



Zero Beat

Volume XXXIV, no 3

<http://www.w8lky.org>

March, 2020

Serving the Tri-County area since 1986

Upcoming Club Programs & Events

March 7th - Club Breakfast
March 11th - Meeting
April 8th - Digital Modes
(Doug, KB8DNQ)

[for other events, see w8lky.org](http://www.w8lky.org)

Club Breakfast

On Saturday, March 7th, we'll be having our monthly breakfast at Don Pancho's Tex Mex Café (2105 W. State St). We meet at 8:30 AM in the party room.

Club Meeting

Our next club meeting is coming up on Wednesday, March 11th.

We begin at 7:30 PM, at the Alliance Community Hospital, in the Cafe Conference room.

This months pre-meeting will be at Chives Grille on S. Union Ave. We meet at 5:30PM

AARC Raffle Is Going Well

As of this writing, our 2020 fundraiser has been going on for almost two months, and we have surpassed the break-even point.

At the January meeting, we voted to raffle off a HF rig; the winner to be drawn at the June picnic.

We've sold at two hamfests so far. February 16th was pivotal; this was the day when we broke even. This was thanks to all of you who supported us buy selling at hamfests, talked this up to your friends, and shared the heck out of our Facebook posts.

Funds raised from this project will replenish the club treasury which had dropped substantially after paying for last years 2 Meter repeater work.

There are still three ways to purchase tickets:

- A)** Online at w8lky.org
- B)** In person at club events, or at a Hamfest
- C)** By mail to AARC, P.O. Box 3344, Alliance, OH 44601.

Officers

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983 Lilly Rd
Alliance, OH 44601
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330-821-5454

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AARC Meetings

The Alliance Amateur Radio Club meets on the Second Wednesday of each month at the Alliance Community Hospital. For times, and program information, check the meeting announcement in this newsletter, or check our website (see below)
Talk-in on either of the club repeaters.
Meetings begin at 7:30 PM. Visitors are always welcome.

Find Us Online:

Web: www.w8lky.org

E-mail: w8lky.radio@gmail.com



AARC Repeaters

2 Meters

145.370 (-) W8LKY
(PL - 110.9hz)

440 MHz

442.350 (+) W8LKY
(PL - 131.8hz)

Nets

Tuesday

Homeland security Net
7:00PM 147.51 Simplex

Thursday

Ten Meters

8:00PM 28.420 MHz (SSB)
8:30PM 28.100 MHz (CW)

Two Meters

9:00 PM 145.37 MHz W8LKY (-)

President's Remarks

Ron Rittenhouse, KE8HCY



Good afternoon everyone, It looks like Mother nature is- n't done with Northeastern Ohio just yet. But that will not keep us from burning up the air waves here in the Greater Carnation City Area. We are planning to do a little more celebrating family style this year.

As many of you have experienced in the past year or two, we seem to be out growing the site of our annual spring/summer picnic. We have secured the use of the Jaycee Pavilion (near the softball fields) in Silver Park, the same park that we have been using for years. There is a lot more parking, restrooms near by and if you bring any grandchildren, there is a great playground located right beside the pavilion.

We are adding a second picnic September 9th, which is our normal meeting night. The location will be the outdoor pavilion at First Christian Church 1141 W. Beech Street in Alliance. This is the same church we used for winter field day in 2018. There is a ball field near the pavilion and we could have a pickup softball game if you wish. We are hoping for a bountiful corn crop so we can not only have burgers and dogs, but corn on the cob too. More details for both the picnics will be posted on our web site and future newsletters.

From all indications, the raffle of the Yaesu FT-450D radio is going well. We are using the web to sell tickets on line using PayPal, and at the Ham Fests where our super crew of AARC members who are manning AARC's tables. For online sales, just contact AARC at our Web Site w8lky.org, and look for the drop down menu on the home page for all the details on the ordering process. We just printed Six Hundred(600) tickets and when they are gone, no more will be printed. The drawing for the raffle will take place June 10th during our Spring/Summer annual picnic in the Jaycee Pavilion located in Silver Park in Alliance. Raffle ticket will also be available at our monthly meetings in March, April and May 2020.

Our training classes for Tech and General licenses are approaching the end with VE Testing in March. Many thanks to Frank WA8WHP for chairing the classes and Chris AC8VN for assisting Frank with the presentation. We should also thank Aultman Alliance Community Hospital for the generous support and the use of their meeting rooms 1A and 2A during this very successful training event.

Don't forget your AARC Dues are due by April 1st, download a renewal application and fill it out, enclose your check and send it to the club box, or turn it in at the meeting on March 11th, which will be held in the conference room near the cafe' cafeteria in Aultman Alliance Community Hospital here in Alliance. The pre meeting meal will be at Chives Grille on South Union Ave across the street from the Alliance Auto Club, and it is \$6.00 sandwich night.

See you on the Air or in person soon, 73's, Ron KE8HCY

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W8LKY (-)

Minutes

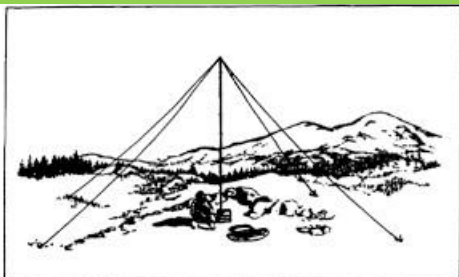
The minutes from our meetings are now being posted to the website. You can find them at <http://www.w8lky.org/about-us/minutes/>. All meeting minutes going forward will be posted here. I'll be working with Jeremy, KE8NAU to get as many of the previous minutes posted as possible.

The 2019 minutes have been added. The rest will be added as time permits.

Thanks for your patience and encouragement.

73 DE John, KD8MQ

Ohio ARES NVIS day is coming up



OK everyone, Ohio ARES NVIS day is coming up on April 25th. This would be a great club event. Get on the air, maybe order some pizzas, or better yet, grill some burgers.

This is NOT a contest. You get on the air & trade HONEST signal reports with other stations in the Ohio section.

This would be a awesome first event for some of you new guys to organize. Go to <http://arrl-ohio.org/SEC/nvis.html> to get more information.

I'll be operating portable from Lake Hope State Park that weekend, but I'd be happy to answer any questions you may have. 73/44 DE KD8MQ

ARRL Field Day 2020 Packet is Available

FD2020 is coming up on June 27/28. The full packet of information is available at <http://www.arrl.org/field-day>.

We'll be looking for a Field Day Chairman very soon. Please consider stepping up and trying out this important position.



WWW.ARRL.ORG



How the National Bureau of Standards helped make "radio"

From Dan, KB6NU

This was originally published as "NIST's Role in the Early Decades of Radio (1911-1933)" on the National Institute of Science and Technology's blog, Taking Measure.....Dan

Even if you weren't able to watch the recent Super Bowl on TV, you could still listen to the play-by-play commentary on the radio. But radio does more than just broadcasting sporting events or playing music. It plays a major role in emergency response, navigation and science.

The word "radio," however, didn't become part of our regular vocabulary until 1911, and it happened thanks in part to J. Howard Dellinger, a radio scientist at the National Bureau of Standards (NBS), the agency that became the National Institute of Standards and Technology (NIST). This came about when the second International Radiotelegraph Conference was being planned in London, and a professor sent Dellinger a paper that he was going to present to the conference for review.

At the time, "wireless" was used as the term for radio communication, especially by the British. However, NIST was charged with revising standards in preparation for the conference, and Dellinger suggested that the professor use "radio," which was already becoming a popular word in the U.S., instead of "wireless." The professor agreed, and the word "radio" went on to become the universally accepted term.

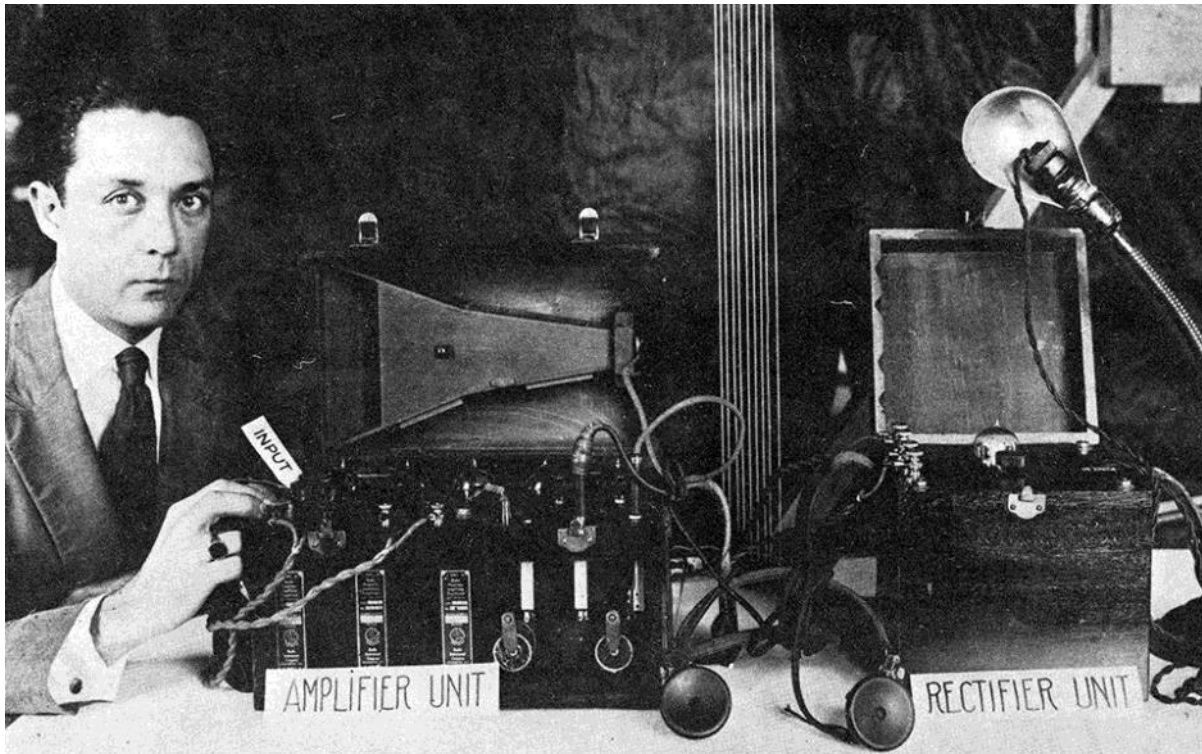
Dellinger not only played a role in popularizing the word "radio," but he also played a role in the first radio work done at NIST. A commercial company asked NIST to calibrate a wavemeter, a device developed by one of its engineers that measures electromagnetic waves like those of radio. Dellinger was known as the wireless expert and took on the project of calibrating the first radio instrument at NIST.

A New Type of Radio Receiver

But for radio to become mainstream, it first had to be commercialized, which began with its introduction into households. However, the challenge was building a radio set that used the electrical current, called alternating current (AC), which powered lights, fans and kitchen appliances

Z e r o B e a t

when plugged into wall sockets. The predecessor to this technology was



developed and patented by two researchers, Percival D. Lowell and Francis W. Dunmore, at NBS in 1922. They called their invention the “mousetrap.”

The “mousetrap” was a receiver for a radio amplifier that could run on AC. This was considered a breakthrough because at that time radios were only able to be powered by direct current (DC) provided by batteries. These batteries were bulky and heavy, had to be charged from time to time and were considered dangerous because of the acid used in them. The researchers’ prototype meant the radio could be used in homes without causing damage and with the same performance quality.

Lowell and Dunmore filed two more patents together for other innovations, and for the “mousetrap” they sold the rights to the Dubilier Condenser Corporation. Little did they know that, because there was no uniform policy on patents issued to government employees, their actions would result in more than a decade of litigation over who legally had the rights to the patent.

While they were tied up in court, the Radio Corporation of America (RCA) developed its own model of the AC radio in 1926. Its model later became the first AC-powered radio sold to consumers.

Flying by Radio

During the early years of flight navigation, NIST was doing research to assist pilots while they were flying and landing. Pilots needed three

Z e r o B e a t

things to get their bearings when flying “blind,” meaning it’s foggy, too dark or too cloudy to see. They needed to know the longitudinal position, altitude and speed of the aircraft, which were all achieved by various beacons installed in the plane. The remaining issue was that there were two frequencies the pilot constantly had to switch between the frequency that the Department of Commerce used to send weather information to planes and ships, which sometimes caused interference for pilots, and the frequency the radio beacon operated on, which gave altitude and other information.

Dunmore created a prototype, but Harry Diamond, a radio engineer who joined NIST in 1927, completed the device, called the radio guidance system. Diamond solved the problem by developing a separate device that allowed for voice communication to the pilot without receiving any outside interference from ships’ radios.

A Curtiss Fledgling, a trainer aircraft developed for the U.S. Navy, was equipped with the device, and flight tests were performed between NIST’s experimental air station at College Park, Maryland, and Newark Airport in New Jersey in foggy weather. After a series of successful tests were performed, the device was turned over to be used by the Department of Commerce in 1933.

Praise From a Famous Inventor

While mostly intended for serious users, some of NIST’s journals and publications were popular with the public. One such book, titled *The Principles Underlying Radio Communication*, covered topics such as elementary electricity, radio circuits and electromagnetic waves and was also published as a textbook for soldiers in the U.S. Army. The famous inventor Thomas Edison received a copy from NIST and wrote a letter thanking the first director, Samuel W. Stratton, for publishing it, saying it was “the greatest book on this subject that I have ever read.”

As these and other examples show, NIST had a significant influence on radio research between 1911 and 1933. However, NIST’s radio work didn’t end with the first blind landing. NIST would continue to contribute to the field leading up to and during World War II, and research continues to this day in areas such as 5G, public safety communications and spectrum sharing.

ABOUT THE AUTHOR

Alex Boss is a general assignment writer in the NIST Public Affairs Office and covers standard reference materials (SRM). She has a B.S. in biology from Rhodes College and an M.A. in health and...

AARC Swap & Shop

ICOM IC-T7H 5 Watt 144/ 440 MHz Dual Band HT, VHF BAND TX 114-148 MHz, RX 118-174 MHz & UHF BAND TX 430-450 MHz, RX 400-470 MHz with wall charger, new battery purchased 2-21-2020 and manual. \$70.00

KENWOOD TH-K2AT, Pair of 5 Watt 2 meter Handi-talkies including an original Kenwood wall wart charger, an aftermarket rapid charge stand and a spiral bound instruction manual with plastic covers. Both batteries are about 1 year old with little use and were charged every 30 days to keep them in good shape. \$85.00

Alpha 77DX with all of the Dick Byrd upgrades. These upgrades include the following;

- higher voltage plate transformer providing 4300 Volts idle,
- 7500 Volt rectifiers,
- 5000 Volt 35 µf filter capacitor,
- Wide spaced loading capacitors like are used in the 77SX,
- All new step start components,
- Large 10x38mm fuse holders,
- All new electrolytic capacitors on timer & QSK boards as well as LED lighting for the meters.

This amplifier has **ZERO HOURS** since being upgraded as it was my back-up amplifier. \$5000

Call or text KD8VT at (330)-206-4909

Upcoming Hamfest Calendar

03/14/2020 - 03/15/2020 -

ARRL Great Lakes Division Convention and the Toledo Hamfest,

03/29/2020 - 48th Annual TRARC Hamfest/Computer Show

04/11/2020 - 66th Annual Cuyahoga Falls Amateur Radio Club Hamfest

04/18/2020 - Portsmouth Radio Club Hamfest

04/26/2020 - Athens Hamfest

AARC Swap & Shop

I have the following for sale in like new condition. non-smoking environment:

KX2-F KX2 Transceiver - Assembled s/n 1219 with the following options and accessories:

- KXAT2-F KX2 ATU Option,
- KXIO2- IO Module/Real Time Clock,
- KXBT2 Battery Pack (Qty 2),
- KXBC2 Battery Charger,
- MH3 Hand Microphone,
- CS60 Large Travel Bag,
- KX2ACBL Accessory Cable,
- KX2GNDPLUG Mini Banana Plug,
- BNC-BP,
- Connector BNC to Binding Posts,
- KX2 Book by Fred Cady,
- KX3-PCKT Accessory Cable Set,
- Pro Audio Power Supply,
- Right-Angle AC Adaptor for power supply,
- Nifty Mini-Manual for KX2,
- Nifty Desk Stand for KX2,
- AlexMic with case (never used),
- Pro Audio Heat Sink,
- Left side KX Plate,
- Side KX Cover,
- Apache 2800 (similar to Pelican) case.

KXPA100-AT-F 100W Amplifier with Antenna Tuner - Factory Assembled, s/n 2137 with

KXPACBL KX3 to KXPA100 Integrated I/O Cable,
KX2ACBL Accessory Cable for KX2 and
Apache 3800 (similar to Pelican) Case.

The KX2 was purchased in November of 2016 and the KXPA100 was purchased in January of 2017.

Both have not been used for about 2 years.

Total invested is \$3032.58 plus shipping.

Asking \$2400.00 shipped and insured to the continental US.
PayPal, certified US Bank check or bank money order only.

**Rex Simmons, NX8G, (nx8g.01@gmail.com),
330-832-0609 (H), 330-936-2192 (C)**

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Skywarn Training

Columbiana Cty - SKYWARN training will be on March 23rd 2020 at the CCCTC, 9364 OH-45, Lisbon, OH 44432 . Registration at 6 PM and training at 6:30 PM.

Stark County - The Stark County EMA and Stark County Amateur Radio Emergency Service will conduct our 2020 Skywarn Spotter training on Wednesday, March 25th at Jackson High School starting at 6:00 PM. Training will run approximately two hours.

Training is held in conjunction with this years Severe Weather Awareness Week, March 22 - 28th. This training is open to the public and no pre-registration is necessary.



SKYWARN

This years training will again discuss what severe weather is; identifying potentially serious weather patterns; and ways to report this information to the Cleveland NWS office. An electronic presentation with photos will augment training and assist identifying cloud formations. The training will be conducted by Mr Alex McCarthy, Director of the Tuscarawas County EMA.

Everyone is encouraged to take part in this important weather training. Feel free to contact the Stark County EMA Office at (330) 451 - 3900 for

additional information or Terry Russ, N8ATZ at (330) 837-3091 or by email to truss@sssnet.com.

(From Stark County ARES page @ wd8aye.net)

Cuyahoga Falls Amateur Radio Club



66th Annual HAMFEST

ELECTRONICS AND COMPUTER SHOW



Saturday April 11, 2020, 8:00 AM - 1:00 PM

Emidio and Sons Party Center

48 E. Bath Road at the corner of State Road, Cuyahoga Falls, Ohio

Mobile check in on W8VPV 147.270+ / 444.850+ Repeater

ADMISSION: \$7 (12 and under free)

For information or table reservations contact: Pat Morrow, N8OQP
Phone: 234-206-0270 or email: hamfest2020@cfarc.org
<http://www.cfarc.org/hamfest.php>



Pioneer Amateur Radio Fellowship, Inc.

Hamvention 2020

Saturday, May 16, 2020 - 5:30 AM

Don't miss this year's PARF Bus Trip to the world's largest topical conference and product exhibition. Save on gas, parking, and walking by riding with us! Leave the driving to us, and you can come and go to the flea market with your great purchases and leave them on the bus. This event takes place at the Greene County Fairgrounds in Xenia, Ohio.

(Due to dissolution of the club, this will be PARF's final Hamvention bus trip.)

You can save \$20* if you book before April 15th.

The cost of the **Bus & Entrance ticket** to the Hamvention:
\$85* before April 15, 2020

The cost of the **Bus Only** to the Hamvention:
\$65* after April 15, 2020

(You will be responsible for getting your own entry ticket -
see <https://hamvention.org/purchase-tickets/#> for more information.)

The above pricing does not include driver's tip for which a hat will be passed.

P.A.R.F. reserves the right to cancel this trip should a minimum of 25 riders not be secured by April 15th. If that happens, a full refund will be made. Otherwise, cancellation by you at any time results in a \$5 deduction of refund for handling.

We will take riders right up to departure that morning (if there are seats available) on a first come, first served basis.
Departure time is 5:30 AM SHARP, so please be on time so you don't miss the bus!

There will be a stop for breakfast @ McDonald's & a dinner stop @ Golden Corral Buffet (both out of pocket expense).

To Order - Complete application & send with check/money order (*payable to "PARF"*) to:

Joy Spencer % PARF
2101 Bigelow St
Akron, OH 44314
Or call 330-745-5115
E-mail: KA8TDF@arrl.net

NEW THIS YEAR:

Transportation provider: D&L Charter

This bus is a smoke free bus, so there will be no smoking permitted.

Location of Departure - Walmart, 2887 S. Arlington Road, Akron OH 44312

(Park in spaces across from Applebee's.)

*Parking (as always) is **at your own risk**, but this location is commonly used by a variety of bus companies.*

Please pass the word out to all of your ham friends & computer geeks.

PARF Uses Repeater 147.135

Web Site: www.qsl.net/w8ctt

W8LKY

Alliance Amateur Radio Club

P.O. Box 3344

Alliance, OH 44601

W8lky.org

w8lkyradio@gmail.com

Renewal/Membership Application

Call _____

Dues

Sustaining \$15.00

Full \$10.00

Associate \$5.00

Family \$1.00



Name _____ Phone # (____) _____ - _____

Address _____

City _____ State _____ Zip _____ Birthday _____

Occupation _____ ARRL Member (Y/N)? _____

License Class _____ Expiration Date _____ Year First Licensed _____

E-Mail Address _____

Special Interests (DX'ing, Contesting, Hunting, Model Airplanes, etc.) _____

Pro-Rated Dues Schedule

(New Members Only)

	April-June	July-Sept	Oct-Dec	Jan- Mar
Sustaining	\$15.00	\$11.25	\$7.50	\$3.75
Full	\$10.00	\$7.50	\$5.00	\$2.50
Associate	\$5.00	\$3.75	\$2.50	\$1.25
Family	\$1.00	\$0.75	\$0.50	\$0.25

Please Do Not Write Below This Line

Dues paid- Sustaining() Full() Associate() Family() \$ _____ on _____, 19____ Signed _____

Pioneer Amateur Radio Fellowship, Inc.



W8CTT



2020 HAMVENTION BUS TRIP MAY 16, 2020

Bus & Entrance ticket: \$85* before April 15, 2020

Bus Only: \$65* after April 15, 2020

*(You will be responsible for getting your own entry ticket -
see <https://hamvention.org/purchase-tickets/#> for more information.)*

Funds must be received by April 15th deadline:

Joy Spencer, KA8TDF
2101 Bigelow Street
Akron, OH 44314-2521

Name _____ Call Sign _____

Address _____ City _____ Zip _____

Phone # _____

Email Address _____

(Email confirmation will be sent you upon receipt of your check.)

*The charter bus company requires that we have emergency info on hand for each of our riders. After speaking with emergency personnel about "best case" info to have on hand, this is what they look for:
(If you carry such info with you or you prefer not to answer, please so note below.)*

Emergency Contact Person _____ Their Phone # _____

Meds you are on _____

Allergies _____

*******For Office Use Only*******

Date Received _____ Amount Received _____ Confirmation Sent _____

Dues Are Due

Our fiscal year runs from April to April. See the treasurer at the next club meeting, or send your dues along with a membership renewal form (See previous page) to us via snail mail.

Lets keep the progress going.

Editor's Rambling

Wow! The 2020 fundraiser has taken off like gangbusters! The online Paypal button has proven to be such a plus! As of this writing, 66% of our income in the drawing is coming via the website!

So, ARRL Field Day is coming up, and there's a change for this years event. I'm considering going off on my own this year. The last few months have been pretty stressful, and I feel the need to pull back & simplify a bit. So, it's time to make some decisions; most importantly who will be the chairman for our FD2020 effort? Think about it.

The flier for this years PARF bus to Dayton Hamvention is included in this issue. If you've never been to Hamvention, you owe it to yourself to visit at least once. The PARF bus is one of the more cost-effective ways to do it.

And the club DX Contest is ending at the end of this month. For more information, read about it at <http://www.w8lky.org/activities/aarc-dx-challenge/> . Get your entries in by April 16th (Get those taxes done first. HI HI).

And that's all I have for now. 73 All, DE KD8MQ

Newsletter Information

The Zero Beat is a publication of the

Alliance Amateur Radio Club
P.O. Box 3344
Alliance, OH 44601

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www.W8LKY.org