

NET ACTIVITY:  
KEN: MONDAY 3.972.5 2330Z  
KDN: TUESDAY 3.587 0030Z  
KYN CW: DAILY 3.537 0100Z  
STATEWIDE DMR: "KY  
STATEWIDE 0000Z - Thursday  
Evening "

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SM: w4nho@arrl.net  
SEC: Cecil@dlsafety.com  
STM: kc4bqk@arrl.net  
ACC: n4ver.ky@gmail.com  
TS: n9ky@arrl.net  
OOC: k4lrx@arrl.net  
PIO: w4tsa@me.com  
KYHAM: admin@kyham.net

**KENTUCKY NEWS**  
**KENTUCKY SECTION MANAGER**  
**STEVE MORGAN W4NHO**  
**OWENSBORO KY 42301**  
**HAPPENING OF THE MONTH**  
**July 2017**



## WESTERN KY'S TIME TO SHINE - OR NOT

On Monday August 21 at approximately 1:25 pm plus or minus a minute or two depending your location, a freak occurrence will take place in Western KY, darkness in the middle of the day. This 70 mile wide event only takes place maybe once in your lifetime. To study the event where the moon takes position to block the sun's light only occurs maybe twice a year somewhere on earth. To have it in your own backyard in Western KY is wild. So wild that there is a possibility of 500,000 people may invade the area to view the event.



A total eclipse is a very rare event.

A total solar eclipse has 5 unique events.

1. **Partial eclipse begins** - where the moon begins to change the shape of the sun.
2. **Total eclipse begins** - the entire disk of the Sun is covered by the Moon. Observers in the path of the Moon's **umbra** may be able to see **Baily's beads** and the **diamond ring effect**, just before totality.  
**Totality and maximum eclipse:** The Moon completely covers the disk of the Sun. Only the Sun's **corona** is visible. This is the most dramatic stage of a total solar eclipse. At this time, the sky goes dark, temperatures can fall, and birds and animals often go quiet. The midpoint of time of totality is known as the maximum point of the eclipse. Observers in the path of the Moon's umbra may be able to see **Baily's beads** and the **diamond ring effect**, just after totality ends.
3. **Total eclipse ends** (3rd contact): The Moon starts moving away, and the Sun reappears.
4. **Partial eclipse ends** (4th contact): The Moon stops overlapping the Sun's disk. The eclipse ends at this stage in this location.

# Protect Your Eyes!

[Never look directly at the Sun](#), eclipsed or otherwise, without proper protective eyewear. The Sun's UV radiation can burn the retinas in your eyes, and cause permanent damage or even blindness.

To watch a solar eclipse safely, wear protective eclipse glasses or project an image of the eclipsed Sun using a [pinhole projector](#).

## Only Safe during Full Eclipse

It is safe to view a fully eclipsed Sun, totality, with the naked eye. It is also safe to observe totality through cameras, telescopes or binoculars without any special filters. However, naked eye observations MUST NOT begin until Baily's beads have completely disappeared (see below). Also, naked eye observations MUST finish before Baily's beads reappear at the end of totality. Make sure you know how long totality will last at your location.

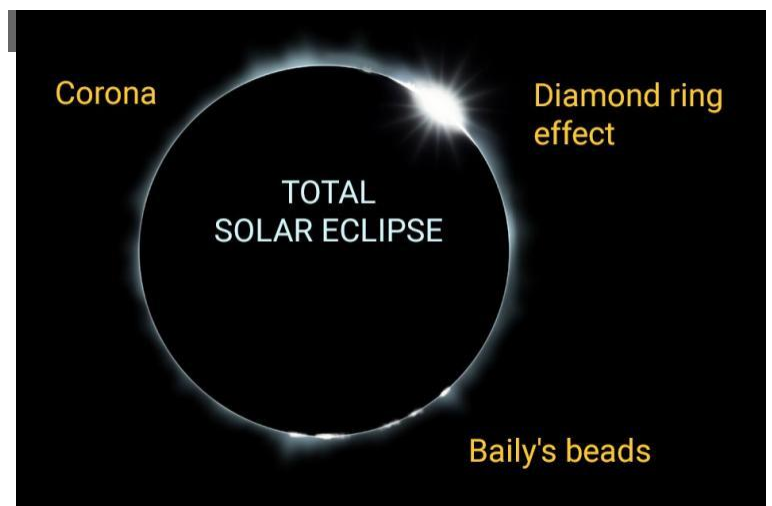
## Unique Sights around Totality

Phenomena only visible near the totality. ©bigstockphoto.com/JohanSwanepoel

Certain phenomena can only be seen during a total solar eclipse:

1. **Shadow bands:** About 1 minute before totality, moving wavy lines of alternating light and dark can be seen on the ground and along walls. These shadow bands are the result of Earth's turbulent atmosphere refracting the last rays of sunlight.
2. **Diamond ring:** Seen about 10 to 15 seconds before and after totality, the solar corona (the outer atmosphere of the sun) becomes visible; seen together with a single jewel of light from the sun, this creates a diamond ring effect.
3. **The Sun's corona:** As the diamond ring fades, the Sun's corona becomes more prominent and is visible as a faint ring of rays surrounding the silhouetted Moon. The corona is the outermost layer of the Sun's atmosphere, and it is around 200–300 times hotter than the Sun's surface. The corona's temperature can reach over 1 million °C (1.8 million °F).
4. **Baily's beads:** About 5 seconds before totality, Baily's beads appear. They are little bead-like blobs of light at the edge of the Moon. They are created because gaps in the mountains and valleys on the Moon's surface allow sunlight to pass through in some places but not others.
5. **The Sun's chromosphere:** A lower layer of the Sun's atmosphere, the chromosphere, gives out a reddish glow which can only be seen for a few seconds after totality sets in.

The phenomena then repeat in reverse order:



6. **Baily's beads:** The beads grow and merge into a crescent as the Moon continues to move away.
7. **Diamond ring and corona:** As the diamond ring grows brighter, the corona fades.
8. **Shadow bands:** The moving wavy lines reappear on the ground shortly before the crescent Sun becomes visible again and nature recovers.

<sup>1</sup> **see footnote**

If the weather cooperates with this phenomena, it will be Western KY's unique opportunity to shine. With so many people coming together in a small area, anything can occur to make an enjoyable event catastrophic. Moreover, local law enforcement and Red Cross may have more than they can handle. If so, amateur radio may have a place in this event with regards to public safety and communications. Please remember, this is a local event and you become the guest of the county you are entering. The County Judge and EMA are the folks that request additional assistance. Amateur Radio does not respond unless requested. Do not become a part of the problem.

With that said, we have a plan in place. Mr. Nick White, NV9V region 1 ASEC along with Mr. Cecil Dennis, K4TCD KYSEC have a workable plan that will be tested in a group discussion prior to the event during the coming week. A table top event has taken place. HF, VHF , Digital and possible DMR will be made available to back up the counties involved. Red Cross may need to be activated to open shelters due to heat, first aid, minor emergencies. If their primary communications fail, ARES will be there to lend a hand. Also, this will be a test to communicate with Frankfort in a real time event to keep them abreast of events as they unfold. If you want to participate, please check with your local EC or EMA director in your county.

In case you miss this event, there will another opportunity to see a total eclipse in 2024 but not in KY but NW of our location.

Amateur Radio, may be asked to do things it has not been asked to do since the 2009 ice storm. If called upon, be smart, be safe and remember, your actions represent yourself and ARES®.

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<sup>1</sup> <https://www.timeanddate.com/eclipse/total-solar-eclipse.html>

# EAST MEETS WEST - KINDA



It was an enjoyable time getting to travel into Eastern KY and meet numerous other amateurs on July 22nd at the Louisa Hamfest. Many folks I have spoken to on the air but have not met personally. Well, some guys like Fred Jones, WA4SWF and Tom Lykins, K4LID are exceptions.

They rolled out the hospitality to say the least. They have a small group of folks in their club

but they all pitch in. Louisa is located about as far as you can go East and keep your feet in Kentucky. Its located in Lawrence County. In fact, if you have several days, ask Mr. Lykins, whom many consider to be the Mayor of Louisa about the community of Louisa. If you put a microphone in his hand, you don't know whether you will receive a history lesson or a rendition of some Bluegrass or Country music. Above all, don't place a hot dog anywhere near him.



Figure 1 Tom Lykins, K4LID

After we located the community center, everything went up and down hill. Great area to visit. Hope to return. What small town America is all about. You always feel welcome.

Here are some folks that are not camera shy!



Figure 2 John Hager, N4KJU - former EC



Figure 3 Cullen Yates, KG4TKC



Figure 4 Fred Jones, WA4SWF  
Ken Robinson, K4KBR



Figure 5 Mike Love, WB8YKS Fred Jones, WA4SWF  
Steve Morgan, W4NHO KY SM

## AMATEUR RADIO PARITY ACT



Amateur Radio Parity Act is moving forward. House has already passed their version and it moved quickly to the Senate. As you remember, the bill almost passed but a certain Senator from Florida held up action and refused to let it come to the floor for passage. Now is your time to act and encourage our Senators to place S1534 to a vote on the floor. Time to act is now.

Senator Mitch McConnell  
Senator Rand Paul

## ARRL BOARD MEETS

Meeting July 21-22 in Farmington, Connecticut, the ARRL Board of Directors took steps to chart a firmer future for Amateur Radio by enhancing the value of the entry-level license and by providing ongoing support for new licensees.



ARRL New England Division Director Tom Frenaye, K1KI, presented the report of the Ad Hoc Entry-Level License Committee. He said the committee's initial, informal survey attracted nearly 7,900 responses. A second random survey drew another 375 responses. "A clear majority favored a revision to the Technician rather than a new entry-level license," the committee's report said, noting that this would require no change to the Technician examination, which already covers more material than necessary for an entry-level examination. "This choice requires the simplest revision to FCC rules," the committee report said. The committee suggested expanded digital access on 80, 40, and 15 meters, where Technicians already have CW access, as well as the addition of Technician phone privileges on those bands. Frenaye pointed out that while the Amateur Radio



population is growing, the annual rate of growth has stagnated at about 1%. “There is a general consensus...that ‘something needs to happen,’” the committee’s report said, noting a generally favorable attitude toward attracting newcomers.

“The general goal here is to have an entry level license that offers a way for a newcomer to experience multiple facets of Amateur Radio,” the committee’s report said, “encouraging them to get on the air, meet other licensees, and engage in a lifetime of learning while using Amateur Radio.”

Later in the meeting, the Board charged the ARRL Executive Committee with developing a plan to implement the ad hoc committee’s recommendation to make the current Technician class license more attractive and useful by expanding its operating privileges on HF to include phone and digital modes. The Board asked the Ad Hoc Entry-Level License Committee to further research and develop the details of a second recommendation to improve successful outreach to prospective radio amateurs and help them through the licensing process.<sup>2</sup>

## **CALDWELL COUNTY ARES BRINGS ON LINE NEW UHF REPEATER**

ARES & Ham Club members spent hours moving equipment to new COM I on 31st. Deployed & set up at sight on 91S that will be used for Eclipse & tested equipment all day. Joey sent Cecil Dennis a report on this. I want to thank all the guys for everything they have done in my absence. Richard Blackburn, EC KI4YIB



**Figure 2 UHF CALDWELL CO REPEATER**



**Figure 1 UHF REPEATER**

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<sup>2</sup> <http://www.arrl.org/news/arrl-board-explores-entry-level-license-options-ways-to-face-future-challenges>

## BY THE NUMBERS...

Shelby County:	NG00
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Had 2 club meetings for month of July with normal attendance for both. Six monthly ARES nets with Nets being called on 2 meter repeater, 70 cm repeater, and local simplex frequency on the third Wednesday of month. Done check ins on area ARES Nets as well as KY Emergency Net. Started training on passing and receiving emergency traffic, continuing into August meeting.

Henry County:	NG00
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Had 5 Monday Night Nets for Henry County ARES in July, and one of those including 443.425 via repeater as well as simplex on 7/17. Also done ARES nets in surrounding counties as well as KYEN on HF on Monday nights. Helped Emergency Management during Henry County Fair, with getting word out and assisting on sign ups for Emergency Alerts within the county, along with promoting Ham Radio. Also helped EMA last week of month by going into Schools and promoting the HOT alerts system.

## PSHR PUBLIC SERVICE HONOR ROLL

KO4OL 110  
W4NHO 106  
KC4BQK 112

## STATION ACTIVITY REPORT

WB4ZDU 24  
KO4OL 148

WELCOME NEW EC DOUG CLARK, KC4FRA HOPKINS CO.  
NEW DEC DIST. 9 JAMES BALL, W4VJE

## TRAVELING...

LEXINGTON BARS HAMFEST AUGUST 12  
GREATER LOUISVILLE - SHEPHERDSVILLE SEPTEMBER 9  
RICHMOND HAMFEST SEPTEMBER 16  
PAINTSVILLE HAMFEST SEPTEMBER 30

BOWLING GREEN / MOREHEAD OCT 7

GREAT LAKES DIVISON CONVENTION OCT 7-8 MICHIGAN INTERNATIONAL SPEEDWAY... MORE INFO  
COMING!

Last but not least, Chuck Milam, N9KY TC reports new fun on the digital mode FT 8. Want to learn more about this going forward.

As we approach the Fall, some of our columns may feature your radio club. Is your club affiliated? What about becoming a Special Service Club (SSC)? The League is here to help you the radio amateur. Your voice is important and need to hear from you. If you don't toot your own horn, no one else will unless you talk about.

Be radio active and be safe. Hope to hear you on the band. Look forward to meeting you at the upcoming Hamfests this fall.

73

Steve Morgan W4NHO

KENTUCKY SECTION MANAGER