



January 2018 Newsletter

KAR Editorial

With 2017 in the rear view mirror, we start 2018 off with disasters still ongoing in California. Not only was the Thomas fire historic in size, it burned anything that would hold the hillsides back in a sudden rain shower. With little warning, the earth moved with mud, destruction, missing people, death usually seen in news stories from other countries. I would expect to soon hear of the role of the amateur radio community in Monticedo and other affected cities.

As I read the one of the ARES reports, I was struck by one of the comments made by Brian, KCØBS, regarding an ARRL press release regarding ARES. Having been on the ARES E-Letter since getting my license, I went back and checked for what was in that. The number of recipients alone surprised me for a national organization, 40,000 recipients. I don't know the number of register ARES members, yet that number sounds like a respectable percentage given the number of annual memberships of the ARRL. So, when I saw that the topic in the E-Letter was CERT training, and the comparison of CERT to the brush over given to ARES, things begin to gel. I may be wrong, but as Brian stated, look for big changes in ARES in the coming year(s). Read the ARES E-Letter article at this link: [K1CE For a Final: End of Year Message](#)

Kansas has remained without an SEC since the passing of Bob Summers, KØBXF going on 5 years or more. Herb Fiddick, NZØF tried his luck at both ARES and RACES. I host a map of Kansas DEC and EC appointments and consider how out of date it is.

I also must echo what our Division Director said at the end of his January Newsletter. Content and pictures from a sole entity is not news. It takes collective input from others to keep even digital "once-a-month, so yesterday" efforts such as monthly newsletters going. People reply to e-mails from varied handheld smart phones, as attests to the signature sent at the end of the e-mails.

Clubs have also sent e-mails asking for their own members to help with content. When large Clubs are asking for input and cease to put out newsletters, is turning to social media platforms the real answer to replacing newsletters? True, social media can keep things running smoothly with daily updates. If there has been a newsletter in place in your organization, please support the editor!



UNITED STATES AIR FORCE MARS

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MARS -- The Military Affiliate Radio System

Not since WW-II has the US Homeland been under such grave threat of lethal violence from both external and internal malevolent forces. Frequent news accounts of terrorist acts in Europe and the Middle East inspire gratitude that such acts have not happened here since the 9-1-1 World Trade Center attack. Civilian and military intelligence as well as Federal, state and local law enforcement

agencies report many terrorist plots have been interdicted in the early stages without public notice. Importantly, alert citizen observations and tips often aid such interdiction's and aid in the capture of perpetrators before they act.

A respected class of alert citizens, American amateur radio operators, provide vital intelligence and communications resources supplementary to public service and safety agencies when natural and man-made disasters strike, such as hurricanes, tornadoes, floods, earthquakes; plane crashes, and other area-wide events threatening lives and property. The allocation of precious radio spectrum to amateur radio is largely justified by the element of emergency communications capability, not the hobby aspect. Two formal institutions harness Amateur Radio resources during emergencies: The Radio Amateur Civil Emergency Service (RACES) and the Amateur Radio Emergency Service (ARES).

ARES is organized under the American Radio Relay League (ARRL) whereas RACES is under the sponsorship of the Federal Emergency Management Agency (FEMA) and is intended to become an integral part of the local Emergency Management organization, an "unpaid employee," if you will. ARES was originally organized to handle "health and welfare" messages but in a number of jurisdictions, has taken on a much broader role. Today, the roles of RACES and ARES are much the same with one major difference. ARES, as well as most all other amateur radio operations, will be required to go silent under certain scenarios while RACES, operating under tightly controlled conditions, will still be available to provide supplemental communications for local government agencies. RACES is activated during and after the emergency when emergency management agencies require communication support. ARES is activated before the emergency, during and continuing for a while afterward. Depending upon how the local jurisdiction has set up its amateur radio volunteer services, either RACES or ARES will handle emergency message traffic, as needed, between emergency management officials.

The importance and contribution of RACES and ARES are legendary. However, when terrorist acts or major catastrophic events covering significant US territory occur, a third communications service can become vital. Under these conditions, agencies of the Federal Government, particularly the Department of Defense (DoD), the Federal Emergency Management Agency (FEMA), and other US Government agencies will come into play. One of the "tools" the Federal Government has in its "tool kit" is MARS.

Not a reference to the Red Planet, MARS stands for Military Auxiliary Radio System. As with ARES and RACES, MARS utilizes licensed amateur radio operators to originate and relay key information pertinent to major regional natural and man-made emergencies rising to the level of interest to the Federal Government, primarily the DoD or one of its information consumers. MARS is a cooperative manifestation of the US Air Force and US Army.

Unlike Amateur Radio, MARS operations occur on military HF and VHF frequencies and are strictly business. MARS nets are directed by Network Control Stations according to strict protocols for check-in recognition and passing message traffic. Ham-style round-tables, rag chews, CQs and DXing are not allowed.

MARS membership appeals to individuals possessing an interest in public service, patriotic duty, and an interest in advanced digital communications. MARS operations might potentially lead to interdiction of harmful plots and the timely provision of relief to citizens affected by significant disasters. MARS membership requires passing written and operations proficiency tests. For example, one of the desired accomplishments of the MARS radio operator is to develop the ability to sound indistinguishable from a military radio operator operating on a military frequency. Upon successful testing, MARS members are issued military call signs for exclusive use on MARS frequencies.

Amateur Radio Stations used in MARS service must meet certain minimum requirements, including: Highly frequency stable HF SSB and digital operation well-outside the civilian Amateur Radio spectrum allocations, and capable of at least 400 Watts RF output power into the antenna system. Ideally, quick frequency agility is helpful during MARS communications exercises and under actual emergency conditions in which the net control station orders rapid QSY to an alternate frequency. Automatic Link Establishment (ALE) capability is desirable but not mandatory. Military VHF and UHF

repeaters are selectively available for tactical unit coordination.

MARS network check-in and interaction with other MARS stations occurs by voice using USB, but all message traffic requires a PC computer interfaced with the transceiver to encode and transmit, as well as receive and decode digital modulation formatted messages. The requisite software is made available to MARS members via secure means.

Readers familiar with earlier MARS operations might recognize the absence of legacy modes such as AM and CW. Today's digital transmission modes provide much greater time efficiency and operations message security. No more message pads and cumbersome phonetic verbal message transmission. It's all digital nowadays.

Many current and retired military personnel and governmental contractors are well acquainted with the "phone patches" between off-shore personnel and stateside personnel. While MARS still has that tasking, it is not now as heavily utilized due to cell phones and global satellite communication. However, the mission of MARS has taken on a much broader scope. Details will be revealed once you are a licensed MARS member.

21st Century MARS meets the 21st Century challenges confronting the United States of America. If you have the necessary equipment and are intrigued by the disciplined approach to military-style communications, can, and will, meet the monthly participation time requirements, contact us at 888.778.6277 or via email at join@afmails-mil.us. We'll be pleased for the opportunity to discuss your qualifications to join our ranks of service to our country through Air Force MARS.

Harold Childress WB0LFH
Deputy State MARS Director – Kansas
Assistant Region Training Manager

Links for Kansas Hams!

ARRL	http://www.arrl.org
ARRL KS Section News Page	http://www.arrl.org/Groups/view/kansas
ARRL Midwest Director's Newsletter	http://www.arrlmidwest.org/newsletter/newsletter.pdf
Kansas Section Pages and KAR's	http://ksarrl.org/
S. A. T. E. R. N.	http://www.SATERN.salvationarmy.us
Kansas QSO Party	http://ksqsoparty.org
Newton ARC	http://newtonarc.org/
Wichita ARC	http://www.warc1.org
Ensor Museum	http://www.ensorparkandmuseum.org/
Wichita NWS SKYWARN	http://ict-skywarn.org
Kansas ARES Pages	http://ksarrl.org/ares
Wheat State Wireless Association	https://www.facebook.com/groups/WS0WA/
Sand Hills Amateur Radio Club, Inc	http://www.SandhillsARC.com
Jarbalo Amateur Radio Association	http://jara.signaleer.us

Kansas Traffic Net Schedule

UPDATED September 5, 2017 22:37

Days	Time	Mgr	Freq	Net Name
M, W, F	6:45AM	KB0PPQ	3920 KHz	Kansas Phone Net
Daily	7:00AM	WB0YWZ	3920 KHz	Kansas AM Weather Net
Sat, Sun	8:00AM	KB0PPQ	3920 KHz	Kansas Phone Net
Mon -Fri	12:30PM	KE0DL	7253.5 KHz	Central States Traffic Net
Daily	6:00PM	WB0YWZ	3920 KHz	Kansas Weather Net
Daily	6:30PM	KB0PPQ	3920 KHz	Kansas Sideband Net
Daily	7:00PM	NB0Z	3547 KHz	QKS CW NTS Traffic Net
Mon	7:30PM	WD0ESF	3547 KHz	QKS SS CW Traffic Net
Daily	10:00PM	NB0Z	3547 KHz	QKS CW NTS Traffic Net



S.A.T.E.R.N.

Salvation Army Team Emergency Radio Network

Latest Newsletter

<http://ksarri.org/satern>

**ARRL Midwest Director
Roderick K. Blocksome KØDAS**

The ARRL Midwest Division January 2018 Newsletter is now available on the Division's Web page. Here's the direct link:

<http://www.arrlmidwest.org/newsletter/newsletter.pdf>

This link always takes you to the current month's newsletter. If this month's newsletter doesn't open, try refreshing the page or clearing your browser's cache, in case your browser is loading a copy of a previous newsletter. Previous newsletters are available at: <http://www.arrlmidwest.org/newsletter.html>

Highlights this month are:

- How to Motivate Your Club Members
- A Christmas Message
- The St. Louis QRP Society Celebrates 30 Years, 1987 – 2017
- The Builder's Class
- Around the Midwest Division
- Midwest Division ARRL Hamfests & Conventions
- Midwest Division Special Event Stations

Thanks and 73's,
ARRL Midwest Division Director:
Roderick K Blocksome, K0DAS
k0das@arrl.org



Supporting Our Veterans - Honorably Discharged
[S*M*A*R*T - Special Military Active Retired Travel Club](#)

*KCONDG Sherwin
or SARG; EX-K102 1960 to 1987
or TOP, 1SG ; Army USAR, Retired 1951 to 1987 --- final discharge 1994*

God Bless those who have served this great country AMERICA
Proud Military Veteran

SEEING THE COUNTRY WE DEFEND
SHERWIN & DOROTHY STIELOW



ARES – Amateur Radio Emergency Service



Complete list of ECs and a printable State ARES map <http://ksarrl.org/ares/>

<http://ksarrl.org/ares/alphaks.php/>

<http://ksarrl.org/distks.php>

AMATEUR RADIO EMERGENCY SERVICE

MONTHLY EC REPORT

◆ **Zone 4A – Brian KCØBS**

DECEMBER 2017 MONTHLY ARES REPORT TO DEC & SEC

Total of ACTIVE ARES members: 150 +0

Local Net Name: Johnson County ARES

Emergency Coordinator = Brian Short KC0BS 913-638-7373

Alternate Emergency Coordinator, Recruiting = Jim Andera K0NK 913-884-6613

Assistant Emergency Coordinators:

Herb Fiddick - ECS Liaison

George McCarville WB0CNK - Training, Drills

Matt May KC4WCG - IDs, MECC

Bill Gery KA2FNK - Recruiting, Technology

Darren Martin N0MZW - Net Manager

Brad Kelsey KU0FAN - Membership

Jesse Gonzalez KE0ECS - CERT

Chuck Simpson KC0NUG - Rapid Response

Jim Andera K0NK - KCHEART

NTS liaison is maintained with the KS SSB Net:

Jim Andera K0NK

Terry Reim WA0DTH

George McCarville WB0CNK

Jim Cordill KI0BK

Debbie Britain AB0UY

Rich Britain N0ENO

Wretha Galeener KC0HHO

Net Sessions: 40

QNI: 305

QTC: 0

4 nets = 2 Meter Voice

4 nets = 2 Meter SATERN Voice

4 nets = CW

4 nets = 6 Meter

4 nets = 2 Meter Voice Simplex

4 nets = PSK 31 SATERN

4 nets = APRS Packet

4 nets = 70CM

4 nets = 1.25 Meter

4 nets = SATERN 80 meter SSB

Look for big changes coming to ARES according to ARRL press releases.

Here's hoping to some much needed leadership from above!

Careful what you wish for, right!

I hope you will join us Monday Jan 8 for the January ARES/SATERN meeting at the Olathe Salvation Army at 7pm.

We will be conducting our year in review, look forward, and awards ceremony.

73!



Brian L Short, PMP,
PPL-SEL, KCØBS

Report prepared by:
Darren Martin NØMZW
Johnson County Kansas

◆ **Zone 6E – Rod KØEQH**

Kansas ARES Zones 6A, E & G Net Report Dec 2017

Total Nets.....4
Total QNI.....22
Total QTC.....1 (net report)

Alternate NCS-----NØOMC

Stations participating: NØOMC, NØKQX, NØOXQ, WBØQYA, KEØIPC, KGØVA
ACØE, KØEQH

Happy New Year from SW Kansas!

Rod
KØEQH
NCS

Santa Fe Trail ARC Happenings

A magazine article that talks about some of the SFTARC's on-the-air activities was recently published in the Fall 2017 issue of the Overland Journal. The new SFTARC web site is going live in a few days. Go to the main page <http://dev3.sftarc.org> or if that fails <http://www.sftarc.org>

The article, "*Making Our Historic Trails Radio Active*" was written by Jim Andera, KØNK for a non-ham-radio audience and illustrates how ham radio can be used to support and promote a greater appreciation of our nation's history.

The SFTARC is conducting ham classes in Jan and Feb, teaching both the Morse Code and the Technician License. Interestingly the Morse code class is filling up faster than the Technician class! Class info is also on the website.



Tom's Key Strokes - WØEAJ

Denver, CO. Displaced Kansas Neighbor
and very gud friend!

daileyservices@centurylink.net



2m FM In and Around Kansas City, and ol' NØRK (sk)

Yep, all quite true. My first 2m rig was part of a WW-II SCR-522, but I then acquired a "run over" Johnson 540 handheld. I was doing the OPPD radio work at B-A's Pro Industrial Div, and was asked to drop by to pick up "a radio project", as my buddy was a Patrolman and I'd often go by the station, anyway. The radio had slid off of a squad-car's fender and been literally CRUSHED by the rear tire as it was driven over, and they just said "we don't want it back, but please give us something that says it's NOT fixable, even if it IS!" I actually DID manage to put it back together and they still didn't want it back, so I got xtals for 146.34T and 146.94R and as we had an old unused mobile docking bracket and an external mic in the shop's spare parts, it was a real bonus. I set it up, using a Singer-Gertch FM-10 Service Monitor (good stuff in those daze), and it was set for 4.4 kHz max deviation. Sure enough, a few months after putting in on the air, I got slammed by "himself" - KØCTK (his old call), but after we chatted (off repeater) he admitted that [at the time] he had nothing to measure deviation properly, and had only gone by his "ear". Yep, he fixed that with his "blinkin' yellow light".

Next rig was a Midland 13-500, which was actually a pretty good rig, AND commercially made. Unfortunately, the radio was designed for a Lo-Z microphone, but came with a Hi-Z mic... yep, it overdrove like crazy... so, frustrated at trying to get Midland to change mics, we just soldered a 470 ohm resistor across the mic element, and termed it the "Q & D Fix" (quick and dirty). You could then set the deviation to about 4.8 kc and turn the mic gain down until it would only pass your VOICE and not all the noise on the outside of your car window. With 13 channels (No PL), it was fairly flexible, and the best part was that it could be made into a "Q & D" repeater very quickly, as the transmitter was on ONE board, and the receiver on a SEPARATE board. Many early "repeat-me" units were made out of this radio. I still have one that my good friend Butch Lewis (KØPSA) gave to me, and after zeroing the xmit & rcv channel crystal frequencies, it works quite splendidly. About this time, there began to appear other 2m FM units and more repeaters began to appear. Around the KC area, the original was, of course, the "three four - ten four", and in Lawrence, it was the 16/76. Ironically, the Midland (and several others) came WITH xtal sets for 34/94, 16/76, and 94/94 which was used as a "direct" frequency... 146.52 grew in popularity after a bit, and the "Texas Plan" for repeater pairs came along - you can find it in older ARRL books on "FM & Repeaters", but basically, your pairs began at 146.01 (paired with 146.61), had a 600 kc split, and reversed at 147.00, on up to 146.40, 43, 46, 49, 52, 55, & 58 which were all DIRECT frequencies. (keep in mind, that "half-split" repeaters were not only NOT USED, but were ILLEGAL as well), then continued up to 147.39 as the max pair.

We began to see PL requirements as early as 1973, but only a couple of machines used the concept, and "old hams" considered the use of PL (EF Johnson pioneered the term, and it means "Private Line") as being "snooty" - not wanting other than their "special" friends on "their" machines. Of course, to those of us who'd been dealing with Biz Band stuff, it made perfect sense, due to the Cross-Modulation* problem.

**To THIS DAY, the term "Inter mod" or Inter modulation is incorrectly used - "Inter mod" is a result of transmitters, whereas "Cross Mod" is what occurs in receivers - that said, we'll never get folks to say it right, so what the heck - move on...*

Concerning "channelization" and the cost of crystal pairs for those radios, one company pioneered the "synthesized" radio by selling the GLB Synthesizer (it even came as a kit, if you wanted it that way)... using a master oscillator and the combination of switching of a couple of banks of crystals, you could

