

Sidebands

The Newsletter of the EAST GREENBUSH AMATEUR RADIO ASSOCIATION



December 2019

www.egara.club

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Over One Million Contacts Logged During 2019 ARRL Field Day *But Poor Band Conditions Made Contacts Challenging*

ARRL Contest Program Manager Paul Bourque, N1SFE, reports that nearly 1.1 million contacts were made during the 2019 ARRL Field Day -- the most popular operating event in North America. Bourque reported the 2019 ARRL Field Day results, which are available in the digital edition of the December 2019 issue of QST. Bourque says more than 36,000 radio amateurs took part in this year's event across all 83 ARRL/Radio Amateurs of Canada Sections. The total was up slightly from the 35,250 reported last year. The total number of contacts was down by about 7% from 2018's 1.18 million contacts.



Chris Linck, N2NEH, and Nick Field team up to work Field Day

"This year, 3,113 entries were received from local clubs and emergency operations centers (EOCs), as well as individual portable, mobile, and home stations," Bourque wrote in QST. Most entries were in Class A -- club or non-club groups of three or more. EGARA operated as a Class 2A, operating two transceivers during the 24 hour event.

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Scouts Give Thanks

EGARA has received a "Certificate of Appreciation" from the Boys Scouts of America for participating in last month's "Jamboree on the Air" (JOTA) which allowed local Cub Scouts to communicate with other Scouts and hams around the world.

The club hosted the event on Saturday, October 19th at the Masonic Temple with members of the "Arrow of Light" Scout Pack.

The club is now exploring additional opportunities to involve these youngsters in Amateur Radio, as several expressed interest in becoming licensed operators.

JOTA is the largest single Scouting event of the year, attracting over one million Scouts world-wide.



EGARA Holiday Party
December 14th at 6:30 pm
Mosciatello's Restaurant
Route 4, Troy
Santa Giveaways! - *RSVP by 12/6*

Annual Holiday Party - - December 11, 2019 - Santa HT Radio Raffle & More!

Field Day 2019 -- The Numbers Are In...

Of the nearly 1.1 million contacts, approximately 46% were made on phone, and 456,000 (42%) of contacts were made on CW. The remaining 138,000+ (12%) of the contacts were made on digital modes, such as FT8 and RTTY. EGARA made most of its contacts by phone, scoring a total of 464 despite less than ideal band conditions.

“This (digital) is a substantial increase compared to 2018, when total QSOs on the digital modes numbered just over 56,000,” Bourque reported. “With the late 2018 release of WSJT-X (which now supports Field Day exchanges), many participants made use of FT8’s ability to communicate when band conditions weren’t being cooperative.”



EGARA's Field Day team prepares to put up the club's beam antenna



Top 10 scores ranged between W3AO's Class 14A entry from Maryland-DC, with 32,356 points, to WINVT's 14,876-point Class 2A entry from Vermont. EGARA's total score was 2,124 points. Bourque noted that 95% of the 3,113 entries received came through the Field Day web applet. EGARA also submitted its report online to gain an additional 50 points.

“Not only is ARRL Field Day an opportunity to sharpen operating skills in temporary and portable locations, it's also an occasion to showcase amateur radio to the local community,” Bourque wrote.

ARRL Field Day 2020 will take place June 27th and 28th.

November VE Session Brings Early Holiday Presents

Three exam applicants scored early presents when they passed their FCC licensing tests on November 9th during EGARA's Fall VE session. Among them was the club's very own Don Mayotte, KB2CDX, who passed his Extra Class exam on the first try.

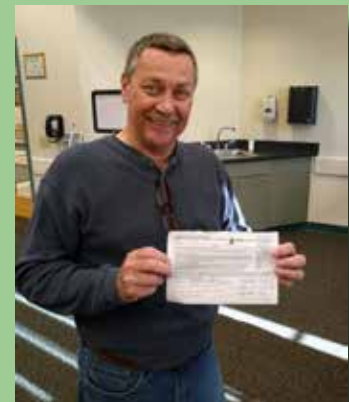


Two other applicants, Denis Cheney of Waterford, and Christopher Morrow of Castleton (shown left), both passed their Technician exams. On November 15th, Cheney was assigned KD2TAE, and Morrow was given KD2TAF.

It was a return to Amateur Radio for Morrow, whose original ham license expired in 2004. He decided to return to the hobby after his son, a Cub Scout who attended EGARA's "Jamboree on the Air" in October, found out and convinced his father to get involved in Amateur Radio again.

“My son gave me a really hard time when he found out I had been a ham and let my license go,” Morrow said. “Now, I'm looking forward to helping him get his license too.”

EGARA's next VE exam session will be Saturday, January 4th at 10 am at the East Greenbush Library.



Don Mayotte, KB2CDX, proudly shows proof of passing his Extra Class exam

Holiday Greetings to You and Yours from the EGARA Officers & Board



**Join us for the annual club Christmas Party on December 11th at 6:30pm
Mosciatello's Restaurant, Route 4, Troy (near HVCC) - RSVP by 12/6
Lots of Giveaways from Santa! HT Tri-Band Radio, Turkeys, Tools & more!**

How to get “plugged in” to the Amateur Radio Community

By Dan Romanchik, KB6NU

I recently found this email in my inbox:

“Thank you for your website and great content. I passed the Tech and General tests on Saturday, and I will be taking the Extra exam in November. Your “No Nonsense” guides were very helpful.

“I do have a question, though. How do I stay current on what’s happening in the ham world? For example the CQ WW SSB contest was this weekend. How do newbies know this kind of thing? How do we find local or regional hamfests and other events?”

This is a great question. Like any special interest, it can seem daunting to get plugged in (pun intended) to the community. Here are a few of my suggestions:

Join the ARRL (<http://arrl.org/>). The American Radio Relay League (ARRL) is really the place to start for information related to amateur radio. QST, the ARRL’s monthly magazine, includes news about upcoming contests and ARRL-sanctioned Hamfests. It also reviews new amateur radio products and provides a wealth of technical information.

In addition to QST, the ARRL publishes many email newsletters that members can subscribe to. For example, Contest Update is a biweekly newsletter that not only lists upcoming contests, but also includes tips on operating contests. The ARES E-Letter is a monthly public service and emergency communications newsletters. There are also email newsletters for ham radio instructors, those interested in DX, legislative matters, and satellite operation.

Visit the WA7BNM Contest Calendar (<https://www.contestcalendar.com/>). This contest calendar has become my go-to resource for any and all contest information. This site provides detailed information about amateur radio contests throughout the world, including their scheduled dates/times, rules summaries, log submission information and links to the official rules as published by the contest sponsors. Its features include an 8-Day calendar, a 12-Month calendar, and separate calendars for state QSO parties, CW contests, and QRP contests. You can also get a weekly e-mail of contests taking place in an 8-day period (Monday through Monday), as well as a list of contests scheduled for the next week and a list of log submission information for recent contests.

Ham radio blogs. Blogs are also a good way to keep up with what’s going on in amateur radio. I like to think that I do a good job of covering what’s going on in amateur radio, but, of course, I can’t do it all. That being the case, you might also want read other blogs. Other amateur radio blogs that you might want to check out include:

- The K0NR Radio Site (<http://www.k0nr.com/wordpress/>)
- QRP-When you care to send the very least (<https://w2lj.blogspot.com/>)
- Everything Ham Radio (<https://www.everythinghamradio.com/>)

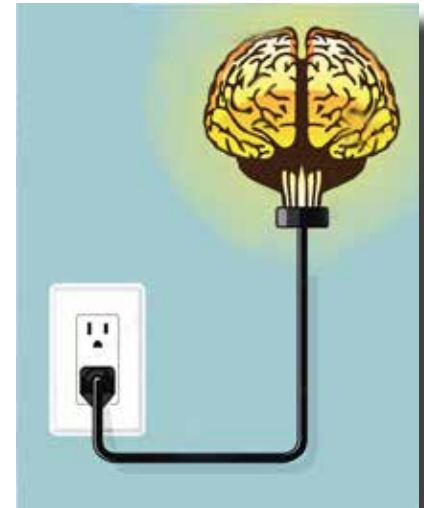
There are a bunch of other good ones out there. Find the ones you like and subscribe to them, so that you get a notification when new items are posted.

Mailing lists. Mailing lists are kind of old school, but if you have a special interest, chances are that there is a mailing list for it. For example, I own an Elecraft KX-3, so I subscribe to the Elecraft KX User Group mailing list (<https://groups.io/g/Elecraft-KX/>). Many amateur radio mailing lists are migrating to the *Groups.io*. To find a list, just click on the “Find or Create a Group” link at the top of the page. I just did a search for “amateur radio” and found 910 different amateur radio mailing lists.

Podcasts and videocasts. Podcasts are also another great way to stay up with amateur radio. I’m partial to the ICQPodcast (<http://icqpodcast.com/>) because I am on the panel once a month. The podcast not only includes a discussion of what’s new in amateur radio, but also a feature, which digs a little deeper into a particular topic. Other great podcasts are Ham Radio Workbench (<https://www.hamradioworkbench.com/>), and Linux in the Ham Shack (<https://lhspodcast.info/>). Internet video shows that are worth checking out are Ham Radio 2.0 (<https://www.livefromthehamshack.tv/>), Ham Radio Now (<https://www.hamradionow.tv/home>), and Ham Nation (<https://twit.tv/shows/ham-nation>).

This is by no means an exhaustive list. If you have an amateur radio information resource that you find particular helpful, please let me know.

About the Author: Dan is the author of the “No Nonsense” amateur radio license study guides.



Can We Save AM Radio by Killing It?

By Paul Riismandel



The original AM broadcast band gets little love as it prepares to celebrate its 100th birthday. Plagued by electromagnetic interference from wi-fi routers, LED lights and all sorts of other modern electronics, and dominated by tired right-wing and sports talk programming targeting a shrinking demographic, there's not much love for AM radio these days.

While the FCC has talked about revitalizing the AM band for something close to a decade, all that's resulted is letting AM broadcasters have translator repeater stations on the FM dial. That's not so much AM revitalization as welfare for AM broadcasters.

Another idea that's been floating in the ether is taking the band all-digital. Just like the FM band, there are digital HD Radio stations on AM right now. Because AM stations have just a fraction of the bandwidth of FM channels, they don't feature additional channels, like FM's HD-2 and HD-3. Instead HD Radio stations on AM just have a digital channel accompanying the analog one which offers audio that is stereo and markedly free of noise and static, provided you have an HD Radio tuner and are in range of the lower-powered digital signal.

The idea behind an all-digital AM band is that stations would drop their analog signals altogether in favor of a digital HD Radio signal. The supposed benefit is that the new digital signals would be higher fidelity, free of noise, and somewhat more resistant to interference. The downside would be that they would be un-receivable by the hundreds of millions of analog AM radios in use around the country. Only HD Radio equipped car radios and the much-rarer home receivers would get the broadcasts.

As of now, approximately 50% of new cars are HD-capable. Taking into account that the average vehicle on the road is nearly 12 years old, a much lower percentage of all vehicles have the capability, meaning the majority of radio listeners still can't hear HD Radio signals.

Nevertheless, for the first time the FCC is officially taking up the idea of letting AM stations go all-digital. The proposal, docket 19-311, wouldn't force stations to go HD Radio. Instead, if approved, it would allow stations to choose this route.

Arguing All-Digital AM

To understand the motivations for this, we can look to a *Radio World* editorial, in which the petitioner behind this proposal, radio group GM Ben Downs, argues for the sonic advantages of HD Radio on AM. I admit that on its own the fidelity argument is hard to find fault with. But there are many more significant nits to pick. He takes up several common objections.

To the argument, "there aren't enough [HD] radios," he answers: "And if we broadcasters don't step up, there won't be any listeners either. Every year more and more HD Radios are hitting the market. Can we say the same about AM listeners?"

I think what he's saying is that listeners are fleeing AM because of the noise and interference, but a growing segment of them are using HD-capable receivers that would relieve them of the sound constraints. I'm not certain there's much evidence for this. Fidelity is not much of an issue for listening to Rush Limbaugh, Sean Hannity, or endless listener calls debating NFL stats. Audiences interested in anything else naturally turn to FM.

Downs anticipates this critique, writing, "There are always people who say poor programming damaged AM. I suppose that's possible, but those choices were forced on us by radios that had such poor performance we were embarrassed to try to compete against FM music stations with what we had to work with."

That seems a selective view of the past, at best, and anti-historical at worst. FM music radio became predominant in the early 1980s, way before the AM dial became so noisy. Moreover, I'm not sure when this mythical time of wide-spread high fidelity AM receivers was, but that's one I wished I'd lived in (and I was a radio listener in the early 80s).

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EGARA November Meeting Minutes

- The regular membership meeting was held on November 13th and was called to order by President Scorsone, KC2FCP, at 7:10 pm. A total of 14 members were in attendance;
- Complimentary refreshments and pizza were offered;
- A raffle was held and various prizes were awarded. The raffle raised additional funds for the club;
- The Treasurer's report was made by Treasurer Bryan Jackson, W2RBJ. He reported that the expenses included supplies for the Cub Scout "Jamboree on the Air" held (JOTA) in October, computer accessories for the club's laptop, and a new projection screen for club presentations;
- Bryan also recapped activities related to JOTA, including coverage by the Troy /record and receipt of a Certificate of Appreciation from the Boy Scouts of America;
- The membership discussed the possibility of hosting additional activities with the Scouts to continue building their interest in Amateur Radio. Bryan said he would follow up with local Scout officials to discuss these opportunities;
- A VE exam session was held on November 9th with all three applicants passing their tests and receiving their licenses. Club member Don Mayotte, KB2CDX, passed his Extra class exam during the session and was recognized for his accomplishment;
- It was briefly discussed that the club may host a refresher course for its VEs. A date and location will be determined;
- There was a brief discussion of preparations for the club's Hamfest next May. Club embossed pens will be given away with each paid admission. It was decided that tote bags would be too expensive to give away without raising the admission price. Sponsors will be sought to provide tote bags as part of a joint promotion. Improvements to traffic patterns and parking were also discussed;
- It was decided by the membership to hold the club's annual holiday party at Mosciatello's Restaurant in Troy on December 11th beginning at 6:30 pm. An HT tri-band radio will be given away and members who earned at least 10 activity points will be given their award certificates;
- It was announced that the January meeting will feature an antenna building workshop. A flexible J-Pole antenna will be built, with the club supplying materials at no charge to members;
- Following the business portion of the meeting, a video presentation was shown on the property of waves;
- The meeting was adjourned at 8:45 pm.

-- de Bryan Jackson on behalf of Steve VanSickle, Secretary

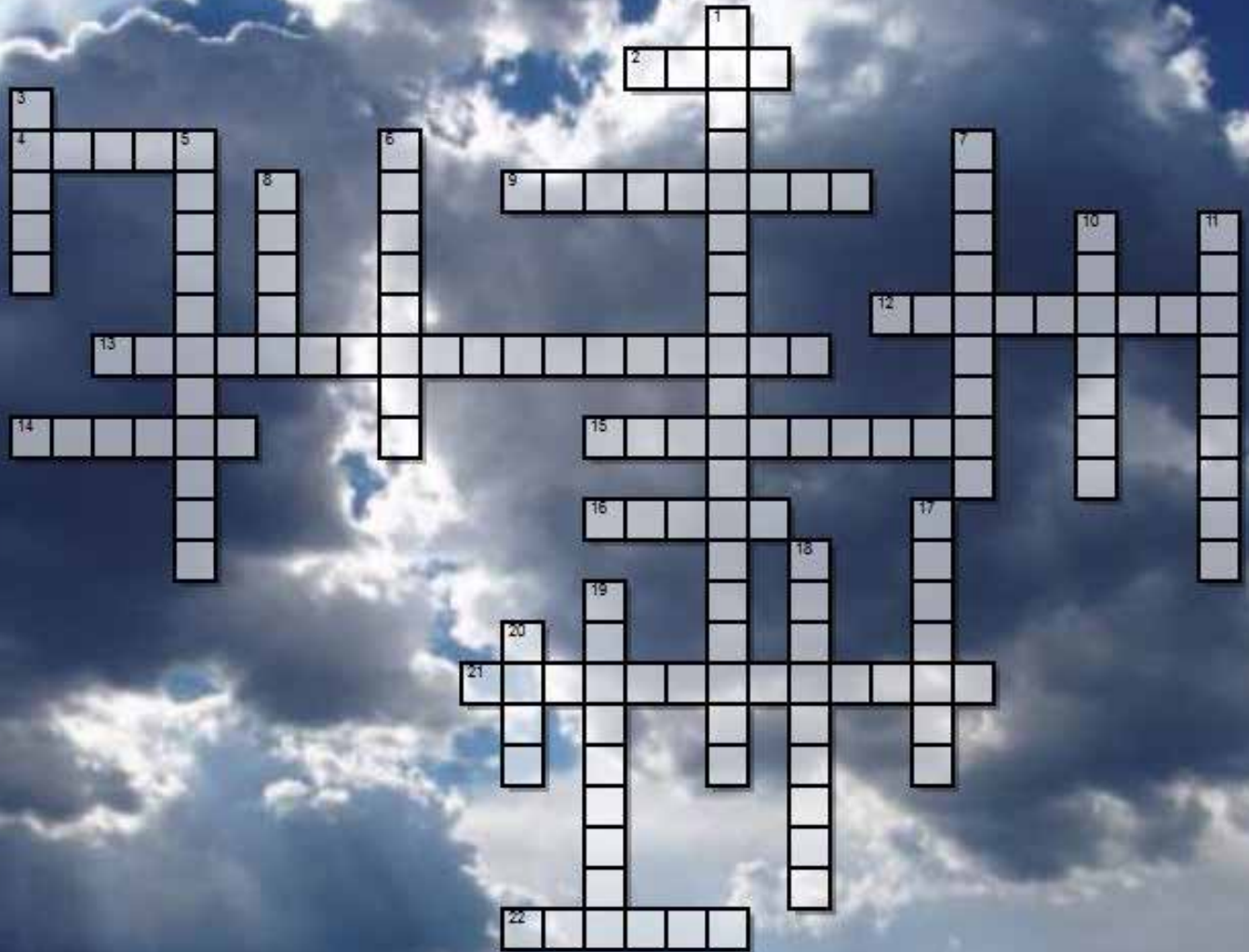
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Ham for the Holidays



ACROSS

- 2 What Amateur operators are called
- 4 You're grounded
- 9 Sometimes it's wide, sometimes narrow
- 12 Testing, testing
- 13 Not DC
- 14 A common antenna type
- 15 It bounces signals
- 16 A helpful antenna accessory
- 21 It's variable
- 22 Help!

DOWN

- 1 Not FM
- 3 They used to be cycles
- 5 An HT radio
- 6 An HTs best friend
- 7 Visual power
- 8 It's a Matchmaker
- 10 I heard you!
- 11 Part of a radio signal. You're also reading it.
- 17 When Hams get together
- 18 The "magic" band
- 19 Hertz add up to this
- 20 It gets fed

The History of Ham Radio: Waking Up

Chris Codella, W2PA, author, John Pelham, W1JA, editor, Phil Johnson, W2SQ, editor

(Editor's note: By special arrangement with the authors, Sidebands is pleased to present this multi-part series on the history of ham radio. Subsequent chapters will be published in future monthly editions of the newsletter)

As amateur stations fell silent, the airwaves continued to carry commercial and military signals, many from the fingertips of former radio amateurs. But despite their contributions there were some in government who still sought to limit or eliminate the use of wireless by private individuals.

As the battles ceased in Europe, amateur radio came under renewed attack at home. Bills introduced in both houses of Congress shortly after the armistice sought to turn control of all use of radio over to the Secretary of the Navy who with others had been trying to restructure radio law along these lines for some time. The previous spring, Maxim had personally appealed to the sponsors of one bill, successfully obtaining an exemption for amateur radio stations. And that summer there was yet another new bill pertaining to commercial radio, with amateur operation again specifically exempt. Present at a hearing for the bill, the League had accepted at face value the Navy's assertion that they did not want to kill amateur radio. But now at the war's end, their attitude had clearly changed; this new bill would indeed have had just that effect. The League did not protest the Navy ownership issue, only the specific provision eliminating amateur radio.

This time, with QST out of print, the ARRL sent out "Little Blue Cards" to all licensed amateurs alerting them to the new threat and asking for support. To cover the cases where an amateur was away from home, deployed with the military—there were very many of those—the cards were addressed to "any member of the family" of the amateur. The response may have exceeded even Maxim's expectations. Letters and telegrams poured into Washington in opposition to the bills, sent by amateurs and their families including those of hams killed in the war. The League's Board of Direction sent Maxim to testify before a hearing of the Committee on Merchant Marine and Fisheries, the body in charge of the House bill. Several prominent clubs also attended to speak in opposition. The bill never made it out of committee.

Years later DeSoto took note of what an "extraordinary thing" this really was. A well-backed bill had been defeated at a time when there were no amateurs on the air and radio as a hobby no longer existed. This stood in stark contrast with what happened in 1912 when there were thousands of individuals involved in radio and yet a law was passed imposing severe restrictions on them. The difference lay in strong organization on a nationwide scale.

With \$33 in the treasury, the ARRL board began to meet again in the spring of 1919 and got to work reorganizing. That included drawing up a new constitution, electing officers and putting a plan in place to finance starting up again.

The abrupt end of amateur operations had been reflected in kind by the equally abrupt end of QST a few months later, a victim of expired subscriptions and canceled contracts with advertisers. The magazine's own success in recruiting amateurs to enlist in the military had ironically resulted in a lack of amateurs left to support it. All ARRL memberships expired during the war along with all amateur licenses.

At a meeting in New York on 29 March, a group including Maxim, Tuska, Hebert, and eight others decided to donate the \$100 necessary to publish a "midget" issue of QST as a first step in building support to get the journal back into its pre-war form. That issue emerged as The American Radio Relay League Special Bulletin—only eight pages—with a stated purpose of "Getting Together Again." It was folded in thirds like a business letter, closed with a seal and mailed with a one-cent stamp.

One of those eight pages was written by The Old Man. Surprised by a telegram from the editor, he wondered if it could mean the end of these "wireless days" was coming at last. His code was rusty, his grasp of technical details was rusty. And how would his equipment have fared being in storage all this time? Everything was "Rotten Rusty."

--continued on page 9 --



History of Ham Radio...

Maxim, as himself, explained how the restart would be paid for. With the war over, the Board of Direction anticipated an influx of amateurs in much greater numbers than before it started, all having been trained in radio by the government, a dividend of their earlier recruiting effort. The board therefore set a goal to not simply resume publication but also set up an office with a paid secretary. The directors estimated that \$7,5003 would be needed to get it all in place, including the purchase of QST magazine from Tuska, its present owner, for \$4,700, which in turn included printing charges left unpaid since just before the war shut everyone down. The ARRL would raise the funds by selling “regular bonds” to members, ARRL Bonds that paid 5% interest and would be retired after two years. Voted on by the Board at its March 29 meeting, \$2,500 had already been raised by the time of the bulletin’s printing.

On Saturday, 12 April, to the delight of amateurs, the Navy unexpectedly announced the lifting of the ban on receiving effective 15 April. ARRL HQ was immediately flooded with telegrams. The editors noted that “The news caused an electrical impulse to instantly pervade the entire country. It was like the news of the Armistice. It seemed to fill the breasts of thousands of us with a wireless enthusiasm that had not been experienced for many a long day.” Spring had sprung and the wireless bugs were coming out of hibernation.

QST officially returned in June. Billed as the “Reopening Number,” it still had no cover. In its main headline Maxim announced that the ban on receiving had been lifted and that the Navy indicated that transmitting would be allowed as soon as the president declared the end of the Great World War. The ARRL extended the “hand of good fellowship” to all amateurs, member or not.

New editor and General Manager Kenneth Warner wrote the editorial that month and added his own plea for restart funding. In doing so, he stated that QST’s purpose and its value to amateurs was “... to foregather and improve their knowledge and have a hearty laugh,” officially asserting the importance of humor, and to serve an organization that was “of amateurs, for amateurs, and by amateurs,” possibly coining for the first time the phrase that later became an ARRL motto. Then this:

“Somehow or other, we wireless bugs seem to have a better fraternal spirit and a more highly developed sense of humor than other mortals, as our A.R.R.L. history has shown in the past. Let us keep it up, and let every fellow who has anything to loan from a dollar up come across with it and help the game along.”

The Old Man obviously was in agreement. In the same issue he described the frantic rush to set up equipment again, largely starting from scratch, causing a shortage of supplies such as wire and soldering materials. He wrote about the trials of new antennas, masts and ground systems, finding the whole process pretty rotten as usual.



Kenneth B. Warner in uniform during the war.

Before the war and its shutdown, he had written about the prevalence of QRM while trying to relay messages, mentioning the “little boys” yet again—and complained about bad operating that he’d overheard, citing several examples. He puzzled about one particular message he copied that had been especially garbled by the operator’s bad sending:

Listen to this: – ‘Yes yes jst wyd glucky wait a rnt muddy wouff hong blifsyf monkey motor.’ We assume from this msg that Glucky is being asked to wait a minute while Blifsky seeks a wouff hong with which to wallop a monkey the next time the latter faces toward the motor. I do not think I know just exactly what a wouff hong is.”

Quite fond of nonsense words like “rettysnitch” and “ugerumpf,” this was his first reference to a wouff hong in QST—a particular term that would live on in ARRL and amateur radio lore. At no point did he suggest using a wouff hong (whatever it might be) on a person.

Now that the war was over, The Old Man judged the whole starting-up process to be quite rotten; clearly it was time to revisit the wouff hong idea. No longer simply a string of letters in a garbled message, it took on a new life of its own as a solid object. He closed his article writing that he had sent the ARRL an actual wouff hong which he found among his junk. In his column, Warner wrote of being shocked upon opening the package from T.O.M. to see the “authoritative specimen.”

--continued on page 12--

Killing AM Radio to Save It?...

He also takes up the argument that, “I’ll lose listeners when I switch [to all-digital],” answering: “The beauty of the AM revitalization process was that it allowed us to pair our AM stations with FM translators. Your translator can carry the audience load while the audience becomes accustomed to all-digital AM.”

I find this just as paradoxical as the idea of FM signals for AM broadcasters representing any kind of “revitalization” for the band. My question is: if listeners have to hear your station on the FM dial, why would they ever go back to find it on AM? Would they even know to do so?

While much of radio listening has moved to the car, and HD Radio is far more prevalent in vehicle dashboards than in home receivers, my own experience is that most listeners are relatively unaware of HD Radio. Their tuners may bring in the signal, but since it sounds roughly identical to the analog one, it’s all in the background. I don’t think most seek it out. This is evidenced by the fact that there are no HD-2 or HD-3 stations – only receivable with an HD capable receiver – at or towards the top of the ratings for any U.S. market.

Now, I agree that the fidelity difference on AM is more pronounced and noticeable. But I’m still not sure that listeners really notice the difference as their radios shift between analog and digital signals. Any AM listener is accustomed to the signal strengthening and fading as they travel, and the analog to digital shift doesn’t really sound all that different.

Importantly, we’re only talking about listeners in vehicles here. AM stations that switch to all-digital will most certainly lose nearly all their listeners outside of a car. No doubt there are nerds like me who own HD Radio home receivers, or some die-hard fans who will go out to buy one of the handful of HD-capable models when it becomes necessary. But the vast majority will just listen to something else.

I have a hard time seeing how going all-digital will save stations. More likely, it will just alienate listeners, and make those stations even more niche and less viable.

The Problem Isn’t Digital Radio, Per Se

I do want to be clear that, despite my cynicism, I don’t actually wish for stations to fail, nor do I think digital radio is a bad idea. I think it would be good for the U.S. to have a truly viable digital radio service. However, it would be better as an additional service, rather than a replacement for analog radio. Something more like the DAB service prevalent outside the US.

Even with its limitations, there are significant advantages to analog AM radio. It’s a proven technology that has lasted a century, and there are millions upon millions of receivers out there. Heck, it’s so simple that you can build a crystal set receiver that doesn’t even require electricity. Moreover, AM signals can easily travel hundreds to thousands of miles.

All of this means that AM is an efficient way to broadcast to large groups of people over a large area. That is particularly important during emergencies, natural disasters or other times when communications by cellular phone or Internet is compromised.

Who Loses When Stations Go All-Digital?

What I’d hate to see during a wildfire, hurricane or earthquake thousands of people resorting to their emergency radios, only to find that where there used to be a reliable source of local information there is only digital hash.

Though I have doubts that all-digital AM broadcasting will be any more successful, nor as sustainable as analog, I certainly prefer it to be optional rather than mandatory. On the one hand I suppose it’s not terrible to let station owners to make their bets and choose their own fates. (continued on page 11)



Digital... New Life for AM Radio?

On the other hand, these consequences are not borne only by stations alone. Communities continue to depend on broadcasters, and there is still something of a remnant public service obligation in exchange for the monopoly license to use a frequency on the public airwaves. If going all-digital ends up driving a station out of business, what's the likelihood that another one will take over the license and take its place?

I honestly don't doubt the sincerity of many all-digital AM proponents, that they honestly would like to see a higher fidelity, "improved" service on the dial. However, they may be naïve.

Is This Even About Radio?

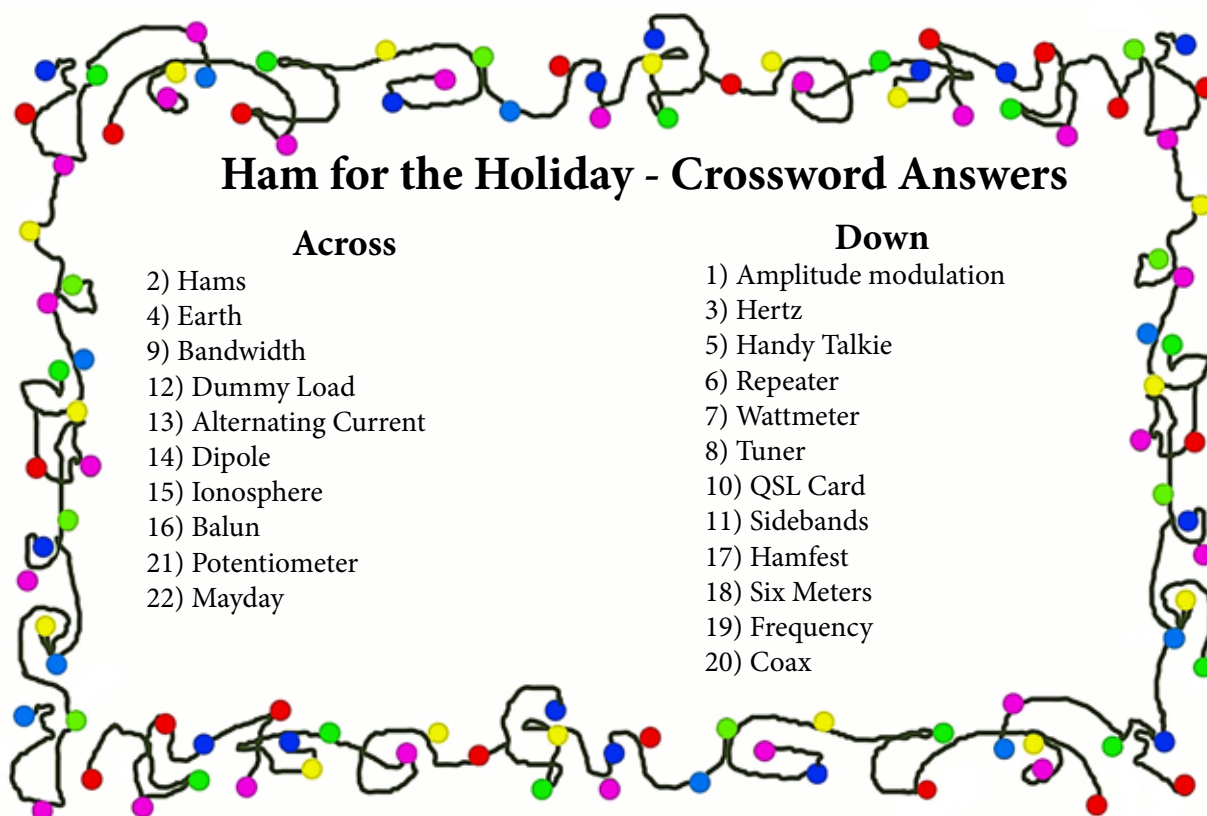
A more suspicious take would be that a drive to all-digital AM has nothing to do with radio as an audio service. Rather it's an effort to turn the band into a data service, with audio as a justification, but more of an afterthought. That's not unlike the required, but mostly useless video signal of channel 6 low-power TV stations, that mostly serve as "Franken FM" radio stations sneaking onto the FM dial at 87.7 FM. Think of all-digital AM as a cheap way to send traffic, weather and other commercialized data to in-car receivers without the need for mobile Internet.

That said, I also have doubts about how many broadcasters would take advantage of all-digital operation. I have difficulty seeing top rated big-city AMs dump the millions of analog listeners that keep advertisers coming back just to gain a little bit of fidelity for a minority of the in-car audience.

The question becomes: Is all-digital AM Radio actually AM Radio? If we're being pedantic, no, it isn't. AM means Amplitude Modulation, which is an inherently analog technology. If all the stations on the AM dial were to go digital, that would in fact mean the death of AM broadcasting in the U.S., along with the death of many of the technology's advantages.

It's possible this wouldn't be as tragic as I predict. Maybe analog FM and more robust Internet technologies would pick up the slack. Maybe even such a transition would stimulate the production and sales of more HD Radio receivers.

I'm not committed to being a luddite, and I wouldn't mind being wrong. I just won't bet on it.



History of Amateur Radio...

Displayed at the Board meeting, no one seemed to know quite how it was intended to be used, though The Old Man's stories told of its use on spark coils and QRM creators in the Midwest where he lived. The editors invited the membership to comment and offer any insight they might have about it. Meanwhile, the nasty implement was framed and hung on the wall at headquarters in Hartford for all to see, and pictured that month in QST. While the ARRL treasury had yet to reach a sufficient level for normal operation, humor was in abundant supply.



Wouff hong – the definitive specimen

In the Operating Department J. O. Smith as Traffic Manager, a new position, recapped the current structure of division managers. This new section of QST was established to cover on-air activities each month, primarily in traffic handling. Stations were directed to keep a log to accurately report to superintendents each month. Smith pointed out that once transmitting was again permitted, all operating and station licenses will have expired, requiring new licenses to be issued. He reminded everyone that a transmitting station could not be operated without a license under the current law, something still not obvious to everyone.

In one of the biggest post-war changes, many amateurs were preparing to operate by installing equipment for transmitting undamped (later called continuous wave or CW) signals. This would certainly make issues such as decrement irrelevant, and would also help solve the QRM problem.

The pre-war trunk line system was no longer in place. Though many active relayers were still in the Navy or Army, several had already returned and volunteered as superintendents. Each division office called for stations to register interest so that the relay system could be reconstituted. A "Personal Notes" section of QST summarized where some well known operators now were, having moved or taken new jobs during or after the war. At the end is a framed note from the mother of William Woodcock, 8SK, telling of her son's death from pneumonia while serving at the Great Lakes Training Center. She enclosed a donation in memory of him.



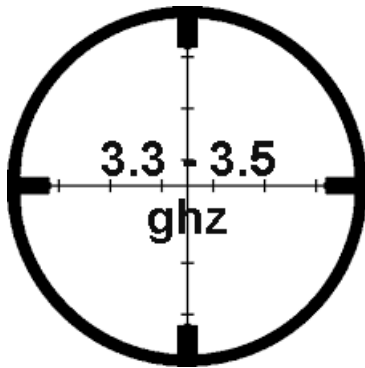
Finally, Warner noted that "QST will be issued regularly from now on." As if to corroborate, the magazine was back to its familiar format with 36 pages for July and reported that the ARRL was halfway to its financing objective. The cover art by Clyde E. Darr, 8ZZ, showed an operator in a Navy uniform sitting at the controls of a station clearly not his own—the only on-air reality for hams in 1919. By contrast in a small inset drawing, a house with an aerial appears—the home and station he left in 1917. Hams' lives had changed dramatically in just two years and it all stemmed from their passion for wireless and its relevance to the war effort.

Ham It Up



On the Beam

News & Notes



At its December 12 open meeting, the FCC will consider adopting a Notice of Proposed Rulemaking (NPRM) that proposes to remove the amateur radio 9-centimeter allocation at 3.3 - 3.5 GHz. ARRL plans to comment in opposition to the proposed action.

According to an FCC "Fact Sheet," the proceeding WT Docket 19-348, "Facilitating Shared Use in the 3.1 - 3.55 GHz Band," is a follow-on from the MOBILE NOW Act, approved by the 115th Congress, which requires the FCC and the US Department of Commerce to make available new spectrum for mobile and fixed wireless broadband use. It also requires the FCC to work with the National Telecommunications and Information Administration (NTIA) to evaluate whether commercial wireless services and federal incumbents could share spectrum between 3.1 and 3.55 GHz. NTIA manages spectrum allocated to federal government users. The Fact Sheet can be found online in PDF format at, <https://docs.fcc.gov/public/attachments/DOC-360941A1.pdf>.

"This Notice of Proposed Rulemaking would propose to remove the existing non-federal allocations in the 3.3 - 3.55 GHz band as a step towards potential future shared use between federal incumbents and commercial users," the FCC Fact Sheet explains. "By taking the initial step needed to clear the band of allocations for non-federal incumbents, the Commission furthers its continued efforts to make more mid-band spectrum potentially available to support next generation wireless networks - consistent with the mandate of the MOBILE NOW [Making Opportunities for Broadband Investment and Limiting Excessive and Needless Obstacles to Wireless] Act."

The NPRM proposes to clear the 3.3 - 3.55 GHz band of existing non-federal users by removing non-federal secondary radiolocation and amateur allocations in the 3.3 - 3.55 GHz band and to relocate incumbent non-federal users out of the band. The FCC would seek comment on relocation options and "transition mechanisms" for incumbent non-federal users, either to the 3.1 - 3.3 GHz band or to other frequencies, and on how to ensure that non-federal secondary operations in the 3.1 - 3.3 GHz band will continue to protect federal radar systems.

Regarding the Amateur and Amateur-Satellite Service allocations, the FCC NPRM asks whether existing amateur spectrum in other bands might support operations currently conducted in the 3.3 - 3.5 GHz band. The 3.40 - 3.41 GHz segment is designated for amateur satellite communication. "We seek comment on the extent to which the band is used for this purpose, whether existing satellites can operate on other amateur satellite bands, and on an appropriate time frame for terminating these operations in this band," the FCC NPRM says.

Also at its December 12 meeting, the FCC will consider another NPRM in WT Docket 19-138 that would "take a fresh and comprehensive look" at the rules for the 5.9 GHz band and propose, among other things, to make the lower 45 MHz of the band available for unlicensed operations and to permit "Cellular Vehicle-to-Everything" (C-V2X) operations in the upper 20 MHz of the band. The FCC is not proposing to delete or otherwise amend the amateur allocation, and it would continue as a secondary allocation, but the primary allocation for 5.850 - 5.925 GHz would change.

The amateur radio 5-centimeter allocation is 5650.0 - 5925.0 MHz, and the NPRM, if approved, would address the top 75 MHz of that amateur secondary band. While no changes are proposed to the amateur allocation, anticipated more intensive use by primary users could restrict secondary amateur use.

The band 5.850 - 5.925 GHz has been reserved for use by dedicated short-range communications (DSRC), a service in the intelligent transportation system (ITS) designed to enable vehicle-related communications, the FCC said in a Fact Sheet in WT Docket 19-138. "The Commission initiates this Notice of Proposed Rulemaking to take a fresh and comprehensive look at the 5.9 GHz band rules and propose appropriate changes to ensure the spectrum supports its highest and best use." ARRL also will file comments opposing any changes affecting the 5-centimeter amateur allocation. This Fact Sheet can also be found online in PDF format at, <https://docs.fcc.gov/public/attachments/DOC-360940A1.pdf>.

Both draft FCC proposals are subject to change prior to a vote at the December 12 FCC meeting, and there will be opportunity to file comments and reply comments on the final proposals after they are released.

CALENDAR

December 11, 2019 - 6:30 pm - Annual Club Holiday Party, Mosciatello's Restaurant, Route 4, Troy.

January 4, 2020 - 10 am - VE Exm Session, East Greenbush Library, Meeting Rooms A & B.

January 8, 2020 - 7 pm - Monthly Club Meeting, Antenna Building Workshop, Portable J-Pole build

Pro Tip: Testing Coax

Test Your Coax even though you think it is good. It may have lots of loss!

One test you can do -- especially if it is a long length of coax -- is to use a Dummy load and move the power/swr meter to the dummy load end of the coax where the antenna would be connected

Compare the power at the transmitter end to the dummy load end and that will give you a loss number that might help you in troubleshooting at a later time.

If the loss is very low, the two readings will be very nearly the same on either end. This works well especially if you suspect your power is not getting out.

Of course, if you have a big budget for your shack, you can purchase a dummy load with a dedicated wattmeter, like the MFJ-267. It handles up to 1.5KW.



For Sale

- **Ameritron -811h 800w**, four new 811a tubes from MFJ, spares I took out are in great shape. Sells new for \$850.00. Asking \$650.00
- **Alinco dxsr-8t hf** 160-10 with 11 meter mod, includes separation kit. Sells for \$460. Asking \$250.00
- **RG8U Coax** - 50+ feet - \$20.00
- **RPI-3B+** with dual hotspot board, lipo battery pack, real time clock board. Just add micro sd, antennas, and pi-star - \$75.00

Contact Dave @ WA2WAP@Verizon.net

- **IFR-1100S Service Monitor. With Spectrum Analyzer and Oscilloscope.** Tested and Calibrated last year. AM - FM, CTCSS Generator, In very good condition. \$900.00
- **Military Watt Meter AN/URM-120 B/U 2 to 1000 MHZ** Complete and with Carrying Case. In excellent condition. Never abused or used on the road. Great Shack / Bench Watt Meter. Picture available. \$100.00
- **Yaesu FT-2900 Programing Software by RT Systems** Cable included. used once. Registered and includes password. \$35.00

For above, contact John at: Radiowizzz@aol.com

- **Arrow Model 52-S4** - 4-Element 6 Meter Yagi antenna in good condition. \$75.00

For above, contact Steve at: svansick@nycap.rr.com

- **Kenwood TS-690** - 100 watt HF/6meter transceiver. With two mics and complete operating manual. Perfect working condition. \$450.00.

Contact Bryan at W2RBJ@outlook.com

- **Johnson Valiant Transmitter AM & CW** - \$ 600.00
- **DX 60 Transmitter AM & CC With VFO** - \$ 125.00
- **DX 35 Transmitter AM & CW With VFO** - \$ 125.00
- **Eldico R124 Receiver** - \$300.00
- **MFJ Model 1995 Portable Antenna, 40 To 10 Meter** - \$75.00

For items above, contact Tom at: KC2FCP@nycap.rr.com

The East Greenbush Amateur Radio Association

Organized in 1998, by Bert Bruins, N2FPJ, (SK) and Chris Linck, N2NEH, the East Greenbush Amateur Radio Association, an ARRL affiliate, is committed to providing emergency services, educational programs, and operating resources to amateur radio operators and residents of the Capital Region of New York State. The club station is W2EGB. The club also has several VHF and UHF repeaters open to club members and the public.