

## Saturday Forums

9:15-10:35 Room 1

### Ham Nation

#### Bob Heil, K9EID

The HAM NATION hosts will be on stage to discuss this past year of Ham Nation programs on Leo Laporte's TWIT.TV network.  
You finally fixed your transmit audio, now what about your RECEIVE audio?  
Dr. Bob brings more science of audio to this important subject.

9:15-12:00 Room 2

### Youth Forum 2019

#### Moderated by Carole Perry WB2MGP

#### Tamitha Skov, The Space Weather Lady, WX6WW

The Effects of Space Weather on our daily lives and communications. Tamitha will address the "Mars Generation" about the effects of Space Weather on our daily lives and our communications.

#### Conner Black, age 17, W4IPC

Working Amateur Satellites and DX Contesting

#### Isaac Schofer, age 14, AC3CJ

The BITX40 Radio Project

#### Marissa Robledo, age 12, W4AQT

Why Working Satellites Helps Students

#### Galen Gold, age 20, KB6EE

Compact Modulated CW Foxhunt Transmitters

#### Sibi Raja, age 15, KE0MWB

Working with FEMA and Emergency Preparedness with Radio

#### Vonita Latham, age 13, KM4CLT

Fun With the Boy Scout JOTA

#### Xenia Berger, age 18, ZL4YL

Getting Involved in Fun Ways in Amateur Radio

#### Jose Foxx, age 18, KV8RED

Escorted by Representative of the 'Mexican Embassy'

9:15-10:40 Room 3

### Foxhunt/ARDF

#### Dick Arnett, WB4SUV

An acknowledged foxhunter for over 40 years and an accomplished ARDFer for over 20, Dick along with co-speakers Brian DeYoung and Bob Frey will discuss the many aspects of VHF and HF foxhunting from both a mobile and on-foot aspect.

#### Dick Arnett, WB4SUV

Annual Poll, The Mobile Hunt - Getting Started

As an avid mobile fox hunter, Dick loves to bring new people into this fun activity. He will discuss types of receivers, antennas and additional extra needed get beginners on the road to success.

#### Brian DeYoung, K4BRI

Design and Construction suggestions for Foxhunting Equipment

Equipment used for foxhunting and ARDF is a little different than most ham radio projects. Some experiences and suggestions for the design and construction of equipment used in foxhunting and ARDF.

**Bob Frey, WA6EZV**

ARDF is a fast paced on-foot type of foxhunt that can be enjoyed by individuals of all ages. It combines the skills of orienteering, map reading, with the directional skills of foxhunting. Topics include: Discussion of equipment and techniques needed for both 2M and 80M On-foot hunts (ARDF) as well as upcoming events.

**9:15-10:30 Room 4**

**HamSCI Forum**

**Nathaniel Frissell, W2NAF**

Nathaniel Frissell, W2NAF, is a research professor of the New Jersey Institute of Technology and the principal founder and leader of the Ham Radio Science Citizen Investigation.

**Steve Cerwin, WA5FRF**

Ionospheric Disturbances at Dawn, Dusk, and During the 2017 Eclipse  
The author recently participated in the HamSCI propagation experiments during the August 2017 total solar eclipse and the ARRL November 2017 Frequency Measuring Test.

**Bill Liles, NQ6Z**

Using WWV Timing Reference Signals to Observe Ionospheric Variation.  
For decades, an AM modulated time signal has been broadcast at multiple HF frequencies by the National Institute of Standards and Technology (NIST).

**Ethan Grace and George Lemaster (WB5OYP)**

Sudden Ionospheric Disturbances (SIDs) and Personal Space Weather stations.  
This presentation will deal with Sudden Ionospheric Disturbances (SIDs), what they are, what their effects are, how they can be observed easily at home, and observations combined with others to form a more complete view of the ionosphere.

**Scotty Cowling**

Update on Personal Space Weather Station & SDR Hardware. The Personal Space Weather Station is a HamSCI project to create a distributed network of ground-based ionospheric and space science instrumentation. This presentation will discuss the current mission objectives and project requirements, as well as the status of current hardware development.

**9:15-10:15 Room 5**

**Summits on the Air**

**Moderator: Keith Schlottman, KR7RK/VA3RRK**

Keith Schlottman, KR7RK / VA3RRK enjoys both ham radio and hiking, and is a SOTA “Mountain Goat” and “Super Sloth”. Keith has served in various leadership roles in many ham radio organizations. He has been the Treasurer of Ten-Ten International Net for over 25 years and works in the financial services industry. **Keith Schlottman**

Summits On The Air: Ham Radio and the Great Outdoors

Improvements in portable gear have made it easier than ever for hams to combine outdoor activities with amateur radio. The SOTA program provides opportunities for everyone to participate, whether you're a long-distance hiker, mobile operator, or working from your shack at home. SOTA is an excellent way to share our hobby with youth, who may be find the "Adventure" aspect interesting. The SOTA program is also an excellent way to practice emergency service station setup and operation. SOTA provides opportunities to field-test various equipment, and is a great way to learn more about the effects of operating location on signal propagation. This presentation will discuss ways to enjoy this world-wide program for newcomers and old-timers alike.

**10:15-11:15 Room 1 Heil Sound Workshop**

**Bob Heil**

The HAM NATION hosts will be on stage to discuss this past year of Ham Nation programs on Leo Laporte's TWIT.TV network.

You finally fixed your transmit audio, now what about your RECEIVE audio? Dr. Bob brings more science of audio to this important subject.

**10:50-11:50 Room 3 I Am A New Ham, Now What Next?**

**Frank J. Beafore, WS8B**

Frank is an Extra Class operator first licensed in 1977. His interests include: antenna design and build, home brewing and 20 and 40 meter SSB operations. Frank also has served Hamvention since 1991 in many different capacities. He is currently the co-chair for the Awards Committee.

**Dr. Richard A. Allnutt - WS8G**

Rick is an Extra Class operator first licensed in 1982. Rick is currently the assistant general chairman for this year's Hamvention. Rick has been active home brewing QRP, antenna design, digital communications and recently in contesting.

So now I am a New ham. What do I do next?

All newly licensed hams have a lot of questions pertaining to "what's next". Rick and Frank will present real-world questions heard from new hams as well as taking questions from the audience. Many subjects will be covered including: SWR, nets, antenna design, DX, propagation basics, mobile and fixed installations, public service and lots of other related questions. This forum is designed for the new ham, but all license levels are invited. Frank and Rick do not have all the answers, so help will be requested from the audience. Please join us for the fun.

**10:40-11:50 Room 4 Fast Scan ATV**

**Art Towslee, WA8RMC**

I've been involved with ATV since 1965 and retired from electrical engineering of 44 years. Since 1965 I've been involved in almost all aspects of ATV in the UHF/microwave bands including digital ATV. I am the hardware designer of the DATV-Express DATV

**Gordon West, WB6NOA**

**Mel Whitten, K0PFX**

Exploring the world of High Definition Digital Television.

Like to get started or re-started in Amateur TV? Mel will explore the current digital ATV gear available and how it can be used to assemble a high performance station. Sharing his operating experience and years of building gear, Mel will show you how to an ATV Station.

**Mike Collis, WA6SVT**

California ATN Network update

**Art Towslee, WA8RMC**

Wrap up and summary of the available DATV MiniTiouner DVB-S/S2 receiver module

**10:30-11:30 Room 5 Kenwood Equipment Forum**

**Mr. Jan Sevaites, N8CBX**

**Mark Gilger, WB0IQK**

Kenwood Legacy Equipment Resources

Mark was first licensed in 1966 and has been continuously active since that time. He holds an General Class License. He is active HF SSB & AM. Mark is one of the net controls for the Kenwood Hybrid 20 & 40 meter technical net. He enjoys restoring Kenwood Legacy Equipment.

**11:25-1:50 Room 1**

**DX Forum, sponsored by the SouthWest Ohio DX Association, SWODXA**

**Jay Slough, K4ZLE**

“Brunei, V84SAA” by KO8SCA, Adrian Ciuperca

“VP6D, Ducie Island - DX Sharks” by K5GS, Gene Spinelli; K3EL, Dave Lloyd; W2LK, Les Kalmus

“KH1/KH7Z - the rest of the story - getting there” by N1DG, Don Greenbaum; K6TD, Kevin Rowett

“Legacy of W0AIH, What can we carry forward?” by W0GJ, Glenn Johnson  
At the conclusion of the DX Forum, we will draw the lucky winner for the Yaesu transceiver, so generously donated by Yaesu. All proceeds from this activity are used 100% to help fund DXpeditions like the ones being presented in this forum.

Note: This may not be the presentation order. However, the presentation on W0AIH will be the last presentation for the forum so that any contesters planning to attend the Contest Forum, immediately following ours, can come early and hear the entire program.

**12:10-1:40 Room 2 AMSAT**

**Robert Bankston, KE4AL**

Bio: First licensed in 1990, Robert explored many facets of amateur radio, but eventually found his home in amateur radio satellite operations. Whether from home or off on a GridXpedition, he’s happiest on the Birds.

**Joe Spier AMSAT-NA President, K6WAO**

AMSAT Status Report

Joe will highlight recent activities within AMSAT and discuss some of our challenge, accomplishments, projects, and any late breaking news.

**Jerry Buxton AMSAT-NA Vice President for Engineering, N0JY**

Jerry will talk about the latest Fox and Golf (Greater Orbit Larger Foot Print) Projects

**Alan Johnston, Vice President AMSAT -NA Educational Services**

Subject: Alan will discuss AMSAT's new Cubesat Simulator Program

**Robert Blankston Vice President AMSAT -NA User Services**

Robert will discuss AMSAT's 50th Anniversary Operating Event, as well as the new AMSAT Ambassadors Program.

**12:00-1:15 Room 3 ARRL Member Forum**

**Dale Williams, WA8EFK, ARRL Director -- Great Lakes Division**

ARRL welcomes all members and friends to this 2019 ARRL National Convention, hosted by Hamvention. ARRL is the national association for Amateur Radio in the US. Members help advance the art, science, and enjoyment of Amateur Radio. ARRL publishes the popular monthly journal QST, coordinates an extensive all-volunteer field organization, and serves members as Amateur Radio's representative voice in regulatory and legislative matters. At this interactive session, you'll hear from national and regional ARRL officials on key areas of membership interest. Find out how ARRL supports dozens of ways to get involved, get active, and get on the air. Members and prospective members are all welcome!

**12:30-1:30 Room 4 VHF-UHF-Microwave Forum**

**Tony Emanuele, CQ Magazine VHF + Column editor**

**Donn Baker, WA2VOI** Your First Microwave Band... Cheap!

**John Young, KM4KMU** Observations on FM Contesting.

**Chip Taylor, W4AIM** Microwaves and Mountaintops, good and bad.

**Kent Britain, WA5VJS** Yagis: Stacking myths & old wives tales.

**Jeff Wadsworth, KI5WL** Inexpensive Test Signal Sources for 10 and 24 GHz.

**Tony Emanuele, K8ZR** 8 GHz Fun in the Arizona Sun.

**11:45-1:00 Room 5 Satern**

**Bill Feist, WB8BZH**

Bill is the National SATERN Liaison for The Salvation Army. SATERN is the Salvation Army Team Emergency Radio Network. Bill has been a member of SATERN since 1994 and is currently the Divisional Emergency Disaster Services Disaster Liaison for the Alabama-Louisiana-Mississippi (ALM) Division. In his 24 years of service as a volunteer and staff member, Bill has participated in or led numerous responses by The Salvation Army to major fires, hazardous materials incidents, SWAT actions, tornados, floods, hurricanes (Ivan, Katrina, Gustav and Isaac to name a few) and wildland / forest fires. He was also part of The Salvation Army response to at the World Trade Center in New York in 2001. Feist is a Certified Emergency Manager (CEM) through the International Association of Emergency Managers (IAEM).

2:00-3:50

Room 1

### **Contesting Forum**

#### **Doug Grant, K1DG**

Doug was first licensed in 1967 and has been continuously active since that time. He has operated countless contests, and has won many of them. He was a founder of the World Wide Radio Operators Foundation (WWROF) and is currently working on a book about contesting for ARRL, due to be published in late 2019.

#### **Violetta Latham, KM4ATT**

#### **Marty Sullaway, NN1C**

The Team Exuberance WPX SSB operation at K3LR

What happens when the owner of a multi-multi contest station opens it up for an enthusiastic group of young operators from multiple home locations? The operators must make all the arrangements for travel, parental permissions, and raising the funds to cover travel costs before they make a single QSO.

#### **Victor Androsoy, VA2WA**

#### **Randy Thompson, K5ZD**

Changing the game - Contesting with a Live Scoreboard

Have you ever wondered how your competition was doing during a contest? Live scoreboards make that possible. This talk will describe the current status of Online Scoreboards and how they can affect your operating and add fun and excitement to the game.

#### **Carlo De Mari, IK1HJS**

The Road to WRTC2022

The next World Radiosport Team Championship will be held in Italy in 2022. Learn how to qualify for the "Olympics of Ham Radio" or volunteer to help and start making travel plans to attend!

#### **Ed Muns, W0YK**

FT8 and the Future of Contesting

The speed of adoption of the FT8 mode has been unprecedented. It has already impacted "RTTY" contesting, and could have an effect on the future of contesting in general. Imagine a future with "Fox-Hound" mode in use on CW - working multiple stations on a band simultaneously...

#### **Chris Hurlbut, KL9A**

#### **Kam Sirageldin, N3KS**

TI7W and the Quest for 10,000 QSOs

What does it take for a single-op to make 10,000 QSOs in a single weekend? That's an average rate over 200 QSOs per hour for 48 hours. Operator skill, the "2BSIQ" dual-CQ technique, a suitable location, and a finely-tuned station are all needed. Hear what operator KL9A, and station builder N3KS have done to chase the goal.

1:50-3:20

Room 2

### **AREDN**

#### **Andre Hansen, K6AH**

Andre has been a ham for 50 years, having passed his Novice in 1969 as WN6AQZ. As the AREDN "project manager" he finds this open-source, volunteer-based effort personally rewarding and is "...thrilled at how far the team has been able to take this technology".

AREDN - Broadening the Face of Ham Radio to a New Generation

It's not hard to imagine mesh technology having an appeal to younger hams. What was harder to foresee was the number of opensource Linux developers who would latch onto this project, get their ham licenses, and participate in the evolution of this technology.

Andre will discuss this phenomenon as well as bringing us up to speed on AREDN developments and notable implementations over the past year.

- 1:30-2:30      Room 3      Engaging Today's Radio Amateur**  
**Howard E. Michel, WB2ITX, ARRL Chief Executive Officer**  
Come meet ARRL's new CEO, Howard Michel, WB2ITX – and hear from him about ideas and opportunities to more deeply interest and engage newcomers and inexperienced radio amateurs. "Ham radio shouldn't abandon the old guardians of the hobby, but at the same time, it needs to have new things that appeal to people who have different interests and different passions." A variety of topics will be covered, including the role of radio amateurs in advancing technology, opportunities to volunteer, and creating meaningful connections for young hams and educational institutions.
- 1:40-2:40      Room 4      Quarter Century Wireless Association (QCWA)**  
**Moderator: Ken Oelke, VE6AFO**  
Ken was first licensed in 1961 as VE6AFO, and has been continuously active since that time. He has been President of QCWA since 2012. Ken enjoys all aspects of amateur radio, and operates on all bands from 160 meters to 70 CM. Moon bounce was one of his favorite modes.  
**Carole Perry, WB2MGP**  
QCWA Annual Members' Meeting, Youth Activities & Forum  
Celebrating Amateur Radio operators achieving 25 years in Amateur Radio, and develops resources to assist young Amateur Radio operators in furthering their education through the QCWA Scholarship Program.  
Plan to attend this exciting forum to learn about QCWA Youth Activities, and the new QCWA/RCA Youth initiative. As well learn of our support for the ARISS Program, the 'Young Ham Lends a Hand' and the Dave Kalter, KB8OCP Memorial Youth DX Adventure. This year we will be holding the Annual Members' Meeting in conjunction with our forum. Learn of our past achievements, financial and other QCWA business. This is your forum, so be prepared to become engaged in QCWA's future! Plan to participate in a lively 'Question & Answer' session.
- 1:15-2:15      Room 5      Lightning and Grounding**  
**Moderator: Ronald Cohen, K3ZKO**  
Ron was in the Two-Way Radio field for 37 years dealing with lightning protection at remote mountaintop radio sites. You have to be in control of the lightning and direct it to go the shortest and with least resistance to ground.
- 4:00-5:00      Room 1      Gordon West, WB6NOA**  
Gordo celebrates 50+ years of ham radio fun  
When Field Day Plans Blow Out the Window



Gordon West will take you through the funny excitement of past Field Day bloopers, with special guest Chip Margelli, K7JA, and their classic observations of what can go wrong, what DID go wrong, with hilarious photos and sound effects.

**3:30-5:00      Room 2      Digital Modes: Now and for the Future**

**Mel Whitten, K0PFX**

Mel was an early adopter of HF digital modes from Amtor/Pactor, and various data and image transfer programs to spending the last dozen years on Digital Voice. Licensed on his 12th birthday, Mel has continuously been active on HF thru Microwave through his 61 years as an amateur radio operator. His current interest is in Hi-Def digital ATV designing and building systems to further enhance the user experience.

**Mark Miller, N5RFX**

2 meter and 70 centimeter Digital Radio basics

An explanation of different types of digital modulation used on 2 meters and 70 centimeters and how to interface to radios available to Amateur Radio operators.

**Bruce Perens, N6BP**

Return of the "HT Of The Future"

Out of the ashes of the first HT of the future prototype, a new SDR and Linux-based platform shows the power of Codec2 and soft modem-based communications for mobile and handheld platforms. Voice clarity, S/N, distance, fading and bandwidth are improved over FM and the first-generation digital voice platforms like D-Star, DMR and System Fusion. Advanced protocols bring many new features.



<p><b>Saturday, May 18, 2019</b></p>	<p><b>2:45 – 3:45 Room 3</b></p>	<p><b>Ham Radio Workbench Build Projects</b></p> <p>Moderator: George Zafiroopoulos</p> <p><b>Introducing the BenchDuino - The Ham Radio Workbench Podcast development platform for the Arduino and other processors</b></p> <p><i>Microcontrollers are at the heart of many ham radio projects today. In this session we will talk about a practical approach to learning how to design and prototype circuits as well as writing and debugging code for the Arduino. Project examples include the BenchDuino - a development platform for Arduino based projects and a 4 port remotely controlled coax relay featured on the Ham Radio Workbench Podcast.</i></p> <p>George has been licensed since 1972 and is the co-host of the popular Ham Radio Workbench Podcast where he and Jeremy, KF7IJZ, take a technical deep dive into topics of interest to the ham radio operator. George enjoys homebrewing gear and operating HF portable, and repeater systems.</p>
<p><b>Saturday, May 18, 2019</b></p>	<p><b>2:50 – 3:50 Room 4</b></p>	<p><b><i>DRAKE LEGACY EQUIPMENT</i></b></p> <p><b>Moderator, Mark Gilger, WB0IQK</b></p> <p>Mark was first licensed in 1966 and has been continuously active since that time. He is active HF SSB &amp; AM. Mark is one of the net controls for the Drake 40 meter technical net in addition to the Kenwood Hybrid nets on 40 &amp; 20 meters. He enjoys restoring Drake and Kenwood legacy equipment.</p> <p><i>Speaker 1: Mike Bryce, WB8VGE</i></p> <p><b>Subject: THE HEATHKIT SHOP - DRAKE EQUIPMENT UPGRADES</b></p> <p>Mike Bryce, WB8VGE, was licensed in 1975 and currently holds an Amateur Extra class license. Retired after nearly 50 years at Republic Steel, you'll find him running QRP on the low end of 40 meters. Mike was inducted into the QRP Hall of Fame in 2000. When the bands fold you'll find Mike up to his elbows fixing a broken radio. His spare time is divided by keeping the water levels topped up in the batteries for his solar power station and working in his greenhouse. Mike is a collector of old radios; Heathkit, Ten Tec, and of course Drake radios are his passion. He operates a one person website that caters to those looking for parts and upgrades. Mike is the author of numerous ham radio and solar power articles over the years. Mike is the author of the ARRL book, Emergency Power for Radio Communications.</p>
<p><b>Saturday, May 18, 2019</b></p>	<p><b>2:30-3:45 Room 5</b></p>	<p><b>New Product Showcase</b></p> <p><b>Moderator, Brian Markland – N8UDQ</b></p>

New Product Announcements from various companies

Saturday, May 18, 2019

4:00-5:00 Room 3 **ARRL Collegiate**

Moderators: Andy Milluzzi, KK4LWR, ARRL Public Relations Committee; Tony Milluzzi, KD8RTT, ARRL Volunteer, Collegiate Amateur Radio Initiative

A growing number of campus radio clubs and student radio amateurs are sharing ideas and suggestions on the ARRL Collegiate Amateur Radio Initiative (CARI) Facebook page, [www.facebook.com/groups/ARRLCARI](http://www.facebook.com/groups/ARRLCARI). They'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. The ARRL Collegiate Amateur Radio Initiative is sponsored in part by the WYYSM Snyder Family Collegiate Amateur Radio Endowment.

Saturday, May 18, 2019

4:00 – 5:00 Room 4 **Robotics in the Classroom**

**Moderator: Kerry Hicks, KA9HFX**

Kerry was first licensed in 1980. For the past 6 years, he has been using his 34+ years of experience in engineering and education to coach FIRST robotics at the Dayton Regional STEM School. With the help of his XYL Juanita, he has worked to build a lasting program in robotics at the school.

Speakers: Team Members of the Varsity Robotics Team, DRSS Enterprise

**Subject: FIRST Robotics Programs and How it Impacts the Students**

FIRST programs in robotics span all ages, from early elementary school through high school. Students and coaches that have participated in the programs will present an overview of the programs and spin-off projects they have worked on. The coaches and some alumni will highlight the huge impact we've seen in the student's personal development, confidence, and education. Oh...and there will be robots!

Saturday, May 18, 2019

4:00-5:00 Room 5 **The Portable Magnetic Loop**

Speaker: Alexandre Grimberg, PY1AHD

and Alex decided design the Portable Magnetic Loop Antenna for a simple - then - ever outdoor antenna operation, and as the ultimate solution for the antenna restricted hams. For over 15 years of intense work Alex was challenged to break 5 unbeatable technical paradigms to create the first Portable Magnetic Loop Antenna - The world famous AlexLoop. All those 15 years of the Portable Magnetic Loop Antenna research and development challenges will be compacted on a 50 minutes presentation which will bring to the audience technical information and a lot of fun. Six short duration videos will be presented including some exotic projects such as the Coke Loop - <http://www.alexloop.com/artigo36.html> and the Stealth Tableantenna - <http://www.alexloop.com/artigo15.html>. Post 599, a BSA affiliated ham club for teens in the Phoenix area.