The Ham Radio Communicator

Devoted Entirely to Amateur Radio

June 2017 www.w0uk.org

FIELD DAY

June 24-25, 2017

Wells Overlook State Park

Lone Star Bike Ride

Lone Star Lake

CW station
Voice station
Digital station
GOTA station
VHF station

Testing
Saturday
June 24, 2017
3:00 pm

Douglas County Amateur Radio Club
Lawrence, Kansas

Table of Contents

PRESIDENT'S CORNER

By Jim Eckler – KC0IDF

Jim Cessna AC0KN, thank you for continuing to publish the newsletter.

At the May meeting we had 21 eager Hams show up. After the business meeting adjourned, several members put on demonstrations around the room.

Phil Anderson W0XI was our featured presenter, and put on a great program on building the Elecraft K1 CW rig kit. Thanks Phil.

Bill Music KC0NFL did a hands-on demonstration on how-to install Anderson Power-pole connectors. He also installed a couple of PL-259 connectors on the end of a length of coax. Thanks Bill for the great demos.

George Akob KE0MNV brought a Luition LT-425uv mobile radio powered by a harbor freight power pack and a homemade antenna. Thanks George.

A very interesting new person, Skyler Huffman KE0NBO, who works for Topeka FM, stated his boss was ok with donating a repeater site to our club.

Bill Roach W9ANF and Bud Waugh N0APJ, made up some very nice flyers to pass out to new perspective Hams interested in our club and Ham radio. Thanks guys, I know it was a lot of work.

Kevin Oneslager KS0EGL also submitted a flyer to give to the Boy Scouts when they come for field day. Kevin estimates we may see as many as 100 Scouts. It should be a great time.

Matt Hilt K0TOY will get with Bob Drake and the other instructors, and hold a Technician Class for new hams. Matt brought a potential new ham, Jerry Sylvester, to the meeting. Thanks Matt.

I bought a $25 Baofeng HT for an older ham to use. Kevin Oneslager KS0EGL programmed the HT and another one for Gordon Fitch N0AB. Thanks Kevin, we all appreciate it.

The June meeting will be held at Wells Overlook at 6pm on June 14th, 2017. The meeting's purpose is to finalize Field Day preparations.

I apologize for the nasty tasting coffee and lack of order at the meeting. I'll try to do better enforcing the *Robert's Rules of Order* in the future. Thanks Brandon for helping me keep order.

It was a great get together, and hope to see you all at many more meetings!

73 Jim

MEETING MINUTES

By Kevin Oneslager KS0EGL

May 10, 2017

DCARC Monthly Meeting

7:09pm Meeting Opened

President Message: Welcome

Minutes approved

Treasurers Report

General Fund	$1,045.57
Repeater Fund	$1,722.62
Total Fund	$2,768.19

26 Paid members

ARES Report – June 11 Lone Star Bike Ride – Brian Short contact
June 24-25 Field Day
July 23 Cider Mill Century Ride –
Aug 20 ARRL State Conference Salina
Sept 9 – 10 Hawk 100
Sep 16-17 MS Ride KC
Sep 16 Bikers for Babies

VP Report – Wells Overlook digital work, 1st Saturday fell thru, Tuesday night net going well.

WebSite – nothing to report
NewsLetter – Jim taking a break from newsletter editor

Business:
Field Day permits taken care of, field day discussion
Class Discussion – Matt Hilt to coordinate

Next meeting June 14 at Wells Overlook 6pm.
Possible future topic antennas for new hams

7:42pm Adjourned.

MICRO-CONTROLLERS

Arduino Projects

From "Arduino for Ham Radio" by Glen Popiel, KW5GP

Code Practice Generator	Fan Speed Controller
CW Beacon & Foxhunt Keyer	Digital Compass
WX Station	Talking SWR Meter
RF Probe w/ LED Bar Graph	Talking GPS/UTC Time/Grid
Solar Bat Charge Monitor	Iambic Keyer
On-Air Indicator	Waveform Generator
FD Satellite Tracker	Scripts
AZ/EL Rotator Controller	Schematics
Lightning Detector	
CW Decoder	www.arduino.org

Introduction to Micro-Controllers: The Arduino Platform

From ARDUINO.ORG web site

"**Arduino** is an open-source prototyping platform based on easy-to-use hardware and software. Arduino provides an open-source and easy-to-use programming tool, for writing code and uploading it to your board. It is often referred to as the Arduino IDE (Integrated Development Environment).

The Arduino boards are able to read inputs - light, proximity or air quality on a sensor, or an SMS or Twitter message - and turn it into an output - activating a motor, turning on a light, publishing content online or trigger external events. You can tell your board what to do by writing code and uploading it to the microcontroller on it using the **Arduino programming language** (based on Wiring), and the Arduino Software (IDE), based on Processing.

Over the years Arduino has powered thousands of projects. Arduino has gathered around a community where beginners and experts from around the world share ideas, knowledge and their collective experience. There are thousands of makers, students, artists, designers, programmers, researchers, professionals and hobbyists worldwide who use Arduino for learning, prototyping, and finished professional work production."

ROBOTICS

Remote Sensing	Remote Data Gathering
Wireless Technology	Artificial Intelligence (AI)
Logic	Source Parts
LED/LCD Displays	Transistors
Intergraded Circuits (ICs)	Transformers
Motors and gears	Micro-controller(s)
PCBs	Batteries
Servo motors	Solar Panels
http://www.arrl.org/ham-radio-spirit-lives-in-robots	https://www.makershed.com/collections/robot-kits
www.nationalroboticsweek.org	

Introduction to Robotics

From Wikipedia, the free encyclopedia

The Shadow robot hand system

Robotics is the interdisciplinary branch of engineering and science that includes mechanical engineering, electrical engineering, computer science, and others. Robotics deals with the design, construction, operation, and use of robots,[1] as well as computer systems for their control, sensory feedback, and information processing.

These technologies are used to develop machines that can substitute for humans. Robots can be used in any situation and for any purpose, but today many are used in dangerous environments (including bomb detection and de-activation), manufacturing processes, or where humans cannot survive. Robots can take on any form but some are made to resemble humans in appearance. This is said to help in the acceptance of a robot in certain replicative behaviors usually performed by people. Such robots attempt to replicate walking, lifting, speech, cognition, and basically anything a human can do. Many of today's robots are inspired by nature, contributing to the field of bio-inspired robotics.

The concept of creating machines that can operate autonomously dates back to classical times, but research into the functionality and potential uses of robots did not grow substantially until the 20th century.[2] Throughout history, it has been frequently assumed that robots will one day be able to mimic human behavior and manage tasks in a human-like fashion. Today, robotics is a rapidly growing field, as technological advances continue; researching, designing, and building new robots serve various practical purposes, whether domestically, commercially, or militarily.

Many robots are built to do jobs that are hazardous to people such as defusing bombs, finding survivors in unstable ruins, and exploring mines and shipwrecks. Robotics is also used in STEM (Science, Technology, Engineering, and Mathematics) as a teaching aid.

Robotic aspects

There are many types of robots; they are used in many different environments and for many different uses, although being very diverse in application and form they all share three basic similarities when it comes to their construction:

1. Robots all have some kind of mechanical construction, a frame, form or shape designed to achieve a particular task. For example, a robot designed to travel across heavy dirt or mud, might use caterpillar tracks. The mechanical aspect is mostly the creator's solution to completing the assigned task and dealing with the physics of the environment around it. Form follows function.
2. Robots have electrical components which power and control the machinery. For example, the robot with caterpillar tracks would need some kind of power to move the tracker treads. That power comes in the form of electricity, which will have to travel through a wire and originate from a battery, a basic electrical circuit. Even petrol powered machines that get their power mainly from petrol still require an electric current to start the combustion process which is why most petrol powered machines like cars, have batteries. The electrical aspect of robots is used for movement (through motors), sensing (where electrical signals are used to measure things like heat, sound, position, and energy status) and operation (robots need some level of electrical energy supplied to their motors and sensors in order to activate and perform basic operations)
3. All robots contain some level of computer programming code. A program is how a robot decides when or how to do something. In the caterpillar track example, a robot that needs to move across a muddy road may have the correct mechanical construction and receive the correct amount of power from its battery, but would not go anywhere without a program telling it to move. Programs are the core essence of a robot, it could have excellent mechanical and electrical construction, but if its program is poorly constructed its performance will be very poor (or it may not perform at all). There are three different types of robotic programs: remote control, artificial intelligence and hybrid. A robot with remote control programing has a preexisting set of commands that it will only perform if and when it receives a signal from a control source, typically a human being with a remote control. It is perhaps more appropriate to view devices controlled primarily by human commands as falling in the discipline of automation rather than robotics. Robots that use artificial intelligence interact with their environment on their own without a control source, and can determine reactions to objects and problems they encounter using their preexisting programming. Hybrid is a form of programming that incorporates both AI and RC functions.

PUBLIC SERVICE

Calendar of Events

DATE	TIME	EVENT
1/27/2018	10:00-15:00	**KS DAY**: KS joined union 1/29/1861
1/27/2018 1/28/2018		**Winter Field Day** https://www.winterfieldday.com/
2/3/2018	08:00-13:00	**La Cygne Hamfest**
4/21/2018	08:00-14:00	**Ararat Shrine Hambash**
4/22/2017	0000-2359Z	**International Marconi Day** (K2M, GB4IMD, EI6YXQ) http://gx4crc.com/gb4imd/
4/27/2017		**Morse Code Day** https://www.daysoftheyear.com/days/morse-code-day/
4/29/2017 4/30/2017	10:00-17:00	**WW1USA – U.S. enters War** https://www.theworldwar.org/amateurradio
5/13/2017		**Armed Forces Day** Layne LaBaume, AE1N **ae1n@gmail.com**
05/19/2017 05/20/2017 05/21/2017	07:30-18:00 07:30-17:00 08:00-13:00	**Dayton Hamvention** http://hamvention.org/
6/11/2017		**Lone Star Bike Ride** (Lone Star Lake, Lawrence) Brian Short, KC0BS - kc0bs@arrl.net - 913-638-7373
06/24/2017 06/25/2017	s-time: 13:00 e-time: 13:00	**Field Day** http://www.arrl.org/field-day
7/15/2017	08:00-13:00	**Warrensburg Hamfest** **Crest Ridge Middle School 50 Hwy and 58 Hwy** **5 miles West of Warrensburg** **Ken Smith, KO9R klsmith92@gmail.com 660-441-0007**
7/19-28/2017		**Boy Scouts Jamboree On The Air (JOTA)** http://www.summitbsa.org/events/jamboree/overview/
7/23/2017		**Cider Mill Ride** (Louisburg) Brian Short, KC0BS - kc0bs@arrl.net - 913-638-7373
7/22/2017 7/23/2017	10:00-17:00	**WW1USA – Battle of Passchendaele** Herb Fiddick, NZ0F hfiddick@gmail.com or www.ww1usa.org
8/20/2017		**Kansas State ARRL Convention** **Webster Conference Center** **Salina, Ks.**
8/26/2017		**Joplin Hamfest**
08/26-27/2017	09:00-21:00 09:00-15:00	**KS QSO Party** www.ksqsoparty.org
9/09/2017 9/10/2017	06:00 08:00	**Hawk 100 Run** Clinton Lake State Park, Lawrence, KS Contact: Bill Gery KA2FNK at 913-575-3763 ka2fnk@gmail.com

9/16/2017 9/17/2017		**Kansas City Bike MS** - Olathe to Lawrence Herb Fiddick, NZ0F - 913-744-0586, hfiddick@gmail.com
9/16/2017		**Bikers 4 Babies** Motocycle Ride Kansas Speedway Matt May, KC4WCG kc4wcg@twc.com 913-927-4148
10/07/2017		**ARRL Simulated Emer. Test**
10/09/2017	13:00	**Lawrence Crop Hunger Walk** http://www.crophungerwalk.org/lawrenceks
10/21/2017 10/28/2017		**Hamclass.org Technician Class**: Ararat Shrine in KCMO
10/21/2017	08:00-13:00	**Grandview Hamfest**
10/20/2017 10/21/2017 10/22/2017		**BSA-JOTA** Les Mignerey, KB0MEF Assistant Section Manager for Radio Scouting South Texas Section, ARRL West Gulf Division Houston, TX 77070 kb0mef@arrl.net
10/14-5/2017	10:00-17:00	**WW1USA – U.S. Troops begin combat ops.** Herb Fiddick, NZ0F hfiddick@gmail.com or www.ww1usa.org
11/4/2017		**Raytown Amateur Radio Club HAMFEST** - Ararat Shrine Temple 5100 Ararat Drive, Kansas City, MO 64101 Joel Griebshaber, KC0ELZ - kc0elz@sbcglobal.net
12/31/2017 01/01/2018	s-time: 18:00 e-time: 18:00	**Straight Key Night** http://www.arrl.org/straight-key-night

Each month volunteer a few hours to support the PUBLIC SERVICE part of Ham radio. Take a new Ham with you! It's fun!

Public Service Event YouTube Videos

By Herb Fiddick (NZ0F, Brian Short (KC0BS), and Steve Rainey (WD0DBP)

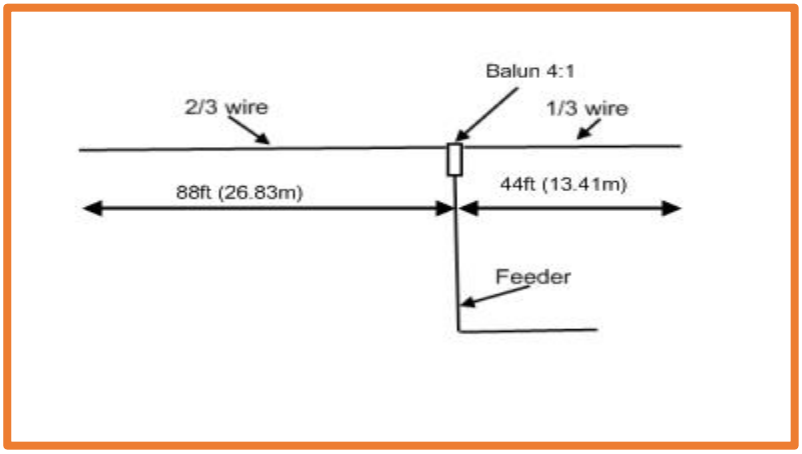
Public Service Events 101: https://youtu.be/Wetp0sKAwy8
Emergency Communications 101: https://youtu.be/opbnZYa1r9o
More information contact: Herb Fiddick (NZØF) hfiddick@gmail.com www.kchamlink.org

What is Amateur Radio is all about? https://youtu.be/ivUMIADFSDw de, Pete Varounis, NL7XM

ANTENNAS

Off-Center-Fed Dipoles

From ARRL Antenna Book



Works on bands: 80, 40, 20, and 10m (15m poorly)

It is not necessary to feed a dipole antenna at its center, although doing so will allow it to be operated with a relatively low feed-point impedance on it fundamental and odd harmonic. (For example, a 7-MHz center-fed half-wave dipole can also be used for 21-MHz operation.) By contrast, the OCF dipole, fed 1/3 of its length from one end, may be used on its fundamental and even harmonics. Its free-space antenna-terminal impedance at 3.5, 7 and 14 MHz is on the order of 150 to 200 Ohms. A 1:4 step-up transformer at the feed point should offer a reasonable good match to 50 or 75 Ohm line, although some commercially made OCF dipoles use a 1:6 transformer.

At the 6th harmonic, 21 MHz, the antenna is three wavelengths long and fed at a voltage loop (maximum), instead of a current loop. The feed-point impedance at this frequency is high, a few thousand Ohms, so the antenna is unsuitable for use on this band.

Balun Requirements

Because the OCF dipole is not fed at the center of the radiator, the RF impedance paths of the two wires at the feed point are unequal. If the antenna is fed directly with coax (or a balanced line), or if a voltage step-up transformer is used, then voltages of equal magnitude (but opposite polarity) are applied to the wires at the feed point. Because of unequal impedances, the resulting antenna currents flowing in the two wires will not be equal. This also means that antenna current can flow on the feeder – on the outside of the coaxial line. (You may recall that this is how the Carolina Windom works, actually inducing current onto a carefully chosen length of coax, choked at its bottom end, so that it acts as a vertical radiator.)

How much current flows on the coax shield depends on the impedance of the RF current path down the outside of the feed line.) This is not a desirable situation. To prevent radiation, equal currents are required at the feed point, with the same current flowing in and out of the short leg as in and out of the long leg of the radiator. A current for choke type of balun provides just such operation. (Current baluns are discussed in detail in Chapter 26, Coupling the Line to the Antenna.)

SATELLITE COMMUNICATIONS

www.amsat.org	ISS
Tracking	Software
JT65 and JT9	Solar Arrays
AZ-EL Rotors	Radio(s)
Frequencies	Pre-amps
Circular Polarized Antennas	

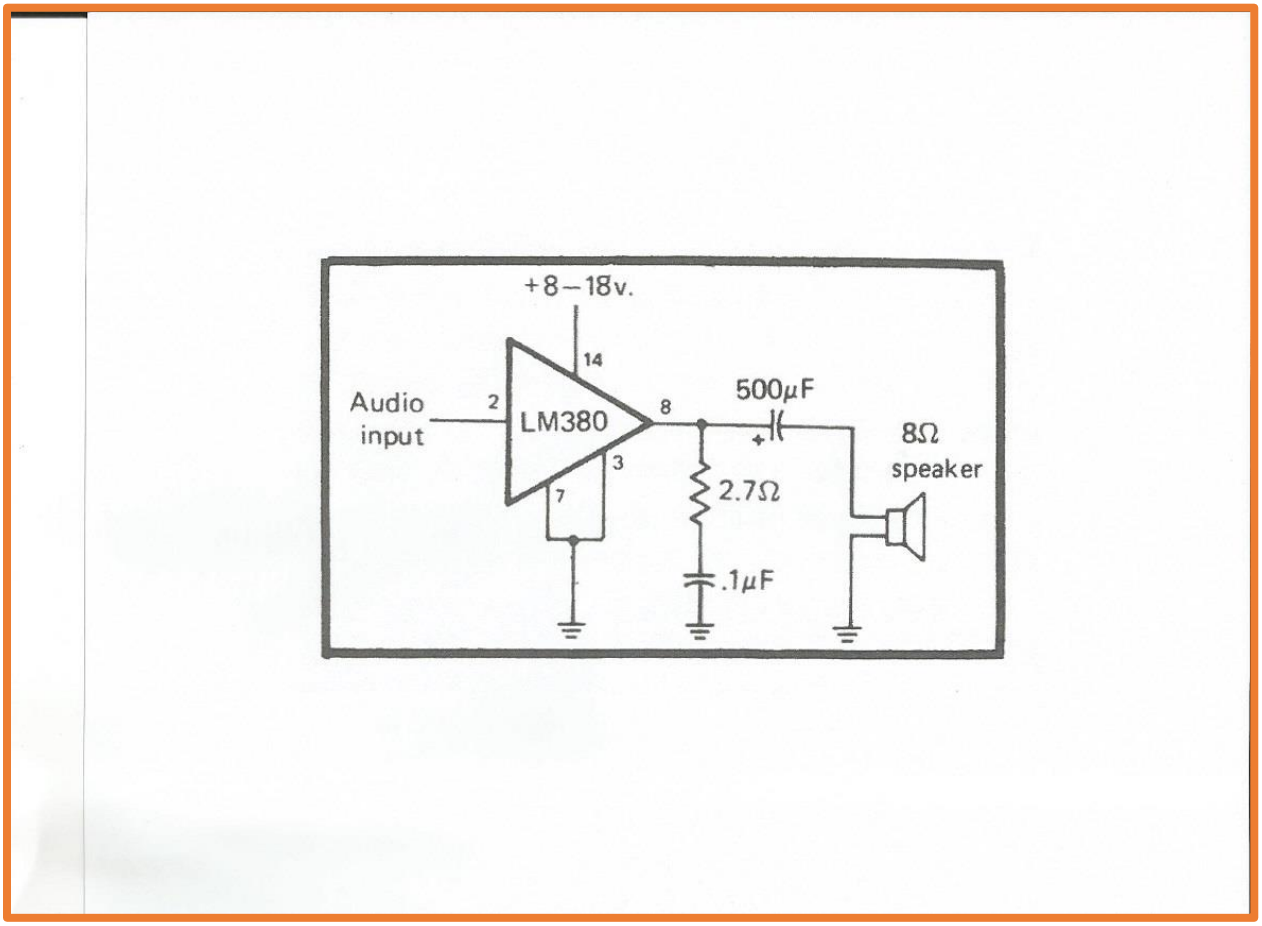
For Beginners

From AMSAT.ORG web site

Here for you to freely download is a compendium of "getting started" articles written by Keith Baker, KB1SF/VA3KSF. These articles appeared over the course of several editions of The AMSAT Journal from 2010 to 2011.

Unfortunately, because both satellites (and Web addresses!) have a finite lifetime, information such as this can quickly be overcome by events. For example, the AO-51, AO-27 and VO-52 satellites referred to in these documents are no longer operational and several of the Web links he mentions no longer point to active Web pages. However, despite these (minor) shortcomings, the tools and techniques outlined in Keith's beginner series are still very much applicable to operating on current and future AMSAT satellites.

GETTING STARTED:	FOR BEGINNERS
Part 1	http://www.amsat.org/xtra/Getting%20Started%201.pdf
Part 2	http://www.amsat.org/xtra/Getting%20Started%202.pdf
Part 3	http://www.amsat.org/xtra/Getting%20Started%203.pdf
Part 4	http://www.amsat.org/xtra/Getting%20Started%204.pdf
Part 5	http://www.amsat.org/xtra/Getting%20Started%205.pdf
Part 6	http://www.amsat.org/xtra/Getting%20Started%206.pdf
Part 7	http://www.amsat.org/xtra/Getting%20Started%207.pdf
Part 8	http://www.amsat.org/xtra/Getting%20Started%208.pdf
Part 9	http://www.amsat.org/xtra/Getting%20Started%209.pdf



The Great LM-380

By Bob Heil
[Reprinted with permission from Bob Heil]

One of the simplest devices for the experimenters to use is the LM380. This is a two-watt audio amplifier chip that has many uses. It is basically an audio power amplifier, but with lots of imagination from the experimenter, it can be used for a variety of projects; phone amplifiers, intercoms line drivers, headphone amplifiers and such the like.

RADIO-SPORT

DCARC Field Day – June 24-25, 2017 -- Wells Overlook

The Event

Mark it on your calendars, "June 24-25, 2017," its Field Day time again.

This national ARRL sponsored event is one that generates the most Club participation of the year. There is something for everyone to do from helping to set up antennas and stations to personally operating on phone or CW.

The Site

Again this year we will conduct Field Day at Wells Overlook just south of Lawrence. Driving directions are:
South on Iowa Street (U.S. 59) exit on to County Road 458 (1000N).
Turn east on County Road 458.
Go east about ½ mile to the Park entrance (south side).
Turn south (right) into the park entrance, and drive up to the top of the winding hill.
Field Day site is at the shelter house near the wooden lookout tower.

The Set Up

The set up time is 8:00 a.m. This is when all the fun begins. It's great to be involved and see how towers and antennas are raised to the heights, stations assembled and powerful generators set-up. Coaxial feed-lines are run to each antenna.

Testing
ARRL testing will be held for all license classes on Saturday, June 24, 2017, at 3:00 pm at the Wells Overlook Field Day site. If you plan on testing, please register with Jim Eckler kc0idf@arrl.net, so we'll have an accurate count as to the number of people wanting to test. Bring $15, photo id, and if you are up grading, a copy of your license. For more information on what to bring to a testing session see, http://www.arrl.org/what-to-bring-to-an-exam-session.

We are in need of ARRL VE's to help administer the exams. If you are an ARRL-VE, please contact Jim Eckler KC0IDF at kc0idf@arrl.net A.S.A.P.

The Picnic

There will be a family picnic dinner, Saturday, June 24, 2017, at 6 p.m.
Hams, families, and friends are invited to join in a group picnic. Here's what to bring. The Club will provide meat, buns, and condiments. Participants should bring their own folding chairs, drinks and covered dish – a salad, vegetables, dessert, etc., enough to serve 4 to 6 people. Each group should also bring their own eating utensils, paper plates, and drinks.

The Final Plans

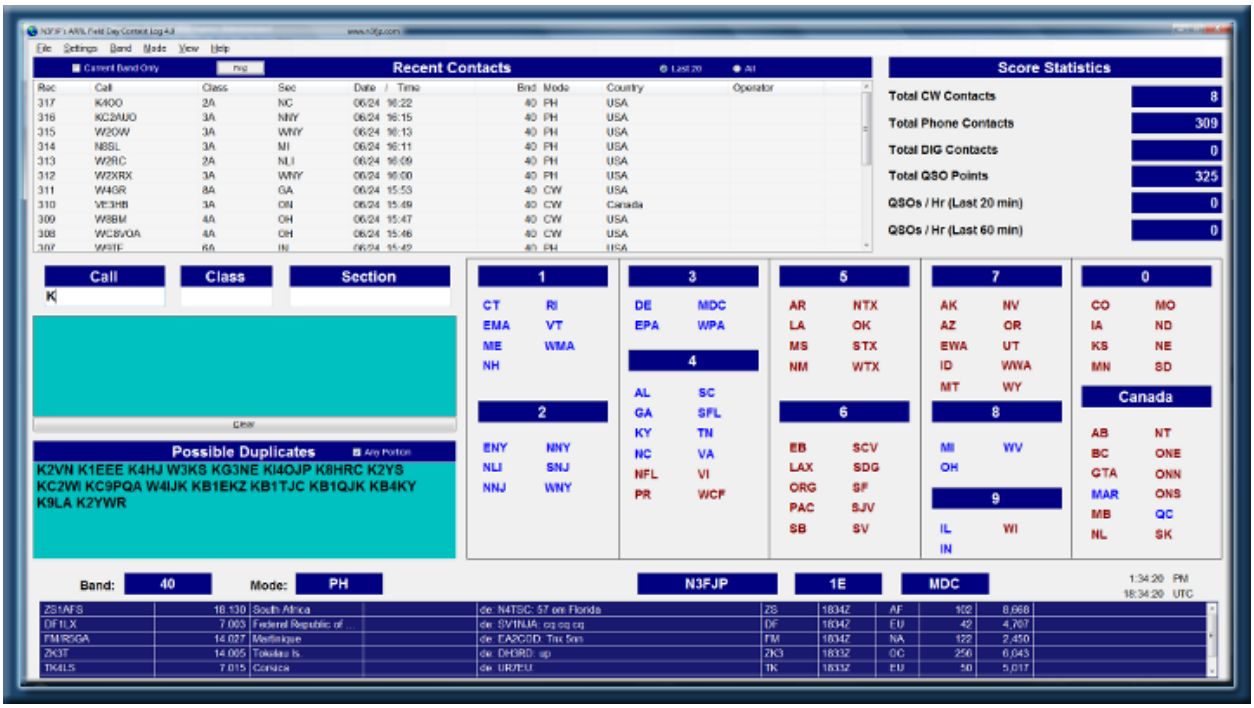
The final plans, including any last minutes changes to any of the above activities, will be decided at the June 14, 2017, meeting. NOTE: The June 14, 2017 club meeting location will be at Wells Overlook at 6 pm.

Field Day Packet

http://www.arrl.org/files/file/Field-Day/2017/2017%20Field%20Day%20Packet(1).pdf

Field Day Contest Logging Software

http://www.n3fjp.com/fieldday.html



What is ARRL Field Day?

ARRL Field Day is the single most popular on-the-air event held annually in the US and Canada. On the fourth weekend of June of each year, more than 35,000 radio amateurs gather with their clubs, groups or simply with friends to operate from remote locations.

Field Day is a picnic, a campout, practice for emergencies, an informal contest and, most of all, FUN!

It is a time where many aspects of Amateur Radio come together to highlight our many roles. While some will treat it as a contest, other groups use the opportunity to practice their emergency response capabilities. It is an excellent opportunity to demonstrate Amateur Radio to the organizations that Amateur Radio might serve in an emergency, as well as the general public. For many clubs, ARRL Field Day is one of the highlights of their annual calendar.

The contest part is simply to contact as many other stations as possible and to learn to operate our radio gear in abnormal situations and less than optimal conditions.

We use these same skills when we help with events such as marathons and bike-a-thons; fund-raisers such as walk-a-thons; celebrations such as parades; and exhibits at fairs, malls and museums — these are all large, preplanned, non-emergency activities.

But despite the development of very complex, modern communications systems — or maybe because they ARE so complex — ham radio has been called into action again and again to provide communications in crises when it really matters. Amateur Radio people (also called "hams") are well known for our communications support in real disaster and post-disaster situations.

What is the ARRL? The American Radio Relay League is the national association for Amateur Radio in the USA, representing over 171,000 FCC-licensed Amateurs. The ARRL is the primary source of information about what is going on in ham radio. It provides books, news, support and information for individuals and clubs, special events, continuing education classes and other benefits for its members.

While Amateur Radio is often called "ham radio," the Amateur Radio Service has been around for a century. In that time, it's grown into a worldwide community of licensed operators using the airwaves with every conceivable means of communications technology. Its people range in age from youngsters to grandparents. Even rocket scientists and a rock star or two are in the ham ranks. Most, however, are just normal folks like you and me who enjoy learning and being able to transmit voice, data and pictures through the air to unusual places, both near and far, without depending on commercial systems.

The Amateur Radio frequencies are the last remaining place in the usable radio spectrum where you as an individual can develop and experiment with wireless communications. Hams not only can make and modify their equipment, but can create whole new ways to do things.

Contests

ARRL Contest Calendar

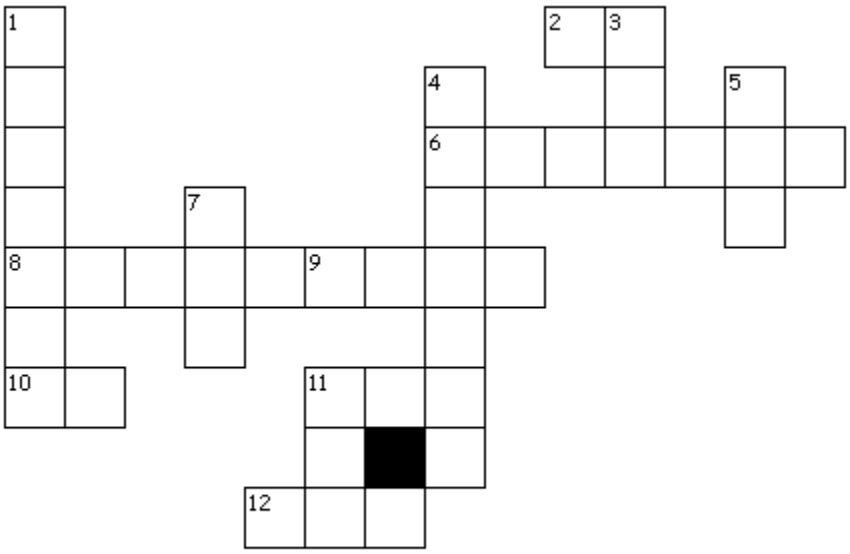
January 2017 1 **Straight Key Night** 7 **Kids Day** 7-8 **RTTY Roundup** 21-23 **January VHF**	February 2017 13-17 **School Club Roundup** 18-19 **International DX – CW**
March 2017 4-5 **International DX– Phone**	April 2017 **16** **Rookie Roundup – Phone**
May 2017	June 2017 10-12 **June VHF** 18 **Kids Day** 24-25 **Field Day**
July 2017 8-9 **IARU HF World Championship**	August 2017 5-6 **222 MHz and Up Distance Contest** 19-20 **10 GHz & Up – Round 1** 20 **Rookie Roundup – RTTY**
September 2017 9-10 **EME - 2.3 GHz & Up** 9-11 **September VHF** 16-17 **10 GHz & Up - Round 2**	October 2017 7-8 **EME - 50 to 1296 MHz** 16-20 **School Club Roundup**
November 2017 4-5 **EME - 50 to 1296 MHz** 4-6 **Nov. Sweepstakes – CW** 18-20 **Nov. Sweepstakes – Phone**	December 2017 1-3 **160 Meter** 9-10 **10 Meter** 17 **Rookie Roundup–CW**

WA7BNM Contest Calendar

http://www.hornucopia.com/contestcal/

TRAINING

Ham Radio Cross-Word Puzzle



Across
2. Indicates you would like to talk to anyone
6. Language used for station ID
8. Control unattended station
10. Prosign indicate end of contact
11. Troubled by static
12. Sideband for 160 meters

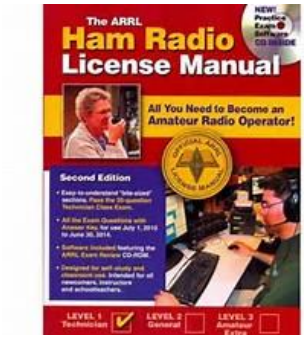
Down
1. Typical sunspot cycle
3. Is this frequency in use (CW)
4. ITU region for the USA
5. Changing frequencies
7. Hands free operation instead of PTT
9. Index long-term stability magnetic field
11. Send slower (CW)

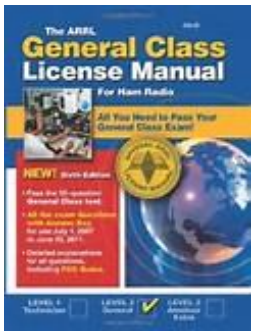
HAM CLASSES

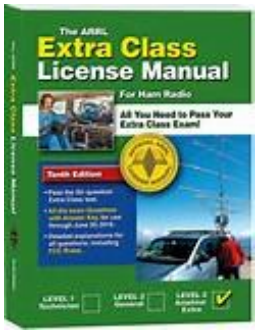
Class Offered:	TECHNICIAN CLASS	
Contact:	Norman Mast NQ0C	norman.mast@gmail.com
PLACE:	TBD	
SDATE:	TBD	
EDATE:	TBD	
TIME:	TBD	

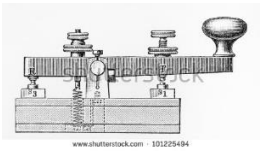
SCHEDULE

	2018	2019	2020	2021	2022	2023
CW			CW			CW
Ham Class (Jan-Feb)	Gen	Extra	Tech	Gen	Extra	Tech
Pool Chg. July 31	Extra	Tech	Gen	Extra	Tech	Gen





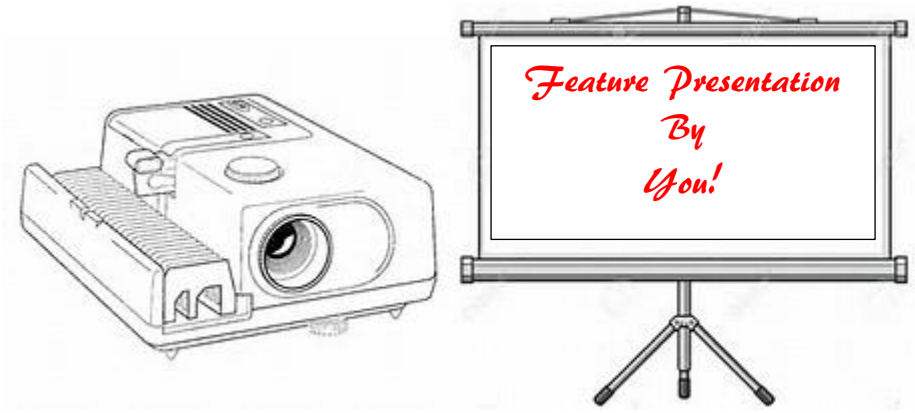




CW Not required for license, but lots of fun.

CALL:	
NAME:	
ADDR:	
CITY:	
STATE:	
ZIP:	
PHONE:	
EMAIL:	
COST:	
CHECK/MAIL TO:	DCARC 3916 Bob Billings Pkwy, Lawrence, KS 66049

TECHNICAL DEMOS



2017			
DATE	**SUBJECT**	**PRESENTER**	**EMAIL**
1/11/17			
2/08/17			
3/08/17			
4/12/17	Ensor Park and Museum	Jim Cessna	jimrcessna@aol.com
5/10/17	K1-4 QRP CW Kit	Phil Anderson	w0xiphil@gmail.com
6/14/17	Field Day Planning Meeting at Wells Overlook At 6 pm.	Ken and Phil	w0xiphil@gmail.com ka0thk@arrl.net
7/12/17	DMR, D-Star, JT65, Fusion	Cort Buffington N0MJS	n0mjs@me.com
8/09/17			
9/13/17			
10/11/17			
11/08/17			
12/13/17	Christmas Party		

Please volunteer to give a club meeting presentation.
Let Phil and I know in time to put it in the club's newsletter.
Thanks for supporting our club.

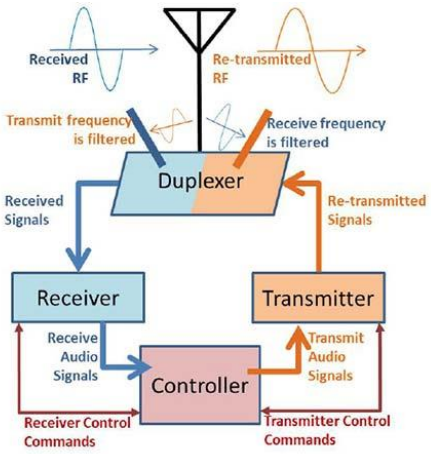
CONTACTS

PRESIDENT	Jim Eckler KC0IDF	kc0idf@arrl.net
VICE PRESIDENT	Brandon Graham W0GPR	kb3igc@arrl.net
SECRETARY	Kevin Oneslager KS0EGL	kevin@prometheusinc.net
TREASURER	Bill Musick KC0NFL	blackcat@sunflower.com
EMER MGMT CORD	Bill Musick KC0NFL	blackcat@sunflower.com
TRAINING MGR	Norman Mast NQ0C	norman.mast@gmail.com
WEB SITE	David Klamet KE0EFY	info@w0uk.com
PROGRAM MGR	Phil Anderson W0XI	w0xiphil@gmail.com
FIELD DAY	Ken Filardo KA0THK	ka0thk@arrl.net
HAM RADIO CLASSES	Norman Mast NQ0C	norman.mast@gmail.com
ARES	Bill Musick KC0NFL	blackcat@sunflower.com
REPEATER	Bill Musick KC0NFL	blackcat@sunflower.com
NEWSLETTER	Jim Cessna AC0KN	jimrcessna@aol.com

ARRL President	Rick Roderick K5UR	k5ur@arrl.org
Midwest Director	Rod Blcksome K0DAS	k0das@arrl.org
Midwest Vice-Director	Art Zygielbaum K0AIZ	k0aiz@arrl.org
KS Section Manager	Ron Cowan KB0DTI	kb0dti@arrl.org
Section Emergency Coord.	Open	
District 1 EC	Ken Kopp KK0HF	
Dg Co 1B EC	Bill Musick KC0NFL	blackcat@sunflower.com

REPEATERS & NETS

REPEATER	FREQUENCY	TONE	LOC	MODE	DAY	TIME	NET
W0UK	146.760 MHz	88.5	DCARC	Analog	Sunday Tuesday	20:00 20:00	ARES Club
N0APJ	147.030 MHz	88.5	Douglas Co				
N0RC	442.000 MHz		Basehor				
K0USY	444.750 MHz	88.5	Lawrence				
K0USY	444.800 MHz	88.5	Lecompton Lawrence				
K0USY	444.825 MHz	88.5	Lecompton	DMR P25 Fusion D-Star			
K0HAM	444.900 MHz	88.5	Linked KS				
W0OQW	147.390 MHz	151.4	Ottawa				



KA0FMZ repeater in Olathe, KS
147.240/151.4 MHz Repeater in red cabinet.
Large 4 gray Duplexers for 2m.

MEETINGS

DAY OF WEEK	PLACE	TIME	EVENT
Tuesdays	Dairy Queen 1835 Mass St. Lawrence, Ks. 66044	11:30 am	Lunch
Saturdays	Hy-Vee 4000 W 6th St. Lawrence, Ks. 66049	8:00 am	Breakfast
2nd Wednesday	Douglas Co. Fairgrounds 2130 Harper Lawrence, Ks. 66046	7:00-9:00 pm	Club Meeting at Flory Meeting Hall

MEMBERSHIP APPLICATION

Make Check/Mail to:
Douglas County Amateur Radio Club
3916 Bob Billings Pkwy.
Lawrence, KS 66049

DATE: _____ NEW MEMBER: ___ RENEWAL: ___

CATEGORY	AMT
Regular	$20
Regular Family	$30
Senior	$20
Senior Family	$25
Student	$20
Associate	$15

CALL:	
NAME:	
ADDR:	
CITY:	
STATE:	
ZIP:	
PHONE:	
EMAIL:	

To Join Our Ham Radio Club!

THE RADIO AMATEUR'S CODE

The Radio Amateur is

CONSIDERATE...He/[She] never knowingly operates in such a way as to lessen the pleasure of others.

LOYAL...He/[She] offers loyalty, encouragement and support to other amateurs, local clubs, the IARU Radio Society in his/[her] country, through which Amateur Radio in his/[her] country is represented nationally and internationally.

PROGRESSIVE...He/[She] keeps his/[her] station up to date. It is well-built and efficient. His/[Her] operating practice is above reproach.

FRIENDLY...He/[She] operates slowly and patiently when requested; offers friendly advice and counsel to beginners; kind assistance, cooperation and consideration for the interests of others. These are the marks of the amateur spirit.

BALANCED...Radio is a hobby, never interfering with duties owed to family, job, school or community.

PATRIOTIC...His/[Her] station and skills are always ready for service to country and community.

- adapted from the original Amateur's Code, written by Paul M. Segal, W9EEA, in 1928

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Get Involved … we help others … through Ham Radio.