

2017 Forums Overall Schedule

FRIDAY

SATURDAY

SUNDAY

	Room 1	Room 2	Room 3	Room 4
9:15 AM	TAPR Scott Cowling WA2DFI 9:15-10:30	SHARES HF EMCOMM Ross Merlin WA2WDT 9:15-10:15	Remote Operating Mark Aaker K6UFO 9:15-10:15	Teaching One Day Tech Classes Dan Romanchik KB6NU 9:15-10:15
9:30 AM				
9:45 AM				
10:00 AM				
10:15 AM				
10:30 AM	APRS Bob Bruninga WB4APR 10:45-11:45	Mars Paul English 10:30-11:30	Instructor's Forum Carole Perry WB2MGP 10:30-11:30	Ham Radio Makers and Hackers Sean Kutzko KX9X 10:30-11:30
10:45 AM				
11:00 AM				
11:15 AM				
11:30 AM				
11:45 AM	D-Star Robin Cutshaw AA4RC 12:00-1:00	Balloon Sat Bill Brown WB8ELK 11:45-1:15	Collins Radio David Knepper W3ST 11:45-12:45	Kit Building Joe Elsenberg KONEB 11:45-12:45
12:00 PM				
12:15 PM				
12:30 PM				
12:45 PM				
1:00 PM	Homeland Security John Peterson 1:15-2:15	National Weather Service Brandon Peloquin 1:30-2:30	Antennas – The Last Frontier V2.0 Frank Beafore WS8B 1:00-2:00	Techniques of Best Operators Mitch Stern W1SJ 1:00-2:15
1:15 PM				
1:30 PM				
1:45 PM				
2:00 PM				
2:15 PM	Antenna Forum Tim Duffy K3LR 2:30-5:00	Foxhunt / ARDF Dick Arnet WB4SUV 2:15-3:30	YLRL Anne Manna WB1ARU 2:30-3:30	Digital Mobile Radio John Burningha W2XAB 3:45-5:00
2:30 PM				
2:45 PM				
3:00pm				
3:15 PM				
3:30 PM				
3:45 PM				
4:00 PM				
4:15 PM				
4:30 PM				
4:45 PM				
5:00 PM				

	Room 1	Room 2	Room 3	Room 4
9:15-10:15	Drake Equipment Mark Gilger WBOIQK 9:15-10:15	2017 Youth Forum Carole Perry WB2MGP 9:15-12:00	Satern Bill Feist WB8BZH 9:15-10:15	HamSCI Ward Silver NOAX 9:15-10:30
10:30-11:30				
11:45-12:45				
12:45-2:30				
11:45-12:45				
11:45-12:45	ARRL Member Forum Dale Williams WA8EFK 11:45-12:45	Fast Scan ATV Art Towslee WA8RMC 12:15-1:15	RTTY Contesting Ed Muns W0YK 10:30-11:30	AMSAT Joseph Spier K6WAO 10:45-12:15
12:15-1:15				
1:30-2:30				
2:15-3:30				
12:45-2:30				
12:45-2:30	Contesting Doug Grant K1DG 12:45-2:30	MESH Bill Curtice WA8APB 1:30-2:30	QCWA Ken Oelke VE6AFO 11:45-2:45	Collegiate Amateur Radio Initiative Andy Milluzzi KK4LWR 12:30-1:30
1:00-2:00				
2:15-3:30				
2:45-3:15				
2:30-3:15				
2:30-3:15	Kids Training For Ham Radio Gordon West WB6NOA 2:30-3:15	HamRadio 360 Workbench Podcast George Zafiroopoulos KJ6VU 2:45-3:45	Kenwood Equipment Jan Servaites N8CBX 1:00-2:00	Public Service Communi- cations Mike Corey K1IU 1:45-3:00
3:15-3:45				
3:45-5:00				
4:00-5:00				
3:30-5:00				
3:30-5:00	DX Forum Jay Slough K4ZLE 3:30-5:00	FCC Curt Bartholomew N3GQ 4:00-5:00	Digital Modes Mel Whitten K0PFX 3:45-5:00	VHF-UHF Tony Emanuele WA8RJF 3:15-5:00
4:00-5:00				
4:30-5:00				
5:00-5:00				

	Room 1	Room 2	Room 3	Room 4
9:15-10:15	West Mountain Radio Sholto Fisher K7TMG 9:15-10:15	Learning, Discovery, And Fun Tommy Gober N5DUX 9:15-10:15	Receiving Antennas Eric Nichols KL7AJ 9:15-10:15	Bicycle Mobile Mike Nickolaus NF0N 9:15-10:15
10:30-11:30				
11:45-12:15				
12:30-1:30				
10:30-11:30				
10:30-11:30	Robotics In TheClassroom Ray Golembiewski KE8EIX 10:30-11:30	NPOTA Recap Norm Fusaro W3IZ 10:30-11:30	Setting Up Disaster Communications In Asia S. Ram Mohan VU2MYH 10:30-11:30	Tower Safety Mark Allen W6PC 10:30-11:30
11:45-12:15				
12:30-1:30				
1:30-2:30				

Friday, May 19th		
Time	Room	Forum
9:15-10:30	Room 1	TAPR
		Moderator: Scott Cowling WA2DFI
		<p>Scotty was first licensed in 1967 and has been continuously active since that time. He is active while mobile on HF CW and on APRS. Scotty is an advisor for Explorer Post 599, a BSA affiliated ham club for teens in the Phoenix area. He has been involved in the openHPSDR project for the last 10 years, is a TAPR Director and past TAPR Vice President. Scotty is also active in the production of openHPSDR components and other SDR projects. 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.</p> <p>Introduction by Steve Bible, N7HPR, TAPR President Write for QST/QEX by Kai Siwiak KE4PT, QEX Editor</p>
		<p>"Low Cost, Open Source Spectrum Monitoring" by Michael Ossmann, AD0NR and Dominic Spill Over the past few months, we and other open source software developers have devised new tools allowing low cost Software Defined Radio platforms to rapidly sweep across radio frequencies in order to monitor the spectrum around us. Our base platform is HackRF One, and we are able to monitor 1 MHz to 6 GHz every 0.75 seconds, allowing us to build up a near real-time picture of radio usage around us. Now we are looking at new ways to visualize, analyze, and interpret this information. This will be a look at open source hardware and software tools that enable us to monitor, analyze, and track down radio signals.</p> <p>Michael Ossmann is a wireless security researcher who makes hardware for hackers. He founded Great Scott Gadgets in an effort to put exciting, new tools into the hands of innovative people.</p> <p>Dominic Spill is senior security researcher for Great Scott Gadgets. The US government recently labeled him as "extraordinary". This has gone to his head.</p>
		<p>"Advanced SDR Algorithms for Noise Blanking and Noise Reduction" by Warren Pratt, NROV Wideband noise-blankers and LMS noise-reduction algorithms are commonplace in modern SDRs. With today's CPU power, more advanced algorithms offering superior performance can be made available. In this presentation, Dr. Pratt focuses on two such algorithms implemented in 2015 in the WDSP signal processing library for the openHPSDR program. The Spectral Noise Blanker uses linear predictive coding and often removes impulse noise under conditions where wideband blankers are ineffective. Impulses are detected by comparing the observed waveform with a predicted waveform. Impulses are corrected by recreating an estimate of corrupt portions of the original waveform using spectral information. The Spectral Noise Reduction algorithm operates in the frequency domain and, based upon statistical models of speech and noise, reduces random noise much more effectively than LMS algorithms. The seminal work for this approach was published by Yariv Ephraim and David Malah in 1984. However, the state of the art has advanced substantially over the past thirty years.</p>

		<p>To provide needed context, there is also a very limited introduction to wideband noise-blankers and LMS noise-reduction algorithms, both of which are also available in WDSP.</p> <p>Dr Warren C. Pratt, NROV Dr. Warren Pratt was first licensed in 1965 and was an avid operator and builder of ham radio equipment in his youth. He received a PhD in Electrical Engineering from the University of Illinois in 1977 and then entered the computer hardware and software industry, beginning as an engineer but then spending most of his career in executive management. He held engineering management positions at Hewlett-Packard, served as COO of Silicon Graphics, and as CEO of Alias, a 3D modeling and animation software company. Dr. Pratt is now retired and, in 2011, he joined the efforts of the openHPSDR program. He has written the WDSP digital signal processing library as well as other parts of the software that openHPSDR uses. He continues to enjoy exploring signal processing algorithms and supporting the openHPSDR program directions.</p>
		<p>"Introduction to RTL-SDR: Ultra cheap software defined radio" by Carl Laufer</p> <p>A brief overview of the RTL-SDR, an ultra low cost software defined radio that is opening the radio world up to new people. I will cover what the RTL-SDR is, what it can do, and how to set one up. The talk will also show some common applications and projects that it can be used for such as tracking aircraft and boats, receiving weather satellite images, decoding digital radio and more. The talk will also cover using SDRs together with portable computers such as the Raspberry Pi 3 for remote monitoring.</p> <p>Carl Laufer is an electronics, software and radio enthusiast from New Zealand. After completing his PhD in machine learning he decided to pursue a new interest in the software defined radio world. He now runs the RTL-SDR.com blog and web store, which specializes in news, projects and products related to ultra low cost software defined radio, and in particular the RTL-SDR dongle.</p>
9:15-10:15	Room 2	SHARES - Interoperable HF Emergency Communications
		Moderator: Ross Merlin WA2WDT
		<p>SHARES (SHARed RESources) is a Federal government HF radio program for backup communications and interoperability among Federal agencies and Federally-affiliated entities that have a need to send or receive national security or emergency preparedness communications such as state agencies, county emergency management agencies, and critical infrastructure / key resources providers (telecommunications, energy, healthcare, transportation etc.). This session will include both an introduction to SHARES for potential users and an open forum for audience members to discuss program issues with the SHARES Program Office staff.</p> <p>Bio:</p> <p>Ross Merlin, WA2WDT, is the SHARES Program Manager. He holds an Amateur Extra Class license and the General Radiotelephone Operator's License. His on-the-air interests include emergency communications, contesting, and digital modes. He is the author of the National Interoperability Field Operations Guide (NIFOG), which is widely used by public safety and emergency communications professionals across the country.</p>

9:15-10:15	Room 3	Remote Operating
		Moderator: Mark Aaker K6UFO
		<p>Remote Access to your Amateur Radio Station</p> <p>Moderator: Mark Aaker K6UFO, Owner and operator of a remote station.</p> <p>Speaker: Stu Phillips K6TU, Developer of K6TU.net Propagation service, high-tech entrepreneur and remote operator.</p> <p>How to implement remote access to your radio station to allow operating while away from home. We'll review a variety of current successful solutions in hardware and software. We'll look at solutions for radio control, antenna switching, AC power, amplifiers and more.</p> <p>Remote access is a great project for a club or special event station. We'll help you avoid common problems and advance your remote operation.</p>
9:15-10:15	Room 4	Teaching One-Day Tech Classes
		Moderator: Dan Romanchik KB6NU
		<p>In this talk, I will cover the following:</p> <ul style="list-style-type: none"> • Why teach a one-day class instead of a more traditional, multi-session class? • Where can you hold the class? • How can you publicize the class, i.e. put butts in seats? • Should you charge for the class or offer it for free? • What is a good text to use for the class? • What are some good teaching techniques? • What are some ways to follow up with students? <p>BIO:</p> <p>Dan Romanchik, KB6NU, is the author of the "No Nonsense" series of amateur radio license study guides and teaches one-day Tech classes in Ann Arbor, MI. He is also the author of a popular amateur radio blog (KB6NU.Com). His goal in life is to help people have fun with amateur radio.</p>
10:30-11:30	Room 2	MARS
		Moderator: Paul English WD8DBY
		<p>Military Auxiliary Radio System (MARS) is a Department of Defense (DOD) sponsored program implemented by the Army and the Air Force which trains FCC licensed amateur radio operators to provide contingency High Frequency (HF) communications support for DOD. MARS volunteers are trained on unique military messaging formats and use Military Standard digital protocols as well as digital encryption on DOD assigned HF frequencies. This forum will feature presentations from both the Army and Air Force MARS program leaders and may include other technical presentations relevant to this unique DOD support mission. This forum is open to all MARS members as well as amateur radio operators who are interested in supporting the MARS mission.</p> <p>Presentations will be given by Paul English WD8DBY, Army MARS Program Manager, and Dave Stapchuk KD9DXM, Chief Air Force MARS.</p>

10:30-11:30	Room 3	Instructors Forum
		Moderator: Carole Perry WB2MGP
		<p>Introduction to the Instructors' Forum : Moderator: Carole Perry WB2MGP</p> <p>This is a forum for teachers and instructors to share teaching techniques and new ideas for the classroom or for a radio youth group. There will be excellent networking opportunities along with great prizes and cameo appearances for our 30th Instructors' Forum anniversary.</p> <p>Speakers:</p> <p>Joe Spier K6WAO "AMSAT Education Outreach" Information about ARISS contacts and much more.</p> <p>Dr Tamitha Skov "Space Weather Woman: Solar Storms and Ham Radio"</p>
10:30 - 11:30	Room 4	Ham Radio Makers and Hackers
		Moderator: Sean Kutzko, KX9X, ARRL Media and Public Relations Manager
		<p>The ham radio community has always been a part of the DIY (do it yourself) movement. This group of panelists will share experiences about how ham radio is finding kinship with the new generation of creators, makers, hackers and innovators. Learn more about ham radio at Maker Faires®, Hackerspaces, and among Arduino users. The panelists will include ARRL author Glen Popiel, KW5GP (High Speed Multimedia for Amateur Radio and Arduino for Ham Radio), ARRL Education & Technology Program Instructor Tommy Gober, N5DUX, and others. This forum is sponsored by ARRL, the national association for Amateur Radio®.</p>
10:45-11:45	Room 1	APRS
		Moderator: Bob Bruninga WB4APR
		<p>APRS continues to expand into more areas. Bob Bruninga, WB4APR will give an update on the state of APRS and the opportunities for APRS via the several Amateur Satellites now including worldwide coverage via three geostationary birds receivable with a SDR dongle and Raspberry pi kit. Don Arnold, W6GPS will talk about the new Kenwood TH-D74 combined APRS and Dstar radio and Bryan Hoyer will talk about the APRS digipeater to be installed for the Boy Scout Jamboree. Jason Rausch, KE4NYV will update on his APRS projects and as time permits, other APRS topics from the floor are welcome.</p>
11:45-1:15	Room 2	Balloon Sat
		Moderator: Bill Brown WB8ELK

		<p>Send a balloon around the World</p> <ul style="list-style-type: none"> - Bill Brown WB8ELK <p>National Solar Eclipse Project, Ham Radio in the shadow of the Moon</p> <ul style="list-style-type: none"> - Jack Crabtree W7JLC <p>Ballooning has it's ups and downs</p> <ul style="list-style-type: none"> - Fritz Bock WD9FMB <p>National Scout Jamboree balloons</p> <ul style="list-style-type: none"> - Keith Kaiser WA0TJT
11:45-12:45	Room 3	<p>Collins Radio</p> <p>Moderator: David Knepper W3ST</p> <p>COLLINS RADIO FORUM - Saturday, May 20, 2017, 11:30 - 12:30 pm</p> <p>"Continuing the legacy of preserving Collins amateur radio equipment for tomorrow's ham."</p> <p>Come join us in learning the critical elements of purchasing, repairing, and maintaining Collins radios for decades to come.</p> <p>Moderator and speaker: David Knepper, W3ST, founder of the Collins Radio Association</p>
11:45-12:45	Room 4	<p>Kit Building</p> <p>Moderator: Joe Eisenberg K0NEB Kit Building Editor, CQ Magazine</p> <p>Come learn hints and tips to help you become a successful kit builder and hear about how some popular kits were created.</p> <p>Topic: Kit Building tips for success</p> <p>Speakers:</p> <p>Wayne Burdick, N6KR Co-Founder, Elecraft</p> <p>David Cripe, NM0S - Designer, Four State QRP Group Kits</p> <p>Bill Sloan, NZ9S – DZKit Sienna and Sienna XL</p>
12:00-1:00	Room 1	<p>DSTAR</p> <p>Moderator: Robin Cutshaw AA4RC</p> <p>New location. New room. New radio. New devices. New software. Join Robin Cutshaw (AA4RC), John Hayes(K7VE), and more for updates on D-STAR.</p>
1:00-2:00	Room 3	<p>Antennas - The Last Frontier</p> <p>Moderator: Frank Beafore WS8B</p> <p>One area of amateur radio experimentation that remains a frontier yet today, is antenna design. This Forum will be the second version of a Forum presented at Hamvention in 2010.</p> <p>The subject matter will focus on antenna history, basic antenna fundamentals, testing methods and equipment available today and a short discussion on building your own antennas.</p>
1:00-2:15	Room 4	<p>Techniques of Best Operators</p> <p>Moderator: Mitch Stern W1SJ</p>

		<p>Mitch Stern W1SJ Tony Pazzola W2BEJ</p> <p>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 up in a blast of QRM? Now that you've bought up all that great stuff at Hamvention, how do you set it all up? And then, what do you do after you turn it on? How do you go about easily making contacts with others? Our forum today will certainly help.</p> <p>A good station certainly helps, but knowing WHAT to do and what NOT to do when you get on the air is even more important. We'll start off with some of the basics of good operating, learn how to build a great station for those portable operations, dabble with DX and finally learn how to use contests to become better operators. You won't be same operator by the end the day and will be a force to be reckoned with on the bands! You will be treated to on-the-air war stories, equipment ideas and super suggestions. Don't miss it!</p>
1:15-2:15	Room 1	<p>Homeland Security</p> <p>Moderator: John Peterson</p> <p>The Department of Homeland Security's (DHS) Office of Emergency Communications (OEC) forum is geared toward auxiliary emergency communicators who volunteer to provide backup emergency radio communications support to public safety and emergency response agencies. Typically they are amateur radio communicators from groups such as MARS, ARES, RACES, SATERN and other amateur radio groups. Volunteer emergency communications operators/groups have been providing back-up emergency communications to the public safety community for nearly a century. They are routinely used by event planners and emergency managers at all levels of government. Today nearly all the States/territories have incorporated some level of participation by amateur radio auxiliary communication operators into their communications interoperability plans.</p> <p>Come talk with the DHS Communications Unit (COMU) subject matter experts and learn about the nationally recognized, NIMS/ICS compliant, AUXCOMM workshop and senior level emergency communications experts who have incorporated this training in recent national level disasters. This forum will also include:</p>
		<p>5. The latest changes expected for Communications Unit (COMU) training, which includes Communications Leader (COML), Communications Technician (COMT), Instructor courses for COML/COMT, AUXCOMM, Incident Communications Manager, Incident Tactical Dispatcher and the RADO courses.</p>
1:30-2:30	Room 2	<p>National Weather Service</p> <p>Moderator: Brandon Peloquin , Warning Coordination Meteorologist, National Weather Service Wilmington OH</p>

		<p>Working With Amateur Radio ... To Save Lives During Severe Weather</p> <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>
2:15-3:30	Room 3	<p>Fox Hunt / ARDF</p> <p>Moderator: Dick Arnett WB4SUV</p> <p>Foxhunting (Transmitter Hunting) & Amateur Radio Transmitter Hunting (ARDF)</p> <p>Moderator: Dick Arnett, WB4SUV,</p> <p>Speakers Bob Frey, WA6EZV and Brian DeYoung , K4BRI</p> <p>Topics include demonstration and discussions on a variety of equipment used for VHF Mobile, on foot and ARDF style transmitter hunts. On Saturday we will be having an on foot foxhunt with multiple transmitters in a local park.</p>
2:30-5:00	Room 1	<p>Antenna Forum</p> <p>Moderator: Tim Duffy K3LR</p> <p>"Enhanced Stacked Yagi Arrays with Parasitic Elements and BOLPA Log Periodic Development"</p> <p>Justin Johnson, G0KSC</p> <p>"Space Weather and Amateur Radio: Science, Forecasting and Effects"</p> <p>Dr. Tamitha Skov</p> <p>"Using High Performance Multiplexer Technology to Improve Your HF Station Capability"</p> <p>Andrei Fedorishev, RA6LBS</p> <p>"Building and Installing the 3 Element 80 Meter Yagi at W0AIH"</p> <p>Paul Bittner, W0AIH</p>
2:30-3:30	Room 4	<p>Young Ladies Radio League</p> <p>Moderator: Anne Manna WB1ARU</p> <p>Young Ladies' Radio League is sponsoring this Forum for all YLs, licensed or not. Every woman ham is a "Young Lady" no matter what her age. There will be a fascinating presentation on YL history by Kay Eyman, WA0WOF. Other topics will include: what YLs are doing and have done in our shared hobby, reports on new nets and awards, and ways to join in the fun. Bring your questions to the YL Forum and find out more about women in Amateur Radio and hear from Young Ladies of all ages! OMs are also welcome to earn awards and are appreciated for their support. Moderator: Bobbie Donahue.</p>
2:45-3:45	Room 2	<p>Ham Radio and the Law: Antenna Permits and Problems</p> <p>Moderator: Fred Hopengarten, Esq., K1VR, Author "Antenna Zoning for the Radio Amateur"</p>

		A discussion by Amateur Radio attorneys on legal issues of interest to hams: avoiding restrictive covenants, presenting your case for a tower permit, and information on recent court rulings on PRB-1. Updates on proposed legislation to protect hams living under homeowner association restrictions. Sponsored by ARRL, the national association for Amateur Radio. Speakers include Bob Famiglio, Esq., K3RF, ARRL Volunteer Counsel and Vice Director, and others.
3:45-5:00	Room 3	Software Defined Radio
		Moderator: Stephan Hicks
		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	Digital Mobile Radio
		Moderator: John Burningham W2XAB
		Digital Mobile Radio (DMR) 2017 By John Burningham, W2XAB The popularity of amateur DMR networks and ham innovation has brought new hot spot technology and the growth of the networks including DMR-MARC, DMRX, Brandmeister, DMR Plus, and regional networks. Learn about the broad overview of what is going on with DMR for both the new and experienced user.
4:00-5:00	Room 2	County Hunting
		Moderator: Tim Eklin W8JJ
		Dr. Timothy Eklin, W8JJ - Forum Moderator Tim, W8JJ holds USA-CA #1203 and will serve as moderator for this forum and provide a basic overview of county hunting for attendees. Tim is currently the Great Lakes District Director for the Mobile Amateur Radio Awards Club (MARAC). Timothy Eklin, W8JJ – Speaker # 1 Tim, W8JJ holds USA-CA #1203 and will discuss thirteen rule changes that took effect in February 2017 in order to provide further incentives for both mobile and portable stations to activate counties. Tim will present a summary of the impact these recent changes will have on various awards offered by MARAC. Robert Gedemer, KA9JAC – Speaker #2 Bob, KA9JAC holds USA-CA #1079 and will discuss operating for the dual purpose of activating and working counties while participating in Parks on the Air (POTA) events. Bob is an avid county hunter and he has worked all 3,077 U.S. counties three times. He also activated many counties while operating as a mobile station.

Saturday 20th		
Time	Room	Forum
9:15-10:15	Room 1	Drake Equipment
		Moderator: Mark Gilger WB0IQK
		Presenter: Ron Baker – WB4HFN Presenter: Jeff Covelli – WA8SAJ Presenter: Evan Rolek – K9SQG
		AGENDA: - User Survey - Mark Gilger - WB0IQK - Back to Basic Trouble Shooting - Ron Baker, WB4HFN & Mark Gilger, WB0IQK - Common & Easy Fixes For the Drake 4&7 Line Radios - Ron Baker, WB4HFN - Question & Answer Session - Jeff Covelli, WA8SAJ, Ron Baker, WB4HFN & Evan Rolek, K9SQG
9:15- 12:00	Room 2	Youth Forum
		Moderator: Carole Perry WB2MGP
		Come join the fun and experience the pride by attending our 30th Hamvention Youth Forum. Bring kids with you to inspire them to join the fun of being a youngster in ham radio. This is where young people will get to meet with other youngsters. Stay tuned for special announcements about fabulous opportunities for young adults in ham radio and at Hamvention. There will be lots of prizes for the speakers, the kids in the audience, and the supportive adults in the audience. You must be present to win! Come and show your support for our talented young hams!
		Lucas Schroeder W6LDS age 15 "The SharkRF openSPOT" Carissa Ferguson KJ4EZA age 17 "Robotics and Ham Radio" Dakota Krzysik KE8CVK age 17 "Lowell High School Youth Amateur Radio Club Through the Years!" Grace Lea KM4TXT age 9 "Solar Power Mania" Jerome Dinakar KE0BBQ age 16 "Tribute to Ellie Van Winkle" Evan Markowitz KD2IZW age 18 "Balloon Based Repeater for Emergency Applications" Ruth Willet KM4LAO age 18 "Plugging into Your Valuable Club Resources" Chris Brault KD8YVJ age 14 "Getting Started with SDR" Dhruv Rebba KC9ZJX age 13 "Community Services with Ham Radio Communications"
9:15-10:15	Room 3	SATERN
		Moderator: Bill Feist WB8BZH

		SATERN In The 21st Century: The National SATERN Committee will discuss the new Strategic Plan for SATERN approved by The Salvation Army in 2016. This will include a discussion of the goals SATERN is setting for itself over the next several years and the results of the SWOT (Strengths, Weaknesses, Opportunities, Threats) Analysis upon which those goals are based.
9:15-10:30	Room 4	HamSCI, the Ham Radio Science Citizen Investigation
		Moderator: Ward Silver N0AX
		A group of panelists will share information about professional research programs supported by radio amateurs. This forum is sponsored by ARRL, the national association for Amateur Radio®. Program: 1. "What is HamSCI?" Nathaniel Frissell, W2NAF 2. "Introduction to Space Weather and Radio Propagation" by Carl Luetzelschwab, K9LA 3. "Upper Level Lows and Six Meter 50 Mhz Sporadic E" Joe Dzekevich, K1YOW, presented by Phil Erickson, W1PJE 4. "Ionospheric Impacts of the 2017 Total Solar Eclipse" Magda Moses, KM4EGE 5. "VLF/LF and the 2017 Total Solar Eclipse" Bill Liles, NQ6Z 6. "The Solar Eclipse QSO Party: Ionospheric Sounding Using Ham Radio QSOs" Nathaniel Frissell, W2NAF
10:30-11:30	Room 1	Hamnation
		Moderator: Bob Heil K9EID
		The hosts and many of the volunteers will be in attendance in a Town Hall type event. Ham Nation will celebrate the 300th show and the 5th year on Leo Laporte's TWIT network. The audience has grown to tens of thousands each Wednesday night and one of the top five shows on the network. Led by Bob Heil he will be joined by Gordon West, George Thomas, Don Wilbanks, Valerie Hotzfeld and Dale Puckett. Many of the net controls operators and our show notes custodian, Dan Vanevenhoven will be in attendance. The forum will open with the Ham Nation theme song written and performed by Joe Walsh, WB6ACU.
10:30-11:30	Room 3	RTTY Contesting
		Moderator: Ed Muns W9YK

		<p>Advantages of SDR in RTTY Contesting, Stu Philips K6TU</p> <ul style="list-style-type: none"> - Station simplification (eliminating CAT, sound card cables, etc.) - Built-in SO2R support - S&P considerations when using a waterfall - SDR performance advantages - Using RTTY Skimmer with SDR I/Q <p>General Q&A on RTTY Contesting, Dennis Egan W1UE</p> <p style="padding-left: 40px;">Mark Aaker K6UFO</p> <p style="padding-left: 40px;">Hank Garretson W6SX</p> <p style="padding-left: 40px;">Stu Philips K6TU</p>
10:45-12:15	Room 4	<p>AMSAT</p> <p>Moderator: Joseph Spier, K6WAO</p> <p>"AMSAT Status Report" Barry Baines, WD4ASW, AMSAT-NA President, will highlight recent activities within AMSAT and discuss some of our challenges, accomplishments, projects, and any late breaking news.</p> <p>"AMSAT Engineering Program" Jerry Buxton, NOJY, AMSAT-NA Vice President Engineering , will talk about the exciting new engineering developments that the ASCENT Program is working on as well as the latest updates on the Fox-1 project CubeSats.</p> <p>"AMSAT Satellite Operations" Drew Glasbrenner, KO4MA, AMSAT-NA Vice President Operations , will survey the current operational amateur satellites, as well as those planned for launch in the next year.</p> <p>"NxtGen Crystal Radio" Joe Spier, K6WAO, AMSAT-NA Vice President Educational Relations , will discuss the development of the NxtGen Crystal Radio, an educational ground station for classrooms to be used to teach Science, Technology, Engineering, and Math (STEM).</p> <p>"ARISS Report 2017" Frank Bauer, KA3HDO, AMSAT-NA Vice President for Human Spaceflight, will discuss the 20th Anniversary of ARISS, ARISS engineering developments & operation on the International Space Station.</p>
11:45-12:45	Room 1	<p>ARRL Member Forum</p> <p>Moderator: Dale Williams, WA8EFK, ARRL Director – Great Lakes Division</p> <p>ARRL is the national association for Amateur Radio in the US. ARRL 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. Hear from local and national 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!</p>
11:45-12:45	Room 3	<p>Quarter Century Wireless Association</p> <p>Moderator: Ken Oelke VE6AFO</p>

Speakers: Larry McCalvy, WA9JMO - Vice President
Carole Perry, WB2MGP - Chair, Youth Activities Committee

Our theme "Looking Back to See Ahead"

OUR VISION

Celebrating Amateur Radio operators achieving 25 years in Amateur Radio and developing resources to assist young Amateur Radio operators in furthering their education through the QCWA Scholarship Program.

Plan to attend this exciting forum to learn more about QCWA, learn how QCWA began 70 years ago, and participate in a lively 'Question & Answer' session. This being QCWA's 70th anniversary, we are celebrating with a QCWA 70th Anniversary Charity Cruise leaving on October 18, 2017. Here you can learn more about the cruise. This is your forum, so be prepared to become engaged in QCWA's future!

12:15-1:15

Room 2

Fast Scan ATV

Moderator: Art Towslee WA8RMC

The schedule is as follows:

Time	Presenter	Call	Topics
12:15 -12:20	Art Towslee	WA8RMC	Welcome statement and general comments.
12:20 -12:30	Gordon West	WB6NOA	Lively greeting then focus on MAGAZINES FOR SPREADING THE ATV ACTIVITIES. I will also offer to be the the conduit for CQ Magazine and 6 minute features from our members on HAM NATION .
12:30 -12:50	Mike Collis	WA6SVT	Introduction to ATV. The "Basics of analog and digital ATV" will be covered. What you can do with ATV and how to get your own ATV station on the air.
12:50 - 1:10	Art Towslee	WA8RMC	DATV DVB-S encoding and how it may be better than DVB-T.
1:10 - 1:15	Art Towslee	WA8RMC	Wrap up and questions.

Mike Collis WA6SVT - Transmitter supervisor for KCBS TV in LA. ATV operation since 1976. Engineer for Amateur Television Network with linked ATV repeater system covering three states. Publisher of Amateur Television Quarterly Magazine.

Gordon West WB6NOA - Gordo celebrates 55 years in ham radio , taking part in ATV for the Rose Parade , along with ATV helicopter portable for his City.emergency preparedness comms .

Art Towslee WA8RMC - Hamvention ATV Forum moderator for 11 years. Retired electrical engineer. Owns DATV-Express LLC which he and 3 other partners designed and produce the DATV-Express digital DATV transmitter board for sale to Hams. He also authors articles in ATVQ Magazine.


ATV Friday Night dinner.

The ATV Friday Night Dinner will be at China Garden Buffet restaurant starting at 6:30PM on 112 Woodman Drive in Dayton, Ohio 45431 (Airway Shopping Center). Buffet Dinner \$11.99 (937-781-9999). We have dinner then presentations about various ATV topics with door prizes concluding about 9:30PM. All are invited.

12:30-1:30	Room 4	ARRL Collegiate Amateur Radio Initiative
		Moderator: Andy Milluzzi KK4LWR
		A growing number of campus radio clubs and student radio amateurs have begun to share ideas and suggestions on the ARRL Collegiate Amateur Radio Initiative (CARI) Facebook page, 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 W1YSM Snyder Family Collegiate Amateur Radio Endowment.
12:45-2:30	Room 1	Contesting
		Moderators: Doug Grant K1DG & Ward Silver NOAX
		"WRTC2018 Planning Update" - Christian Janssen, DL1MGB "The New CQWW Contest Directorate" - Doug Zwiebel, KR2Q; Bob Naumann, W5OV; Scott Robbins, W4PA "Single-op Contesting in the 21st Century" - Tom Georgens, W2SC/8P5A "25 Years of Multi Multi Contesting at K3LR" - Tim Duffy, K3LR
1:00-2:00	Room 3	Kenwood Equipment
		Moderator: Jan Servaites N8CBX
		Presenter: Mark Gilger – WB0IQK Presenter: Terry Wagoner - K9TW Presenter: Jeff Covelli – WA8SAJ –Help with Parts, Documentation & Service - Mark Gilger, WB0IQK –Hybrid Net Repeat Questions - Mark Gilger, WB0IQK –Parts & Service - Mark Gilger, WB0IQK –Basic Trouble shooting - Mark Gilger, WB0IQK, Terry Wagoner, K9TW –The Early 500 series (TS500/510/511) - Jan Servaites - N8CBX –Questions and Answers - Jeff Covelli, WA8SAJ, Jan Servaites - N8CBX
1:30-2:30	Room 2	MESH
		Moderator: Bill Curtice W8APB, Miami Valley Mesh Alliance (MVMA)

		<p>Hams around the world are now building radio-based high speed digital mesh networks across their cities using microwave technologies and low cost commercial hardware adapted for Amateur Radio use. Mesh provides flexible, high speed wireless communications that can be adapted to varying terrain types, can be rapidly deployed, are fun to build and use, and are particularly well suited to the EmComm needs of many served agencies.</p> <p>The MVMA is delighted to host Andre Hansen, K6AH, of the Amateur Radio Emergency Data Network (AREDN) Project, speaking on how to build an effective AuxComm, high-speed data network based on Ubiquiti airMAX products and the AREDN Project's firmware.</p> <p>Andre will describe a 3-tiered architecture---using illustrations of actual installations---where AREDN implementers in San Diego, Riverside, San Bernardino, Orange, and Los Angeles Counties have combined to cover over 16,000 square miles with a potential of supporting Incident Command System (Memorandum Of Understanding) relationships with EOCs, ARES, RACES, and Red Cross serving over 18 million people.</p>
		and at www.miamivalleymesh.org .
1:45-3:00	Room 4	Public Service Communications Panel Discussion
		Moderator: Mike Corey, KI1U, ARRL Emergency Preparedness Manager
		<p>A chance to hear from representatives from Amateur Radio's largest organizations active during times of disaster and emergency. Sponsored by ARRL, the national association for Amateur Radio®. Speakers:</p> <ol style="list-style-type: none"> 1. Rob Macedo, KD1CY, VOIP WX Net and VOIP Hurricane Net 2. Julio Ripoll, WD4R, Amateur Radio at the National Hurricane Center, WX4NHC 3. Paul English, WD8DBY, US Army MARS 4. David Stapchuk, KD9DXM, US Air Force MARS 5. Bobby Graves, KB5HAV, Hurricane Watch Net 6. Bill Feist, WB8BZH, SATERN 7. Ross Merlin, WA2WDT, Department of Homeland Security, SHARED RESources (SHARES)
2:15-3:30	Room 3	System Fusion
		Moderator: Mark Thompson WB9QZB
		<p>The System Fusion Forum will include a presentation & discussion about Yaesu's System Fusion Voice & Data technology designed exclusively for Amateur Radio.</p> <p>The forum will review the Yaesu System Fusion 2m/70cm FM/C4FM Digital Voice Repeaters and Mobile & Portable radios incorporating both Analog FM & C4FM Digital Voice and the WIRES-X (Wide-coverage Internet Repeater Enhancement System) VoIP internet communications linking system.</p> <p>Hams experienced in using System Fusion technology and deploying repeaters & WIRES-X will be available to share their experiences and answer your questions about System Fusion. Everyone who is using or interested in System Fusion is encouraged to attend & participate.</p>
2:30-3:15	Room 1	Kids Training for Ham Radio

		Moderator: Gordon West WB6NOA
		Gordo invites kids and teachers to attend this action-packed forum , where the KIDS will likely steal the spotlight on ham radio training ! Learn what it takes to interact with school students , and to get them excited about wireless fun with live demos - that the kids will do ! Learn from our students on what it will take to turn them into active ham radio operators ! Everyone will receive the Instructor Academy diploma !
2:45-3:45	Room 2	HamRadio 360 Workbench Podcast - Building Portable HF Gear.
		Moderator: George Zafiropoulos KJ6VU
		It's never been a better time to be a ham especially if you like to design and build equipment and go out to operate portable. Jeremy, KF7IJZ, and George, KJ6VU, hosts of The Workbench podcast, talk about the growing interest in building and use of portable HF radio gear. In this session we talk about setting up your workbench and build projects including an HF antenna analyzer, low voltage disconnect, portable HF antennas, radio and battery selection. For more info go to www.hamradio360.com
3:15-5:00	Room 4	VHF - UHF
		Moderator: Tony Emanuele K8ZR
		Microwaves are Easy. Kent Britain WA5VJB Modern VHF transverter considerations. Sam Jewell G4DDK Hardware Sequencing: What they didn't t tell me. Marshall Williams K5QE Construction of portable VHF beams. Zack Widup W9SZ WSJT-X MSK144 meteor scatter and VHF Contesting. Tony Emanuele K8ZR
3:30-5:00	Room 1	DX Forum
		Moderator: Jay Slough K4ZLE
		The DX forum is once again sponsored by the SouthWest Ohio DX Association and Yaesu, in coordination with the Hamvention organization. At the conclusion of the forum we will have a drawing for an FT-1200, generously donated by Yaesu. All proceeds from this drawing are used to sponsor future DXpeditions. You do not have to be present to win. SWODXA has been able to make significant donations to many DXpeditions thanks to your participation in this drawing and profits from the DX Dinner, which is also sponsored by SWODXA. Randy Rowe, N0TG, will tell us about the CY9C operation from last August. He and Murray, WA4DAN, were co-leaders of this trip which has been dubbed "The Best Little DXpedition in North America". Randy lives in TX, so you can guess the subtle allusion to a theatrical production with a similar name! Randy and Murray are veterans of several expeditions, most notably are trips to Sable, CY0, and Navassa in days of yore. St Paul Is. Is an interesting entity and you will certainly be informed and entertained as he reveals "the rest of the story".

		<p>outside the hobby. He has too many awards and DX activations to enumerate here, but suffice it to say his position in the CQ Magazine DX Hall of Fame, speaks for itself. Randy, N0TG, has operated from Navassa in the intervening years, but Bob and two other teen age friends beat the big boys out to get there first. We are sure you will enjoy hearing how this happened and you will get a driver's seat feel for how different DXpeditioning was in the early 50s than it is now. Can you imagine the owner of Bacardi Rum providing his yacht for such an activity, especially to 3 teenagers?</p>
3:45-5:00	Room 3	<p>Digital Modes Now And For The Future</p> <p>Moderator: Mel Whitten K0PFX</p> <p>Introduction to low cost HF monitoring with RTL-SDR Speaker – Carl Laufer, RTL-SDR.com</p> <p>Abstract – This talk will be a brief introduction to using the RTL-SDR and other cheap SDRs for HF reception and monitoring. The RTL-SDR is an ultralow cost software defined radio that is opening the radio world up to new people. I will cover what an RTL-SDR is, what it can do, and what options you have to enable HF reception with one. I'll then give some examples of previous work that shows people successfully receiving digital modes with the RTL-SDR.</p> <p>New Developments in Digital Amateur Radio from the DV4 Team Speaker – Ulrich Altvater, AG0X</p> <p>DV4 is a digital voice technology for the VHF/UHF bands with network and RF connectivity for both mobile and fixed station. Uli will describe the Yeasu System Fusion (YSF) reflectors and MyRoom features include messaging, Private/Public rooms, and transcoding. The DV4mobile LTE network will also be described. On the hardware/device side, Uli will provide updates on the DV4mini improvements, DV4home software, and the new DV4mobile's current status, beta test procedure and pricing.</p>
		<p>interference challenges that HF radio present. A free GUI application for the Linux, Windows and Apple OSX, FreeDV allows any SSB radio to be used for digital voice in half the bandwidth of SSB.</p>
4:00-5:00	Room 2	<p>"Dealing with Impossible Hams in Your Club or Team."</p> <p>Moderator: Curt Bartholomew N3GQ</p> <p>FEDERAL AGENT</p> <p><i>Emergency & Continuity Manager</i></p> <p>Public Safety and Homeland Security Bureau</p> <p>Federal Communications Commission</p> <p> FEDERAL COMMUNICATIONS COMMISSION</p> <p>Be the Ham your country needs you to be.</p>

Sunday May 21st		
Time	Room	Forum
9:15-10:15	Room 1	West Mountain Radio
		Moderator: Sholto Fisher K7TMG
		Getting started with JT65/JT9 on HF Description: Get up to speed with the JT HF modes and a few tips for seasoned operators! Presenter: Sholto Fisher, West Mountain Radio Bio: Sholto has been interested in digital modes since the 1980s. First licensed in 1995 as G7TMG he holds FCC amateur extra class license K7TMG and the GMDSS full license. For the last 6 years he has been working for West Mountain Radio in a technical support role.
9:15-10:15	Room 2	Learning Discovery and Fun
		Moderator: Tommy Gober N5DUX
		The next generation of ham radio operators are today's students. As an instructor for ARRL's Teachers Institute on Wireless Technology, Tommy Gober, N5DUX, introduces teachers to a variety of tools and curriculum to take back to their classrooms: intro to basic electronics, the science of radio, space technology and satellite communications, as well as weather science, introduction to micro-controllers and basic robotics. Tommy will share strategies and experiences to help motivate students to learn, and to inspire interest in STEM (science, technology, engineering, and mathematics) fields. This forum is sponsored by ARRL, the national association for Amateur Radio®
9:15-10:15	Room 3	Receiving Antennas
		Moderator: Eric Nichols KL7AJ
		"Receiving antennas are DIFFERENT! Almost every amateur radio station can benefit from having a separate receiving antenna. Eric Nichols, KL7AJ will discuss the profound differences between the requirements of transmitting and receiving antennas, and how to optimize antennas for reception. As the overall noise floor in the HF band steadily increases, the deployment of well designed, low-noise receiving antennas will be increasingly important. Exciting new technologies make small, effective receiving antennas possible and practical." "Eric P. Nichols, KL7AJ is a two-time recipient of the William Orr, W6SAI Technical Writing Award, conferred by the ARRL. He is currently technical editor for the W5YI group, working closely with Gordon West. He has written dozens of articles for QST, and is the author of The Opus of Amateur Radio Knowledge and Lore, Radio Science for the Radio Amateur, Propagation and Radio Science, and, Digital Storage Oscilloscopes for Ham Radio. He is currently writing a book on active and passive receiving antennas for ARRL, the topic of this talk.
9:15-10:15	Room 4	Bicycle Mobile Hams of America (The 27th Annual BMHA forum at Hamvention)
		Moderator: Mike Nickolaus NFON

		<p>Bicycle Mobile Hams of America got its start in 1989 when a QST article by Hartley Alley, N40A asked hams who operate their radios while bicycle-mobile to get together and form a group. BMHA hosts a website along with the BMHA Yahoo Groups forum.</p> <p>Mike Nickolaus: NF0N : Review of 2017 BMHA Bicycle Trail Ride</p> <p>Keith Miller: NE9KM</p> <p>Keith will present the packing, planning, connections, experiences on the trail while riding and working National Parks on the Air. He will have the bike and gear that he used on both the Great Divide and GAP/C&O rides. While he changed the plan he presented last year and did not operate while bike mobile he used the radio for NPOTA during the evening while in camp. This presentation will help others prepare for a several week self supported bike trip.</p> <p>We plan to have bicycle mobile displays and demonstrations of each will be conducted.</p>
10:30-11:30	Room 1	<p>Robotics in the Classroom</p> <p>Moderator: Ray Golembiewski KE8EIX</p>
		<p>Speaker: Dave Dunn</p> <p>The FIRST Robotics Competition (FRC) is a unique varsity sport of the mind designed to help high-school-aged students experience science and technology in a competition that feels more like the NCAA Final Four than a science fair. The competition challenges young people to work with mentors in just six weeks to design and build a 120lb robot to play a pre-defined game. This year's robots voyage back to the age of Jules Vern and H.G. Wells to power airships and at the end the robots climb on board by ascending a 5 foot rope. (They won't actually take flight, but it's the thought that counts!) Sounds a little crazy, right? You've really got to see it to believe it. The competition is designed by world-famous inventor Dean Kamen, MIT professor emeritus Dr. Woodie Flowers, and a committee of creatively minded innovators. Come listen to the BONDS robotics team describe the program and show off this year's robot "Skyfall"</p>
10:30-11:30	Room 2	<p>ARRL National Parks On The Air Recap</p> <p>Moderators: Norm Fusaro, W3IZ, ARRL Radiosport Manager and Sean Kutzko, KX9X, ARRL Media and Public Relations Manager</p>
		<p>ARRL National Parks on the Air (NPOTA) commemorated the centennial of the US National Park Service in 2016. Activators and Chasers completed over one million radio contacts. Through NPOTA contacts, photographs, and stories...we were whisked away to mountain tops, seashores, monuments, and to some of the most treasured sites of our nation. If you were part of NPOTA in 2016, we want you to join us for this celebration and recap of one of the most popular on-air events of all time. This forum is sponsored by ARRL, the national association for Amateur Radio®</p>
10:30-11:30	Room 3	<p>Setting Up Disaster Communications In Asia</p>

		<p>Moderator: S. Ram Mohan VU2MYH</p> <p>Special Achievement: S. Ram Mohan, VU2MYH</p> <p>S. Ram Mohan is the Executive Vice Chairman & Director National Institute of Amateur Radio, Hyderabad, India. He was Licensed as Radio Amateur Grade-I since 1988, conducted number of experiments on H.F. and V.H.F. communication equipment and carried out propagation tests, organized training programs, DX-pedition's, workshops, General Amateur Radio activities including public service Communication.</p> <p>As Chief Investigator for Dept. of Information Technology, Govt. of India funded Pilot Projects, he has successfully implemented the programs on Digital connectivity to Urban/Rural/Remote areas through amateur radio, Study on Propagation Conditions in Coastal Areas and Advanced Digital Amateur Radio Communication Network.</p> <p>He led team member for many emergency communications operations. Examples are: Nepal Earthquake 2015, Cyclone Hud 2014, Uttarakhand Floods 2013, West Bengal 'Ayla' Cyclone 2009, Indian Ocean Tsunami 2004, Gujarat earthquake 2001, and the Orissa Super Cyclone 1999.</p>
10:30-11:30	Room 4	Tower Safety
		Moderator: Mark Allen W6PC
		<p>Mark Allen, W6PC, will once again provide the popular presentation on tower safety, tips and techniques on planning, installation and maintenance of your tower, and answer questions about towers and poles typically used by amateur stations. The presentation will be conducted on PowerPoint and will review, good practices, accidents and regulations which may affect amateurs who have their own tower installations.</p> <p>Mr. Allen, Vice President, of ROHN Tower, has more than 45 years in the professional communications industry and has been involved in all aspects of towers during his career. This presentation always receives excellent reviews and is very informative. Bring your tower questions and plan to attend.</p>