COLLINS AMATEUR RADIO CLUB
Richardson, Texas

SIGNALS
MONTHLY NEWSLETTER

Volume 40 Issue 11 **Web Site** http://www.w5rok.us **August 2019**

CARC
Membership Meeting

Tuesday 27 August 2019
1700 Social 1730 Meeting
1800 Program

Methodist Richardson Medical Center
At Bush/Renner/Shiloh Intersection
Conference Room A in Hospital Building

Subject:
Roundtable Discussions on Digital Modes, Morse Code, and DXing

Local Club News

Meeting Notice

Our program this month will be a pair of roundtable discussions covering some topics of significant interest as gleaned from the member interest survey conducted over the past couple of months. The two roundtables will have subjects of:

1) Amateur Radio Digital Modes (i.e., FTx, RTTY, PSKn, etc.)
2) DXing and Morse Code

Each roundtable group will be led by a facilitator and everyone will be given ample opportunity to express their knowledge and interest in the subject. If you're new to the subject, come prepared to ask questions. If you're an expert or have some experience with the subject, come prepared to describe your experiences, along with web links, book references, articles, etc.

Everyone will be given the chance to introduce themselves and what they hope to get out of the roundtable discussion. When introducing yourself, describe your station, mainly your transceiver, computer and interconnecting hardware, as well as software you use. This will allow others in the roundtable to make note of who might have a similar setup and be able to help newcomers to the subject get help quickly.

This is our club's first attempt at using the roundtable approach. Many clubs throughout the nation are experimenting with this method. Let's see how well it works here.

(by Frank Krizan KR1ZAN)

CARC Community Service Activities

Siren Testing Dennis Cobb WA8ZBT, John McFadden K5TIP and Jim Skinner WB0UNI participate in the Richardson emergency siren testing. The July test was performed on 7 August. Once again, many of the sirens had one or more malfunctions, with several totally failing. The sirens are monitored by amateur radio operators and reports made using the Richardson Wireless Klub (RWK) repeater at 147.120 MHz. Siren testing occasionally uses the University of Texas at Dallas (UTD) repeater at 145.430 MHz, which is designated as the backup repeater.

Crime Watch Patrol Jim Skinner WB0UNI participated in Richardson Duck Creek Crime Watch Patrol (CWP). CWP members, after successful completion of Richardson Police Department Training, patrol their neighborhoods and report all suspicious activities to the Police Department.

CARC VE Test Session Results for July 2019

by Frank Krizan, KR1ZAN

The Collins Amateur Radio Club's VE testing session on Tuesday, July 23, 2019, had three candidates testing.

A total of four exam elements were taken with three credits given for new Technician licenses. Amber of Dallas is now KI5FUR, Ian of Richardson is now KI5FUS, and Garrett of Richardson is now KI5FUT.

Congratulations to everyone. If you hear Amber, Ian or Garrett on local repeaters, give them a shout.

VEs assisting with this session were: Kerry Weeks, K5WKS, Daryl Morgeson, AF5QJ, and Frank Krizan, KR1ZAN. *(Continued from page 1)* The next CARC VE Test Session will take place on Tuesday, August 27, 2019, immediately following the regular CARC monthly membership meeting (about 7:30 p.m.). The test sessions are held in Conference Room A of the Methodist Richardson Medical Center, at the Bush/Renner/Shiloh intersection in Richardson. Walk-ins are welcome, but it's best to register with the lead examiner, Kerry Weeks, at weeks.kerry@gmail.com or by phone at (214) 478-3230.

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VE SESSIONS

Collins Amateur Radio Club (CARC) Test sessions take place on fourth Tuesdays, immediately following the regular CARC monthly membership meeting (about 7:30 p.m.). The test sessions are held in Conference Room A of the Methodist Richardson Medical Center, at the Bush/Renner/Shiloh intersection in Richardson. Walk-ins are welcome, but it's best to register with the lead examiner, Kerry Weeks, at weeks.kerry@gmail.com or by phone at (214) 478-3230.

Dallas tests are held on the fourth Saturday of each month at 1000 hrs. 13350 Floyd Rd. (Old Credit Union) Contact Bob West, WA8YCD 972.917.6362

Irving tests are held on the third Saturday of each month at 0900. Fifth and Main St. Contact Bill Revis, KF5BL 252-8015

McKinney VE test sessions are held at the Heard Museum the first Sunday of the month. The address is 1 Nature Place, McKinney TX. The time of the testing is 1430, ending no later than 1645. ***Note: no tests given on holiday weekends.***

Garland testing is held on the fourth Thursday of each month, excluding November, and begins at 1930 sharp. Location is Freeman Heights Baptist. Church, 1120 N Garland Ave, Garland (between W Walnut and Buckingham Rd). Enter via the north driveway. A HUGE parking lot is located behind the church. Both the parking lot and the Fellowship Hall are located on the east side of the church building, with big signs by the entrance door. Contact Janet Crenshaw, WB9ZPH at 972.302.9992.

Plano testing is on the third Saturday of each month, 1300 hrs at Williams High School, 1717 17th St. East Plano. Check Repeater 147.180+ for announcements.

Richardson The Richardson Wireless Klub (RWK) VE team hold license testing on the third Thursday of each month at St. Barnabas Presbyterian Church, 1220 West Beltline Rd. Testing begins at 1900 hrs in room 12. Enter through the Northern most door on the east side of the church building. For further information contact Don Klick KG5CK. 972.464.2889 or E-mail rwkhamtest@gmail.com.

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President and VP Messages

I hope everyone is enjoying the summer weather. It's hotter than H***! Time to stay inside and work some DX, or clean/re-arrange the shack. I've been enjoying working DX and rag chewing from my iPad from around the house and remote locations. While Flex uses Windows-based software, a German ham has written an IOS-based version that works really well. For those retirees that received their badges, you can take advantage of the club station. I have made a couple of visits this past month, and it is nice to use the beam and different equipment.

Our effort to update our club membership list and membership is working quite well. I've received quite a few membership renewals and a few new applications as well. I will bring all the checks and applications to the next meeting.

Well, that's all for now, I hope to see everyone at the meeting this month. Frank, KR1ZAN, has a good program planned.

73's,
Gene, K1GD
CARC President

Secretary's Report

23 Jul 2019

President Gene Duprey K1GD called the meeting to order at 1734.

The following were present at the meeting:

Jim Brown	AF5MA
Dennis Cobb	WA8ZBT
Gene Duprey	K1GD
Bill Fell	KK5PB
Dave Jaksa	W0VX
Bob Jones	W5BJ
Bob Kirby	K3NT
Frank Krizan	KR1ZAN
Daryl Morgeson	AF5QJ
John McFadden	K5TIP
Steve Phillips	K6JT
James Sanscha	N5AGN
Mike Schmit	WA9WCC
Jim Skinner	WB0UNI
Jim Stafford	W5DTG
Bill Swan	K5MWC
Rohan Thomas	KG5RCN
Kerry Weeks	K5WKS
Milton Withers	AD5XD

Officers and Committee Reports:

The Secretary's Report is contained in this newsletter. Treasurer Rohan Thomas KG5RCN reported that club funds are sufficient for all planned business transactions. The report by the Activities Chairman was presented and is summarized herein.

Old Business:

As reported last month, the club had requested issuance of access badges from Collins Aerospace to allow retired club members to operate the club's ham shack on Collins premises. As reported by Gene Duprey K1GD ten members, all Collins retirees, requested badges; these badges have been issued. The opportunity remains for issuance of additional badges as requested by other members meeting company requirements.

New Business:

Dave Jaksa W0VX presented three paddle keyers and addressed their pros and cons. After a brief discussion and examination of the demo units, Frank Krizan KR1ZAN moved to purchase a Begali Sculpture Mono keyer with cover for use in the club's ham shack. Members present approved allocation of $700 for purchase of the keyer and cover.

Frank Krizan KR1ZAN, Activities Chairman, reviewed the planned program schedule for the upcoming months:

August: Roundtable discussions with subject-specific facilitators

September: Bill Swan K5MWC discussing the newly-revamped Military Auxiliary Radio System (MARS)

October: Contesting (presenter TBD)

November: The Annual Meeting, focused on year-end reports and elections

December: The CARC Christmas dinner

Anyone having suggestions for programs or a site for the Christmas dinner should email Frank at kr1zan@arrl.net. Based on written inputs collected from attendees, Frank may modify and/or expand the suggested schedule.

Frank reminded all that the VE sessions will continue after each meeting, conducted by Kerry Weeks K5WKS. Each VE session will be followed after one to two weeks with a session to assist newly-licensed hams with radio selection, operation and other related topics.

Frank also mentioned that he and Mike Hollingsworth W5QH are investigating establishment of an on-line club discussion group.

A quick survey determined that 17 of 19 meeting attendees were members of the ARRL.

Adjournment:

The meeting was adjourned at 1759, followed by a program by Bob Kirby K3NT on use of the digital FT-8 and FT-4 modes.

Brief Comparison between EchoLink, IRLP and Allstar Network

Repeater linking is a fantastic way to talk to friends all across the country and the world! Today's VoIP (Voice Over Internet Protocol) technology has made using the internet a great way to talk on many repeaters. At the time of writing this article, the club has had an EchoLink node setup for W5NNI 2-meter repeater until we decided to move it on-site. We have yet to connect the hardware to get that node back on the air. Recently, I was presented a great comparison about these three systems from Dan Gable – K5VOM during the July SVARA meeting. That presentation and my recent experience with Allstar network have both inspired me to write an article that compares these big three repeater linking technologies so that the club could possibly consider a direction change.

EchoLink

We start off with EchoLink, which was designed by Jonathan Taylor – K1RFD. EchoLink is more application specific, meaning that the beauty of this system is the way you can interface with it. The main interface is via a Windows-based application, "the software". Although the software is windows-based, it can be executed under Wine in most Linux distributions. This software can be operated in two modes: Sys-op and Single-User.

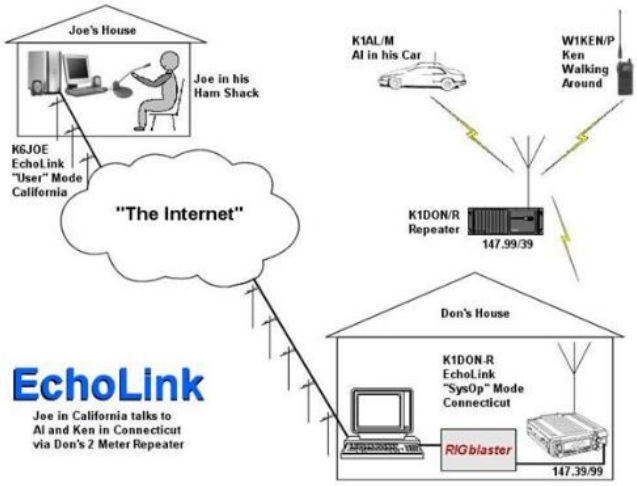
Sys-op mode allows all of the Windows application features to be used by connecting a radio or a repeater to the application for the purpose of providing an RF node to the EchoLink system. Nodes of this type usually have two extensions to the callsign, either –L for LINKED (such as RF linked from your home) or –R for REPEATER (such as the application is directly attached and controlling the repeater). The software provides a way for more than one user to connect in a kind of "chat" room, provided the node is in Sys-op mode. For a repeater, this means more than one person can connect to that repeater via EchoLink. Being operated this way requires that a good internet connection exists to be able to operate in Sys-op mode. A node could be without a radio and simply used as a means to provide a chat room for others to congregate in. Again, a good internet connection is required.

It should be mentioned that when connecting to an analog repeater that is on EchoLink in Sys-op mode, DTMF tones can be sent to connect to other EchoLink nodes, thus making it possible to connect several repeaters together. However, EchoLink software puts time-outs on these that can break the links down after a period of time.

In **Single-user mode**, the software application allows functionality to operate as a connected node to the system, as if the user is connecting to the EchoLink system as a single node. Single-user nodes can directly call one another, but group chat can only take place on a node setup for Sys-op mode.

EchoLink has their own server network to handle the load of connections. The application connects to a central server and authenticates the user before setting up the voice/control channel to the end point. Upon connection, the Sys-op node will announce the EchoLink user connecting. This has been a sore spot for Amateurs, especially those listening on those EchoLink repeaters. All day long you'll hear call so-and-so connected, followed a few seconds later by so-and-so disconnected. It can be irritating.

Some useful "anti-bozo" tips are provided in the text box here for using EchoLink. Thanks to W5DTW for his blog called "EchoLink Follies", posted on August 14, 2007 on his website at http://w6dtw.blogspot.com/



Another sore spot with EchoLink is the fact of their fixed audio quality. EchoLink uses the GSM "Full Rate" speech codec named RPE (Regular Pulse Excitation). This speech codec is great for speech on telephones and is great for applications connecting by modem and low speed internet connections. However, it does not have any potential for higher data rate to support better audio quality. In other words EchoLink is fixed to one speech quality codec on its system, and it does not compete very well with other systems, such as IRLP or Allstar.

Some of the great features of EchoLink include its application interface and Amateur Radio user validation. The EchoLink application runs on Windows OS and provides all sorts of great features for the way one triggers PTT and also a chat feature. Running Linux? No problem, simply run EchoLink under Wine. If you are behind a firewall that does not provide direct port access, there are "proxy" servers available that you can connect through, such as when you are staying in a hotel. There is also an app for your Android or IOS smart phone that allows you to take EchoLink with you wherever you go. If you have a signal for internet, then you have a ham radio in your phone.

If you want to create a Sys-op node for your local repeater, it is simple. You can interface EchoLink Windows OS application with your radio and create a connection for that repeater through your dedicated radio. Running EchoLink as Sys-op mode under Wine in possible, but there are complications that need to be dealt with. One Linux alternative is to build a Raspberry Pi and install SVNLink software, which is a third party Sys-op mode software for EchoLink. I've built one and it works great with a dedicated radio. We have since moved it to W5NNI-R, however I have not completed the new integration to the repeater hardware yet.

EchoLink Operating Tips:

•Be aware that every time you connect/disconnect, your callsign is transmitted over the air.

•Knowing the preceding it should be no surprise why when I further suggest: Don't repeatedly connect/disconnect to the same repeater. It is amazingly annoying to the locals when you do.

•Try saying hello if it's quiet. You may be surprised at how many locals are listening and willing to come back and chat with you.

•Be careful about "calling CQ" on a repeater. CQ is traditionally used for simplex contacts, and a repeater is not a simplex system. Some people won't care, but others will think that you're a bozo. If the EchoLink node ends in "-R" it's a repeater and I advise against calling CQ. If the node ends in "-L" (a link node) then CQ is probably OK.

•Don't ask for a QSL card because you made a contact over EchoLink. People will think you're a bozo. For that matter; I will think you're a bozo. QSL cards are for commemorating simplex contacts. Would you send a QSL card to someone you chatted with over Skype?

Source: W5DTW

EchoLink will stay around for quite a while because it provides such a wonderful interface and an application for every ham user to operate with. Coupled with the ability to get verified and get on the air quickly without a radio, it provides a great appeal to many hams who are limited.

IRLP

IRLP (Internet Repeater Linking Project) is a really nice way to link multiple repeaters together using the internet. Whereas EchoLink was more user-centric, IRLP is the opposite by being specifically for repeaters. If you want to access the IRLP network, you must do so through a repeater that is on the IRLP network. However, unlike EchoLink, IRLP has a better VoIP codec capability, which provides great voice quality. Along with the quality is the required internet bandwidth. IRLP is stable. Instead of using Windows applications that are unreliable, IRLP relies on proprietary hardware with some Linux, such as that found on a Raspberry Pi. IRLP relies upon their own proprietary interface board in order to improve voice stability and reduce delay from using a VOX. The proprietary board, which can be purchased, performs the A/D conversion to VoIP using 4-bit ADPCM and then compression for transmission using UDP stream. The voice quality is great, far greater than EchoLink's fill-rate GSM-RPE codec.

IRLP operates in two modes: Direct (one-to-one only), and Reflector (one-to-many). For direct mode, two repeaters can be connected. Once connected, a repeater cannot entertain any other connections. However, a repeater can be connected to a Reflector. In that case, many other repeaters can also be connected to the same reflector node, which allows linking of multiple repeaters.

There is no fancy application that can be used to connect into the IRLP network and enable talking to different repeaters. There is no app for your phone either. All IRLP access requires the IRLP hardware, provided by the IRLP organization. However, with the explosion of Allstar open network architecture, many repeater owners are quickly switching to Allstar.

Allstar

Now, where IRLP is proprietary in nature, Allstar opens things up using open-source ASTRISK technology that was developed for the PBX enterprise telephony world. It was the vision of Jim Dixon – WB6NIL by marrying Asterisk VoIP PBX with a multi-port repeater system. Jim passed away in December of 2016, so the organization is recovering from that change with five talented hams. The concept was to treat each node, whether it is a repeater or a user, as a connection into the PBX via VoIP. This turns out to be a very efficient way to connect and control voice traffic. Add to this the ability to use one or more open source codecs that can provide variable voice quality based upon bandwidth / conditions, and you get a phenomenal network of linked repeaters. Being open source now provides a broad horizon for developers to utilize it in different ways. But accessing the Allstar network is similar to IRLP for most users, and that is by talking on a local Allstar network repeater. Commands can be sent through that repeater, via DTMF, that will allow you to connect to other nodes, referenced by Allstar node number and cross-referenced by callsign.

Allstar offers several different node types: Repeater is a full-duplex mode that can be controlled via DTMF; Simplex is a half-duplex mode that can be controlled with DTMF commands; Remote Base is a half-duplex node dedicated for establishing outbound radio connections only and can be as simple as a hotspot Raspberry Pi connected to a Baofeng HT radio operating through internet Wi-Fi; and Hub, which is a type of node that has no radio hardware attached whatsoever, which provides a way for multiple nodes to connect together in a "chat-room"-like area.

Allstar node numbers are easy to obtain. The organization does a type of validation on your ham radio credentials and you can request several node numbers for your personal use. Hams are building their own nodes, either in their homes as hot-spots, or for connecting to a local repeater that does not have internet or connection to the Allstar network. Some hams have configured a hot-

spot, such as the software on Raspberry Pi, to act as an Allstar node via Zoiper app on their smart phones. This works by connecting a VoIP telephone application on your smart phone via internet to an Allstar node. Next, you would give DTMF commands to connect your hotspot node to any number of other nodes, like repeaters or group chat areas. Because of this open architecture and the excellent voice quality, Allstar is gaining popularity amongst hams quickly. It is hopeful that more development may be accomplished to provide applications that would make it easier for users to connect and participate. This could also lead to a dark side of contention as well, another topic for another day.

EchoLink provides a smart phone app to allow connection to repeaters via your smart phone. Allstar can have something similar, with a little bit more work. Because of Allstar's open architecture and open-source software, it is possible to configure smart phone apps, such as DVSwitch, Zoiper and others, to connect to the Allstar network in order to use your phone to talk on Allstar repeaters. However, these are open-source VoIP phone applications that are literally connecting to a node instance. Since most users don't have access to a node's administrative services, they will have to create their own Allstar node (or mini-repeater) using a Raspberry Pi in order to connect into the network through. This would be like creating your own internet gateway to Allstar network on your own internet, which can be complex. However, there are plenty of You Tube videos out there that can walk you through creating your own Allstar node, and then it is a matter of setting up an account on that node and connecting to it from the VoIP phone app on your smart phone to get on the air.

Conclusion

There are several ways to go digital today. DMR, D-Star, P-80 and Fusion provide digital over-the-0air, which is okay for some users who like the benefits and the drawbacks of digital over the air communications. In addition to those, the use of VoIP to connect analog repeaters is a better alternative, as more analog radios exist today. Using IRLP or Allstar allows repeater users to interconnect other repeaters together to form a single solid network in a fast and easy fashion with good voice quality. The sound quality of IRLP and Allstar exceeds the dial-up speed codec used by EchoLink. Given the proprietary hardware required for IRLP, Allstar may be a good VoIP solution for repeater linking. Also, given Allstar's open-source architecture, there is potential for more application development and improvement for access to thousands of repeaters already on the Allstar network. When you have to choose between EchoLink, IRLP and Allstar to provide interconnection services for your repeater, the choice favors Allstar.

Written by Michael Ketchum – K5MDK

Sporadic SIGNALS …

captured by Frank KR1ZAN

Hi everyone … This is the first installment of a new, regular column for those tidbits of information that don't justify a full story, something I've heard on the air, a bit of trivia that's been shared with me, stuff from other club newsletters and numerous other newsletters and blogs.

Back in the days of the Alcatel Amateur Radio Association, W5VV, I wrote a monthly column for the club's newsletter, *The Paper Repeater*, titled "Heard … Overheard … Wish I'd Heard". The AARA is no more, but, the Collins Amateur Radio Club still exists and is growing stronger everyday thanks to the efforts of many dedicated members.

So, if you find some useful tip (or have invented one yourself), send the info along to me. If it's from a publication, whether printed or online, please provide the source. I'll give you the credit, but we must credit the original source.

Just saw that the **Texas QSO Party** has moved from the last weekend of September to the second weekend (Saturday and Sunday) in September (Sept. 14/15 in 2019). More info at their website: http://www.txqp.net.

Rumor is that a **DMR repeater** is being considered for Richardson. A frequency pair is being requested.

The **July CARC program on FT8** was given by Bob Kirby, K3NT. Bob used a remote station capability at the home of John Mc Fadden, K5TIP involving the free software known as Teamviewer. You may have wondered how that works and what's involved in setting it up … well, as luck would have it, an article appeared in the September 2019 issue of QST. The article, **"Enjoy FT8 From Almost Anywhere",** is by J. Robert Witmer, W3RW, on pages 33-36.

Whether or not you are an ARRL member, there are some very useful weekly or bi-weekly newsletters that are available online (or can be delivered to your inbox if you're a member). These include the **ARRL Letter**, which is a weekly summary of pertinent amateur radio news; the the **ARRL Contest Update**, a bi-weekly newsletter about current contests and lots of tips-and-tricks for your station; the **ARRL ARES E-Letter**, a bi-weekly newsletter covering all things EmComm (ARES, RACES, AuxComm, and tips for you and your family's safety); and **ARRL Bulletins** covering such topics as DX News, Propagation, general news and more. If you're an ARRL member, check out your Member Profile and look under the "Edit Email Preferences" tab to select the emails you'd like to receive. Non-members will need to search the ARRL website for the appropriate newsletters they wish to read.

From the ARRL Letter, dated July 25, 2019: “ARRL has announced the release of its **2018 Annual Report** (http://www.arrl.org/annual-reports) to members. In his message to members, ARRL President Rick Roderick, K5UR, said "new generation" hams engage with Amateur Radio in a very different way than hams of his generation.”

Online registration is now available for **Microwave Update 2019 (**http://www.microwaveupdate.org**).** Sponsored by the North Texas Microwave Society, the event will take place October 3 - 5 at the Hilton Garden Inn and Conference Center in Lewisville (Dallas), Texas. Microwave Update is the year's premier microwave conference and an ideal place to meet fellow microwave enthusiasts to share ideas and techniques. **Tom McDermott, N5EG**, of Richardson Collins Radio heritage, will lead a Thursday, October 3, workshop on GNU Radio. You may remember Tom’s call was used on the old Alcatel repeater on 442.8 MHz.

I happened to notice on the calendar that the **New England Division Convention** is coming up the weekend of September 6-8 in Boxborough, Massachusetts. When Nancy and I used to spend our summers in Maine, a trip down to Boxborough was very enjoyable to see old friends, enjoy numerous programs and wander through the excellent flea market area.

A relatively new hamfest in Texas is the **South Texas Hamfest** which takes place on October 19th at the San Patricio County Fairgrounds Event Center, about 20 minutes north of Corpus Christi. It’s touted as “Texas Fastest Growing Hamfest!” Details at https://southtexashamfest.org.

And, a bit closer to home: the **Belton Hamfes**t is scheduled for October 4th and 5th at the Bell County Expo Center. See http://www.tarc.org/hamexpo.

The **Richardson Wireless Klub** (K5RWK) has been conducting **Fox Hunts** within the city of Richardson every Saturday this summer. Number of foxes and conditions vary from week to week. Email Andrew Koenig, KE5GDB, at ke5gdb@gmail.com for details or subscribe to the k5rwk email reflector at groups.io. Basic info, also, available at www.k5rwk.org.

The Importance of Commercial Broadcast Radio to Public Safety

Written by Andy Maxymillian

7th August 2019

The public-safety community has a variety of ways in which it communicates with the traveling public during emergencies. Examples include the highway roadside and overhead warning signs touting accidents, work zones, Amber alerts, Reverse 911 calls, as well as the Wireless Emergency Alert (“WEA”) system to send e-mails and text messages to your mobile device.

Despite the increase in mass-communication options, the backbone of real-time, public-safety communications to the traveling public is commercial broadcast radio. Whether through the FCC-mandated Emergency Alert System, the Travelers Information System (“TIS”) or simply the broadcast of alerts by individual stations, the fastest, most efficient and most timely notification system remains commercial broadcast radio.

Everyone is familiar with the Emergency Alert System (“EAS”) and its weekly test warning you that “… had this been an actual emergency.” However, few are aware of the multiple public-safety uses of the system. While EAS is available to the President to communicate to the public in times of emergency, it is also used by state and local authorities for weather alerts, Amber alerts and similar emergencies. Between 1976 and 1996, for example, the system was activated over 20,000 times. Since the updated WEA was launched in 2012, the system has been used more than 40,000 times.

The Travelers’ Information Service (“TIS”, also known as Highway Advisory Radio) is licensed to government entities and park districts. Some TIS stations operate in the AM Broadcast Band, with a coverage radius of 3 kilometers. However, state and local Governments can create statewide networks to provide services using Low Power FM stations.

The growth of satellite radio, streaming services and personal entertainment services may seem to have usurped the role of Commercial FM broadcast radio for distribution of emergency information, but perception can be misleading. Commercial FM remains a vital broadcasting service and—because of its local (not national) focus—continues to be an important tool in the dissemination of information from governmental entities to the public in times of emergency.

The focus here is on FM, instead of AM, for several reasons. While the Delaware Department of Transportation relies on an AM TIS system, the reality is that AM listenership is heavily declining. Further, the problem of mitigating AM interference in electric cars (resulting, for example, in the Tesla X not coming with an AM Radio) will further hurt AM listenership as such vehicles proliferate. Coupled with FM radio chip availability in cell phones, the reliance on FM broadcasting is much more important for public safety.

Lisa M. Fowlkes, chief of the FCC's Public Safety and Homeland Security Bureau, said that "[b]roadcasters are the backbone of the Emergency Alert System and often the first source of detailed news about severe weather, missing children, and other dangerous situations. In addition, some small and minority-owned broadcasters are a primary source of information for non-English speakers in their communities. When disaster strikes, the public relies upon their local TV and radio stations to stay informed, find resources, and keep safe."

The importance of commercial radio for emergency alerting was highlighted in a recent Arizona Republic story—reprinted by USA Today—about the massive 2018 California fire known as the "Camp Fire." In that story, the authors noted the lack of a siren warning system in the City of Paradise and that reverse 911 calls were delayed because of cellular-system congestion.

On a national basis, the story revealed that, of the 413 counties mapped by the Arizona Republic with regard to fire danger, only 215 have been authorized by the FCC to communicate with cellphones in a targeted area. Butte County—where Paradise is located—had enrolled in the FCC program at the time of the Camp Fire, but it had never been tested. Thus, the most important tool for residents for obtaining information in the area during that disaster was commercial radio.

Much commercial-radio listening occurs in vehicles. Current studies show that, when people are in their cars, AM/FM Radio is the overwhelmingly dominant audio companion, even among people who drive the newest cars, with broadcast radio consuming 67% of car listening. The "connected car" has not abated the public's broadcast listenership of commercial radio (and FM in particular).

While there has been a rise in alternative entertainment sources in the vehicle, that growth has come at the expense of CD players, not broadcasters. As stated by Quartz, "Radio survived the tape, CD, and iPod. In the age of Spotify, it's more popular than ever." In some cases, FM chip-enabled smartphones have helped to keep FM's popularity high.

In fact, commercial radio listenership in 2019 actually has increased over 2018. According to The Nielsen Company, the broadcast industry's leading research organization, "radio remains the preferred choice for listening in the car," with an astounding 71% of adult radio listening during weekday drive times happening in the car.

While some might believe that listenership would be significantly different with different generations (with younger generations listening less), listenership amongst generations is remarkably similar. Specifically, 98% of Baby Boomers are reached monthly by radio, but 95% of Millenials were also reached each month.

One of the best examples of the value of commercial FM broadcasting occurred during the aftermath of Hurricane Isaac in 2012. With houses powerless for five days (and the resultant lack of access to television) and cell-phone service knocked out, residents turned to FM radio for their emergency communications.

While we are well beyond Orson Welles' "War of the Worlds" radio scare of 1938, the fact is that the public still relies on radio broadcasts for emergency information. This can be readily demonstrated by the errors that have occasionally occurred in the use of the system, such as the recent "radiological hazard warning" that recently occurred in Georgia, causing warnings to go over the radio. A similar error recently sent an inadvertent EAS signal over WTOP's airwaves in the Washington, D.C., area.

When disaster strikes, people turn on their radios. Even when the public is not aware of an emergency situation, the continued popularity of Commercial FM radio ensures that emergency communications to the traveling public reaches the greatest number of people possible.

Radio remains the "go-to" source in weather events and emergencies. The Wireless Emergency Alert system is increasingly utilized to provide information to the public—clear evidence that a strong commercial broadcast radio system remains a vital tool for public-safety officials in their efforts to ensure the safety of the public now and into the future.

Andy Maxymillian is president of the Government Wireless Technology and Communications Association (GWTCA). GWTCA is a non-profit trade association created to advocate on behalf of government and non-government users of wireless technology and communications in the public-service industries, such as public transit. More information about the organization is available at www.gwtca.org.

First Annual Worldwide Digi DX Contest

This event starts Saturday, August 31 12:00:00 UTC, and ends Sunday, September 1 11:59:59 UTC. The equipment settings and configuration options for this dual FT8 + FT4 event will be interesting, as will the selection of frequencies, the switching between modes, and keeping track of station Grid Fields and Grid Squares. I would suspect this 24-hour event will present quite a challenge to equipment, software,

and stamina. Good luck. Details at https://ww-digi.com/index.htm.

(Contributed by Bob Kirby K3NT)

Queen Wilhelmina Hamfest

The 50th Annual Queen Wilhelmina Hamfest is scheduled for September 6-7, 2019 in Mena, AR under the sponsorship of the Queen Wilhelmina Hamfest Association. If you want to enjoy cool 2,861 feet ASL elevation, this may be the one. You may plan to operate 6m FT8 QRP from the mountain-top. If you want to stay overnight, usually the lodge is full and you need to make alternate plans, including the 'bring your own tent' option. Details at http://www.menahamfest.net/.

Harvey Houses on the Air Special Event

By Andrew Eldridge, AE5NM, HHOTA Coordinator

Harvey Houses on the Air Special Event Stations will activate many of the 84 historic Harvey Houses each year on the second Saturday of September (in 2019, this is September 14). It would be appreciated if you would bring HHOTA to the attention of your members with the objective of getting a HHOTA Special Event Station operating at each of these Harvey Houses. Last year there were seven HHOTA activations and this year we are expecting 15.

You probably know Fred Harvey built and operated Harvey House Hotels and Restaurants (both commonly referred to as Harvey Houses) along western railroads. Texas apparently had the most Harvey Houses with 16: Amarillo, Brownwood, Canadian, Cleburne, Dallas (Old Union Station), El Paso, Fort Worth, Gainesville, Galveston, Houston, Rosenberg, Silsbee, Slaton, Somerville, Sweetwater and Temple. There are several Oklahoma Harvey Houses just across the border that Texas Hams may consider activating. HHOTA information is at www.qsl.net/vcara which includes links to more information about Harvey Houses and the famous Harvey Girls recruited as staff.

New Mexico's Valencia County Amateur Radio Association is sponsoring HHOTA.

(Contributed by Bob Kirby K3NT)

Upcoming Events

Daily	DFW Early Traffic Net (NTS) at 6:30pm 146.88 – PL 110.9Hz
Daily	DFW Late Traffic Net (NTS) at 10:30pm 146.72 – PL 110.9Hz
Daily	Texas CW Traffic Net at 7:00pm on 3541 KHz and at 10pm on 3541 KHz www.k6jt.com
1st Wednesday	Richardson Emergency Siren Test. At noon using the Richardson Wireless Klub (RWK) repeater at 147.120 MHz.
2nd Wednesday	ARES North Texas HF Net Every month—3860 KHz at 8:30 pm—9:30pm

SEPTEMBER

14-16	**September VHF.** Objective: For amateurs in the US and Canada (and their possessions) to work as many amateur stations in as many different 2 degrees x 1 degree Maidenhead grid squares as possible using authorized frequencies above 50 MHz. Stations outside the US & Canada (and their possessions) may only work stations in the US (and its possessions) and Canada.. Details at http://www.arrl.org/september-vhf.
21-22	**10 GHz & Up – Round 2.** The objective of 10 GHz and Up is for North American amateurs work as many amateur stations in as many different locations as possible in North America on bands from 10-GHz through Light. Amateurs are encouraged to operate from more than one location during this event. Details at http://www.arrl.org/10-ghz-up.
21-22	**EME – 2.3 GHz and Up—**Work as many amateur stations as possible via earth-moon-earth path on authorized frequencies above 50 MHz. From 0000 UTC Saturday through 2359 UTC Sunday. Details at http://www.arrl.org/eme-contest.

OCTOBER

21-25	**School Club Roundup—**Objective: To exchange QSO information with club stations that are part of an elementary, middle, high school or college. Non-school clubs and individuals are encouraged to participate.. A station may operate no more than 6 hours in a 24-hour period, and a maximum of 24 hours of the 107 hour event. Details at http://www.arrl.org/school-club-roundup
19-20	**EME - 50 to 1296 MHz—**Objective: To work as many amateur stations as possible via the earth-moon-earth path on any authorized amateur frequency above 50 MHz. Full weekend 48-hour period (0000 UTC on Saturday through 2359 UTC Sunday). Details at http://www.arrl.org/eme-contest.

COLLINS AMATEUR RADIO CLUB
Richardson, Texas

Mail Station 461-290
P.O. Box 833807
Richardson, TX 75083-3807

TO:

COLLINS AMATEUR RADIO CLUB
Richardson, Texas

CLUB STATIONS
(972) 705-1349

W5ROK REPEATER
441.875 MHz +5 MHz Input
131.8 Hz PL - RX and TX

W5ROK-1 PACKET BBS ROK Node
145.05 MHz

W5ROK-N1, W5ROK-N2 & W5ROK-N3 HSMM-MESHNET Nodes 2.4 GHz

Tuesday 27 August 2019

1700 Social **1730 Meeting**

Methodist Richardson Medical Ctr
At Bush/Renner/Shiloh Intersection

Conference Room A in Hospital Building

NEXT SIGNALS INPUTS DEADLINE:
→→→ 13 September 2019 ←←←