**Friday Forums**

9:15-10:35 Room 1  **TAPR Forum**  
**Moderator: Scotty Cowling, WA2DFI**  
Scotty has been involved in the openHPSDR project for the last 12 years, is a TAPR Director and current TAPR Vice President. Scotty is also active in the production of other SDR components. He is a co-founder of iQuadLabs, LLC, a supplier of openHPSDR systems and other Software Defined Radio components. He currently works at Zephyr Engineering, Inc, a computer consulting company that specializes in FPGA design and SDR hardware.

9:15-10:15 Room 2  **Remote Access to your Amateur Radio Station**  
**Moderator: Mark Aaker K6UFO**  
Bio: Mark is Contributing Editor on Remote Contesting to National Contest Journal magazine. He has operated a remote station for the 10 years, and has presented at Hamvention since 2016.

**Creating and Maintaining a Remote Station in Snowy Eastern Ontario.**  
**Speaker: Michael Walker VA3MW**  
Remote access makes your station more useful and enjoyable for you and any hams you mentor. Let’s avoid the common problems, with an overview of remote access methods being successfully used today. We’ll cover in more detail a remote station in Eastern Ontario that operates without a visit during the winter. And yes, we’ll save time to answer your questions.

9:15-10:30 Room 3  **The ARRL Lab: Trials, Tribulations, and Tall Tales**  
**Presenter: Ed Hare, W1RFI, ARRL Laboratory Manager**  
ARRL Laboratory Manager, Ed Hare, W1RFI, has promised to give us the real “inside” information about what goes on in the ARRL Laboratory. His presentation is chock full of information about the day-to-day things that happen in the Lab when nobody is lookin

9:15-10:15 Room 4  **SHARES HF EMCOMM**  
**Moderator Ross Merlin WA2WDT**  
Ross was first licensed in 1974 and now holds the Amateur Extra Class license and the General Radiotelephone Operator License. He enjoys contesting, Dxing, Automatic Link Establishment, and digital modes when not on the air on government HF channels at work managing a federal government HF emergency communications program.  
**Speaker 1: Ross Merlin, WA2WDT**  
**SHARES HF Emergency Communications**  
SHARES is the SHAred RESources HF radio program managed by the Dept. of Homeland Security to provide backup long-range communications, interoperability, and situational awareness for all levels of government, critical infrastructure and key resources providers, and national or regional disaster relief organizations; all on federal radio channels. Many SHARES radio operators are also amateur radio operators, and the application of the skills and knowledge learned in amateur radio to government emergency communications is invaluable. This presentation will include a description of the program mission and eligibility, and an open forum for SHARES members to discuss operations, policies, and the evolution of the program.

9:15-10:30 Room 5  **Parks On The Air**  
**Moderators: W8TAM Thomas Martin & K8VOX Julie Martin**  
Moderator: Julie Martin, K8VOX  
Licensed in 2016, I enjoy all aspects of operating portable from unique places.
**10:45-11:50 Room 1 APRS Forum**  
**Moderator: Bob Bruninga, WB4APR**

Many new things will be presented by a variety of authors. Bob Bruniga, WB4APR will cover all the new operating modes including DTMF, text-to-voice, PSK31 and an SSTV camera that will be in the PSAT2 satellite scheduled for launch just two weeks after Dayton. Brian Hoyer, K7UDR, has fresh updates from Northwest Digital Radio. Bob Riggs, WX9O, will introduce his Bluetooth TNC3 for smart phones to give everyone a full-fledged GPS-enabled APRS system with amazing two way communication capabilities. This makes APRS messaging much more intuitive and much more convenient than bringing a laptop computer into the field. Announcements of other projects are welcome.

**10:25-11:25 Room 2 MARS Forum Hamvention 2019**  
**Moderator 1: Paul English, WD8DBY**

Bio: Paul holds the Amateur Extra and has been licensed since 1976. He has served as the Army MARS Program Manager since 2013. Paul enjoys tinkering with electronics and hoping he can get all the parts back together after taking things apart.

**Richard Duncan, WD5B**

**MARS RADIO and the Military Support Network in 2019**

The Department of Defense uses HF phone patching everyday...Richard will present an update on the MARS Radio phone patch network and how you can support this effort. Richard will also talk about changes to the Military Support Network.

**Dave Stapchuk, KD9XM**

Dave has been licensed as an amateur radio operator since 2015 and has served as the Chief of Air Force MARS since 2014. In addition to his amateur radio hobby, Dave is an avid golfer. Don’t be surprised if you see Dave walking around Hamvention with his golf clubs in tow!

**Mark Jensen, WA6MVT**

**NORTHCOM Comms Interoperability Exercise Comes to Ohio**

Mark and a representative from the Ohio Army National Guard will discuss the upcoming DOD, Federal, public safety and amateur radio communications interoperability exercise that will take place in Ohio later in June. Mark will explain how amateur radio operators can become involved in this training opportunity.

**Matt Deutch, N0RGT**

**WWV 100th Anniversary**

Matt will give a presentation about the LF/HF broadcast station WWV/H/B and the upcoming 100th anniversary of the WWV time standard broadcast.

**10:40 - 11:40 Room 3 Digital Contesting**  
**Ed Muns, W0YK**

Ed is the director of the CQ WW RTTY and CQ WPX RTTY contests, manager of the NCJ NA RTTY Sprint, NCJ Digital Contesting columnist and co-sponsor of the Ten-Meter RTTY and FT8 Roundup contests. He has taught the Digital Contesting classes at the Dayton Contest University since 2007. Much of his CW and digital contesting is done with his P49X call sign in Aruba.

**John Pescatore, K3TN**

**Future of FT8 in Digital Contesting**
Since its introduction in mid-2017, the FT8 mode has instantly dominated HF ham band activity, as measured by LotW and ClubLog QSOs across the CW, SSB, RTTY and FT8 modes. In December 2018, the first FT8 contest was very successful: the FT8 Roundup. That was followed by the traditional ARRL RTTY Roundup in early January 2019 where an all-time high number of logs were submitted, due to the inclusion of the FT8 mode.

Jeff Blaine, AC0C
Future of RTTY Contesting
The recent popularity of FT8 and its appearance in the first two contests has some people wondering what the impact may be on the future of RTTY contesting. Will FT8 supplant RTTY or will it be an additional popular contesting mode along with CW, SSB and RTTY?

10:30-11:30 Room 4 Instructor’s Forum
Moderated by Carole Perry WB2MGP
Carole is the 1987 Ham of the Year and has been inducted into the CQ Hall of She is the first recipient of the Carole Perry Educator of the Year award. She has moderated the Instructors’ Forum and the Youth Forum for 32 years.

Tamitha Skov
The Use of Space Weather information in the classroom
Tamitha is the Space Weather Woman. She helps the “Mars Generation” understand the effects of space weather in our daily lives.

Tim Cunningham
Tim is the “Satellite Man”. He is a member of the Huntsville ARC and serves as Alabama APRS Coordinator and is AMSAT Area Chairman. He regularly organizes school contacts with the ISS.

10:45-11:45 Room 5 Collins Radio
Moderator: David Knepper, W3ST
Bio: First licensed in 1955, Dave is now active in the restoration and repair of Collins amateur radio equipment. He is the secretary and founder of the Collins Radio Association:
www.collinsradio.us

David Knepper: Recapturing a legacy to promote and to sustain amateur radio for generations to come

11:35-1:00 Room 2 D-Star
Moderator Robin Cutshaw, AA4RC
New devices. New software. Join Robin Cutshaw (AA4RC) and more for updates on D-STAR.
Room 3 ARRL Spotlight on Radio Clubs and Mentoring

Presented by members of the Nashua Area Radio Society: Fred Kemmerer, AB1OC; Anita Kemmerer, AB1QB; Jamey Finchum, AC1DC; Dave Merchant, K1DLM

ARRL is pleased to introduce members of the Nashua Area Radio Society (NARS), from New Hampshire. This ARRL Special Service Club has over 200 members contributing to Amateur Radio licensing classes, youth and school activities, on the air operating activities, Amateur Radio expositions in public venues, and emergency communications training. NARS is a vibrant, active radio club focusing on mentoring and youth outreach. Club members will share a presentation about their activities and approach to building membership and participation in their club. If your radio club is hungry for new ideas, looking for ways to engage newcomers - you won’t want to miss this opportunity to hear from a vibrant, active radio club. Sponsored by ARRL, the national association for Amateur Radio.

Room 4 Kit Building

Moderator/Keynote Speaker: Joe Eisenberg, K0NEB

Joe is the Kit Building editor for CQ Magazine and the chapter author for the Construction Techniques chapter of the ARRL Handbook.

David M Crip, NM0S

New Kits from 4-State QRP Group
David is an Engineer for Rockwell Collins in Cedar Rapids, Iowa, and designs many 4-State QRP kits.

Room 1 Homeland Security Forum

Moderator: John Peterson/N4KEA

The Department of Homeland Security will once again be back at Hamvention 2019 to give you the latest updates regarding the Auxiliary Communications (AUXCOMM) program and how it is being incorporated into the state’s emergency communications planning. John will be covering the current status of the program, along with updates regarding the proposed new NIMS/ICS Communications Section and the newly approved national Position Task Book for Auxiliary Communicators for all 56 states and territories.

Moderator: Karl Bowman / W4CHX
Hurricane Florence hit North Carolina dead-on in 2018, and the states AUXCOMM communicators came out in force to support the state during communications outages. Listen to how it all came about, and how AUXCOMM was the primary means of backup emergency communications when it was needed. North Carolina is one of the most active states utilizing AUXCOMM today.

Moderator: Dan Wills / K7RUF
Dan Wills has been a focal point for ECD coordinating with key federal and public safety partners who have jointly proposed a new “Communications Section” under NIMS/ICS. Dan will give you the latest of where ECD is in getting this new organization approved and how it will affect those trained in AUXCOMM.

Room 5 BalloonSat Forum

Moderators: Bill Brown WB8ELK
Bill was first licensed in 1969 and has been actively promoting the use of Amateur Radio flown aboard high altitude balloons. He has flown over 500 Amateur Radio High Altitude Balloons (ARHAB) since his first launch in 1987.
Bill Brown, WB8ELK
Long Duration balloon flights around the World
How to design and launch Pico balloon payloads capable of circling the World.

Mike Hojnowski, KD2EAT
Lofty Goals - An Ambitious HAB Flight
Details of preparations for a high altitude balloon flight that includes a live camera Amateur Television (ATV) downlink, A crossband VHF to UHF repeater with coverage spanning hundreds of miles and a touch-tone cutdown system.
Shane Wilson, N4XWC
How to successfully track and recover balloon payloads. Setting up a chase vehicle and the equipment necessary for tree and rugged terrain rescue. A Pico balloon race will be held shortly after the BalloonSat Forum (Rain Date will be on Saturday around Noon)

1:10-2:30 Room 2
National Weather Service Forum
Working With Amateur Radio ... To Save Lives During Severe Weather Brandon Peloquin, Warning Coordination Meterologist, National Weather Service, Wilmington, Ohio

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.

1:15-2:15 Room 3
Out of this World Ham Radio via Amateur Radio on the ISS
Rosalie White, ARRL ARISS-US; Frank Bauer, AMSAT ARISS-US, K1STO-KA3HDO
Rosalie and Frank were the two US leaders of ARISS since Day 1, when NASA asked them in 1996 to begin plans to build a world team for Amateur Radio to be on the International Space Station. The rest is history!

The ARISS team will present an overview and status of the ARISS program and then conduct a panel/Q&A session with ARISS panel experts in operations, education, hardware, experimentation and exploration. We also hope to have some surprise guests attending!

1:00-2:15 Room 4
Techniques Of The Best Operators
Mitch Stern W1SJ
This year, Mitch celebrates his 50th year in ham radio and is still super active! His first love is contesting, and he is often that rare multiplier you work from Vermont. His second love is teaching, and he teaches several classes for Technicians and Generals. Mitch Stern Techniques of the Best Operators
Now that you’ve bought up all that great stuff at Hamvention, now what do you do with it? Why is working new stations such a struggle? Why does everyone else work the juicy DX but I can’t? Why is it every time I get into a QSO, it ends up getting swallowed by others.

1:45-2:45 Room 5
Using KiCad
Barry Buelow, W01Y
Barry was first licensed in 1967 and has been actively building every since. He is a disciple of KiCad advocating for the Open Source software by teaching classes and generally being a resource to help others design their own circuits and PCBs. KiCad provides Schematic Capture, BOM, Netlist, PCB Layout and Gerber file creation. It also supports Pick-n-Place files and other design tools like Spice. Beginners and advanced users will get a quick tour of KiCad and see the latest addition, the Visualization feature that shows you what a complete PCB will look like with components installed.

Antenna Forum
Moderator: Tim Duffy K3LR
Dr. Ted Rappaport N9NB and Jim Parnell W5JAW
How to Use Your Tower as a Dual-Band Single-Feed 80 meter/160 meter Vertical Antenna Using No Traps, Switches, or Tuners – And Extensions to Phased Arrays
Frank Donovan
Big and Small High Performance 6 Meter Yagis You Can Build

Dr. Tamitha Skov
Forecasting the Next Solar Cycle for Radio Propagation; Separating Fact from Myth

Chris Janssen
A Four Element Vertical Dipole Array – Super Antennas On the Beach for Dxpeditioners

2:40-3:45 Room 2

Ham Radio and the Law
Fred Hopengarten, Esq., K1VR
The author of “Antenna Zoning for the Radio Amateur,” with the Third Edition due out later this year, Fred is active in contests and DX. This past fall, he was elected as the new ARRL Director for New England.

Bob Famiglio, Esq., K3RF
Excluding a Ham from Your Repeater and Network
Bob will address issues arising when repeater or network owners exclude licensed amateurs for whatever reason. With the continued expansion of linked repeater networks, some have resorted to litigation when excluded. Bob will present a summary of a recent case and the law regarding such restrictions with his recommendations.

Barney Scholl, Esq., K3LA
Subject: Should your club be tax exempt?
Can/should an amateur radio club qualify as a charitable organization? Steps under the federal and state rules. Suggestions.

Fred Hopengarten, Esq., K1VR
Antenna Law News

2:25-3:40 Room 3

ARRL Public Service Communications: Panel Discussion
A chance to hear from representatives from Amateur Radio’s largest organizations active during times of disaster and emergency. An update will also be given about planning to update the Amateur Radio Emergency Service® (ARES®) including many changes that were asked for by our volunteers and partner agencies: training, reporting, identification, leadership development, and more. Sponsored by ARRL, the national association for Amateur Radio.

2:30-3:30 Room 4

Young Ladies’ Radio League
Marilyn Melhorn, AF7BI
Marilyn is the current President of Young Ladies’ Radio League Clubs, Girl Scouts, and more! How it's happening and what you can do.

Anne Manna
YLRL: Introduction to the largest organization for women hams (YLs) world-wide.
3:55-5:00 Room 2 System Fusion Forum  
**Moderator:** Mark Thompson, WB9QZB  
The System FusionTM Forum will include a presentation & discussion about Yaesu’s System FusionTM Voice & Data technology designed exclusively for Amateur Radio. The forum will review updates to Yaesu’s System FusionTM technology including 2m / 70cm Analog FM / C4FM Digital Voice Repeaters & Mobile / Portable radios and WiRES-XTM (Wide-coverage Internet Repeater Enhancement System) & IMRSTM (Internet-linked Multi-site Repeater System) VoIP communications linking systems.  
**John Kruk, N9UPC**  
Yaesu System FusionTM News & Update  
John Kruk, N9UPC, Sales Manager, Amateur Radio Sales Division, Yaesu USA

3:50-5:00 Room 3 Software Defined Radio  
**Stephan Hicks N5AC**  
Multiple speakers will discuss new advances in the world of Software Defined Radio and will form a panel at the end to discuss questions from the audience. Moderated by Steve Hicks, N5AC, VP Engineering FlexRadio Systems.

3:45-5:00 Room 4 75 Years of CQ - Ham Radio’s Independent Voice  
**Rich Moseson, W2VU, Editor, CQ magazine**  
A look at CQ magazine and ham radio from 1945 to today and into the future.

3:00-4:45 Room 5 New Products Showcase  
**Moderator:** John Burningham, W2XAB