

## 2021 Huntsville Hamfest Saturday Forum Descriptions

### ARRL Forums

#### **ARRL Membership Town Hall**

Moderator: Mickey Baker, N4MB, ARRL Director -- Southeastern Division  
[n4mb@arrl.org](mailto:n4mb@arrl.org)

Panelists: Rick Roderick, K5UR, ARRL President; David Norris, K5UZ, ARRL Director – Delta Division; David Minster, NA2AA, ARRL CEO

ARRL is the national association for Amateur Radio.® Members help advance the art, science, and enjoyment of amateur radio. ARRL publishes four popular magazines including *QST* and *On the Air*, coordinates an extensive all-volunteer field organization, and serves members as amateur radio's representative voice in regulatory and legislative matters. At this session, you'll hear from ARRL representatives on 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!

#### **ARRL Alabama Section and ARES Volunteers Forums**

Moderator: Roger Parsons, KK4UDU, Alabama Assistant Section Manager

ARRL is the national association for Amateur Radio.® The centerpiece of membership involvement is ARRL's all-volunteer field organization. Hear from ARRL Alabama Section Manager JVann Martin, W4JVM, and other leaders about key areas of volunteer activity, including amateur radio public service, opportunities to participate in the Amateur Radio Emergency Service (ARES), and ham radio outreach across our radio clubs and communities.

**Game Changer: ARRL's Intro to Radio Kit** - Bob Inderbitzen, NQ1R, ARRL Product Development Manager, [rinderbitzen@arrl.org](mailto:rinderbitzen@arrl.org)

ARRL's new crystal radio kit is the perfect kit-building experience for any ham or radio club who is seeking a better way to introduce radio to others: schools and youth group, scouts, club kit-building nights, teaching basic soldering, etc. The low-cost kit was designed for ARRL by student engineers. This kit is a far better basis for discovering radio than morse code oscillator kits which often lack a "radio" experience. Come find out more about the kit, and tips for using amateur radio as a breadboard for introducing radio technology and radio communications to others.

## **Vendor Forums**

### **2022 Orlando HamCation and the ARRL National Convention - Michael Cauley, W4MCA HamCation General Chairman, John Knott, N4JTK Commercial Co-Chairman, and other guest**

Come and learn all about the 2022 Orlando HamCation. In 2022 we will be celebrating the 75<sup>th</sup> annual Orlando HamCation and we will be hosting the ARRL National Convention. We will provide the latest information on HamCation and what the ARRL will be planning for the National Convention, including learning on how you can make a perfect family vacation at the same time!

### **Software Defined Radio as a Platform - Steve Hicks, N5AC, CTO & VP Engineering for FlexRadio**

The technologies that make a true SDR adaptable using the FLEX-6000 external interfaces, important standards & FlexRadio's adoption of these standards & interfaces have allowed the 6000 to quickly grow and maintain its market-leading position.

### **Shack-In-A-Box – Hope Lea, ND2L**

The Shack-In-A-box product brings a unique solution to the to the problem of going portable with ham radio. Whether it is EMCOM or POTA, Shack-In-A-Box has a solution that will make taking ham radio to the field easier. This forum will cover the different options available.

## **Education**

### **Youth Forum - Youth Sending Ham Radio Balloons Around the World - Carole Perry WB2MGP**

This Youth Forum will include Carole Perry sharing information about FREE resources for teachers, instructors and group leaders who work with youth in ham radio. We will also feature several talented young hams sharing their drone and hot air balloon projects with ham radio.

## **Public Service/EmComm**

### **Joint Services MARS Meeting (2 hours) – John Briscoe and Ralph Brigham**

### **Advances in Weather Detection Technology – Mickey Lee**

Storm spotters and weather observers know that tornadic storms or tornadoes can be identified visually or by analysis of doppler radar. Now, sensors that measure electrical energy, lightning and others sources, can reliably determine how intense is the thunderstorm that is generating the energy. One device even determines the distance to the thunderstorm and movement as it updates every minute, and generates an alarm

to provide threat awareness. This talk will describe the technology and how it can be utilized for household protection, storm spotter activity, or lightning threat awareness. [www.earlyalert.com](http://www.earlyalert.com)

## **Technical Forums**

### **What's the difference between Superhets and SDRs? – Bob DePierre, K8KI**

Bob, K8KI, will discuss the structures and advantages of each type of receiver, and compare the reasons why you would want to use each.

### **Arduino for Ham Radio – Glenn Popiel, KW5GP**

Join ARRL author Glen Popiel, KW5GP, in an all-new presentation as he introduces his brand-new Arduino book and discusses the exciting and fun world of the Arduino. Learn just how easy and fun it is to create your own feature-rich Arduino-based projects for your home and ham shack.

### **Lightning Research at NASA's Marshall Spaceflight Center - Dr. Monte Bateman, WB5RZX, Thunderstorm Physicist**

NASA's Marshall Space Flight Center and the University of Alabama in Huntsville (UAH) are home to one of the top lightning research groups in the world. We study basic physics of the lightning process, its relationship to storm severity, and help with lightning protection for our nation's space program. In addition to basic and applied science, we also design and build cutting-edge instrumentation that allows us to make unique measurements to study thunderstorms. We now have 2 Geostationary Lightning Mappers (GLMs) in orbit, on both GOES-16 (East) and GOES-17 (West). This gives us lightning mapper coverage over nearly half the Earth. The mapper on GOES-16 has achieved "fully validated" status; the other should be validated this November. The GLMs were developed here in Huntsville; they add lightning information to the GOES satellite photo loop images and are becoming important in weather forecasting and warning. We also have the Lightning Imaging Sensor (LIS) aboard the ISS, and it has been working well now for over 3 years. Come see the state-of-the-art in lightning measurements and how much of it comes from Huntsville!

### **Lightning Protection for the Radio Amateur - Dr. Monte Bateman, WB5RZX, Thunderstorm Physicist, NASA/Marshall Space Flight Center**

Protect your shack and your tower! With a lot of anecdotal grounding discussions generating more heat than light, here's a solid approach to the best protection practices and the theory behind how and why they work. Learn how a lightning flash occurs and how to convince it to go elsewhere!

### **The Schelkunoff-Smith Chart, Energy Flow, and Small Antennas – Hans Shantz, PhD, KC5VLD**

### **Send an Amateur Radio Balloon Around the World - Bill Brown, WB8ELK**

Bill is one of the knowledgeable experts in balloon launched ham radio. This forum will discuss how Bill accomplishes this task and will culminate in a balloon launch following the presentation.

### **ARISS: 20 Years of Continuous Ham Radio Operations on the ISS – Frank H. Bauer, KA3HDO ARISS-USA Executive Director**

This year ARISS celebrates 20 years of continuous ham radio operations on the ISS. ARISS-USA Executive Director, Frank Bauer, KA3HDO and Director of Education, Kathy Lamont, KM4TAY will guide the audience through a 20 year ham radio journey of ARISS education, hardware development, operations, experimentation and exploration on the ISS. They will convey the ARISS team's vision of the future and will answer your burning questions about amateur radio on human spaceflight vehicles—from Shuttle, to Mir, to ISS and Beyond!

### **Operating Activities**

#### **VP8PJ 2020 DX-pedition to the South Orkney Islands – Gene SPINELLI K5GS**

During February – March, 2020 a team of 14 amateur radio operators set off on a journey that took them to Signy Island which is located in the Southern Ocean at [60°43'S 45°36'W](#). They camped on the island for 14 days, operated radios 24 hours a day, and left the island as they found it, with no sign there were ever there.

#### **Having Fun with Portable Ham Radio, including POTA - Joe (KI4ASK) and Mary Catherine (KI4HHI) Domaleski**

Married ham radio operators Joe (KI4ASK) and Mary Catherine (KI4HHI) Domaleski are going to share some stories, tips, and suggestions on having fun with portable ham radio - including Parks On The Air (POTA). Join them on an adventure to leave your shack and get outside with ham radio.

#### **Summits on the Air - Michael A. Fiedler, PhD, KM4CRB**

An introduction to one of the best portable operation activities in amateur radio. Whether you drive or hike to a summit you'll find "chasers" anxious to make contact with you.

#### **AMSAT – Tim Cunningham, N8DEU**

The year's AMSAT forum will focus on the skills, techniques and equipment needed to successfully use the current crop of amateur radio-carrying satellites.

#### **10 Meters – Keith Schottman, KR7RK**

With sunspot numbers improving now is the time to consider 10M antennas and operation. Keith will discuss how you can become active on this exciting band.

### **Wading into the Contest Ocean – Rob Suggs, PhD, NN4NT**

Ever wanted to try contesting but didn't know where to start? Rob will cover how to be successful while dipping your toes in the contesting waters.

## **2021 Huntsville Hamfest Sunday Forum Descriptions**

### **YouTubers Discussion - Jason Johnston, KC5HWB of Ham Radio 2.0**

Come meet your favorite YouTubers in this special event. With the return to in person hamfests multiple YouTubers will be visiting from all over the USA. Please take this opportunity to come say hello and meet your favorite YouTuber.

### **Programming your DMR Radio - lead by Jeff Hilliard, AK6OK**

Everyone struggles with programming DMR radios! Many hams rely on others to make this happen and I personally really struggled with the concepts initially. We will be demonstrating specifically how to program your Anytone DMR radio but will cover other makes as well. Learn about talk groups, channels, zones, time slots, and hotspots! A lot to cram into 1 hour but it should be a fun and informative time!

### **Using a Spectrum Analyzer and Oscilloscope -Jeff Hilliard, AK6OK**

These two instruments are the most fascinating I have used over my 50+ years in ham radio. But there seems to be a bit of a mystery on how they work. We will be covering the basics of both, what the terms mean and how you can use these instruments. One of the coolest demonstrations is how to tune an antenna with a Spectrum Analyzer and directional coupler. Let's have some fun in this informative rundown of these amazing products!

### **Adult Soldering 101 - Matthew Sager, KI4AJZ, and Kevin Hibbs, KG4TEI**

Want to get into kit building, but don't know where to start? Then this class is for you. This class will cover more than which end of the soldering iron to hold and give you tips on how to be successful assembling kits. During the class the students will build a kit to take home with them. Two sessions of the same class will be offered. If interested please sign up at the stage. This is a first come, first serve event with limited space.