Volume 22, Issue 4

April 2026

THE AERO AERIAL

THE NEWSLETTER OF THE AERO AMATEUR RADIO CLUB

Meetings

APRIL
1 AND 15

See Brian's repeater in a box on page 5

Ham News

International DX Phone Contest

The Aero Amateur Radio Club participated in the ARRL International DX Phone Contest on March 7-8 at the Essex Skypark FBO. See page 4 for highlights.

Repeater in a Box

In case you missed the presentation on 3/4/26, Brian brought in his repeater in a box using the GMRS freq. He connected two Boefeng 8-watt radios and a 10-foot coax duplexer. See page 5 for more details.

Events

Delmarva Amateur Radio and Electronics Expo

Date: 4/18/2026

Location: Georgetown, DE

Sponsor: Sussex ARA

York Hamfest

Date: 4/25/2026

Location: Glen Rock, PA

Sponsor: Penn-Mar ARC & Hilltop Transmitting Assoc

Odenton Spring Hamfest

Date: 4/26/2026

Location: Odenton, MD

Sponsor: Maryland Mobile's Amateur Radio Club

The Great Hagerstown Hamfest

Date: 5/2/2026

Location: Maugansville, MD

Sponsor: Antietam Radio Association

Maryland F.M. Association Hamfest

Date: 5/24/2026

Location: West Friendship, MD

Sponsor: Maryland F.M. Association Inc.

The Power of the Whisper: How WSPR and WSJT-X are Redefining Long-Distance Radio

From Bryan King

How WSPR and WSJT-X are redefining long-distance radio. Read more

FCC Warns Pittsburgh Amateur Radio Operator for 911 Interference

From Radio World

A BTech UV-Pro was transmitting over an Allegheny County EMS channel, commission alleges. Read more

Is the CIA using radio to instruct Iran agents? Listen for yourself

From The Sunday Times

An amateur sleuth thinks ghostly broadcasts are a revival of Cold War "numbers stations." Read the story

The ISS Returns to S-Band: HamTV Now Transmitting Color Bars on 13 cm

From AMSAT-CA

The HamTV experiment aboard the International Space Station resumed active video transmissions. Find out why HamTV on S-Band Matters

Additional Links

The complete study platform for FCC Technician, General, and Extra class amateur radio licenses. Open HamStudyHub

Real-time amateur radio data. Discover the KJ4WLC Ham Dashboard

Free and open source ham radio dashboard. Check out HamDash

More Events

Manassas Hamfest

Date: 6/20/2026

Location: Manassas, VA

Sponsor: Ole Virginia Hams

Baltimore Amateur Radio Club Father's Day Hamfest/Expo

Date: 6/21/2026

Location: Upper, MD

Sponsor: Baltimore Amateur Radio Club BARC

In case you missed it,


Volume 22, Issue 3 March 2026

THE AERO AERIAL

THE NEWSLETTER OF THE AERO AMATEUR RADIO CLUB

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2 Events
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16 About the Club

Hello Spring

Ham News

Aero Club Repeater Update

The six batteries and a terminal lead on one battery were replace on Friday, February 20. The repeaters were down from 9:20 to 10:20 am while the new batteries and one battery jumper cabler were replaced. Thanks to Brian Majka, KD3BOJ, and Marty Braun, KC3AID, helping doing the repairs.

Did you pay your annual club dues yet?

If you haven't paid your annual club dues yet for 2026, please contact Joe Miko, WB3FMT.

The amount is $24 for one person, $2 for each additional person living in the same household.

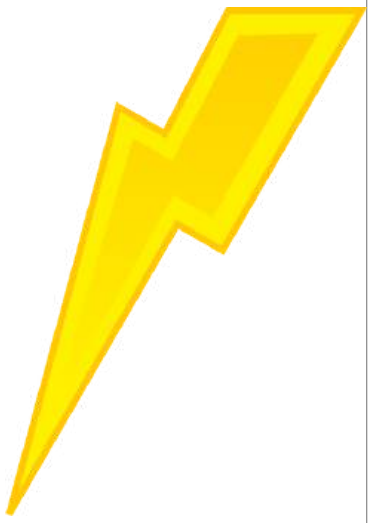
Meetings

MARCH 4 AND 18

W3PGA Middle River, MD 1

check out the March issue.

SKYWARN, ARES, RACES



SKYWARN® is a national network of volunteer severe weather spotters. The spotters are trained by local National Weather Service Forecast Offices on how to spot severe thunderstorms, tornadoes, hail and flooding. In some parts of the country, spotters also report snowfall and ice accumulation.

To learn more about SKYWARN® and how to become a spotter, click here.

Harford County ARES/RACES Group meets at the Harford County Emergency Operations Center in Forest Hill, MD, the first Thursday of each month, 7:00-9:00 p.m. Let them know in advance if you would like to attend, via email to Steven Fook (K2EJ), Harford County Emergency Coordinator.

To learn more about Amateur Radio Emergency Service (ARES) and Radio Amateur Civil Emergency Service (RACES), click here.

Training

SKYWARN® Classes

Basics & Severe, April 27, 6-8:30, Winchester, VA

Flood, May 6, 6-8 pm, Alexandria, VA

Basics, May 7, 7-9 pm, Forest Hill, MD

The leaning telescoping tripod mast

International DX Phone Contest

From Rob, AE3B

The Aero Amateur Radio Club participated in the ARRL International DX Phone Contest this past weekend, March 7-8. We operated from the FBO at the Essex Skypark, starting with:

Joe, WB3FMT
Brian, KD3BOJ and
Rob, AE3B.

Not long into the contest, Larry, KB3QWC, arrived and started slamming the bands with one contact after another!

Attached is a PDF of our results. We scored 3,240 points. Our most notable contact was ZM4T, the East Coast Contesters in Hawkes Bay, NZ! We got them on 20M using the Mosley tribander.

Aside from having to get parts for the Mosley, we had both antennas up in about 2.5 hours.

Go west young man (or southwest in this case)!

Watching Larry get it done!

Field Expedient VHF/UHF Repeater

From Brian Majka, KD3BOJ

Purpose: defeating terrain elevation with qroup VHF/UHF communications

Use case: While on backcountry expeditions, we often find ourselves away from base camp and split by elevated terrain with no cell coverage. Safety dictates that we maintain comms. At their heart, this setup is just two 8-watt handheld transceivers strapped together. On the low end, the setup is $50 and it's $100 the way I have it with a supplemental battery for five days of run time and a waterproof case.

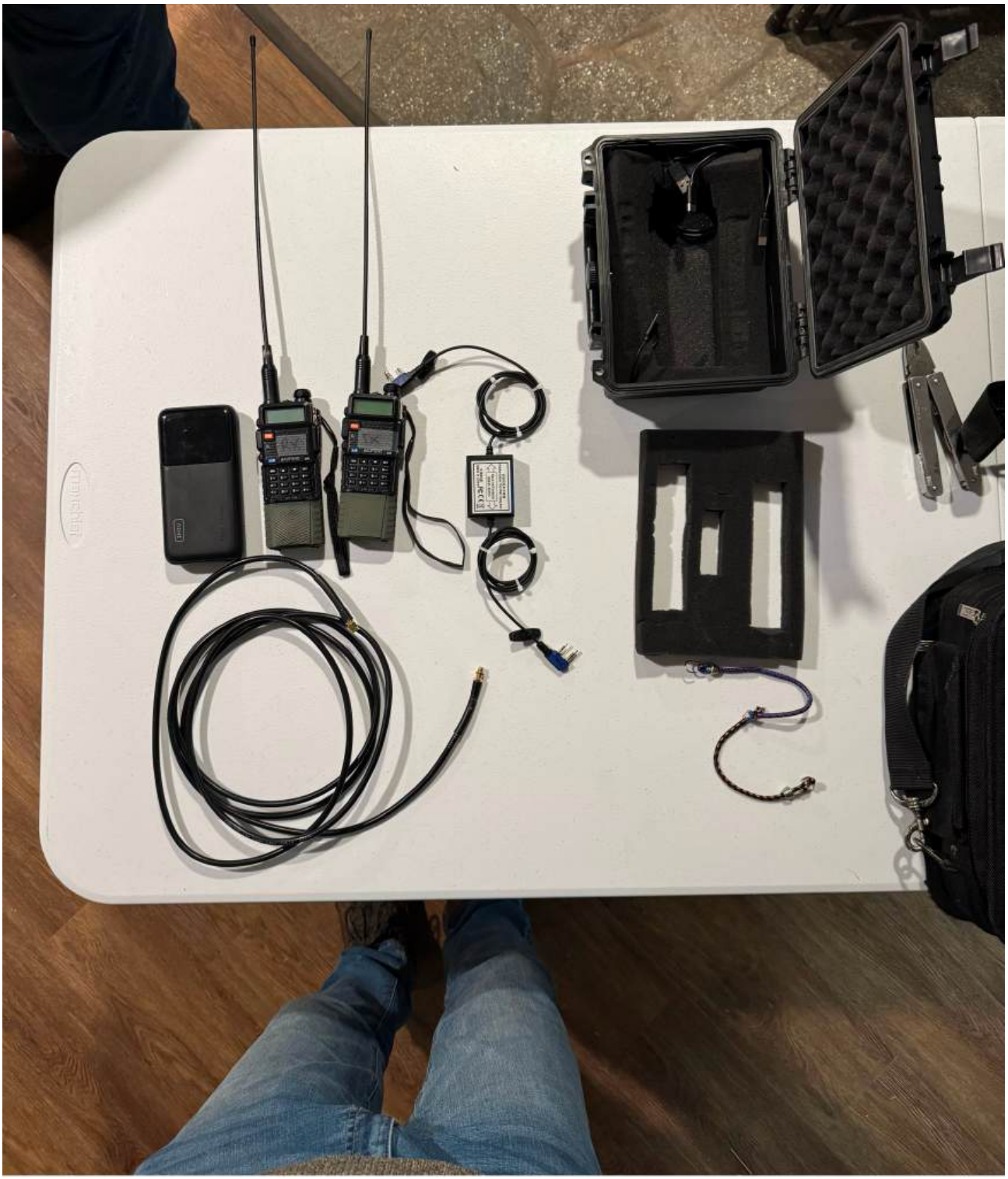
One would hike to the top of the terrain and throw a line up into a tree. Once you have a line up, this 4-pound unit is easily pulled up to an appropriate height. The transmit antenna is mounted on a 10-foot coax extension that provides vertical separation from the receiver antenna and the issue of desensitization is minimized by the transmit antenna hanging directly beneath the receiver antenna in such a way that they are in each others' null. This has allowed me to forego an expensive duplexer.

Furthermore, the inexpensive design lessens the worry over loss when they are left unsupervised for days on end. To add value, this setup can double as an emergency GMRS repeater for my family so that we do not have to relay messages amongst households. Each household's HT can reach every other household when this unit is hoisted up into the pine tree in my front yard.


RX
TX


BAOFENG
Li-ion Battery
UV-5R


BAOFENG
UV-5R



Radio License Exams

Examination sessions are offered throughout the year at various locations. Visit our new licensing page to prepare:

https://w3pga.net/getting-your-license/

ARRL and many other online sources have resources to help you study.

VE Corner

Maryland Test Sites

Confirm in Advance

4/4/26, 8:45 am: Forest Hill, walk-ins allowed

4/7/26, 5:45 pm: Severna Park, register or call ahead

4/11/26, 2:30 pm: Catonsville, walk-ins allowed

4/18/26, 9:00 am: Laurel, walk-ins allowed

5/2/26, 2:30 pm: Catonsville, walk-ins allowed

5/5/26, 5:45 pm: Severna Park, register or call ahead

5/16/26, 9:00 am: Laurel, walk-ins allowed

6/2/26, 5:45 pm: Severna Park, register or call ahead

6/6/26, 2:30 pm: Catonsville, walk-ins allowed

6/20/26, 8:45 am: Forest Hill, walk-ins allowed

6/20/26, 9:00 am: Laurel, walk-ins allowed

7/11/26, 2:30 pm: Catonsville, walk-ins allowed

7/18/26, 9:00 am: Laurel, walk-ins allowed

8/1/26, 2:30 pm: Catonsville, walk-ins allowed

8/15/26, 9:00 am: Laurel, walk-ins allowed

8/22/26, 8:45 am: Forest Hill, walk-ins allowed

9/12/26, 2:30 pm: Catonsville, walk-ins allowed

9/19/26, 9:00 am: Laurel, walk-ins allowed

10/10/26, 2:30 pm: Catonsville, walk-ins allowed

10/10/26, 8:45 am: Forest Hill, walk-ins allowed

10/17/26, 9:00 am: Laurel, walk-ins allowed

11/7/26, 2:30 pm: Catonsville, walk-ins allowed

11/21/26, 9:00 am: Laurel, walk-ins allowed

12/5/26, 2:30 pm: Catonsville, walk-ins allowed

12/5/26, 8:45 am: Forest Hill, walk-ins allowed

Contest Corral April 2026

Check for updates and a downloadable PDF version online at **www.arrl.org/contest-calendar**. Check **https://contests.arrl.org** for recent results. Refer to the contest websites for full rules, scoring information, operating periods or time limits, and log submission information.

Start - Finish				Bands	Contest Name	Mode	Exchange	Sponsor's Website
Date	Time	Date	Time					
2	0000	3	0300	7	Walk for the Bacon QRP Contest	CW	Max 13 WPM; RST, SPC, name, mbr or pwr	qrpcontest.com/pigwalk40
4	0000	5	2359	1.8-28	YBDXPI SSB Contest	Ph	RS, serial	contest.ybdxpi.net
4	1200	5	1200	3.5-28	EA RTTY Contest	Dig	RSQ, province or serial	concursos.ure.es
4	1400	5	0200	1.8-28,50,144	Louisiana QSO Party	CW Ph Dig	RS(T), LA parish or SPC	laqp.louisianacontestclub.org
4	1400	5	0200	1.8-28,50,144	Mississippi QSO Party	CW Ph Dig	RS(T), MS county or SPC or 4-char grid	www.arrlmiss.org
4	1500	5	1500	1.8-28	SP DX Contest	CW Ph	RS(T), SP province or serial	spdxcontest.pzk.org.pl
11	0000	11	0600	1.8-28	QRP ARCI Spring QSO Party	CW	RS, SPC, mbr or pwr	qrparci.org
11	0700	12	1300	1.8-28	JIDX CW Contest	CW	RST, JA prefecture or CQ zone	www.jidx.org
11	1200	12	1100	3.5-28	DIG QSO Party, CW	CW	RST, mbr (if member)	dig-contest.de/rules
11	1200	12	1159	1.8-28,sat	Yuri Gagarin International DX Contest	CW Ph	RST, ITU zone	gccontest.ru
11	1200	12	1159	1.8-28	OK/OM DX Contest, SSB	Ph	RS, OK/OM county code or serial	okomdx.crk.cz
11	1200	12	1200	1.8-28	RSGB FT4 International Activity Day	Dig	Signal report	www.rsgbcc.org
11	1200	12	1800	3.5-28	IG-RY World Wide RTTY Contest	Dig	RST, 4-dig yr first licensed	www.ig-ry.de
11	1200	12	2359	1.8-28,50	SKCC Weekend Sprintathon	CW	RST, SPC, name, mbr or "NONE"	www.skccgroup.com
11	1400	12	0200	1.8-28,50,144	New Mexico QSO Party	CW Ph Dig	RS(T), NM county or SPC	www.newmexicoqsoparty.org
11	1400	12	2000	1.8-28,VHF/UHF	Missouri QSO Party	CW Ph Dig	RS(T), MO county or SPC or "DX"	www.w0ma.org
11	1800	12	1800	1.8-28,50,144	North Dakota QSO Party	CW Ph Dig	RS(T), ND county or SPC	ndarrlsection.com
11	1800	12	2359	1.8-28,50	Georgia QSO Party	CW Ph	RST, GA county or SPC or "DX"	gaqsoparty.com
13	0000	13	0200	1.8-28	4 States QRP Group Second Sunday Sprint	CW Ph	RS(T), SPC, mbr or pwr	www.4sqrp.com
13	2300	14	0600	144	144 MHz Spring Sprint	CW Ph Dig	4-char grid	sites.google.com/site/springvhfupsprints
15	0030	15	0230	3.5-14	NAQCC CW Sprint	CW	RST, SPC, mbr or pwr	naqcc.info
16	0000	17	0300	14	Walk for the Bacon QRP Contest	CW	Max 13 WPM; RST, SPC, name, mbr or pwr	qrpcontest.com/pigwalk20
17	1200	20	2359	1.8-28,50	Florida State Parks on the Air	CW Ph Dig	Signal report, SPC (if hunter)	fspota.org/rules
17	2100	18	2059	3.5-28	World Wide Holyland Contest	CW Ph	RS(T), 4X area or serial	tools.iarc.org/wwhc
18	0000	19	2359	No WARC	Texas State Parks on the Air	CW Ph Dig	RS(T), TX park nbr or SPC or "DX" or grid	www.tspota.org
18	0500	18	0859	3.5,7	ES Open HF Championship	CW Ph	RS(T), serial	erau.ee
18	0600	19	0559	3.5-28	Worked All Provinces of China DX Contest	Ph	RS(T), BY province or serial	www.mulandxc.com
18	0700	18	1900	1.8-28	Dutch PACCdigi Contest	Dig	Signal report, PA province or serial	www.veron.nl
18	0800	18	1800	3.5-28	QRP to the Field	CW Ph	RST, SPC, name/station code (see rules)	www.zianet.com
18	0900	19	2359	3.5-28	CQMM DX Contest	CW	RST, continent abbr, "M" (member), "Q" (QRP), "Y" (YL), "C" (multiop/club)	www.cqmmdx.com
18	1200	19	1200	1.8-28	World Time Zone Challenge	CW Ph	RS(T), TZ offset code	wtzc-contest.com
18	1200	19	2359	No WARC	Georgia State Parks on the Air	CW Ph Dig	RS(T), park nbr or SPC or grid	gaparks.org
18	1600	19	0400	3.5-28	Michigan QSO Party	CW Ph	RST, MI county or SPC	miqp.org
18	1700	19	1200	3.5-28	EA-QRP CW Contest	CW	RST, category, "M" (if mbr)	www.eaqrp.com
18	1800	19	1800	1.8-28,50,144	Ontario QSO Party	CW Ph	RS(T), ON county or SPC	www.va3cco.com
19	0700	19	1900	3.5,7	International Vintage Contest HF	CW Ph	RS(T), 6-char grid	vintagecontest.webnode.it
19	1200	19	2200	3.5-28,50,144	Quebec QSO Party	CW Ph	RS(T), QC zone or SPC	quebecqsoparty.org
19	1800	19	2359	3.5-28	ARRL Rookie Roundup, SSB	Ph	Name, 2-dig yr first licensed, state/province/XE area/DX	www.arrl.org/rookie-roundup
19	2300	20	0100	1.8-28	Run for the Bacon QRP Contest	CW	RST, SPC, mbr or pwr	qrpcontest.com/pigrun
21	2300	22	0600	222	222 MHz Spring Sprint	CW Ph Dig	4-char grid	sites.google.com/site/springvhfupsprints
22	0000	22	0200	1.8-28,50	SKCC Sprint	CW	RST, SPC, name, mbr or "NONE"	www.skccgroup.com
25	0800	26	1159	3.5,7,28	Tipalayo DX Contest	Ph	RS, serial	tipalayo.orlokpolman.id
25	1200	26	1200	3.5-28	SP DX RTTY Contest	Dig	RST, SP 2-letter province or serial	pkrvg.org
25	1200	26	1200	3.5-28	UK/EI DX Contest, CW	CW	RST, serial, district code (if UK/EI)	www.ukeicc.com
25	1300	26	1259	1.8-28	Helvetia Contest	CW Ph Dig	RS(T), HB 2-letter canton or serial	uska.ch
25	1400	27	0200	1.8-28,VHF/UHF	Nebraska QSO Party	CW Ph Dig	NE county or SPC or grid square	nebraskaqsoparty.com
25	1600	26	2159	7,14,21,28	Florida QSO Party	CW Ph	RS(T), FL county or SPC	floridaqsoparty.org
26	1700	26	2059	3.5-28	BARTG Sprint 75	Dig	Serial	bartg.org.uk
27	1900	27	2100	3.5-28	RSGB FT4 Contest	Dig	Signal report	www.rsgbcc.org
29	2300	30	0600	432	432 MHz Spring Sprint	Dig	4-char grid	sites.google.com/site/springvhfupsprints

There are a number of weekly contests not included in the table above. For more info, visit: **www.qrpfoxhunt.org**, **www.ncccsprint.com**, and **www.cwops.org**. All dates and times refer to UTC and may be different from calendar dates in North America. Contests are not conducted on the 60-, 30-, 17-, or 12-meter bands. Mbr = Membership number. Serial = Sequential number of the contact. SPC = State, Province, DXCC Entity. XE = Mexican state. Listings in blue indicate contests sponsored by ARRL or *NCJ*. The latest time to make a valid contest QSO is the minute listed in the "Finish Time" column. *Data for Contest Corral is maintained on the WA7BNM Contest Calendar at* **www.contestcalendar.com** *and is extracted for publication in* QST *2 months prior to the month of the contest. ARRL gratefully acknowledges the support of Bruce Horn, WA7BNM, in providing this service.*

Margie Bourgoin, W1MRG, events@arrl.org; www.arrl.org/special-event-stations

Special Event Stations

Working special event stations is an enjoyable way to help commemorate history. Many provide a special QSL card or certificate!

Apr. 11 – Apr. 12, 1400Z – 2200Z, W4AC, Nokomis, FL. Tamiami Amateur Radio Club. **Shark's Tooth Festival**. 14.034 14.260 28.034 28.460. QSL. Tamiami ARC, P.O. Box 976, Nokomis, FL 34274. **www.tamiamiarc.org**

Apr. 11 – Apr. 12, 1500Z – 0100Z, KC5OLO, Abilene, TX. Key City Amateur Radio Club. **Atlas Missile Silo**. 14.250 21.300 28.400. QSL. Key City Amateur Radio Club, P.O. Box 2722, Abilene, TX 79604. **https://keycityarc.org**

Apr. 14 – Apr. 19, 0817Z – 0817Z, W4S, Lakeland, FL. Lakeland Amateur Radio Club. **Sun & Fun Aerospace Exposition**. 7.40 14.40 18.93 28.40. QSL. Lakeland Amateur Radio Club, P.O. Box 90853, Lakeland, FL 33804. *Please send a self-addressed stamped envelope for QSL card*. **info@lakelandarc.com**

Apr. 16, 0900Z – 1600Z, W9W, New Castle, IN. Henry County (Indiana) Amateur Radio Club. **Wilbur Wright 159th Birthday Event**. 14.340. QSL. Dave Peters, 3517 Hampton Ct., New Castle, IN 47362. **W9OB@yahoo.com** or **https://w9ob.org**

Apr. 16 – Apr. 21, 0600Z – 0600Z, N5L, Gonzales, LA. Ascension Amateur Radio. **Louisiana Purchase Special Event**. 14.300. Certificate. K5ARC, P.O. Box 1617, Gonzales, LA 70707. **www.k5arc.org**

Apr. 17 – Apr. 20, 1200Z – 2359Z, W4AC, Nokomis, FL. Tamiami Amateur Radio Club. **Florida State Parks on the Air Contest**. 14.337. Certificate. Tamiami ARC, P.O. Box 976, Nokomis, FL 34274. **www.fspota.org**

Apr. 18, 1200Z – 1600Z, KG4NXO, Ocala, FL. Marion County Florida Emergency Radio Team (MERT). **MERT-22**. 443.875 reflector 30C KG4NXO; 3.950 7.235 14.275 (±20) SSB. Certificate by email request. KG4NXO, 7199 SW 95th Ct., Ocala, FL 34481. **MERT-22@KG4NXO.com**

Apr. 23 – Apr. 27, 0500Z – 0500Z, K4H, Camden, SC. Kershaw County Amateur Radio Club, KC4RC. **Battle of Hobkirk's Hill Commemoration**. 3.825 7.225 14.325 21.325. Certificate upon request. **info@kc4rc.com**

Apr. 24 – Apr. 26, 1900Z – 1900Z, WØZSW & WØEQO, Minneapolis, MN. Handiham Radio Club & Handiham Radio Club of Minnesota. **Handiham Program 59th Anniversary QSO Party**. 7.200 14.250 21.350 28.350. QSL. Handiham Program, 3915 Golden Valley Rd., Mail Route 78446, Minneapolis, MN 55422. **www.handiham.net**

Apr. 25, 1300Z – 2000Z, W2GSB, Babylon, NY. Great South Bay Amateur Radio Club. **Marconi Day**. 7.275 14.245 21.325 28.500. Certificate. GSBARC Marconi Day, 200 E. Sunrise Hwy., Lindenhurst, NY 11757. **www.gsbarc.org**

Apr. 25, 1300Z – 2100Z, K3S, Baltimore, MD. Nuclear Ship *Savannah* Amateur Radio Club. **International Marconi Day Official Station**. 7000. QSL. Ulis Fleming, 980 Patuxent Rd., Odenton, MD 21113. *Check spotting networks on all bands for frequency.* **www.qrz.com/db/K3S**

Apr. 30 – May 1, 1600Z – 0000Z, KA6OES, Eureka, CA. Humboldt County Sheriff's Office of Emergency Services. **BEACON Exercise**. 3.9920 7.1920 14.2205. Certificate. Greg Waters, ATT: OES, 826 4th St., Eureka, CA 95501. **www.beaconexercise.org**

Certificates and QSL cards: To obtain a certificate from any of the special event stations offering them, send your QSO information along with a 9 × 12-inch self-addressed, stamped envelope (3 units of postage) to the address listed in the announcement. To receive a special event QSL card (when offered), be sure to include a self-addressed, stamped business envelope along with your QSL card and QSO information.

Special Events Announcements: For items to be listed in this column, use the ARRL Special Events Listing Form at **www.arrl.org/special-events-application**, or email information to **events@arrl.org**.

Submissions must be received by ARRL HQ no later than the 1st of the second month preceding the publication date; a special event listing for **July** *QST* would have to be received by **May 1**. In addition to being listed in *QST*, your event will be listed on the ARRL Web Special Event page. Note: All received events are acknowledged. If you do not receive an acknowledgment within a few days, please contact us. ARRL reserves the right to exclude events of a commercial or political nature.

You can view all received Special Events at **www.arrl.org/special-event-stations**.

Bernie McClenny, W3UR, w3ur@arrl.org

How's DX?

Highlighting TCDXA; February DX News Follow-Up; Assorted DXpeditions

The following section on the Twin City DX Association (TCDXA) is provided by TCDXA Secretary/ Treasurer Mark Johns, KØJM.

As the name implies, TCDXA is in the Twin Cities of Minneapolis and St. Paul, Minnesota. The ARRL Affiliated Club was founded in 1970. Its members enjoy DXing and DX contesting, ranging from hams just getting started in the hobby to old-timers who have held a passion for DXing for decades. There are currently more than 130 members, and around 35 of them are present at each monthly in-person or Zoom meeting. Meetings always begin with a social hour, and programs feature presentations about upcoming or recent DXpeditions, propagation, antenna ideas or new rigs, and contest strategies. Members are also proud of *The Gray Line Report* newsletter, which is published quarterly.

TCDXA's primary mission is to support DXing and DXpeditions with financial donations. Annual member donations and other contributions are the main source of these "Dollars for DX." The club has provided grants to more than 125 DXpeditions, beginning with VKØIR in 1997, and most recently, E44OM. Priority is given to those in the top 100 of Club Log's DX Century Club (DXCC) Most Wanted List. Around $5,000 is disbursed annually — quite a large amount for such a small club. TCDXA is a 501(c)(3) nonprofit organization incorporated in the state of Minnesota, and it has a long-standing agreement with the Minnesota Vikings National Football League team to use a Viking wearing headphones as its logo. More information about TCDXA is available at **www.tcdxa.org**.

February 2026 Column Updates

Each "How's DX?" column is written weeks in advance of publication, so mentioned events may change after it goes to press. The February 2026 issue featured stories about the 3YØK DXpedition to Bouvet Island and the CEØX DXpedition to the San Félix and San Ambrosio Islands. In an early January 2026 press release, Felipe A. Gutiérrez, XQ7IR, leader of the San Ambrosio Project, 3GØXQ, announced the postponement of CEØX. Authorities may process his application to coincide with the local fishing season, which will take place from September 2026 to March 2027. He assured the DX community of his ongoing commitment to activating this rare DXCC entity and confirmed that all equipment remains secure on Juan Fernández Island. Gutiérrez also stated that sponsors and donors would be individually contacted regarding their support following the schedule change.

The 3YØK Bouvet Island DXpedition team also announced in late January 2026 that their DXpedition would be delayed by about 2 weeks due to necessary vessel maintenance. The team emphasized that safety remained their top priority and reassured us that the overall plan, developed over the past 3 years, remains unchanged. They will provide further updates as their schedule evolves. Hopefully, by the time you read this, they will have completed their activation of the number 10 most-wanted DXCC entity.

FO/M — Marquesas Islands

A six-operator team, including members from the Oklahoma DX Association, New Mexico, and France, will operate as TX9W from Atuona, Hiva Oa (Islands on the Air; IOTA reference OC-027), of the Marquesas Islands from April 19 to April 30, 2026. They plan to be active on all bands from 160 to 6 meters using CW, FT8, FT4, SSB, and RTTY. They will use six complete stations, with a variety of transceivers, amplifiers, and antennas. They'll also upload logs daily to Club Log (streamed live if the internet allows) and later send them to Logbook of The World® (LoTW®). Targeted transmit frequencies for each mode are specified as follows, and they may use US General-class allocations:

- CW: 7007, 10107, 14007, 18077, 21007, 24903, and 28007 KHz
- SSB: 14170, 18130, 21270, 24945, and 28485 KHz

- FT8: 1835, 3563, 5357, 7056, 10144, 14091, 18091, 21091, 24920, 28091, and 50313 KHz
- FT4: 7051, 10144, 14091, 18091, 21091, 24920, and 28091 KHz
- RTTY: 7051, 10135, 14088, 18091, 21088, 24910, and 28088 KHz

On Club Log's DXCC Most Wanted List, the Marquesas Islands are ranked 63 globally and 43 in Europe. The TX9W team prefers QSL requests via Club Log's OQRS, and K5WE is the QSL manager. Those who donate $10 or more qualify for free direct OQRS after the DXpedition. Direct QSLs require a self-addressed envelope and sufficient postage (no international reply coupons), and bureau requests must go through OQRS — do not send bureau cards directly. They will upload the full log to LoTW for free after returning. Direct cards via OQRS cost $5; bureau cards requested through OQRS are free, but costly for the team. For more information, visit their website at **www.k5we.com/tx9w**.

The team expresses appreciation to Jari, OH6BG, for featuring TX9W in the VOACAP DX Charts and for developing a dedicated propagation prediction page to assist their upcoming DXpedition (**www.voacap.com/dx/tx9w**)

FO/A — Austral Islands

A Dutch/German DXpedition team is planning a March 13 – 25, 2026, activation at Tama Resort, Raivavae Island (IOTA OC-114), which is part of the Austral Islands. The TX5EU operating team includes Gerben, PG5M; Ron, PA3EWP; Rainer, DL2AMD; Evert, PA2KW; Ernö, DK2AMM, and Guenter, DL2AWG, who will serve as group leader. They will be active on 80 – 10-meter CW, SSB, RTTY, and FT8 on the following frequencies:

- CW: 3.523, 7.002, 10.102, 14.023, 18.085, 21.023, 24.905, and 28.023 MHz
- SSB: 3.770, 7.092, 14.210, 18.130, 21.275, 24.955, and 28.465 MHz
- RTTY: 7.043, 10.143, 14.094, 18.106, 21.094, 24.925, and 28.094 MHz
- FT8: 3.570, 7.056, 10.133, 14.090, 18.095, 21.090, 24.911, and 28.095 MHz

For further details, please visit their website at **https://tx5eu-2026.topdx.de**.

5W — Samoa

Jacek, SP5EAQ, will conduct a solo operation as 5WØAF near Apia, Samoa, from March 22 to April 11. He will utilize SSB exclusively and employ a Yaesu FT-710 transceiver, an amplifier, a multiband vertical antenna, and a delta loop configured for 80 meters (with limited activity anticipated on 80 meters). He plans to participate in the CQ World Wide WPX SSB Contest; he will select the specific contest band later. All logistics have been finalized. QSL confirmations will be available via LoTW, the bureau (free of charge), and directly through OQRS.

A2 and 9J — Botswana and Zambia

Bernie, ZS4TX, will operate as A21TX from Kasane, Botswana, on March 26 – 27, 2026. He will focus on transequatorial propagation (TEP) and satellite activities before joining the Ribbetjies Earth-moon-Earth (EME) Team in Zambia for an EME DXpedition as 9J2EME on March 28 – April 1, 2026. The Zambia team consists of Bernie; John, ZS6JON; Paul, ZS6NK, and Lins, PA3CMC. They will operate from grid locator KH22 on 6 meters, 2 meters, 70 centimeters, and 23 centimeters via Q65, JT65, and CW, with additional satellite operations (including a QO-100 satellite rover station and RS-44 monitoring) and TEP activities. QSL cards and LoTW confirmations will be available, and the team will utilize HB9Q and NØUK loggers.

Santa Maria DXers and Contesters Convention

The 2026 Santa Maria DXers and Contesters Convention is scheduled for April 10 – 12, 2026. For more information, visit **www.socalcontestclub.org/SantaMaria2026**.

Wrap-Up

That is all for this month, with special thanks to KØJM, K5WE, LA7GIA, N6TJ, SP5EAQ, WØVTT, XQ7IR, and *The Daily DX* for helping to make this month's column possible. If you have any DX or IOTA news, photos, or club newsletters, please send them to **bernie@dailydx.com**. Until next month, see you in the pileups! — *Bernie, W3UR*

Dave Casler, KEØOG, askdave@arrl.org

Ask Dave

Get more information from the "*QST:* Ask Dave" YouTube playlist at **https://bit.ly/3z2MBMI**.

Velocity Factor, Slow Code, and Signal Reports

Coax Velocity Factor

Q David Hobbs, WA6LOL, asks: Velocity factor in coaxial cable is the speed at which signals travel through the cable, and I've read on forums that you can mix coax with different velocity factors in a feed-line run without problems. How can this be? It seems like it would be like having people going different speeds in the same lane on the freeway — it wouldn't work for long.

A Due to many factors, radio waves travel through coaxial cables more slowly than they travel in a vacuum. The ratio of a radio wave's speed in coax to its speed in a vacuum is called the *velocity factor*.

If you string together a transmission line of several types of 50 Ω cable, the signal transits each cable in succession, and due to differing velocity factors, the signal will go faster in some sections than in others. This is okay, because the signal is affected by only one cable at a time. It would only be a problem if the signal were to be fed to two different cables simultaneously — if the two cable lengths were the same but the velocity factors were different, the signals at the output ends would be out of phase.

So, if you need to create a longer transmission line, you can string different types of cable in series without having to worry about phasing issues. Note that I'm assuming that all the cables involved are 50 Ω; if there are cables with differing characteristic impedances in your feed line, you will encounter reflections and standing wave ratio issues.

Finding Slow CW

Q George Sucich, KE8SNS, asks: After getting my General license in 1960, I'm now getting active again at age 77. I am copying CW (my main interest) at 7 – 10 WPM. I work on it every day, but it's harder at my age. I am told the high end of the HF bands has slow-CW hams, but I haven't found them yet. Are there clubs for people like me?

A Yes, there are frequencies where slow coders congregate, and yes, there are organizations that can help you.

The best way by far to improve your code speed is to get on the air. There's an organization called the Straight Key Century Club (SKCC; **https://skccgroup.com**) that costs nothing to join. The club has a number of resources to support new CW operators — for example, SKCC uses 7114 kHz as an "Elmer" frequency, a "safe haven" for CW newcomers where mentors are encouraged to monitor the frequency and work beginners. The club also runs a 24-hour "Slow Speed Saunter" on the first day of every month, an informal event intended for operators at a slower CW pace; 12 WPM or less is encouraged (see **https://skccgroup.com/operating_activities/slowspeed** for details).

You can also look into the Long Island CW Club (**https://longislandcwclub.org**). This group assigns mentors to those looking to learn CW and improve their speed, and they work with you individually to help you play to your strengths as a CW operator. The club also hosts online CW classes for different experience levels. Note that, unlike SKCC, the Long Island CW Club has membership dues.

ARRL also offers resources for learning and practicing Morse code, including CW training CDs, archived mp3 files of W1AW code practice runs, and more (see **https://arrl.org/learning-morse-code**). For live, on-the-air code practice, W1AW puts out daily slow-code transmissions at 5, 7.5, 10, 13, and 15 WPM; for times and frequencies, see the W1AW operating schedule on page 28 of every issue of *QST,* or online at **https://arrl.org/w1aw-operating-schedule**.

Giving Signal Reports

Q Ron Burski, KJ7PAQ, asks: On my Icom IC-7300, I can change the S-meter reading for a received signal by using (or not using) one of the pre-amps or by adjusting the RF gain control. With that said, what

meaning is there in giving a signal strength report based on an S-meter reading?

A I've often glanced at my Icom IC-7300's S-meter when giving readability, signal strength, and tone (RST) reports. But comparing the RST reporting system to S-meter readings is like comparing apples to oranges — the original RST system long predates radios with S-meters.

The RST system, shown in Figure 1, is largely subjective and was designed at a time when CW was the primary operating mode. Readability refers to how well you can "read" the CW being sent, with a report of 5 meaning "perfect" readability. These days, hams often report a readability of 5; however, that rating is not always accurate. You may, for example, hear something like, "UR SIGS 599 PLS REPEAT QTH." Obviously, the receiving ham did not have "perfect" readability if they're asking the transmitting ham to repeat something.

As for tone, reporting this factor dates back to the spark era, before vacuum tubes created nice, continuous waves at a single frequency for CW. These days, unless you're using some horrible equipment discovered in an old barn, the tone quality is probably a 9 — it's rare to hear an R below 5 and a T below 9. The only real variable is signal strength, which is subjective. An S9 means "extremely strong signals." Does that mean pegging the S-meter, or just a louder signal than everyone else?

Various methods to provide a less subjective signal report go back almost to the beginning of radio. The way that modern superheterodyne receivers perform the measurement is to measure the voltage of the automatic gain control (AGC), a process by which a receiver automatically turns down its front-end gain to adjust for strong signals; the change in AGC voltage is fed to the S-meter to provide relative signal strength. Efforts to standardize this method settled on a signal of 50 µV at the input to the receiver as equal to S9, and every voltage reduction, by half, equal to one S-unit. Now that amateur radios are standardized on 50 Ω inputs, the 50 µV works out to –73 dBm, and one S-unit is equal to –6 dB of power, equivalent to cutting the input voltage in half.

Signal Strength

1--Faint signals, barely perceptible.
2--Very weak signals.
3--Weak signals.
4--Fair signals.
5--Fairly good signals.
6--Good signals.
7--Moderately strong signals.
8--Strong signals.
9--Extremely strong signals.

Figure 1 — The current definitions for the signal strength portion of RST reports from the ARRL website. See **https://arrl.org/quick-reference-operating-aids** for additional resources.

That said, this method measures the power at the input to your station's main receiver, which is the input to the RF amplifier — it tells you nothing about your antenna. If your antenna has gain, the S-meter shows a larger signal, even though the other station is still using the same amount of power. Also, if you insert a pre-amp or an attenuator in front of the RF amp, that will throw the S-meter off. On superheterodyne radios, turning down the RF gain is done by changing the AGC voltage, which immediately throws off the S-meter, and digital radios, such as your Icom IC-7300, do AGC entirely differently. In other words, an S9 on one radio is likely not the same as an S9 on another.

Given this variability, we get back to the subjective nature of RST. I usually restrict myself to 55, 57, and 59 for SSB. If it helps, print out Figure 1 and keep it at your operating desk. Give subjective reports; if fading makes the signal strength vary considerably, say so. Don't worry about the S-meter except as a very general guide.

Send your questions to **askdave@arrl.org**. I answer some questions here, and some via videos on my YouTube channel (**www.youtube.com/davecasler**), or during my weekly livestream on Thursdays at 6:45 to 8:15 PM Mountain Time on my channel.

Club Nets

Second Wednesday Net

70 Centimeters (449.575 MHz Repeater) @ 8 p.m. Local Time

Fourth Wednesday Net

2 Meters (147.24 MHz Repeater) @ 8 p.m. Local Time

Fifth Wednesday Net

10 Meters (28.445 MHz) @ 8 p.m. Local Time

CW Sunday Net

2 Meters (146.550 MHz simplex) @ 8 p.m. Local Time

Net Reports

440 Net Report, From Joe Miko, WB3FMT

On March 11, the club's 440 net was cancelled due to thunderstorms int he area, lightning within 11 mile of the NCS''s QTH.

2-Meter Net Report, From Joe Miko, WB3FMT

On March 25, from 20:03 to 20:15 local, the club ran a 2-meter net. There were five participants on the net:

KB3VAE NCS	Richard	Essex
K3DON	Don	Joppatowne
KB3QWC	Larry	Middle River
KD3BOJ	Brian	Dundalk
WA3QLY	Tom	Middle River

Local Area Nets

Day	Time	Freq. (MHz)	Net Name
Daily	9 – 10 am	146.670	Oriole Net
Daily	6 pm	3.820	Maryland Emergency Phone Net
Daily	6:30 – 7 pm	146.670 PL 107.2	Baltimore Traffic Net
Daily	7 pm & 10 pm	3.557 CW	MD/DC/DE Traffic Net
2nd Tue	7:30 pm	146.670	Baltimore County RACES Net
2nd & 4th Tue	7 pm	146.775, (-) PL 146.2	Harford County, MD, ARES
3rd Fri	8 pm	WASH_DC Node 6154	MDC Section EchoLink
When activated by NOAA		147.030	SkyWarn (primary)

From the Skies Over Mt. Essex

SKY Events for April 2026

Date	EDT (h:m)	Event
Apr 01	22:12	FULL "PINK" MOON
02	21:32	Spica 1.8°N of Moon
03	19	Mercury at Greatest Elong: 27.8°W
05		Easter
06	15:21	Antares 0.6°N of Moon
07	04:32	Moon at Apogee: 404974 km
10	00:52	LAST QUARTER MOON
13	19:43	Moon at Ascending Node
15	20:45	Mars 3.7°S of Moon
17	07:52	NEW MOON
19	02:57	Moon at Perigee: 361631 km
19	04:49	Venus 4.8°S of Moon
19	12:28	Pleiades 1.0°S of Moon
19	15	Mars 1.2°N of Saturn
20	06	Mercury 0.5°S of Saturn
20	18	Mercury 1.7°S of Mars
22	15	Lyrid Meteor Shower 20 per/hr
22	18:06	Jupiter 3.6°S of Moon
23	04:59	Pollux 3.2°N of Moon
23	22:32	FIRST QUARTER MOON
24	00:17	Venus 3.4°S of Pleiades
25	20:37	Regulus 0.2°S of Moon
26	10:36	Moon at Descending Node
30	04:17	Spica 1.8°N of Moon

Planet Lookout at Mid-Month

Sunrise 06:27 EDT and Sunset 19:44 EDT

Mercury Morning Rise 05:40 Set 17:37, Mag +0.0 Size 6.3 arc seconds

Venus Evening Rise 07:34, Sets 21:46, Mag -3.9 size 11.1 arc seconds.

Mars Evening Rise 05:41 Sets 17:54, Mag +1.2 size 4.1 arc seconds.

Jupiter Evening Rise 11:17, Sets 02:06, Mag-2.1 size 37.1 arc seconds.

Saturn Evening, Rise 05:52, Sets 18:02, Mag+0.9.1 size 16 arc seconds.

Uranus Evening Rise 08;04 Sets 22:26, Mag +5.8 size 3.4 arc seconds.

Neptune Evening Rises 05:37 Sets 17:40, Mag +7.9 size 2.4 arc seconds.

Why is the sky "Blue"?
So we don't eat it!

As Sir Isaac Newton cautioned us over 300 years ago: " The rays (of light), to speak properly, are not colored." The light reflected by a leaf is not green, and neither is the leaf; green exist only in the neuron-based representation of the leaf in the observer's consciousness, and then only if the light is not to dim.

A camera Charge-coupled device (CCD) or Complementary metal-oxide semiconductor (CMOS) chip finds only photons. Humans create the color and brightness that we see. We use color filters and algorisms to make colors that we are accustomed to seeing. It is a distinction between internal visual world and external physical world. How the world looks to us, and how it is.

The natural environment has guided the evaluation of our eyes. We have two eyes that give us the ability to see in 3-dimentions, also gives us a field of view of about 155°. The evolutionary process has also given humans sensitivity to the visual color bands, from red thru blue. The cones in our eyes allow is to see color.

(1 RASC Handbook 2019 pgs 34 & 80)

The following is the approximate percentage of color receiving cones in the human eye, 64% red, 32% green 4% blue Red Peaks at 575 nano-meters (nm), green at 535 nm and blue at 445 nm. For a person to see an object in color, at least two kinds of cones must be trigged, and the perceived color is based on the relative level of excitation of the different cones.

(2 HyperPhysics, Light and Vision)

Red and yellow colors are essential for identifying whether food is ripe or spoiled. Surprisingly, for humans there is virtually nothing harmful in nature that is blue. The sky is blue, but we have little to fear from predators in the sky. Just think what the last blue food that you ate? Blueberries are really purple!

About the Aero Amateur Radio Club

Officers		Committees	
President	Joe Miko, WB3FMT	*Repeater*	Phil Hock, W3VRD Ken Erisman, NE3A Dave Brunner, AC3EO
Vice President	Rob Ballou, AE3B	*VE Testing*	Pat Stone, AC3F
Recording Secretary	Larry Hill, KB3QWC	*Public Service*	Bob Landis, WA3SWA
Corresponding Secretary	Pat Stone, AC3F	*Webmaster, Facebook*	Rob Ballou, AE3B
Treasurer	Tom Hawkins, WA3QLY	*Trustee*	Dave Frederick, KB3KRV (W3PGA) Jim Marshall, KC3FBL (AE3RO)
Resource Coordinator	Ron Distler, W3JEH	*Club Nets*	Joe Miko, WB3FMT
		Contests	Harry Rundall, AC3EK
Newsletter Editor	Cathy Feinman, W3CLF		

Aerial archives dating to 2004 are available at https://w3pga.net/the-aerial-newsletter-library/

Website: http://w3pga.net

Facebook: https://www.facebook.com/W3PGAClub

Email: w3pgaclub@gmail.com

Meetings

The Aero Amateur Radio Club meets on the first and third Wednesdays of the month at Essex SkyPark, 1401 Diffendall Road, Essex. Meetings begin at 7 p.m. local time, but folks typically start showing up around 6 pm. Meetings are canceled if Baltimore County Public Schools are closed or dismiss early. Zoom link is https://w3pga.net/. Contact the club email for the code.

W3PGA	**2 M**	INPUT: 147.84 MHz, OUTPUT: 147.24 MHz, PL 123.0
W3PGA	**70 Cm**	INPUT: 444.575 MHz, OUTPUT: 449.575 MHz, PL123.0
W3JEH	**1.25 M**	INPUT: 222.24 MHz, OUTPUT: 223.84 MHz