
		Speakers: Bill Brown, WB8ELK; Tom Medlin, W5KUB, and Jack McElroy, KM4ZIA
		This forum will talk about amateur radio payloads carried aloft to the edge of space via weather balloons. Long duration pico balloons with solar-powered payloads that can circumnavigate the world will also be discussed.

creation of a nationally standardized training course, called AUXCOMM; an electronic Field Operations Guide (FOG), and a comprehensive nationally accepted Position Task Book (PTB) and more. Join us and learn what advances are planned for the future.

1:00 – 2:15	Room 4	Techniques of Best Operators
		Moderator: Mitch Stern, W1SJ
		<p>There are many ways to communicate with ham radio – phone, CW, and scores of digital modes. Each requires the proper setup and technique for success.</p> <p>I hear many stations on the air with distorted voices, poor Morse Code, weird noises in place of digital tones, and poor techniques, such as not using phonetics, not tuning properly, and not having properly configured computers. This often results in not making a contact.</p> <p>This forum will discuss techniques for public service operating; digital modes; DXing, including pileups, antennas, and station setup; propagation; how to build skills with contesting, and how to train new operators.</p> <p>You'll also hear on-the-air stories, equipment ideas, and suggestions.</p>
1:10-2:30	Room 2	National Weather Service
		Moderator: Brandon Peloquin
		<p>NOAA's Weather – Ready Nation initiative is about building community resilience in the face of increasing vulnerability to extreme weather and water events. To achieve this, the National Weather Service (NWS) strives to develop and strengthen partnerships with those who contribute to this initiative. This presentation will describe the partnership between Amateur Radio operators, and the NWS and how they work together to help communities be better prepared for severe weather.</p>
1:15-2:25	Room 3	ARRL Amateur Radio Emergency Service (ARES)
		Moderator: Josh Johnston, KE5MHV, ARRL Director of Emergency Management
		<p>The Amateur Radio Emergency Service® (ARES®) consists of licensed amateurs who have volunteered their qualifications and equipment with their local ARES leadership, for communications duty when disaster strikes. Come learn about opportunities to volunteer and train and hear stories about best practices, the importance of building mutually beneficial relationships with local emergency management services, and the importance of our partnerships with served agencies. Sponsored by ARRL The National Association for Amateur Radio®.</p>

Ted Rappaport, N9NB, professor and director of a wireless research center at NYU, will talk about ways that you can improve the performance of vertical antennas.

Frank Donovan, W3LPL, is an electrical engineer and has built one of the largest amateur radio stations in the world. He has over 50 years of experience designing and building antennas. He'll talk about high-performance 6-meter Yagi antenna systems.

Randy Hall, K7AGE, is in the midst of a completely new station build at his home in Oregon. He'll teach construction and design techniques that will help at your own station.

2:30-3:45 Room 4 YL Reunion

Moderator: Anne Manna, WB1ARU

Speaker: Katherine Campbell, KE8LQR

The Young Ladies' Radio League is sponsoring a "YL Reunion" for all women, licensed or not. Every woman ham is a "young lady" (YL), no matter what her age. Katherine Campbell, KE8LQR, will share the success of YLs and school clubs. You'll also learn what YLs are doing in the hobby, reports on new nets and awards, and ways to join the fun. Come prepared with questions to find out more about women in amateur radio, and hear from young ladies of all ages. There will be prizes too! Male operators are also welcome and are appreciated for their support.

2:35-3:45 Room 3 ARRL Youth Outreach

Moderator: Steve Goodgame, K5ATA, ARRL Education and Learning Manager

Most recently, Steve Goodgame, K5ATA, helped 60 middle and high school students earn their ham radio licenses, and several have upgraded. Now, Steve leads ARRL's Education and Learning programs. Join us in exploring ways to engage students with ham radio through technology, learning how radios work, and how to build things, communicating with astronauts through satellites, and competing in contests and winning awards, developing skills, career networking, and making new friends. This forum is for club representatives, teachers, young hams, and anyone who wants to grow amateur radio. Sponsored by ARRL The National Association for Amateur Radio® and contributors to the ARRL Education and Technology Fund.

2:40-3:45 Room 2 Amateur Radio & the Law

Moderator: Fred Hopengarten, Esq., K1VR

Speakers: David Siddall, Esq., K3ZJ; John Robert Stratton, Esq., N5AUS; Barney Scholl, Esq., K3LA, and Fred Hopengarten, Esq., K1VR

In this session, David Siddall, Esq., K3ZJ, will share how to effectively file FCC comments; John Robert Stratton, Esq., N5AUS, will talk about ARRL and Capital Hill; Barney Scholl, Esq., K3LA, will discuss estate planning for radio amateurs, and Fred Hopengarten, Esq., K1VR, will share news about antenna zoning.

3:55-5:00	Room 2	System Fusion Forum
		Moderator: Mark Thompson, WB9QZB
		Speaker: John Kruk, N9UPC
		<p>The System Fusion Forum will include a presentation and discussion about Yaesu's System Fusion voice & data technology that's designed exclusively for amateur radio.</p> <p>The forum will review updates to Yaesu's System Fusion technology, including 2-meter and 70-centimeter analog FM/C4FM digital voice repeaters and mobile radios, WIRES-X (Wide-coverage Internet Repeater Enhancement System), and IMRS (Internet-linked Multi-site Repeater System) Voice over Internet Protocol (VoIP) communications linking systems.</p> <p>Everyone using, or interested in using System Fusion is encouraged to attend, participate, and share their experiences with the technology.</p>
3:55-5:00	Room 3	Software-Defined Radio
		Moderator: Stephan Hicks
		Multiple speakers will discuss current SDR advances and projects with all speakers forming a panel at the end to answer your questions on software defined radios and technology.
3:55-5:00	Room 4	Summits on the Air: Tips to Elevate Your SOTA Experience
		Moderator: Keith Schlottman, KR7RK
		<p>The Summits on the Air (SOTA) program is booming, and it provides amateur radio operators with an exciting way to enjoy the hobby. Electronics miniaturization and advances in battery technology allow us to carry a full HF station in a small backpack and contact the world. GPS systems and tracking tools allow operators to push the boundaries of their operating positions in a safer, more efficient manner. There are many opportunities to be involved with SOTA on a daily basis. This session will explore tips from both the field and the shack to help you get the most out of your SOTA experience. Whether you're new to SOTA or are a seasoned activator or chaser, join us for a fun and interactive talk packed with ideas to consider on your next SOTA adventure.</p>

Moderator: Bill Feist, WB8BZH, Southern Territory SATERN Coordinator

The possibility of a black sky event – a large-scale, wide-spread disruption of power and communications – becomes increasingly real as we progress further into the 21st century and modern civilization becomes more dependent on technology. This forum will address exactly what a black sky event is; the impacts of a catastrophic black sky event, and what would classify as such; what could cause one; if any have happened before and how, why, and what the impacts were; what the role of the government, the private sector, amateur radio, and ourselves as individuals in such an event, and how we should be prepared.

9:15 – 12:00 Room 2 2022 Youth Forum

Moderator: Carole Perry, WB2MGP

Speakers: Cody Quarles, KØDIE; Blake Pearson, KN4VKY; Ryan Pearson, KN4VKW; Jack McElroy, KM4ZIA; Audrey McElroy, KM4BUN; Benedict Wagner, AD8FQ, and Agnes Wagner, KE8LWP

Seven talented young hams will be give presentations about ham radio adventures during the COVID-19 lockdown, a new ham experiments with APRS, sibling rivalry in ham radio, and balloon launches via amateur radio.

There will be a surprise guest speaker and many fabulous door prizes for those of all ages the audience. The main door prize will be an HF transceiver, generously donated by Icom.

9:15 –10:40 Room 3 Transmitter Hunting (Foxhunting)

Moderator: Dick Arnett, WB4SUV

Speakers: Bob Frey, WA6EZV, and Brian DeYoung, K4BRI

Designed for both the first-time and and seasoned fox-hunters, this year’s presentation will discuss what it takes to get started with mobile and on-foot hunts, as well as high-end tech gear, including Dopplers of the past, present, and future. Equipment for setting up and competing in on-foot ARDF-type hunts will also be presented. A 2-meter foxhunt with approximately 30 transmitters will also be held after Hamvention on Saturday, May 21, at James Ranch Park (directly across from the fairgrounds).

9:15 – 10:30 Room 4 Legacy Kenwood

Moderator: Mark Gilger, WBØIQK

Speakers: Jan Servaites, N8CBX; Terry Wagoner, K9TW, and Peter Shilton, VE7PS

This forum will discuss user interests and needs for Kenwood's legacy equipment, specifically the hybrid models (TS-500s through TS-830s).

Two US ham operators were critically involved in the treatment strategies developed for COVID-19. Dr. Peter Marks, AB3XC, is head of the Center for Biologics Evaluation and Research (CBER) at the Food and Drug Administration (FDA), and is the architect behind Operation Warp Speed, which developed the vaccines and new therapeutics and drugs for COVID-19. Dr. Scott Wright, KØMD, was a national leader in the US convalescent plasma study, establishing an early treatment for COVID-19. Both will describe how their backgrounds in ham radio contributed to the creativity of approaches utilized in the pandemic and the role that ham radio social media played in aiding disease management and mitigation. They'll also take questions from the audience on the current status of the pandemic, as well as the short and intermediate term outlooks.

10:40 – 11:50	Room 4	Fast Scan ATV
		Moderator: Art Towslee, WA8RMC
		Speakers: Mel Whitten, KØPFX; Gordon West, WB6NOA, and Mike Collis, WA6SVT
		First, Gordon will wake up the audience with his ham radio humor. Then the speakers will describe what Amateur Television (ATV) was in the past, and how it has evolved into the digital world.
10:50 – 11:50	Room 3	The Importance of Articulate Audio and How to Get It
		Moderator: Bob Heil, K9EID
		It's so important to have articulate audio. This forum will explain how to achieve this, as well as provide several live demonstrations before and after adjustments. It will also cover the Bell Labs studies of the human hearing system and what frequencies are most important to keep your signal on top of the pileups.
11:35 – 1:55	Room 1	DX Forum, sponsored by SouthWest Ohio DX Association
		Moderator: Jay Slough, K4ZLE
		Speakers: Jeff Dorsey, TZ4AM; Gregg Marco, W6IZT; Steve Romagni, W4DTA, and Bob Naumann, W5OV
		During this forum, Jeff will discuss operating from Mali, Greg will provide an update on the Rig in a Box, Steve will talk about Venezuela IOTA, and Bob will provide ARRL's status of DXCC topics. There will also be a drawing for an HF radio, with proceeds going toward helping to fund DXpeditions.

within the lines. Hear from Riley Hollingsworth, K4ZDH, about his development of the ARRL volunteer Monitor Program, using guidelines provided by the FCC and his years of experience working in the FCC Enforcement Bureau. Riley will cover why it's important to help each other maintain high standards on the air, the issuance of "good operator" notices to recognize exemplary behavior, how to deter poor operating practices, and what triggers a "VM Advisory" and "Going Far Afield." Sponsored by ARRL The National Association for Amateur Radio®.

12:00 – 1:30 Room 4 VHF, UHF, and Microwave Operations

Moderator: Tony Emanuele, K8ZR

Speakers: Joel Harrison, W5ZN; Andrea Slack, K2EZ, and Jason Baack, N1AV

In this forum, speakers will discuss operating 222MHz for the Worked All States (WAS) Award, VHF roving, what happens when you combine amateur radio with a scavenger hunt and college road rally, and the preparations for Jason's 1296 and 902MHz EME DXpedition from KH6.

12:10 – 1:40 Room 2 AMSAT Forum

Moderator: Robert Bankston, KE4AL

Speakers: Robert Bankston, KE4AL; Jerry Buxton, NØJY; Alan Johnston, KU2Y, and Frank Karnauskas, N1

The AMSAT Forum will highlight the organizations recent activities and discuss some of its challenges, accomplishments, and current and upcoming missions. Speakers will cover engineering, education, operations, and development.

1:30 – 2:30 Room 3 ARRL Membership Forum

Moderator: Dale Williams, WA8EFK, ARRL Great Lakes Division Director

Speakers: Rick Roderick, K5UR, ARRL President, and David Minster, NA2AA, ARRL CEO

The ARRL is the national association for amateur radio® in the United States. For many of us, being an ARRL member is about participating in the hobby of a lifetime. We're developing and exploring the ever-growing field of ham radio interests and activities, and we're sharing our passion for ham radio with others. ARRL is also amateur radio's representative voice in regulatory and legislative matters – protecting it as a national and international resource. Member-volunteers are serving their communities and training as emergency communicators through ARRL's Amateur Radio Emergency Service® (ARES). At this session, you'll hear from ARRL representatives on several key areas of membership interest. Find out how ARRL supports dozens of ways to get involved and get radio active. Members and prospective members are all welcome!

Plan to attend this exciting forum to learn about QCWA youth activities, as well as its support for the Young Ham Lends a Hand program among others. This year, the Annual Members' Meeting will be held in conjunction with the forum. Learn of the associations past achievements, as well as financials and other business. Plan to participate in a lively question and answer session.

1:50 – 3:20	Room 2	The Fast Track to Understanding Ham Radio Propagation
		Moderator: Michael Burnette, AF7KB
		Michael is the author and narrator of the Fast Track series of ham license courses, as well as supporting workbooks and other material, including The Fast Track to Understanding Ham Radio Propagation, which covers propagation from the ground up – literally! This lively, fast-paced presentation is a plain-language guide to really understanding ionospheric propagation.
2:05 – 3:50	Room 1	Contesting
		Moderator: Doug Grant, K1DG
		Speakers: Ray Higgins, W2RE; Rockwell Schrock, WW1X; Ed Muns, WØYK; Tim Coker, N6WIN, and Carlo De Mari, IK1HJS
		In this forum, speakers will discuss how to take remote contesting to the next level, how to build a contest station in Arizona, what can happen when checking digital contest logs, as well as provide an update regarding World Radiosport Team Championship (WRTC) 2022/2023.
2:45 – 3:50	Room 3	Parks on the Air
		Moderator: Matt Heere, N3NWV
		This forum is all about Parks on the Air (POTA), including where it came from, how it works, and how you can get involved.
2:50 – 3:50	Room 4	HamSCI: Ham Radio Science Citizen Investigation
		Moderator: Nathan Frissell, W2NAF
		Speakers: Veronica Romanek, KD2UHN; Scotty Cowling, WA2DFI; Diego Sanchez, KD2RLM, and Bill Engelke, AB4EJ
		The Ham Radio Science Citizen Investigation (HamSCI) is a group that connects the radio amateur community with the professional research community. Veronica Romanek, KD2UHN, will present on traveling ionospheric disturbance (TID) observations using the Grape Low-Cost Personal Space Weather Station. Scotty Cowling, WA2DFI, will give an update on the status of the TangerineSDR project. Diego Sanchez, KD2RLM, and Bill Engelke, AB4EJ, will present a climatology of TIDs and machine learning techniques for automatic detection of TIDs, using observations from Reverse Beacon Network, WSPRnet, and PSKReporter data.

Phil will describe his multichannel multicast software-defined radio (SDR). He'll show it running in real-time on a Raspberry Pi 4 with an Airspy R2 (20 MS/s real time), demodulating every FM channel on a VHF or UHF band. See how Phil, Bruce and Mooneer have recorded all the activity in the 2-meter, 70-centimeter, and 125-centimeter bands, collecting over 1.1 TB of data in the past year.

For those of you who've wondered how you can use digital voice on HF, Mooneer will introduce FreeDV, an open-source HF mode, and describe the latest developments and how it's used on the air.

If you haven't tried operating remote yet because of the cost or complexity, Bruce will describe his \$14 remote radio controller and how to add one to your station, so you too can take advantage of remote radio operations.

--	--	--

4:00 – 5:00	Room 1	Having Fun with Morse Code
--------------------	---------------	-----------------------------------

		Moderator: Dan Romanchik, KB6NU
--	--	---------------------------------

		CW is the quintessential amateur radio mode. It's historic, folkloric, and can be a lot of fun. In this session, Dan will explore some of the reasons why CW is still such a popular mode, as well as how to learn Morse code, select a key, make contacts, and have fun.
--	--	---

--	--	--

4:00 – 5:00	Room 3	ARRL Collegiate Amateur Radio
--------------------	---------------	--------------------------------------

		Moderator: Tony Milluzzi, KD8RTT, Advisor, ARRL Collegiate Amateur Radio Initiative
--	--	---

		Speakers: Tony Milluzzi, KD8RTT, Advisor, ARRL Collegiate Amateur Radio Initiative; Andy Milluzzi, KK4LWR, Advisor, ARRL Collegiate Amateur Radio Initiative, and Bob Inderbitzen, NQ1R, Staff Liaison, ARRL Collegiate Amateur Radio Initiative
--	--	--

		Since the ARRL Collegiate Amateur Radio Initiative (CARI) was established in 2017, the community of participating students and ham radio clubs at colleges and universities has grown. CARI holds monthly Zoom meetups and makes connections through the CARI 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. Hear from students, alumni, and faculty. As a Dayton tradition, we often gather on Saturday evening for pizza. CARI is sponsored in part by the W1YSM Snyder Family Collegiate Amateur Radio Endowment.
--	--	---

--	--	--

4:00 – 5:00	Room 4	The New Technician Class Q-&-As for instructors!
--------------------	---------------	---

		Moderator: Gordon West, WB6NOA
--	--	--------------------------------

		Join Gordon West, WB6NOA, to learn about the new questions in the Technician-class question pool. Gordon has some great teaching techniques for the new questions to add to your classroom, or Zoom, instruction techniques.
--	--	--

Speakers: Steve D'Amico, and KC8QVO, Mike Nikolaus N1ØN
 BMHA started in 1990, with Hartley Alley's presentation of the bicycle ride he made to his 50th high school reunion – a distance of over 1,000 miles. After showing a few of the slides he presented, Steve D'Amico will display his modern high tech bicycle and his radio equipment that he uses on his long-distance rides.

9:15 – 10:20 Room 2 ARRL Radio Club Health Checkup

Moderator: Mike Walters, W8ZY, ARRL Field Services Manager

The Amateur Radio Service relies on having vibrant, active, and local radio clubs that are focused on mentoring, engagement, and outreach. Recent ARRL initiatives focus on developing and reinvigorating radio clubs. If your radio club is hungry for new ideas and looking for ways to engage newcomers, you won't want to miss this opportunity to take the ARRL Radio Club Health Checkup. You'll also hear about the new ARRL Foundation Club Grants program, funded by a grant from Amateur Radio Digital Communications (ARDC). Sponsored by ARRL The National Association for Amateur Radio®.

9:15 – 10:15 Room 3 Lightning Protection for Ham Radio Stations

Moderator: Jim Bacher WB8VSU

Speakers: Ward Silver, NØAX, and Dr. Al Torres, KP4AQI

This forum will discuss lightning protection for your ham radio station. It will include lightning characteristics and, tower grounding and bonding to control the lightning current outside. It will also cover grounding and bonding for your radio bench. The forum will end with a 10-minute Q&A session.

9:15 – 10:15 Room 4 Entry-Level Licensing – What's Worked and What Hasn't

Moderator: Bruce Blain, K1BG

All of us entered amateur radio in a number of different ways, whether it was the Class-B license of the 30s and 40s, the Novice license of the 50s through the 90s, or the current Technician-class license. Bruce will look at the history of entry-level license requirements and conditions, what's worked and what hasn't, and what it means for attracting youth to the hobby.

10:30 – 11:30 Room 1 Operating Your Station Remotely Using the Internet

Moderator: Sholto Fisher, K7TMG

An introduction to the hardware, software, and configuration needed to set up a ham radio station for remote operation using the internet.

Moderator: Ed Hare, W1RFI, ARRL Laboratory Manager

In May 2021, new FCC rules regarding exposure to RF energy went into effect. The limits haven't changed, but the ways that some amateur operators can determine whether their stations are exempt from evaluations are different. ARRL Lab Manager Ed Hare, W1RFI, will explain the rules, how to evaluate your station, and how to conduct your own evaluation using ARRL's RF Exposure Calculator at www.arrl.org/rf-exposure-calculator.

Ed has worked at ARRL Headquarters since 1986. He started as the test engineer for "Product Review" in QST, then became ARRL's "RFI guru" (notice his call sign), and now works as ARRL Laboratory Manager. His RFI articles have been published in QST and other ARRL publications, including The ARRL Handbook for Radio Communications, and have appeared in professional trade journals. He represents amateur radio with various industry groups including IEEE and ANSI standards committees. Sponsored by ARRL The National Association for Amateur Radio®

10:30 – 11:30 Room 3 How to Use DIGISONDE® Data

Moderator: Eric Nichols, KL7AJ

The worldwide networks of Lowell Digisonde International (LDI) DIGISONDE ionosondes can be a reliable aid for propagation, offering far more timely and meaningful data than solar numbers alone. We'll explain how to read and interpret DIGISONDE data.

10:30 – 11:30 Room 4 3YØJ Bouvet Island DXpedition

Moderator: Adrian Ciuperca, KO8SCA

On January 6, 2023, a group of 13 international amateur radio operators will depart the Falkland Islands in South America for a 45-day journey to Bouvet Island. Their goal is to make more than 200,000 contacts using 12 stations, while operating in CW, SSB, RTTY, and FT8. Bouvet Island is a small Norwegian inactive volcanic island that's half the size of Manhattan and covered almost entirely by snow and ice. Because of its remoteness, it has rightfully gained the title of the most remote uninhabited island on Earth. Bouvet Island is number 2 on Club Log's DXCC Most Wanted List making it the "Mount Everest" of DXCC entities. Preparations for this complex endeavor are currently well underway, and the 3YØJ team will provide a status update.