



# The Spirit of '76 and '88



Newsletter of the  
**April Lake Erie Amateur Radio Association 2022**  
Carsten Lohrmann, KD8WBB, Editor



## Skywarn Radio Operations

by Mat Nickoson, KC8NZJ

For the upcoming April meeting, Mat Nickoson, KC8NZJ will give a presentation about Cleveland's Skywarn Radio Operations. The program will discuss how amateur radio operators can report severe weather to their local Skywarn nets, and what the structure of those nets is and how those reports get routed to the National Weather Service.

Mat will also discuss the activation criteria for the Cuyahoga County Skywarn net as well as activation criteria for having amateur radio operators staff the National Weather Service office. Learn what things should and should not be reported to a Skywarn net.

## LEARA February Meeting Virtual Meeting - Online

Skywarn Radio Operations

Mat, KC8NZJ

April 26.  
7:30 p.m.



Click or scan to join

## The Prez Says

by Bryan Torok, N8OOF



For the March 2022 meeting we had a very special presentation given by **Tim Duffy, K3LR**, of **DX Engineering on Grounding and Bonding in the Ham Shack**. Tim came to us via Zoom from Germany, at 2:00 AM local time, where he was assisting with efforts to provide radios and equipment to help with the war in Ukraine. Despite being half a

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**Prez cont.**

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NEWSLETTER	
<p><i>The Spirit of '76 &amp; '88</i> is published monthly except in December. Contributions must be received by the 2nd Sunday of the month except on months with 5 Sundays and 5 Tuesdays when the 3rd Sunday will be sufficient.</p> <p><b>Editor:</b> Carsten Lohrmann, KD8WBB E-mail: editor@leara.org</p> <p><b>Proofreading:</b> TNX to W8AZO, N8YNR</p>	

v05/2022-02-28

world away and in the middle of night, Tim felt it was important to honor his commitment to LEARA. In addition to the presentation, Tim mentioned some frequencies being used for local comms and the fact that much of the Russian military comms are non-encrypted and on HF frequencies.

**Our April meeting** will feature **Mat Nickoson, KC8NZJ**, with a presentation about **Skywarn and Amateur Radio** via Zoom. The meeting time will be at 7:30 P.M. The link will be sent out as usual. Thanks to the **Hamfest Association of Cleveland (HAC.org)** for the use of the Zoom video conferencing. Please share the meeting info on any nets you might be on, with other Ham Radio clubs, and with anyone who you think might be interested in this event. Attendees DO NOT need to be members of LEARA or even Hams.

**Correction:** In the March edition of **The Spirit of '76 and '88** I incorrectly credited 1200 man-hours of public service done at the Geauga County Fair to the Event Support Group. Ham Radio public service at the **Gauga County Fair** is provided by **Gauga Emergency Amateur Radio Service (GEARS)**. GEARS provides emergency, auxiliary and public service communications in Geauga County, Ohio. For more information or to volunteer go to <https://ohiogears.org>

**New Trustee Needed:** We are still short one Trustee. If you are interested in serving in that capacity, know someone who you think would be good for the job, or just need more information please drop me an email at [N8OOF@LEARA.org](mailto:N8OOF@LEARA.org) or [BTOROK@SBCGLOBAL.NET](mailto:BTOROK@SBCGLOBAL.NET).

**We need your help** for an upcoming meeting. Prior to COVID, Eric N8AUC, I, and the Trustees were working on a special two-

The Lake Erie Amateur Radio Assn., Inc., **LEARA**, is a not-for-profit [501(c)(3)] organization dedicated to Amateur Radio and Public Service. Club information packets and applications for membership are available from **Marv Grossman, W8AZO, 440-248-0031**, or may be downloaded from our web site at [www.leara.org](http://www.leara.org). Annual membership is \$25.00.

**LEARA's address** is: LEARA, P.O. Box 22823, Beachwood, OH 44122-0823.

**LEARA** is an **ARRL**-affiliated club. When you **join** or **renew** the **ARRL**, **LEARA** benefits monetarily if you do so through the club. Send **ARRL** Applications/renewals to LEARA, P.O. Box 22823, Beachwood, OH 44122-0823. Make the check payable to **LEARA**, not the **ARRL**.

**Membership Meetings** are held the last Tuesday of each month (except December and June) at a Cleveland-area restaurant to be announced each month in the newsletter or, if situation requires, in a virtual conference meeting online. The LEARA newsletter usually arrives near the middle of the month. Locations for dinner may vary and often require a reservation. Those interested in dinner should arrive around 6 p.m. The meeting begins at 7:30 p.m. Meetings are open to all interested persons. You may attend without eating.

**Trustees' Meetings** are on the second Saturday of odd numbered months. Meetings are open to all current members of LEARA. **Locations are subject to change.** Trustees meet at one of the Cuyahoga County Public Library branches or in a virtual conference room online.

Contact a trustee or check the website at [www.leara.org](http://www.leara.org) for details.

### Prez cont.

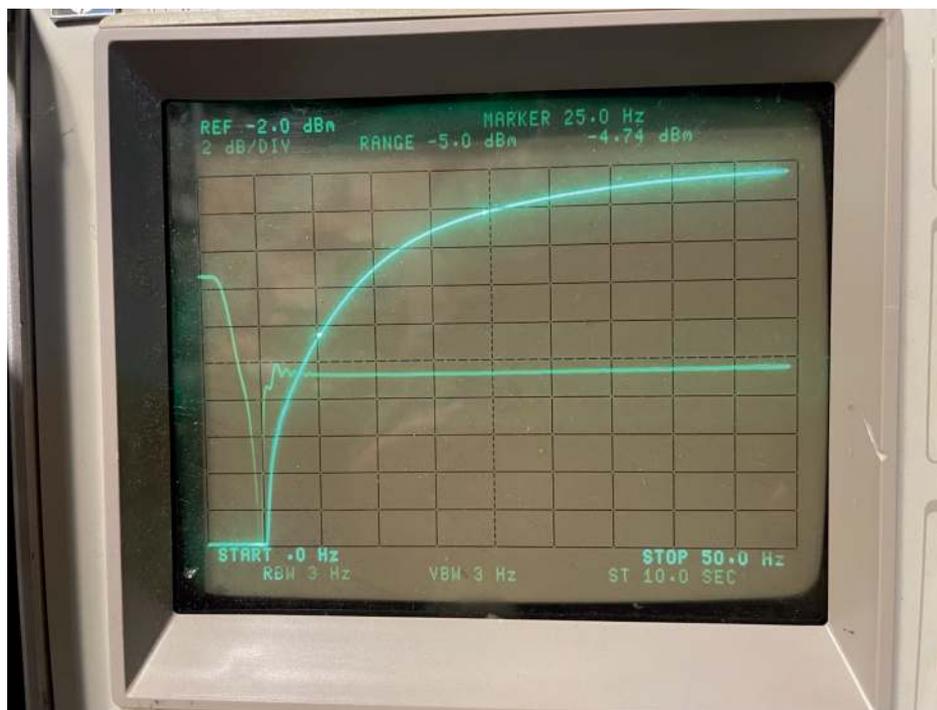
part meeting presentation about drones and drone flying. Since drone flying has taken off (pun intended) in the last 10 years or so, there have been huge changes and developments both in hobby and business drone flying.

At one time, one could just go buy or build a drone and fly it as they wished for hobby use. That is no longer the case. And, flying a drone where you receive any payment, even pennies for a monetized YouTube video, makes you a commercial pilot in the eyes of the FAA. That requires the same level of training as the ground school for a private pilot's license. There is much information such as laws, FAA regulations, registration, licensing, and training that would be best presented in a lecture environment with a PowerPoint presentation. In other words, at a

regular meeting. That would be part one.

But, what would a presentation on drones be if we didn't get to see them actually flying up close and in person? For that, we felt the best venue would be outdoors such as at the annual LEARA picnic. And that is where we ran into a snag. The Metroparks have just four small areas where it is permitted to fly drones. None of them are anywhere near a suitable location for the LEARA picnic.

So, we need your help with suggestions for a suitable place to hold the LEARA picnic which also allows (or would give permission) flying of drones. We need a covered pavilion with seating for 40 or so members and adequate parking. If you think you know of such a place, check it out, and then send me the location.



*Motorola UHF repeater Audio frequency response from 0-50 Hz as seen on an audio spectrum analyzer. The brighter, more curved line is the "before", and the flatter, dimmer line is after the modifications. The rest of the frequency response is pretty flat.*

**Technical Report:** We experienced recurring problems with the Windows-based computer connecting the 444.700 Yaesu Fusion repeater with the Wires-X Internet interface. These problems required multiple trips to the repeater site to reset the computer. With COVID and restricted hours of access to the site, it was decided to simply run the Fusion repeater in a standalone mode without Internet access and pursue a different method of providing digital service on 444.700.

To that end, it was decided to reuse the previous Motorola UHF repeater with the addition of a **Multi-Mode Digital Voice Modem (MMDVM)**

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## LEARA "On the Air"

### Club Net Information by Carl Gedeon, KB8VXE

The **Thursday Club Net** is held 8 p.m. on our 146.760 (or 146.880 backup) MHz (-600 kHz offset, PL 110.9) repeater. Note that the '76 repeater is back in service. All nets will be held on this repeater. Please use it and notify any trustee of any troubles or issues.

March 2022 check-ins					
AB8UM	Mike	KD8AJZ	Rich	N8AUC	Eric
AC8JR	Andy	KD8FTS	Eddie	N8QMK	Mike
AF8A	Gary	KE8CEO	Robert	N8RKE	Larry
K2WJS	BILL	KE8NNC	Brian	N8UPZ	Bill
K8ARP	Arp	KE8QLZ	Jim	W8DWV	Jeremy
K8EHP	Mike	KE8TLG	Jim	W8IE	Ed
K8SAS	Steve	KG8DN	Ken	W8IXY	Ted
K8SCP	Scott	KM8V	Jon	W8NIN	Mike
K8SHB	Joel	N8ACP	Chris	W8PKT	William
K8TUN	Andy	N8AGM	Tom	W8ZHN	Jim
KB8VXE	Carl	N8AHS	Fred		

Remember if you missed a net, check out the web page for a recap of the trivia and discussion questions.

For April, May and June, the tentative scheduled NCOs are:  Please check the website for current assignments.  --- click ---	Net Control Schedule		
	04/28/22	Eric	N8AUC
	05/05/22	Ken	KG8DN
	05/12/22	Jon	KM8V
	05/19/22	Ed	W8IE
	05/26/22	Carl	KB8VXE
	06/02/22	Eric	N8AUC
	06/09/22	Ken	KG8DN
	06/16/22	Jon	KM8V
	06/23/22	Ed	W8IE
06/30/22	Carl	KB8VXE	

AB8UM*	MIKE	KG8DN	KEN
K8SAS *	STEVE	KM8V	JON
KB8VXE	CARL	N8AUC	ERIC
		W8IE	Ed

\*Short time leave \*\*Long term leave

## The Wednesday Night Skywarn Practice Net

The Skywarn season runs from April through September. Should the National Weather Service issue a severe weather alert, a Skywarn net will be started on the 146.760 repeater.

Practice Nets are held 8:30 PM every Wednesday evening on the 146.76 repeater. A short simplex net is held on afterwards on 146.475.

Visit [www.ccskywarn.org](http://www.ccskywarn.org) for more information and training sessions.

An On-Line Storm Spotter training video from the NWS is available at

<https://www.facebook.com/NWSCleveland/videos/858879174941020/>

## ARES

ARES nets are held every Tuesday (Except the first Tuesday of the Month) at 8PM on 145.410 (+)110.9. A simplex net will be held afterwards. ARES meeting will be in Zoom and in person at the meeting room at the Helwig Whistle Stop 599 West Bagley Rd. Berea, OH. at 7PM. Please register for this event on the calendar at [n8esg.org/events](http://n8esg.org/events). Please monitor the ARES website at [www.n8esg.org/ares](http://www.n8esg.org/ares) for information on nets and events. [www.n8esg.org/events](http://www.n8esg.org/events).

There is a new ARES DMR practice net. It is Scheduled for Thursdays an 7:30PM on talk group 31395.

## Thursday Net NCOs

Do you know K2??? How about ??UPZ? A great way to learn who these voices belong to is to be a net controller! Consider being a net controller.

It's an easy to learn job that is very important in emergencies.

We look forward to your participation!  
**Carl, KB8VXE, E-Mail: [kb8vxe@arrl.net](mailto:kb8vxe@arrl.net)**

## Sunshine

**Mike Segelski K8EHP** will be having his foot operated on. We hope he gets back on his feet soon.

**Sunshine cont.**

We want to wish **Mike Colman (AB8UM)** a speedy recovery. He said he was going to be laid up a bit afterwards. Hurry up and get better Mike, we miss your net Trivia quizzes!

We want to send **Ted Alexander W8IXY** some happy wishes as he is working on overcoming some physical Issues.

**Tom Kimball KB8BZB** became a Silent Key February9,2022. He was a long time active member/trustee of LEARA. He volunteered and ran many public service events. More information at <https://www.tributearchive.com/obituaries/24235865/thomas-redington-kimball>.

**We are looking** for someone to take over the Sunshine duties. You do not have to be a trustee to perform these duties. If you would like more information or would like to help out, please contact Carl Gedeon (kb8vxe@leara.org) or any of the trustees.

Puzzle 4 (Medium, difficulty rating 0.47)

				3	1		7	6
7		9				3		
	2	6					1	
1	5			6			4	
			3		4			
	6			9			3	5
	3					4	9	
		4				2		8
2	8		4	7				

**Volunteer Exam Dates and Locations**

from [www.arrl.org](http://www.arrl.org)



Due to the Coronavirus outbreak, please verify with your VE team that the exam session is being held.

**05/08/2022 | [Independence OH 44 131](#)**

**Sponsor:** Cuyahoga ARS

**Location:** Old Elmwood Recreation Center

**Time:** 9:15 AM (Walk-ins allowed)

[Learn More](#)

**06/04/2022 | [Wadsworth OH 44281](#)**

**Sponsor:** Silvercreek ARA

**Location:** Sharon Center United Methodist Church

**Time:** 10:00 AM (Walk-ins allowed)

[Learn More](#)

**Upcoming Hamfests and Conventions**

from [www.arrl.org](http://www.arrl.org)



Due to the Coronavirus outbreak, please verify the websites of the hamfests and conventions if the event is being held.

**07/09/2022 - [Mansfield Mid Summer Trunkfest](#)**

**Location:** Mansfield, OH

**Type:** ARRL Hamfest

**Sponsor:** Intercity Amateur Radio Club

**Website:** <http://www.w8we.club>

[Learn More](#)

**09/25/2022 - [Cleveland Hamfest](#)**

**Location:** Berea, OH

**Type:** ARRL Hamfest

**Sponsor:** Hamfest Association of Cleveland

**Website:** <http://www.hac.org>

[Learn More](#)



# Grounding and Bonding

Tim Duffy, K3LR

from March 29, 2022



## What IS "Ground" Anyway



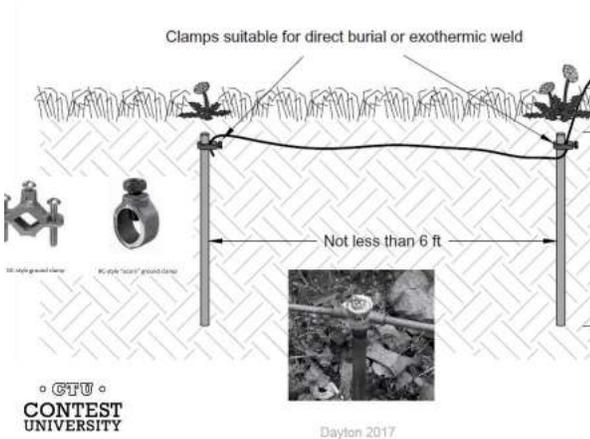
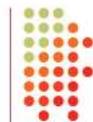
- The right answer depends on what you are trying to do
- What you are trying to do depends on frequency, voltage, current
- Your **safety** depends on the right answer
- Your **equipment** depends on the right answer
- Your **sanity** depends on the right answer



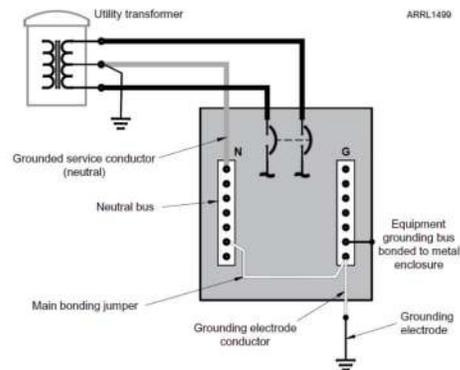
Dayton 2017



## AC Safety Grounding



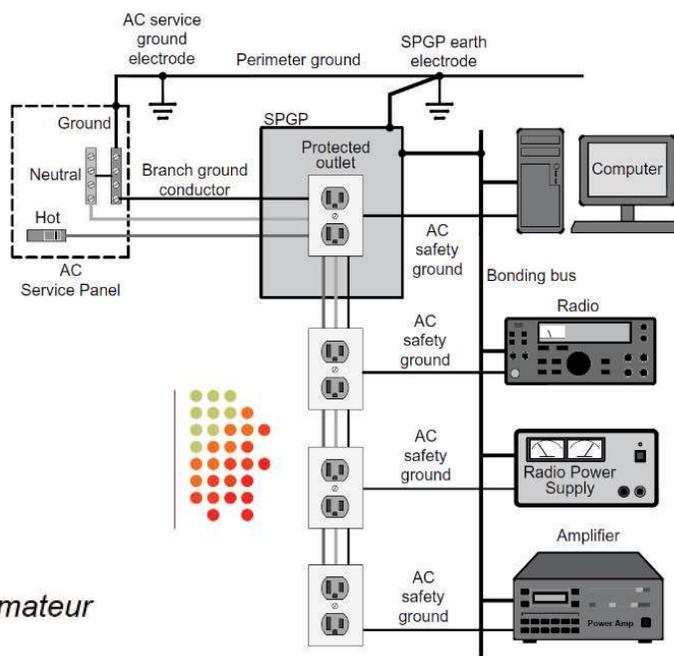
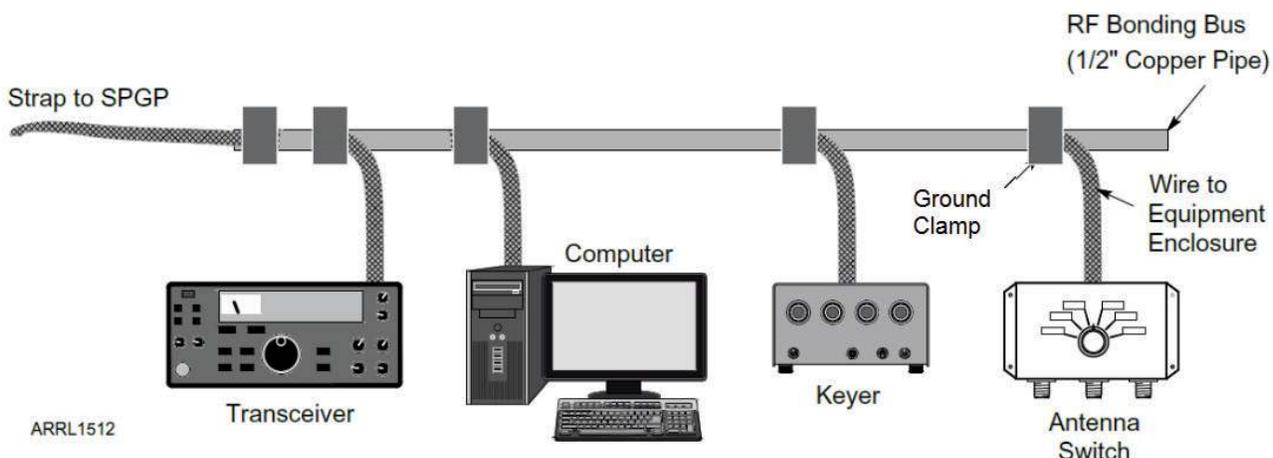
## AC Safety Grounding



Dayton 2017



## Bonding inside the shack



## Background References

- *ARRL Handbook, ARRL Antenna Book*
- *Grounding and Bonding for the Radio Amateur*
- *NEC Handbook* – at your library
- *Standards and Guidelines for Communication Sites (Motorola R56)* – available online
- *Lightning Protection for the Amateur Station (Ron Block, NR2B – Jun/Jul/Aug 2002 QST)* – ARRL website
- *Power, Grounding, Bonding, and Audio for Amateur Radio and RFI, Ferrites, and Common Mode Chokes For Hams* – available at [k9yc.com/publish.htm](http://k9yc.com/publish.htm)



Sun	Mon	Tue	Wed	Thu	Fri	Sat
24	25	26 6:30p.m. <b>LEARA meeting</b> 7:15 p.m. ARES 80m OSSB 7:45 p.m. OHDN	27	28 7:30 p.m. ARES DMR TG:31395 8 p.m. LEARA VOICE 146.76/R	29	30 <b>April</b>
1 <b>May</b>	2	3 7:15 p.m. ARES 80m OSSB 7:45 p.m. OHDN	4	5 7:30 p.m. ARES DMR TG:31395 8 p.m. LEARA VOICE 146.76/R	6	7 <b>10 Mile Drop</b>
8	9	10 7:15 p.m. ARES 80m OSSB 7:45 p.m. OHDN	11	12 7:30 p.m. ARES DMR TG:31395 8 p.m. LEARA VOICE 146.76/R	13	14
15	16	17 7:00 p.m. Cuyahoga ARES meeting 7:15 p.m. ARES 80m OSSB 7:45 p.m. OHDN	18	19 7:30 p.m. ARES DMR TG:31395 8 p.m. LEARA VOICE 146.76/R	20	21 <b>Cleveland Marathon</b>
22 <b>Cleveland Marathon</b>	23	24 7:15 p.m. ARES 80m OSSB 7:45 p.m. OHDN	25	26 7:30 p.m. ARES DMR TG:31395 8 p.m. LEARA VOICE 146.76/R	27	28
29 <b>Blossom Time Run</b>	30	31 6:30p.m. <b>LEARA meeting</b> 7:15 p.m. ARES 80m OSSB 7:45 p.m. OHDN	1	2 7:30 p.m. ARES DMR TG:31395 8 p.m. LEARA VOICE 146.76/R	3	4 <b>June</b>



Coming up  
**Cleveland Marathon**  
 May 21-22, 2022

We need **LOTS of help** for the Cleveland Marathon May 21 and 22. We will need people on both Saturday and Sunday. Please click the button below to sign up!

**SIGN UP**  
 -- click--

Mat Nickoson, KC8NZJ, [info@n8esg.org](mailto:info@n8esg.org)

and Raspberry Pi. The MMDVM will allow the repeater to operate in various digital modes including D-Star, DMR, System Fusion, and possibly others as well as analog FM. At this point we aren't sure which of these will be implemented and in what manner.

**Dave Andrzejewski, AD8G** and **Bill Hess, K8SGX** have been working to integrate the MMDVM and Raspberry Pi with the Motorola UHF repeater but ran into a snag. The Motorola repeater, and most analog repeaters, tailor the audio path with pre-emphasis and de-emphasis of various frequencies. Unfortunately, the MMDVM requires a flat audio path to work with the various digital modes. Further work and testing is ongoing but they expect to have the system up and running at the repeater site in the next few months.

You can find the latest info on the state of LEARA's repeaters at <https://www.leara.org/repeaters>. Also, Dave, AD8G, has a ticketing system that repeater users can use to submit info about the repeaters he is responsible for maintaining. You can submit an inquiry, feedback, or trouble report. You can even upload an audio file of the problem (easy to capture with most cell phones) instead just trying to describe the sound. This will allow Dave to better keep track of issues and correlate if more than one repeater is having a similar problem. It is available at <https://tickets.ad8g.net/>

**NOARS Saturday Zoom Elmers:** The Northern Ohio Amateur Radio Society's Board of Directors has started **Saturday Morning Zoom Elmers**, a time for new and not-so-new hams to ask and have questions answered. These sessions are on the third Saturday of each month at 11:00. One does not need to be a member of NOARS to attend. You don't even need to be a ham to attend. There will be two, perhaps three, knowledgeable hams available for questions. You can receive the Zoom invitation from **Elaine, KC8FOS** at [ewilkinson1951@gmail.com](mailto:ewilkinson1951@gmail.com) or **Chuck, K8CVM** at [k8cvm@mehoz.net](mailto:k8cvm@mehoz.net).

**Daylight Savings Time May Become Permanent.** Last year, U.S. Senator Marco Rubio (R-FL) and Senate Health Committee Chair Patty Murray (D-WA) introduced the bipartisan Sunshine Protection Act of 2021. On March 15, 2022 the Senate unanimously approved the Act, which would end the practice of changing the clocks twice a year by November 2023. Speaker of the House, Nancy Pelosi, stated she is in favor of the bill but it is not a priority at the moment. If passed by the House of Representatives and signed into law by President Joe Biden, the bill would make Daylight Saving Time (DST) permanent across the country starting in 2023.

**Until next month**, talk on the radio and use the repeaters. Check into one of the many nets available on the LEARA repeaters. Join us on the air, online, or in person. If you don't feel safe meeting in person due to the pandemic, we understand. But, we really want to see or at least hear from you, even if it is only by Radio or Zoom.

## New FCC Application Fee Will Not Apply to Amateur Radio License Upgrades

04/04/2022 - from: <http://www.arrl.org/news/new-fcc-application-fee-will-not-apply-to-amateur-radio-license-upgrades>

The Federal Communications Commission (FCC) staff has clarified in response to an ARRL request that the new \$35 application fee will not apply to most license modifications, including those to upgrade an amateur radio licensee's operator class and changes to club station trustees. The FCC staff explained that the new fees will apply only to applications for a new license, renewal, rule waiver, or a new vanity call sign. As previously announced, the new fees take effect on April 19, 2022.

"We are pleased that the FCC will not charge licensees the FCC application fee for license upgrade applications," said ARRL Volunteer Examiner Coordinator (VEC) Manager Maria Somma, AB1FM. "While applicants for a new license will need to pay the \$35 FCC application fee, there will be no FCC charge for future upgrades and administrative updates, such as a change of mailing or email address. Most current

licensees, therefore, will not be charged the new FCC application fee until they renew their license or apply for a new vanity call sign."

ARRL previously reported that the new \$35 application fee for amateur radio licenses will become effective on April 19, 2022. Further information and instructions about the FCC Application Fee are available from the ARRL VEC at

[www.arrl.org/fcc-application-fee](http://www.arrl.org/fcc-application-fee).




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## LEARA — The Lake Erie Amateur Radio Association

More than **50 YEARS** of Serving Greater Cleveland Since 1969

### VOICE REPEATERS:

146.76/R-	• Highland Hills	(Requires 110.9 Hz tone)
146.88/R-	• Lakewood	(Requires 110.9 Hz tone)
224.90/R-	• Lakewood	(Requires 141.3 Hz tone)
444.40/R+	• Macedonia	(Requires 131.8 Hz tone) (Offline)
444.70/R+	• Lakewood	<b>Digital System Fusion</b> & Analog (Req. 131.8 Hz tone)

### INTERNET:

- [www.leara.org](http://www.leara.org)
- To subscribe via e-mail, send a message to: [spirit76-request@leara.org](mailto:spirit76-request@leara.org)  
 Put "**subscribe**" in the subject area and your name and call sign in the body.  
 Those who subscribe via e-mail will not receive a paper copy of the newsletter.