

Friday May 18,2018

Friday, May 18, 2018	9:15 -10:30	Room 1	TAPR Forum Moderator: Scotty Cowling, WA2DFI Bio: 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. 9:15 – 9:25AM Introduction by Steve Bible, N7HPR, TAPR President 9:25 – 9:30AM Write for QST/QEX by Steve Ford, WB8IMY QST Editor 9:30 – 9:55AM “SDR vs Legacy Radio” by Adam Farson, VA7OJ/AB4OJ 9:55 – 10:20AM “Collecting Solar Eclipse Data using SDR, plus a Low Noise VHF/UHF Synthesizer” by John Ackerman, N8UR Abstract: (1) Using an SDR to collect data during the “Great American Eclipse” on August 21, 2017, and (2) a Versatile Low-Noise VHF/UHF Synthesizer. 10:20 – 10:30AM “What is HamSCI?” by Nathaniel Frissell, W2NAF Bio: Nathaniel Frissell, W2NAF, is a research professor with the New Jersey Institute of Technology Center for Solar-Terrestrial Research. Nathaniel’s interest in ionospheric science began in middle school when he was introduced to amateur radio through scouting.
Friday, May 18, 2018	9:15 -10:15	Room 2	Remote Access to your Amateur Radio Station Moderator: Mark Aaker K6UFO Speaker: Ria Jairam N2RJ, FlexRadio Systems Community Elmer. Remote access makes your station more useful and enjoyable. Let's get you online quicker, and avoid the common problems, with an overview of remote access methods being successfully used today. We'll also feature a remote operator speaking about the new SmartLink remote access software released from FlexRadio Systems and shipped with their SmartSDR 2.0 software. And yes, we'll save time for your Questions and Answers!
Friday, May 18, 2018	9:15 – 10:30	Room 3	ARRL Public Service Communications Presenter: Ken Bailey, K1FUG, ARRL Emergency Preparedness Assistant and Continuing Education Program Administrator Amateur Radio operators have a history of helping their communities by providing radio communications in good times and in bad. You need to prepare yourself. Preparedness is about training so you will be ready when called upon. Being ready is about believing it can happen and taking steps needed to act properly when things go bad. This forum is for the newly licensed ham, and for those new to public service and emergency communications who want to learn how to do more for their community. Sponsored by ARRL, the national association for Amateur Radio®.

Friday, May 18, 2018 **9:15-10:15** **Room4** **SHARES HF EMCOMM**
Moderator Ross Merlin WA2WDT

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.

Bio:

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.

Friday, May 18, 2018 **9:15 – 10:30** **Room 5** **Parks On The Air**
Moderators: W8TAM Thomas Martin & K8VOX Julie Martin

Bio: Like many, Thomas and Julie began their love affair with portable operating with the National Parks on the Air program. To date, they have activated over 100 parks in nearly a dozen states.

Why Parks On The Air?

How to be a conscientious participant.

Gear, techniques, planning, and execution.

Friends and pileups await you on the bands. Join in the fun!

Friday, May 18, 2018 **10:45 – 11:45** **Room 1** **APRS Forum**

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 in orbit and in work. Don Arnold, W6GPS will talk about the new Kenwood TH-D74 combined APRS and Dstar radio and Bryan Hoyer K7UDR will talk about the APRS-of-Things and Sterling Coffey N0SSC will talk about all the APRS tablet and phone applications. Others will update on their APRS projects and as time permits, other APRS topics from the floor are welcome.

Friday, May 18, 2018 **10:30 – 11:30** **Room 2** **Combined MARS Forum Hamvention 2018 (UNCLASSIFIED)**
Presentations to be given by David McGinnis and Dave Stapchuk.

English, Paul A CIV USARMY NETCOM(US)The Military Auxiliary Radio System is a Department of Defense sponsored organization the trains FCC licensed amateur radio volunteers in military communications procedures and digital messaging protocols in order to provide contingency HF communications support to the Department of Defense and Military Services. The MARS forum this year will focus on lessons learned from contingency support provided by our MARS volunteers during the 2017 hurricane season in both Texas and Puerto Rico. Presenters will demonstrate the newest military HF radio, the PRC-160 tactical wide band HF radio that will soon be fielded to military units worldwide. Additionally, presenters will discuss the latest developments in the MARS RADIO phone patch network which supports the military services with HF phone patch.

Friday, May 18, 2018 10:40 – 11:40 Room 3 **Antennas for Emergencies Forum**
Frank J. Beafore, WS8B
– This presentation will be in forum style with everyone participating in the discussion. The forum will look at emergency situations, currently off the shelf (COTS) products available and homebrew solutions based on simple antenna theory. Participants should be better prepared for a variety of emergency situations after attending this forum.

Friday, May 18, 2018 10:30 – 11:30 Room 4 **2018 Hamvention Instructors' Forum**
Moderated by Carole Perry WB2MGP
This forum is for teachers and instructors to share techniques and new ideas for the classroom and ham radio youth groups. There will be an emphasis on suggestions for teaching youth about emergency preparedness and how to tie it in to geography, social studies, and amateur radio skills.
There will be excellent opportunities for networking along with great door prizes. Speaker will be Charles Kirmuss W0CBK who is an RCA Youth Activities volunteer as well as Director of Rampart Search and Rescue for Adams, Lincoln and Morgan Colorado Counties Sheriff's Department.
Topic: Teaching Emergency Preparedness through radio communications; including weather watching, navigation with maps and gps, environmental observations, first aid, search techniques, etc; Discussion on how to organize teenagers into volunteer emergency programs (CERT, SAR, ARES).

Friday, May 18, 2018 12:00 – 1:45 Room 1 **Homeland Security Forum**
Moderator: John Peterson

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.

Come talk with the DHS Communications Unit (COMU) subject matter experts at this year's forum and learn about the nationally recognized, NIMS/ICS compliant, AUXCOMM course. In this forum you will learn about the latest changes for COMU training (aka COMU 2.0) and be updated about the new COMU courses that are currently in development and are expected to be deployed in the not so distant future. Additionally, OEC will bring in subject matter experts that were on the ground and directly involved with deployment and operations of AUXCOMM operations during last year's hurricanes. This forum is filled with new information that will be beneficial to all those who provide emergency communications support to the Public Safety community. Moderator for this Forum: John Peterson (N4KEA), from the Office of Emergency Communications in Washington, DC, will be the lead for this information packed forum.

Friday May 18,2018

11:50 – 1:05

Room 3

ARRL Public Service Communications #2: Building Partnerships

Presenters:

Mike Corey, KI1U, ARRL Emergency Preparedness Manager

Sarah Byrne, Community Partners Specialist, External Affairs, FEMA

Solid, collaborative, and mutually beneficial partnerships are key to successful disaster and emergency response. Amateur Radio public service groups rely on such partnership when serving their communities. This session will address how to build and grow partnerships of different levels of complexity, across a wide range of interests and organizations -- from Voluntary Organizations Active in Disasters (VOADs), to other non-profits and businesses. Sponsored by ARRL, the national association for Amateur Radio®.

Friday May 18, 2018

11:45-1:00

Room 2

D-Star

Moderator Robin Cutshaw AA4RC

New devices. New software. Join Robin Cutshaw (AA4RC) and more for updates on D-STAR.

Friday, May 18, 2018	11:45 – 12:45	Room 4	<p>Kit Building Moderator/Keynote Speaker: Joe Eisenberg, K0NEB Kit Building Editor, CQ Magazine “Kit Building Techniques for Success”</p> <p>A look at ideas for making your kit building experience go better and give you the highest chance for success. This forum is designed for both beginning and experienced builders. Topics to be covered include choosing the correct soldering iron and not break the bank, choosing the best type of solder and desoldering tools, how to handle winding toroids, sorting parts, and what spare parts to have on hand. If possible, onsite sources for these items will be given.</p> <p>Speaker: David M Cripe NM0S Engineer, Rockwell Collins and designer of many 4-State QRP kits Introducing the new 4SQRP kits for 2018 and what is coming in the future, and using printed circuit boards to make the cases, including the design and assembly hints.</p>
Friday, May 18, 2018	11:45 – 1:15	Room 5	<p>BalloonSat Forum Program Moderators: Bill Brown WB8ELK Great Plains Superlaunch Pico Balloon Race -Bill Brown WB8ELK Solar Eclipse Balloon Flight- Paul Verhage KD4STH (talk presented by Bill Brown WB8ELK) National Scout Jamboree Balloon Flights-Keith Kaiser WA0TJT, Kelsey Seymour K3LSY, and Mike Yammine KB8CMS Promoting STEM with High Altitude Balloons and Drones- Brian Tanner, Spaceport Indiana <i>A Pico Balloon Race will be launched after the BalloonSat Forum</i></p>
Friday, May 18, 2018	1:15 – 2:30	Room 2	<p>National Weather Service Forum Working With Amateur Radio ... To Save Lives During Severe Weather Moderated By: Brandon Peloquin, Warning Coordination Meteorologist, National Weather Service Wilmington OH</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>
Friday, May 18, 2018	1:15 – 2:15	Room 3	<p>Collins Radio Association Moderator and speaker: David Knepper, W3ST, Secretary to the Collins Radio Association</p>

Emergency Preparedness Deployment of Collins Radio Equipment for Public Safety Communications

Collins amateur radio equipment, still has relevance and practicality in providing effective, dependable communications in any natural or man-made catastrophic event. Utilizing its superb capability and dependability, a Collins KWM-2, for example, can still be part of an integrated emergency communication system. This session will describe in detail the packaging of Collins ham equipment that still has relevance and capacity to provide reliable and dependable emergency communications.

Friday, May 18, 2018

1:00 – 2:15

Room 4

TECHNIQUES OF THE BEST OPERATORS 2018

Mitch Stern W1SJ

Tony Pazzola W2BEJ

Now that you've bought up all that great stuff at Hamvention, how exactly do you set it all up?

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?

Questions, questions, questions!

Our forum today will help you go in the right direction.

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 the details for putting together a great station for those portable operations, explore the mysteries of antennas and propagation, dabble with digital, 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!

Friday, May 18, 2018

1:30 – 2:30

Room 5

Using KiCad EDA Open Source Design Software

Moderator: Barry Buelow, WØIY. Rockwell Collins

Biography: WØIY. Retired from 30+ years at Rockwell Collins, plus consulting at NASA, and other aviation manufacturers. Barry spends a great deal of time designing circuits, assembling PCB and tinkering with my 3D printer and toys. He volunteers with the Iowa State Univ Solar Car project and has organized a group of other Collins retirees who do home brewing.

Abstract: KiCad EDA is one of a very few Open Source Electronic Design Automation suites. It provides tools for schematic capture and PCB layout. The tool is as easy to use as any other design software and provides Gerber outputs which can go to most PCB shops. It also supports Pick-and-Place operation by providing a component placement file.

Friday, May 18, 2018

2:00 – 5:00

Room 1

ANTENNA FORUM

MODERATOR: Tim Duffy K3LR

“A Five Element Parasitic Rotatable Vertical Yagi for 160 meters”

by Joel Harrison, W5ZN

Joel will review his installation and operation of his high performance directional antenna system for the 160 meter band.

“A Pragmatic Approach to 630 Meter Antennas”

by E.M. Tichansky, NO3M

Eric will present an overview of practical 630 meter antennas for transmit and receive for all variety of lot sizes

“Near Vertical Incidence Skywave (NVIS) Antenna System Design, Construction and Operation”

by Cory Gibson, W3CDG

Cory will present a detailed paper using NEC models, construction, deployment and on air validation of NVIS antennas for 40 and 80 meter emergency communications.

“Hydro Excavation for Radio Antenna Tower Construction”

by Everett Jackson, WZ8P

Hydro Excavation is the process of removing or moving soil with pressurized water. An air conveyance or vacuum is then used to transfer the soil or debris to a debris tank.

This allows for a non-destructive and more accurate way to excavate soil for tower foundations. There is no need for a backhoe or bulldozer and

concrete may be poured more quickly. This allows for a non-destructive and more accurate way to excavate soil for tower foundations. There is no need for a backhoe or bulldozer and

Friday, May 18, 2018

2:45 – 3:45

Room 2

Ham Radio and the Law

Barney Scholl K3LA

“Am I Am Going To Be Required To Light My Fifty Foot Tower Under The FAA Extension, Safety, and Security Act of 2016?” Or “What additional provisions has the FAA created that could affect us all”.

Description of presentation. The speaker will address the provisions of The FAA Extension, Safety, and Security Act of 2016 and whether the enacted law will require your current or future antenna support structure to be lighted. The 2016 Act will not affect most radio amateurs, but due to the included definitions, it could affect an existing or future tower. So it is better to be aware of its provisions before you buy that hilltop parcel of land for your future super station.

The speaker is Chester (Barney) Scholl, K3LA. Barney has been a radio amateur for 55 years and is a life member of the ARRL. Barney is now an attorney in private practice. He has represented radio amateurs and cellular companies in tower related matters and currently is solicitor for a local zoning hearing board and a member of a local planning commission.

This session also plans an extended Q & A period for the panel to allow audience members to steer discussions with respect to other topics of interest.

“Legal Liability laws Can Leave You Feeling Naked At Your Next Field Day, Hamfest or Public Event”

Description of content: Learn how you and your club may avoid poverty and perdition. Adult content, not recommended for the shy or risk adverse.

Speaker: The speaker is John Robert Stratton, N5AUS. John, an ARRL Life Member, is the ARRL West Gulf Division Vice-Director and Legislative Director, holds a degree in Aerospace Engineering and is an attorney in private practice specializing in civil litigation.

“Unintended Consequences of the Amateur Radio Parity Act.” Or “What you don't know may hurt you”.

Description of presentation. The speaker will address the controversy over the language of the Amateur Radio Parity Act and whether the proposed law will provide any significant relief for radio amateurs living in homeowners associations or under restrictive covenants running with their land. Bob will also discuss the unintended consequences of the proposed law. The Amateur Radio Parity Act will affect many radio amateurs that do not live in a HOA, but are characterized by broad language of the act to be in a community association even if there are no HOA documents or covenants. Also, the proposed statute does not actually guarantee an effective outdoor antenna for many living in an HOA.

The speaker is Bob Famiglio, K3RF. Bob has been a radio amateur for 51 years and is a life member of the ARRL. A graduate electrical engineer, Bob is now an attorney in private practice. He has represented radio amateurs in significant legal disputes involving antennas and HOA restrictions beginning even before the passage of PRB-1.

Friday, May 18, 2018 2:45 – 3:45 Room 5 New Product Showcase

Moderator: Michael Kalter

Dayton Hamvention is hosting a media event allowing companies to formally announce their new products. This is primarily a media event and will be available online following the Showcase. Public seating begins when media seating is satisfied.

Friday, May 18, 2018 2:25 – 3:40 Room 3 ARRL International Grid Chase 2018 -- Get in the Chase!

Presenter: Bart Jahnke, W9JJ, ARRL Contest Branch Manager
Come hear an update about ARRL's year-long on-air event, the ARRL International Grid Chase. Get tips about participating, uploading your log data to ARRL's Logbook of The World (LoTW), scoring, and awards. Remember, at the end of each month, totals on the Grid Chase leader board reset to zero. Will you be next month's leader?

Friday, May 18, 2018 2:30 – 3:30 Room 4 **Young Ladies' Radio League**
Moderator, Anne Manna, WB1ARU
Young Ladies' Radio League is sponsoring this Forum for all women, licensed or not. Every woman ham is a "Young Lady" no matter what her age. The forum will provide an opportunity for meeting and networking with others who share our hobby or are interested in finding out more about it. Speakers will provide information on varied interest areas in ham radio including nets, special events, clubs, contests, scouts, emergency preparedness, and more. Bring your questions to the YL Forum and find out 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.

Friday, May 18, 2018 4:00 – 5:00 Room 2 **System Fusion Forum**
Moderator: Mark Thompson, WB9QZB
Speaker: John Kruk, N9UPC, Sales Manager, Amateur Radio Sales Division, Yaesu USA
The System Fusion Forum™ will include a presentation & discussion about Yaesu's System Fusion™ Voice & Data technology designed exclusively for Amateur Radio.

The forum will review Yaesu's System Fusion™ technology including 2m / 70cm Analog FM / C4FM Digital Voice Repeaters and Mobile & Portable radios and WiRES-X™ (Wide-coverage Internet Repeater Enhancement System) & IMRS™ (Internet-linked Multi-site Repeater System) VoIP communications linking systems.

Everyone who is using or interested in System Fusion is encouraged to attend and participate to share their experiences & ask your questions about System Fusion.

Friday, May 18, 2018 3:50-5:00 Room 3 **Software Defined Radio**
Moderator Stephan Hicks N5AC
Multiple speakers will discuss new advances in the world of Software Defined Radio and will form a panel at the end to discuss questions from the audience. Moderated by Steve Hicks, N5AC, VP Engineering FlexRadio Systems.

Friday, May 18, 2018 3:45 – 5:00 Room 4 **DMR Networks Forum**

Moderator: John Burningham, W2XAB

The current state of the DMR networks, radios, and hot spots followed by a short introduction to writing your own code plugs.