

TECHNICAL TOPICS AND INFORMATION

Mike, VA3MW, produced a video on how to get FlexRadio's SmartSDR and N1MM Logger+ to work together in a Single Operator, 1 VFO (SO1V) configuration. https://www.youtube.com/watch?v=7Lql8RReUvA

When phase coherence is crucial between elements in a system, don't neglect to look at everything, including cables. Cables from different spools, and certainly different manufacturers, may vary in their characteristics. PTFE-dielectric cables are temperature sensitive

https://www.everythingrf.com/community/what-is-the-ptfe-knee - at 19 degrees C, PTFE material exhibits dimensional changes which can influence the phase characteristics enough to matter at UHF and microwave frequencies. For critical equipment like radar, exotic cable dielectrics like silicon dioxide are sometimes used.

The new WSJT-X software provides a wide variety of parameters that can be tweaked in transmission time, bandwidth, and so forth. One might ask whether so many options are really necessary, or whether they might represent a stumbling block to two uncoordinated stations to make a contact. Paul, N1BUG, addresses this in his post to the WSJT-X development email reflector:

"I understand the concern about so many different speeds, but as a very active 2200m operator, let me offer a few words. These modes were created with LF and MF bands in mind. LF and MF are not HF. There is no 'one size fits all' for these bands. On HF you may be able to work the whole world with one relatively fast speed. It is not so down here. We are limited to 5 watts EIRP on 630m and 1 watt on 2200m. Real DX takes some very special modes and a lot of determination and patience. One would probably not want to use anything slower than 120 seconds for QSOs with well-equipped stations at 1000 km distance. It would be very boring and waste a lot of time. But for some DX paths on 2200m only 1800 or 900 second periods would offer any hope for success. It's not so boring when you are about to set a new world record or make a personal best DX QSO. We need this flexibility.

"I think over time, some conventions will emerge. For example: on 630m, 900 and 1800 second periods might not see much use, while most of the faster choices probably will. On 2200m I think all four FST4W speeds will be quite useful. It may be that the fastest FST4 options won't see a lot of use on 2200m but it may be too early to know for sure.

"It has long been common practice to monitor multiple modes at the same time at least on 2200m. It is part of the culture on that band. I currently monitor WSPR2, WSPR15, FST4W-120, FST4W-300, FST4W-900, FST4W-1800, Opera32 and two QRSS windows every night. Usually I have one or two FST4 monitors going too, but it varies. There is never enough monitor space but I won't complain because monitoring all activity one of the things I really like about LF operating.

"I am extremely grateful to the developers for giving us not only new modes but also the flexibility needed to exploit a wide range of opportunities on LF and MF. This flexibility gives us choices we did not previously have but wished for. This opens the door to new opportunities.

"That said, it would seem really nice if a single instance could decode all four FST4W speeds. :) But there is a down side to that too. Since WSPRnet does not provide any means to show the mode and speed, some of us are using call sign suffixes to indicate this. For some it is important to know that information. I do not know how different suffixes could be used for each speed if they were all decoded by a single instance. Even with these wonderful, game changing new modes and speeds, there is no perfect world."

2020 Officers:

President: Chris Monske, WF8U wf8u@wrarc.net

VP: Maureen Stein, KD8NXS kd8nxs@wrarc.net

Secretary: Mike Cibella, KC8UNR kc8unr@wrarc.net

Treasurer: Bob Kramer, KE8HHH ke8hhh@wrarc.net

Past President: Bob Mitzel, N8RCM n8rcm@wrarc.net

Trustees:

Steve Fabry, KC8SOY kc8soy@wrarc.net Darrin Cannon, N8DMC n8dmc@wrarc.net Rose Marko, KD8TII kd8tii@wrarc.net

Appointed Positions:

Social: Maureen Stein, KD8NXS

kd8nxs@wrarc.net

Repeater & Nets: Steve Fabry, KC8SOY

kc8soy@wrarc.net

Classes: Chris Monske WF8U

kd8ely@gmail.com

Testing: Darrin Cannon, N8DMC

n8dmc@wrarc.net

Newsletter/Web: Jane Avnet K8JAA

k8jaa@wrarc.net

Historian: Rose Marko, KD8TII

kd8tii@wrarc.net

Badges: Darrin Cannon, N8DMC

n8dmc@wrarc.net

Officer's Meeting:

November 10, 7:00 P.M. At Eat 'n Park, Austintown, Eat 'n Park, 5451 Mahoning Ave All members welcome

Members Meeting:

November 17, Davidson's

3636 Canfield Rd., Cornersburgh

Speaker: None



http://www.wrarc.net/

In This Issue

Technical Topics and Information	01
Amateur Access to 3.5 GHz Band to "Sunset"	03
From Our VP	03
From the Secretary's Quill	05
Newsletter Articles Wanted/Needed	06
No Matter Where You Go, There You Are	06
2020 ARRL Simulated Emergency Test	07
FCC Notice of Proposed Rulemaking	08
Can You Repeat That Again?	10
From My Emailbox	10
Birthdays	11
Calendar	12



OTHER IMPORTANT WEB SITES

THE ARRL EXAM SEARCH PAGE

<http://www.arrl.org/find-an-amateur-radio-license-</p> EXAM-SESSION>

OHIO SINGLE SIDEBAND NET

<HTTP://WWW.OSSBN.ORG/INDEX.HTML>

ANTENNA HEIGHT ABOVE AVERAGE TERRAIN (HAAT) CALCULATOR

HTTPS://WWW.FCC.GOV/MEDIA/RADIO/HAAT-CALCULATOR

FROM OUR VP

Hello, Membership. Once again, I hope you and your families are all well. November is a crucial month for our entire country. Please, if possible, exercise your right to vote for your candidates of choice. Please consider all the issues and all of the information (be sure it is from a credible source) out there to help us make informed choices.

We seem to be starting the anticipated and daunting fall second wave of the coronavirus. This will continue to limit our being able to resume in person general meetings. We have to follow all state guidelines for health and safety as well as following the advice of the national infectious disease experts. My personal motto for these days is , "Let's all arrive alive on the other side of this," no matter the time frame. We did not hear from the Youngstown Marathon organizers after all



about needing our help with a smaller in-person event on October 25, so that concludes the special event season for this year. Health leaders seem to be cautiously optimistic about how things will look in late summer or early fall 2021. We know all of the groups we serve want us back next year, so we can look forward to them then. We will pass on information closer to event times and as we get it.

As the end of the year approaches, we hope you are all planning to return to the club for 2021. I'm sure I can speak for the whole board in saying that we miss you all! Hopefully, activities and meetings can resume not too far into the New Year. Our dues structure remains the same and they are payable up to January 31, 2021. They can be sent to our treasurer, Bob Kramer, KE8HHH. I'm sorry there is so much uncertainty. We wish it we're different. There is not much else to tell for news right now. Please keep us informed about what you have all been doing in this down time.

As some of you may have heard, I recently picked up some kind of "bug" and had every symptom of the COVID virus except for a sore throat. No one else in the household experienced any symptoms, fortunately. We were told to go get tested. Kevin and I went and Michael refused to go- go figure LOL. Both of our tests came back negative this past Thursday Yay! I still don't know what I actually had, but am much better now. Waiting for those results makes for a few scary days indeed. Take care 'til next time, everyone stay safe and well. Happy Thanksgiving to all.

73 Maureen, KD8NXS



FCC Orders Amateur Access to 3.5 GHz Band to "Sunset"

Despite vigorous and continuing opposition from ARRL and others, the FCC has ordered the "sunsetting" of the 3.3-3.5-GHz amateur radio secondary spectrum allocation. The decision allows current amateur activity on the band to continue, "grandfathering" the amateur operations subject to a later decision. The FCC proposed two deadlines for amateur operations to cease on the band. The first would apply to the 3.4-3.5 GHz segment, the second to 3.3-3.4 GHz. The FCC will establish the dates once it reviews additional comments.

"We adopt our proposal from the Notice of Proposed Rulemaking to remove the amateur allocation from the 3.3 –3.5 GHz band," the FCC said in its R&O. "We adopt changes to our rules today that provide for the sunset of the secondary amateur allocation in the band, but allow continued use of the band for amateur operations, pending resolution of the issues raised in the Further Notice.

"The Report and Order(R&O) and Further Notice of Proposed Rule making in WT Docket No. 19-348 adopted on September 30 followed a 2019 FCC Notice of Proposed Rulemaking (NPRM) in which the FCC proposed reallocating 3.45 –3.55 GHz for "flexible-use service" and auctioning the desirable "mid-band" spectrum (generally defined as between 1 GHz and 6 GHz) to 5G providers. These and other recent spectrum-repurposing actions stem from the MOBILE NOW Act, enacted in 2018, in which Congress directed the Commission to make additional spectrum available to auction for mobile and fixed wireless broadband. The FCC action is consistent with worldwide allocations adopted by the ITU for these frequencies.

3.5 GHz Band - CONTINUED FROM PAGE 3

In the run-up to the Commission's decision, ARRL met with the FCC's professional staff to explain its concerns and to answer questions. Subsequently, ARRL met with the wireless advisors to the FCC Chairman and two Commissioners. In those meetings, ARRL reiterated that continued secondary status for amateurs will not impair or devalue use of this spectrum by the primary licensees intending to provide 5G or other service. ARRL noted amateur radio's long history of successful coexistence with primary users of the 9 cm band, sharing this spectrum with the federal government users and secondary, non-federal occupants.

ARRL pointed out that vital links in amateur television and amateur radio high-speed mesh networks using the band have been especially valuable during such emergency situations as the wildfires currently raging on the west coast. Deleting the amateur secondary allocation will result in lost opportunities for experimentation and public service with no public interest benefit to make up for that.

ARRL argued that deleting the secondary allocation would waste the scarce spectrum resource, particularly in areas where commercial services often do not construct full facilities due to small populations. The FCC action means that amateur radio will lose access to the 3.5-GHz secondary allocation even where commercial operations do not exist. ARRL told the Commission that it should not intentionally allow this spectrum to be vacant and unused, wasting the public resource, when amateurs can use some portion of it in many geographic areas with no detriment to any other licensee, just as it has in the past. ARRL argues that amateur operations should be permitted until and unless an actual potential for interference exists.

Deletion of the 3.3-3.5 GHz secondary amateur allocation will become effective on the effective date of the FCC's order, but amateur radio operation as of that date may continue while the FCC finalizes rules to license spectrum in the 3.45-3.55 GHz band and establishes deadlines for amateur operations to cease. The FCC proposed allowing amateur operation in the 3.3-3.4 GHz portion of the band to continue "pending further decisions about the future of this portion of the spectrum," the timing for which is unknown. The Commission proposed to mandate that operations cease in the 3.4-3.5 GHz portion when commercial licensing commences for the new 3.45-3.55 GHz "5G" band, which is predicted to begin in the first half of 2022."

We seek comment on whether it is in the public interest to sunset amateur use in the 3.3 –3.55 GHz band in two separate phases, e.g., first above 3.4 GHz, which is the focus of [the R&O] and later in that portion of the band below 3.4 GHz," the FCC said.

ARRL expressed gratitude to the many members and organizations that joined ARRL in challenging the FCC throughout this nearly year-long proceeding. They included multiple radio clubs, weak signal enthusiasts, moon bounce participants, and the Amateur Radio Emergency Data Network (AREDN), the Amateur Television Network (ATN), AMSAT, and Open Research Institute (ORI).

ARRL will continue its efforts to preserve secondary amateur radio access to 3.3 –3.5 GHz. Members are invited to share comments by visitingwww.arrl.org/3-GHz-Band.

"We recognize that any loss of our privileges will most directly impact radio amateurs who use the frequencies to operate and innovate," said ARRL President Rick Roderick, K5UR. "Such instances only embolden ARRL's role to protect and advocate for the Amateur Radio Service and Amateur Satellite Service. There will be continued threats to our spectrum. So I urge all amateurs, now more than ever, to strengthen our hold by being ceaseless in our public service, experimenting, and discovery throughout the radio spectrum."

Did Bell invent fiber optics? The idea of using light in telephone communications is not new. Reportedly in 1880,
Alexander Graham Bell invented a phone that used sunlightin place of wires.

Articles from members for the Wave Bender are encouraged. They must be received by the editor by the 20th each month. Please send your articles to: k8jaa@arrl.net, and put WRARC on the subject line of your email.

Don't miss the Friday night WRARC Net 9:00 P.M. on 145.270, PL -110.9 This is a directed net, with all interested members taking a turn at Net Control

WRARC Simplex Frequency 146.565

Mahoning County ARES® Nets
1st Monday 8.40 PM ET W8QLY Repeater - 146.745 (PL 110.9)
&

3rd Monday 8.40 PM ET W8QLY Repeater - 146.745 (PL 110.9)
ARES thanks MVARA for the use of their repeater

W8SGT is facilitating The Ohio HF net every Tuesday - 7:00 PM
The net is run from the State of Ohio EOC on the
Ohio ARES Admin frequency 3875 kHz LSB
moves to 7240 Khz after 20-min.
All are welcome to check in.

The Ohio ARES/OES Digital Emergency Net held every Tuesday at 8:00PM. held on 3585 kHz USB.

Please note all digital communications are Upper Side Band. http://www.http://ohden.org/ for net details. Net Manager Gary NJ8BB

FROM THE SECRETARY'S QUILL

Good day to all! I hope everyone is well, not much to report here. We had another board meeting to keep up with any changes. For me, most of the parts have finally come in I have been waiting for. So now I just got to get the energy to rebuild my antenna, and clean off the mild rust on the base legs of my tower and replace the sleeves for the legs that go into the concrete. Some pics included.

73 Mike, KC8UNR WRARC/Secretary







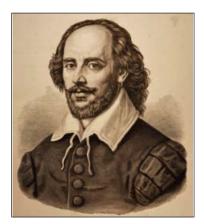




Page 5

NEWSLETTER ARTICLES WANTED/NEEDED

You don't need to write like William "Bill" Shakespeare in order to write an article for the Wave Bender. In fact, we prefer articles without the words "Thy", "Whilst", "'Tis" and "Oft". Do you have an idea for a newsletter article? Maybe you have acquired a new piece of equipment, designed or constructed a new antenna, or something else, or took a virtual trip focused around Ham Radio, or made an interesting contact. Maybe you'd like to share an Amateur Radio related experience you've had or discuss a technical topic. Why not write an article for the monthly Wave Bender? The article can be short or long, simple or elaborate, and can even include pictures! The Wave Bender would like to rely on articles from our members instead of always reprinting articles from the ARRL. So why not give it try? Write an article and send it to the newsletter editor, me at k8jaa@arrl.net . It can be fun, and at the same time, your contribution helps support WRARC and our hobby!



73 & 33 Ye Ed, K8JAA



TRIVIA QUESTIONS

- 1) Which amateur stations are eligible to operate as Earth stations?
 - A. Any amateur station whose licensee has filed a pre-space notification with the FCC's International Bureau
 - B. Only those of General, Advanced or Amateur Extra Class operators
 - C. Only those of Amateur Extra Class operators
 - D. Any amateur station, subject to the privileges of the class of operator license held by the control operator
- 2) Which of the following amateur stations may transmit one-way communications?
 - A. A space station, beacon station, or telecommand station
 - B. A local repeater or linked repeater station
 - C. A message forwarding station or automatically controlled digital station
 - D. All these choices are correct

Trivia Questions Answers Pg 11

No Matter Where You Go, There You Are

This is not the first website for finding Hams on a map – QRZ has done it for years. But this one is well done and very easy to use. Allows a simple search by callsign, grid square, zip code, or street address. Look yourself up: https://haminfo.tetranz.com/map



2020 ARRL SIMULATED EMERGENCY TEST AND BLACK SWAN EXERCISE

Mahoning County ARES was part of the ARRL Simulated Emergency Test on October 3, 2020. This year the SET included the the Black Swan exercise a multi-state radio communications exercise (COMEX) to test the ability for volunteer, non-government organization (NGO), and government agencies to communicate across services in emergency conditions through amateur radio. Black Swan participants included elements from the 179th Airlift Wing, Ohio Air National Guard; Central Ohio Poison Center; Toledo Emergency Medicine; The Ohio State University Emergency Medicine; Federal Emergency Management Agency (FEMA) Integrated Public Alert & Warning System R&D; Department of Homeland Security SHAred RESources HF Program.

We started preparing in July by participating in the County Information Reporting Project, an effort to exercise amateur radio station operators in fundamentals of radio message origination, relay, and delivery. Objectives were sent by radiogram from the Ohio Section Assistant Emergency Coordinator via the Buckeye Net to the 10 Ohio District Emergency Coordinators. The DEC's would then pass the objective to the county Emergency Coordinators who would have county member(s) originate a radiogram to go back to the Ohio Section AEC. Radiograms were returned via the Buckeye Net, the Ohio Single Sideband Net, or Winlink RF. The CIRP helped everyone get comfortable with the tasks we would need to complete during the SET.

The scenario for the Black Swan was an explore Ohio weekend with lots of activities in the parks and nature preserves. This same weekend an internet service provider has a catastrophic failure causing loss of phone and internet service. Severe weather also strikes causing power outages, toxic spills, and infrastructure damage rendering TV and Radio broadcasters inoperable.

ARES members used google meet videoconferencing to create virtual sites that simulated shelters, hospitals, and Emergency Operation Centers around the state of Ohio. Traffic was generated between these sites and our severed agencies and our ability to handle messages was evaluated.

All Mahoning County ARES participants were required to originate a message to Matt Curtin KD8TTE Ohio Section AEC. We called up a local net on the 146.745 repeater and passed this traffic by voice and digital modes using both HF and VHF. We used the Buckeye Net, Winlink, and the Ohio Single Sideband net to relay these messages to Matt. Software used for the digital messages included NBEMS, FLDIGI, FLMSG, FLAMP, and WINLINK.

Everyone learned some new tricks about traffic handling and digital modes. Aiden, W0TIS, was able to install and configure FLDIGI and FLMSG during the exercise and use them to send a digital radiogram over the repeater.

If you were not able to make this years SET we hope you will be able to join us for the 2021 SET next October. If you are interested in public service or emergency communications and would like more information about Mahoning County ARES please visit our web site at http://www.mahoning-ares.org/ and check into the Mahon-

ing County ARES net the first and third Monday of the month at 8:30 pm on the W8QLY repeater 146.745 pl 110.9.

Richard Slutz, KB8GAE Mahoning County AEC

Use Your License to Serve the Community - Volunteer



FCC Notice of Proposed Rulemaking - Amateur License Fees

Dear ARRL Members of the Midwest Division, (and the rest of us Hams)

The fees Notice of Proposed Rulemaking was published in this morning's Federal Register (https://tinyurl.com/yyk8f2yp). The deadline for Comments is November 16, and the deadline for Reply Comment is November 30. I urge you to first read the Notice at this link and then submit your comments opposing this proposed fee for amateur licensing actions.

You may submit comments, identified by MD Docket No. 20-270, by either of the following methods:

Federal Communications Commission's Website: http://apps.fcc.gov/ecfs/. Follow the instructions for submitting comments.

People With Disabilities: Contact the FCC to request reasonable accommodations (accessible format documents, sign language interpreters, CART, etc.) by email: FCC504@fcc.gov or phone: 202-418-0530 or TTY: 202-418-0432.

The following information, provided by ARRL General Counsel, David Siddall, K3ZJ, is provided to facilitate your comments to the FCC:

Good Arguments Against FCC Fees for Radio Amateurs

- 1. Amateurs contribute to the public good. In many areas they provide an emergency communications backbone capability at no taxpayer cost. Consistently we have witnessed storms and natural disasters completely wipe out internet, cellular, and other means of communication. Radio amateurs often fill that void on an unmatched, flexible basis when needed. One recent example is the California wildfires.
- 2. Unlike operators in other FCC licensed services, Amateur Radio operators by law domestic and international -- must eschew using their license for any pecuniary interest. Amateurs are prohibited from earning or charging any money for any communications activity. The expenses for their equipment and activities come out of their own pockets, with no opportunity for reimbursement or payment of any kind.
- 3. The United States is experiencing a severe lack of RF engineers and expertise at the very time it is needed by the burgeoning wireless industries. Amateur radio is helping to meet the deficit, but much more is needed and youngsters (High School and College-aged) are least able to afford licensing fees. RF knowledge and related digital expertise is needed to maintain U.S. leadership in wireless industries. At a minimum, young people (below the age of 26) should be exempt from the proposed license fees.
- 4. Amateur radio is self-regulating. (a) Amateur examinations are written and administered by radio amateur volunteers. (b) Examination results and paperwork most often are submitted electronically to the FCC. Electronic submission could be required if there would be a cost savings to the Commission. (c) Amateur radio educational classes are conducted by volunteers who by-and-large do not charge fees or tuitionfor teaching. (d) The amateur service, in cooperation with the FCC's Enforcement Bureau, has a volunteer core that monitors the amateur airwaves with programs that try to prevent their misuse before FCC involvement might be needed. The amateurs also observe non-amateur signals, both within amateur spectrum and outside it, and report unusual or suspicious signals.
- 5. Amateur radio continues to be a source of significant technological innovation that should be encouraged, not discouraged.

Some Additional Suggestions

• I do not recommend arguing that the \$50 fee every 10 years, which amounts to \$5.00 a year, will "kill" amateur radio, even though as proposed this is for each covered application, which includes upgrade applications. Tech-General-Extra could be \$150, if exams were taken at different sessions, would be a substantial amount. But it "rings" the wrong way to say the whole service turns on \$5/year for each licensee.

AMATEUR LICENSE FEES - CONTINUED FROM PAGE 8

- The Commission argues that the charges are required by the statute. The word used is "shall", which is mandatory, not optional. But the statute does not set the amount, nor does it prohibit reasonable exceptions evidenced by the Commission's proposal to exempt from fees administrative update applications based on policy grounds.
- This is not "aimed at amateur radio to kill it." There is a long history and precedent on charging fees for the licensing service involved, just as there is for passports, green cards, driver licenses (issued by states), etc. Better to make pertinent arguments on why the fees would impair the public benefits of the amateur radio service than argue that the whole service might die as a result of a fee that, in fact, is less than the fee many of us paid in the 1960's and 1970's, including myself as a struggling high school and college student (if adjusted for inflation).
- For background: this proceeding is being handled by FCC staff unfamiliar with amateur radio. It is being handled in the FCC's Office of Managing Director (OMD), not in the Wireless Telecommunications Bureau where the amateur-specific Part 97 matters are handled. The focus of OMD is accounting budgets and the like for the entire Commission. The fee proposals cover every FCC license and service across the board and the consideration was directed by Congress. I recommend keeping "ham jargon" out of your comments as it won't be understood by the intended recipients.

ARRL Midwest Division

Director: Roderick K Blocksome, K0DAS

k0das@arrl.org

CONTACT WRARC ELMERS WITH YOUR QUESTIONS - QUESTIONS@WRARC.NET

Fabry, Steve KC8SOY Haren, Roy KD8IJF Yaesu FT8900, FT8800, Mobile

kc8soy@yahoo.com harens@juno.com

He who is afraid of asking, is afraid of learning

Used with permission



Semi-Monthly
Ham Community
Breakfast
Second and Fourth
Tuesdays
9:00 A.M.
Eat 'n Park Restaurant
in Austintown
Join Us!

FROM MY EMAILBOX

Hello all.

I shared this with my local group here in Nevada and the boss lady AA7HV the Nevada PIC thought I should pass it along to this group. This is a video that was created by the Radio Society of Great Britain. I would suggest subscribing to the channel as they do quite a lot of great videos on all kinds of amateur radio subjects from working with a Pi to small antennas.

I would like to see the ARRL do some stuff like this. I have a suggestion that maybe we can work with some of the great YouTube ham radio channels to put more information in the forefront. I saw a recent study that was completed by the National Broadcast Association that shows the average 13-30 year old watches more YouTube than other forms of TV or streaming.

As an aside I would be willing to be a part of a group that works with the ARRL and the YouTube content providers if we would to go that way. Josh KI6NIZ of Ham Radio Crash Course has over 100,000 subscribers of all ages so he might be able to provide some insight. I know he would be willing to work with us, he even put a call out on his channel for more content providers for ham radio.

https://www.youtube.com/watch?v=8x6x 6mDVIQ

--

73 de Chris NO7E ARRL Public Information Officer Nevada Section NO7E@arrl.net



CAN YOU REPEAT THAT AGAIN??

How many times have you had to ask somebody to repeat their callsign because they said it so fast? More than a few, I bet. And there most likely have been times where somebody asked us to repeat ours because of the same reason.

Sometimes it might be necessary when you're trying to join a QSO where nobody is leaving any gaps (hint, hint) but how about the times when you key up with your callsign just to let people know you're on the air? You know your callsign but that doesn't mean everybody else does, even when you are using a local repeater. And since we seem to be having some new hams on the local repeaters saying your callsign slower makes it easier for everybody. And if you are one of the newbies, welcome to the hobby.

Saying your callsign slower will help everybody get to know you faster. (Using phonetics can also be a big help.) This is also true for everybody when checking into a net. Not only is it easier for Net Control to hear your callsign, it also makes it easier to write down everybody's callsign. Being a Net Control myself, I know firsthand about that. This is also true on the HF bands where static and poor signals can make it hard to hear somebody's callsign. So slow down & take it easy — one small way to being a good ham radio operator.

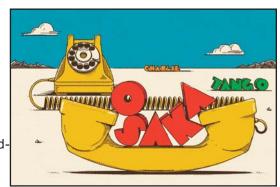
IT MIGHT BE TIME TO UPDATE THE OLD 'ALFA-BRAVO-CHARLIE' SPELLING ALPHABET

But it's hard to break old habits.

by Dan Nosowitz July 12, 2019

Read when you've got time to spare.

https://getpocket.com/explore/item/it-might-be-time-to-update-the-old-alfa-bravo-charlie-spelling-alphabet







Wes Boyd, W8IZC Paul Ryan. AB8FR Jo Wilms, KD8SNW Dave Brett, KD8NZF Mike Stein, KD8YML Ted Filmer, KD8IJE Rose Marko, KD8TII



#GI**≫INGTUESDAY**

Please consider making a donation on December 1, this year's #GivingTuesday. As you take advantage of holiday season bargains, we hope you will consider giving to support the work of your favorite charity. They gratefully accept the contributions of individuals and organizations who wish to support our mission to provide assistance to needy individuals/families in our area.

If you would like to give back to the community, contributions can be made by mailing a check to one of these fine charities:

- FullCircle Giving, Inc. 11209 Sharon Drive, Parma, Ohio 44130
- Second Harvest Food Bank, 2805 Salt Springs Rd., Youngstown, OH 44509
- The Salvation Army, 1501 Glenwood Ave. Youngstown
- Rescue Mission of the Mahoning Valley, POBOX 430 Youngstown OH 44501-0430
- · Your favorite charity

TAKE TIME TO LAUGH FOR IT'S THE MUSIC OF THE SOUL AUTHOR: -- FROM AN OLD ENGLISH PRAYER



Ships don't sink because of the water around them. Ships sink because of the water that gets inside of them. Moral of the story, don't let what is happening around you, get inside of you and weigh you down.



November 2020



PREPAREDNESS LEADS TO READINESS - MATT W8DEC

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
REMEMBER CLOCKS BACK! Daylight Savings Time	ARES Net 8:30 PM 146.745 PL 110.9	Election Day	4	5	6 WRARC Net 9:00PM 145.270 Swap n' Shop Ask the Elmers	7
8	9	Eat'n Park Austintown 8:30 A.M. Ham Community Breakfast	11 VETERANS DAY	12	WRARC Net 9:00PM 145.270 Swap n' Shop Ask the Elmers	14
15	16 ARES Net 8:30 PM 146.745 PL 110.9	17	18	Last Day WaveBender Articles Due	20 WRARC Net 9:00PM 145.270 Swap n' Shop Ask the Elmers	21
22	23	Eat'n Park Austintown 8:30 A.M. Ham Community Breakfast	25	Thanksgiving	WRARC Net 9:00PM 145.270 Swap n' Shop Ask the Elmers	28
29	30	12/1 Giving Tuesday	PAGE 12		WRARC Net 9:00PM 145.270 Swap n' Shop Ask the Elmers	

Page 12