2017 Huntsville Hamfest Forum Listing

8-10-2017

ARRL

- **"Using Electronic Media to Communicate with the Ham Community and the General Public"**

  Ed Tyler, N4EDT, Public information Coordinator, Alabama Section

  This will be an open presentation and discussion: all interested hams are welcome. Topics to be covered are how to structure electronic media and encourage participation and contributions.

- **Alabama ARES Forum**

  Dave Gillespie, W4LHQ

- **ARRL Southeastern Division and Alabama Section Meeting**

  JVann Martin, W4JVM, Alabama Section Manager and Greg Sarratt, W4OZK, Southeastern Division Director

  The ARRL forum will include information about Alabama Section new appointments, Upcoming drills and events in Alabama, and Southeastern current events, news, and updates.

- **LOTW Forum**

  Dan Wall, W1ZFG, ARRL

  Hear about LoTW from the perspective of ARRL Headquarters.

Education

- **"EDUCOM: Education through Communication"**

  Joe Fairclough, WB2JKJ

  Our *EDUCOM* forum will detail how you can take ham radio back to your school and introduce it as the most effective teaching tool ever.

- **YL Forums**

  Catherine Andrews, AC4YL and Melanie Glemser, AG4YL

  Forum 1 (1400-1500): Women in Ham Radio Then and Now

  In this forum, we will review a brief history on women in wireless operating from its beginning and moving forward to YL activity in ham radio in the present and beyond.

  Forum 2 (1500-1600): Women in Ham Radio – Using Echolink to Play Radio

Public Service/EmComm

- **"SATERN and Amateur Radio Emergency Communications in the 21st Century"**

  Bill Feist, WB8BZH, National SATERN Liaison

  Amateur radio in the 21st Century faces many challenges as today's emergency communications infrastructure becomes increasingly more robust, resilient and technically sophisticated. The Salvation Army Team Emergency Radio Network

(SATERN) spent much of 2016 developing a Strategic Plan to address those challenges and guide it into the future. Learn what SATERN has learned from its SWOT (Strengths, Weaknesses, Opportunities, Threats) Analysis and how that Analysis led to three major goals for the future that apply not only to SATERN, but to amateur radio emergency communications in general.

- **Joint Service MARS meeting and Alabama state MARS meeting (2 hours)**
  Bob Glasscock, AAA4AL, Alabama/Mississippi State MARS Director
  Jim Hamilton, AAA4RD, Army MARS Region 4 Director
  Bruce Nebergall, AFR4C, Director, USAF MARS SE Division
  John Briscoe, Jr. AAA4R5, Army MARS Region 4 Plans & Military Liaison Officer

  The current status of the MARS program and future areas of service will be discussed.

Technical

- **"Lightning Research at NASA's Marshall Spaceflight Center"**
  Dr. Monte Bateman, WB5ZRX, Thunderstorm Physicist

  NASA's Marshall Spaceflight Center is 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. This has been a big year in the lightning community, with the launch of GOES-R (now GOES-16), which carries the Geostationary Lightning Mapper (GLM). The GLM was developed right here in Huntsville and adds lightning information to the GOES satellite photo loop images. Then, a smaller Lightning Imaging Sensor (LIS) was launched to and installed on the International Space Station. Both are now sending data that will soon be publicly available.

- **"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!

- **AMSAT 2017 Forum**
  John Kludt, K4SQC, AMSAT Area Coordinator

  This year's AMSAT forum will focus on the skills, techniques and equipment needed to successfully use the current crop of amateur radio carrying satellites. In addition we will be discussion upcoming launches and future opportunities.

- **"D-STAR Innovations"**
  John Davis, WB4QDX; Robin Cutshaw, AA4RC; Ed Woodrick, WA4YIH

  Join D-STAR and other enthusiasts of digital voice technologies from around the Southeast for the latest news and get the scoop on the latest devices for D-STAR and other digital modes. The forum will feature and demonstrate the latest in multi-mode devices from around the world including DV Dongle, DV Access Points, hotspots and new devices that connect to the Raspberry Pi and other devices to provide worldwide communications on VHF and UHF radios

2017 Huntsville Hamfest Forum Listing

8-10-2017

- **"Amateur Radio Balloon goes Around the World"**
  Bill Brown, WB8ELK

  How to fly a small balloon around the world using lightweight APRS and WSPR trackers.

- **"Adjusting your Transmitter for Competitive SSB Transmit Audio"**
  Bob DePierre, K8KI

  Do you want to play in pileups and contests? If you are concerned about adjusting your SSB transmitter to get the information through accurately and quickly, you may want to listen in. Would you like to know why the Fletcher-Munsen curves developed in 1933 are important to you today? Bob will discuss the differences in mics, speech processors, and equalizers, then compare recordings at the different settings. You be the judge of how you'd like your signal to sound.

- **"Short-Range Foliage Loss at VHF/UHF/Microwave Frequencies"**
  Ben Lowe, K4QF

  This presentation discusses the impact of foliage attenuation at VHF, UHF, and Microwave frequencies at short ranges and its impact on ducting, tropospheric, moonbounce, and E-skip propagation. It presents a methodology for the measurement of foliage attenuation and discusses the impact of multiple conditions that impact the attenuation.

- **Flex Radio Forum**
  Stephen Hicks, N5AC, VP Engineering, FlexRadio Systems

- **Alabama Repeater Council**
  Dennis Littleton, K4DL

- **Elecraft Forum**
  David Shoaf, KG6IRW, Elecraft

  David will describe the current Elecraft product line.

- **"Yaesu Fusion"**
  Mark Thompson, WB9QZB

- **"Build a USB-Connected RF Power Meter"**
  John Stensby, N5DF

  A RF power meter is a must-have instrument in every ham shack. Power-meter applications and limitations must be understood in order to obtain optimum results and benefits. These are discussed briefly before focusing on the main topic: USB-connected RF power meters, a relatively new arrival on the RF test bench. John shows you how to build your own by using a minimal amount of analog circuitry, a commercially-available USB-connected data-acquisition module, and software to crunch the numbers and display the results on an attractive GUI.

- **"Budget Satellite Communications from the Ground Up: SatNOGS and Beyond"**
  Herb Sims, N4RG

  Dr. Herb Sims will describe how to go from a clean sheet of paper to a working satellite ground station while keeping the family budget intact. Using Open Source satellite tracking, rotor hardware and designed UHF/VHF Yagis keeping the budget well under $500.

2017 Huntsville Hamfest Forum Listing

8-10-2017

- **Arduino Forum**
  Glen Popiel, KW5GP

  Since its introduction in 2005, the Arduino has come a long way and now includes many new variants and interface options useful in home and amateur radio applications. Join Glen Popiel, KW5GP, author of ARRL's "Arduino for Ham Radio" and his latest book, "More Arduino Projects for Ham Radio", as he introduces and discusses new projects leveraging these new powerful, inexpensive, and easy-to-use members of the Arduino family and how you can create your own feature-rich Arduino-based projects for your home and ham shack.

- **"Meteor Scatter Communications: The Science Behind the Pings"**
  Dr. Rob Suggs, KB5EZ, Space Environment Team Lead, NASA/Marshall Space Flight Center

  Meteor scatter communication is easier than ever thanks to the WSJT digital modes. Learn the basics of meteor physics, what meteors are and where they come from, how the ionization trail scatters RF energy, and how you can best exploit the brief bursts of propagation to add some VHF grid squares to your log. Meteor data collected by NASA and tools you can use in planning and executing QSOs will be described.

Operating

- **"Digital Mobile Radio (DMR) – Operations, Programming, and Etiquette"**
  Rob Conklin, N4WGY and Steve Smith, KM4CJ

  A presentation on DMR digital voice operations and the Asterisk-based open-source VoIP/RoIP Allstar Link repeater control and linking system.

- **"Why Operate Portable?"**
  Jennifer Moore, KF4INA and Ken Moore, AB4WL

  Operating portable brings a different set of challenges and offers new rewards compared to operating out of the home shack. Hear about equipment needed to operate portable, World Wide Flora and Fauna, Summits on the Air, Islands on the Air, other on-the-air portable operating events, and a recap of National Parks on the Air. Jennifer and Ken will share information for those who want to activate portable as well as those who want to chase or hunt portable operators.

Contesting

- **"The K3LR Contest Station"**
  Tim Duffy, K3LR, DX Engineering

  The K3LR multi-op contest station is a powerful contender in any contest entered. Tim will describe how this came to be, and what keeps it going.

- **"An Analytical Look at Cluster Spots as a Propagation Tool"**
  Bill Engelke, AB4EJ

  By collecting and analyzing data from millions of radio spots (from DXCluster, WSPRNet, Reverse Beacon Network, etc.) collected over several years, we can uncover relationships between ionospheric/solar events and RF propagation, thus improving our understanding of these phenomena. We can use these results to improve our enjoyment of the hobby, do better DXing, and grow our understanding of the science behind radio and the ionosphere. An ongoing project in cooperation with the international HamSCI

2017 Huntsville Hamfest Forum Listing

8-10-2017

(Ham Radio Citizen Science Investigation) team is building a master database of spots (600 million and growing) which will enable even deeper analysis of the "Big Data" of radio propagation. The presentation explains what has been discovered so far.

- **"<u>Contesting & Adventures of V73CW in the South Pacific</u>"**
  Bruce Smith, AC4G

  Service on Kwajalein is not about laying around under palm trees! Bruce will tell of his time there, where that part you forgot to bring is not just a phone call away.