

April 29, 2015

RE: RM-11708

Dear Federal Communications Commission,

I welcome the opportunity to speak about RM-11708. I will try to be as brief as the issue allows, but this is a complicated and long standing issue. I also want to offer a "think outside the box" solution to some of the problems addressed by this rulemaking which will more productively fix it in the long term, not just a patch that will result in recurring FCC action about interference complaints in the future.

REPRESENTATION BY ARRL OF AMATEUR COMMUNITY:

ARRL, The American Radio Relay League (aka The National Association for Amateur Radio) has initiated this proposed rulemaking RM-11708, after a similar rulemaking proceeding, RM-11306, which was vigorously opposed by the majority of the amateur radio licensees in the US, and subsequently rejected by FCC. This again is drawing negative comments from both members and non members alike. This is proof that the ongoing interference issues are not being fixed, and will not be fixed by formalizing RM-11708 into law. We need a permanent solution.

Let me first state that ARRL does do some things that are good for the amateur service and I agree with, which is why I am a dues paying member. But in the case of RM-11708 and other notable cases I have disagreed with their position.

I should make it clear that I believe the FCC is the ultimate final authority on radio regulations and enforcement, and while ARRL may voice its opinion, FCC should not assume that ARRL represents all amateur operators. FCC needs to exercise care that formal rulemaking is done with an adequate comment period and allows representation of ALL amateur radio operators, not just a narrow interest group. While the public (non-hams) can comment (as well as industry), those comments should be weighted according to their legal "standing" as interested parties, and caution should be exercised to avoid commercialization of amateur radio. ARRL membership is about 150,000 whereas total amateurs in the US is over 715,000 as of 2014. ARRL therefore represents a MINORITY of the amateur community, and any of their actions warrant careful review, with adequate time for public comment.

In the case of RM-11708, the FCC needs to be the adult in the room. This may not be easy, since many FCC staff are not engineers, but instead have a legal background. But you folks are smart enough to see what is happening here and take strong and appropriate and fair action.

INTRODUCTION:

I was first licensed in 1959 as a Novice. I upgraded to General one year later, as was then required, since the Novice was 1 year non-renewable. ARRL lobbied for Incentive Licensing around 1968, and managed to get that unpopular initiative past the FCC. Rather than operating as an "incentive", many left the amateur service forever. I upgraded to Extra around 1970, when I became more active in the hobby, complete with 20 WPM Morse Code Test at the FCC Engineer's office in Buffalo, NY. Did this provide a pool of trained technical people for America? Statistics prove a steady decrease in amateurs until the new no-code HF licensing procedures were instituted by the FCC over the ARRL's persistent objections. Only later, when FCC became frustrated with the many regulatory issues presented by too many classes of license and grandfathering issues, did this problem get fixed. It still drives us crazy at Volunteer Examiner (VE) sessions trying to figure out what credit to grant Technician class licensees when they come in for an upgrade. I have been an active VE with the W5YI group as well as teaching numerous licensing classes for Novice, Technician, and General class license for the local radio club. I was active in both the CW and phone nets sponsored by ARRL in the 60s. I witnessed the conflict with AM as a new voice mode, SSB, took over the phone bands. I designed and built new SSB equipment from salvaged parts so that I could participate, but I have never lost my love for CW and AM. I have designed and built CW and AM equipment more recently as well.

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The FCC should note that CW and AM operators are more likely to design and build equipment or repair their own equipment. Very complex equipment necessary for the other modes are usually commercially made. In the 70s, I built a RTTY interface to enjoy that emerging mode, and used it to communicate with RTTY bulletin boards using a Commodore 64 PC.

I actually was opposed to the new codeless Technician license at first, but when I saw the entry of new hams to the local club participating in public service communications, I changed my mind.

I later supported a reduction of emphasis on Morse Code Testing on the HF bands. However, I never supported a "dumbing down" of the technical tests. I am glad to see that older hams with lapsed licenses are required to pass a test including RF safety information before being issued a renewed license. This procedure will bring back many experienced hams to the amateur service as they approach retirement. I plan to operate some of the newer digital modes such as PSK31 when time allows, now that I am retired.

The Sputnik era and amateur radio served to launch a life long career in electronics for me. Not all hams then or now acquired the requisite skill set to become engineers or technicians solely from amateur radio, but it certainly triggered a trip to college to complete the journey. It is unreasonable to say that a ham operator can enter the military and immediately contribute (unless they have participated in MARS service). However, a candidate who is a ham CAN learn communication technology quicker than another high school graduate who is not a ham. So it can still be said that amateur radio benefits the US military, US industry, and the state of the art by encouraging interest in technical work. This is one of the proven benefits of amateur radio to the country.

Young people now primarily become interested in computers and enter careers in that field. I would like to see more participation in amateur radio by younger people. Radio is often seen by them as a means to connect their computer to another computer or a network. That is not a bad thing either, since the military has phased out CW and switched to digital communications such as those under consideration in RM-11708. People trained in digital communications can be valuable to the military as well as those involved in Emergency Communications such as might be used in disasters. While some entering amateur radio by that door might be a narrow interest, I hope they will explore the many other features it has to offer. Similarly, I have friends who obtained a Technician license solely for the purpose of radio control of their model aircraft or cars, and never explored anything else in the amateur radio service. However, they never represented the threat of widespread interference on HF world wide communications that the modes triggering the current RM-11708 already have.

I should note that it pains me to have to make negative comments about ARRL in this forum, but it has become necessary by their own actions. I obtained my Novice license by tuning in ARRL Morse Code Practice Broadcasts on their W1AW with a primitive home made two tube regenerative receiver. They have done some good things over the years. But RM-11708 is not good as currently formulated.

I also wish to remind FCC that buying a \$1500 modem from a German company and using commercial software (not open source software) and hooking it up in a package sold by a company for exclusive use on commercial email is NOT experimentation or "advancement of the radio art". Pushing SEND to operate your twitter account via HF radio reduces the amateur radio service to an "AP". People are already operating this way with "borrowed" amateur call signs for evading costs of commercial email services for communications. Amateur radio is a technical service, not Family Radio Service or a Free Internet substitute for commonly available commercial products. Further, FCC does not have sufficient enforcement resources to address this coming crisis.

I oppose the FCC deputizing a private firm, the ARRL, to serve as its enforcement arm, as has been proposed before.

The real issue at stake in RM-11708 is competition for limited existing HF band space by various modes and the subsequent interference and conflict it generates. As a long time member of the amateur community, I have seen a lot of that, as noted above. I hope my perspective as a long standing amateur operator is helpful in the comments I offer to protect the future of the amateur service.

I hope that FCC seizes this opportunity with RM-11708 to correct the trajectory of this issue with appropriate regulatory and enforcement action that

benefits everyone involved, not just a narrow interest group. I hope it formalizes it with law, not just informal band plans from a private agency with no enforcement tools. I hope it takes the time required for careful formulation of regulations, rather than a hastily and ill-advised half measure that does not address the whole problem.

ISSUE 1:

The comments for RM-11708 have been inundated by non-amateur radio operators at the bidding of commercial interests. I ask that the FCC not take these filings into account at the same weight as license holding amateur operators; in fact, they should be dismissed without consideration if they do not hold a valid amateur license because they do not have legal "standing" to comment.

This is exactly why I requested that FCC dismiss any requests from ARRL for Novice or Technician license data privileges on 80 and 15 meters or any other HF frequencies than those currently authorized, 10 meters. ARRL is currently promoting this concept in their HF band planning proposal.

Novice class was created originally as a 1 year non renewable entry class to HF. Later they were allowed to renew at 5 year intervals. Technician class was created to allow technical experimentation and local communication on VHF, UHF and microwave, NOT HF. The no code Technician was created to allow technical experimenters access to radio for various purposes. Sometimes it became an entry to mainstream amateur radio on HF when people upgraded to General. General class was the new intended entry class for HF as FCC revised license structure during the no code rulings. There is not a need to change that working license structure for true amateur radio pursuits of a technical hobby.

There is a paradigm shift that is happening in digital communications in the amateur radio spectrum. One aspect is part of amateur radio heritage for Emergency Communications, EmComm. Another is a non technical, non experimental activity that threatens to permanently destroy traditional amateur radio by its unregulated growth. It is causing major interference problems, as evidenced by previous FCC rulemaking actions.

These previous actions such as RM-11392, Mark Miller, have shown that neither FCC nor ARRL has effectively addressed the issue of interference from ACDS or wide band (2.4 KHz) digital modes. The comment from AA6YQ David Bernstein sums it up perfectly, and it has happened just as he predicted:

"Over the past several years, the development of software that supports digital transmission via a personal computer and its soundcard has dramatically increased experimentation with and use of novel digital protocols for amateur communication. The majority of these digital communications are between attended stations. As the number of automatic stations operating under 97.221(c) has increased, communications between attended stations using digital protocols have been increasingly disrupted by the aforementioned hidden transmitter effect. Despite the FCC's expectation that the amateur service would respond to "the challenge of minimizing interference with novel technical and operational approaches to the use of shared frequency bands", the ARRL has taken no action to mitigate this problem. The obvious first step - a band plan that reduces contention between attended operations and automatic operations under 97.221(c) - has not been taken; in fact, the ARRL's currently-published band plan is so obsolete that the most popular digital modes, broadly adopted for years, are not represented. In combination with other elements of RM-11306, eliminating 97.221(c) would permit remote invocation of automatic stations everywhere on the amateur bands, limited only by bandwidth maxima. Remotely-invoked automatic stations now confined to the sub-bands defined in 97.221(b) because their bandwidth exceeds the 500 Hz. limit of 97.221(c) would be free to operate in the much broader segments available to signals of their bandwidth maxima. The result will be a significant increase in interference to ongoing transmissions, dramatically expanding the conflict experienced today by digital mode operators from remotely-invoked automatic stations operating under 97.221(c) to impact the much larger population of phone operators."

ARRL proposed another change, RM-8737, back in 1995 which was dismissed because of failure to account for wide band (spread spectrum) emissions

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interference issues. This is a continuing record of failure to properly regulate narrow band weak signal operations with wide band digital based emissions.

Amateur stations clearly need regulation by BOTH bandwidth and mode and unattended/automatic control. ARRL is currently attempting to gain support for expanded wide band digital without the benefit of FCC regulation to protect incumbent modes. FCC needs to do what the ARRL is not apparently willing to do.

If anything, FCC needs to create a new "family radio service internet" or "CB for internet" created OUTSIDE the amateur license structure and frequencies, not incorporate it into the amateur service since it is basically incompatible at any level of activity.

Commercial SailMail costs \$200 a year, and allows commercial business communications. There is a small cost for a FCC license for maritime transmitter operation, with a minimal test to inform the user of various regulatory laws.

A fine example of misuse of amateur frequencies is the FCC RM-11708 comment as filed by Randal Evans, as copied below:

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To: FCC - RM-11708

The sailing forms are all encouraging us to file comments in support of RM-11708.

This is my first filing and if I mess this up, please see SailNet Forum at:

<http://www.sailnet.com/forums/general-discussion-sailing-related/111746-us-citizens-urged-support-fcc-rm-11708-a.html>

I have experienced very dependable service from the amateur radio Internet Winlink system. Its a great service because all of the other available Internet services cost money. Even when I am topside cruising the system runs automatically below deck publishing my position reports and downloading my email. I use the system for sending position reports, ordering supplies, repairs, chatting with friends and posting to facebook. My only complaint is that it needs to be much faster. I am not a amateur radio operator yet but a friend lets me use his call with a SIDD on the end. I hope to get my own ham call soon.

From what I read on the sailing forums, RM-11708 will allow Winlink eMail to run twice as fast. That is great and I am for that. Some of the technical folks are saying that if RM-11708 is published with no bandwidth we can get even faster Internet and might be able to stream movies on the Winlink Internet. I'm for passing RM-11708 into law with no bandwidth limits."

I also think FCC should begin an enforcement action against this person and permanently revoke the license of the amateur who has "loaned" his call to him. There needs to be scrutiny of these "mailboxes" from FCC as to the content and commercial nature of emails.

ARRL has also called its objectivity and representation of the amateur radio community by signing a memorandum of understanding with a commercial interest, United States Power Squadrons and promises to develop products for the recreational boater. This is available on the internet at:

<https://www.arrl.org/files/file/Public%20Service/ARRLmouUSPS.pdf>

ARRL board has in the past approved a study for strategies to market amateur radio to various groups including RV users, yachting and boating groups, Coast Guard Auxiliary, and the Civil Air Patrol.

While I approve of working with groups like Coast Guard and CAP, and promoting the use of amateur radio widely, I do have to question the ARRL's commitment to long standing traditional users of amateur radio. Amateur radio operators have always been supportive of communications efforts when disaster strikes. But commercial use of Winlink as a substitute for SailMail and paid providers crosses the line. In the past, SSB operations on 20 meters providing phone patches had problems when they became a substitute for business communications. Historically, there has been a net on 20 meters which has specifically served boats

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and responded to emergencies; I think that part of the activity is a good thing. Its part of our tradition of public service.

Winlink website states: "Due to amateur radio operating regulations, this service may not be used to conduct business. An example of "business" would be any business-related communication with your workplace. Personal 'business,' such as arranging to obtain a spare part for your private vessel, is permitted when alternate means of communication (such as satellite telephone) are not available. Connect time is restricted to 30 minutes per day. File attachments are permitted." Whether this is enforceable in practice is up for grabs.

ARRL has published on its website an account of the sinking of a tall ship replica of the HMS Bounty popularized in movies such as Pirates of the Caribbean.

<http://www.arrl.org/news/robin-walbridge-kd4ohz-missing-at-sea-after-sinking-of-tall-ship-em-bounty-em-ship-electrician-dou>

This account was repeated on a commercial equipment providers site:

<http://www.scs-ptc.com/news/pactor-rescue-bounty-crew/pactor-rescue-bounty-crew>

There is a problem with the story though. Wikipedia repeats the error based on its sources. But if you read the actual Coast Guard investigation on the sinking of the Bounty, the captain used ham radio to communicate with his home organization in Maine, and they were the ones who contacted the Coast Guard. I have to ask why he did not contact the Coast Guard directly on one of the frequencies they monitor 24/7/365. And I have to wonder if ARRL repeats the error for some benefit. Given the Coast Guard report, I cannot imagine why they have not distanced themselves from the Bounty sinking.

<http://www.nts.gov/investigations/AccidentReports/Reports/MAB1403.pdf>

It raises some questions about whether people will buy a low end ham radio, modify it for transmit on all frequencies, and depend on it for emergencies instead of a ruggedized radio engineered for use at sea such as the Icom M802. But that is a Coast Guard safety regulation issue.

BOTTOM LINE: ARRL proposes with RM-11708 to reduce amateur radio to an "APP" for sale to those currently outside the amateur radio community. Take their comments and those who they seem to be representing with a grain of salt, and use this opportunity to be the FCC we used to know and respect and fix this interference problem from widespread use of WinLink and automated stations by assigning them a spot on the band and confining them to it by binding FCC regulation, not ARRL voluntary band plans.

Amateur radio is a technical pursuit, not "Internet CB" or an "APP".

#### SPECIFICALLY:

FCC should require all automatically controlled data stations to operate only within a specified set of frequencies.

FCC should require all automatically controlled digital stations to have a working "channel busy" detector.

Automatically controlled data stations should be legally coordinated within that band of frequencies as is the practice on VHF and UHF repeaters. The potential for interference over a much larger geographic area is much worse on HF.

This is an excellent opportunity for its proponents to demonstrate that they can operate with efficient spectrum management by sharing multiple automatically controlled digital stations on the same frequency using channel busy detectors and activation schemes that only communicate with one station at a time. Analog VVHF FM repeaters can do this with subaudible tones. Surely software can be written that does this function for HF Winlink using wide band digital signals can do so also.

FCC should require all wide band digital signals to operate within a specified set of frequencies.

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FCC should limit the bandwidth (not the data signalling rate or baud rate) of digital signals exceeding 500 Hz or less to a maximum of 2.8 KHz as ARRL proposed, but limit the use of this bandwidth to only specified frequency bands to avoid conflict with existing modes.

FCC should set aside for exclusive use of the incumbent modes of operation (CW and narrow band digital weak signal work) which prohibits wide band operations by limiting bandwidth (not baud rate or data signalling rate) to 500 Hz or less. In that regard, I am in agreement with ARRL, but add to it by specifying the exact frequencies permitted in FCC regulation.

FCC should require all wide band digital stations to identify with CW at the same intervals as other amateur stations to allow enforcement and monitoring. Amateur VHF and UHF repeaters do this without any hardship. I would add that many commercial repeaters use a CW identification for their installations without hardship. If the monitoring station does not know CW, a recording can be made easily, or software decoders are commonly available.

A detailed frequency allocation proposal is at the end of this document.

#### ISSUE 2:

It is common practice that if a petitioner to the FCC wishes to change the existing rules, the burden of proof is on the petitioner. ARRL has failed to address the issue of already existing and future interference. ARRL is biased in its approach to incumbent narrow band operators. One person resigned from an HF band planning committee and another wrote a revealing dissenting opinion (and was legally threatened when he did so) over the course of evolution leading up to this proposed RM-11708. You may view this dissenting opinion at:

<http://www.zerobeat.net/bandplan-dissent.html>

#### ISSUE 3:

In my comments in no way do I intend to demean the ongoing commitment amateur radio has made to Emergency Communications (EmComm). ARRL has invested heavily in equipment at its station W1AW, even acquiring Harris professional grade transmitters with Automatic Link Establishment capability. It has partnered with HFLink, ARES, RACES, MARS, Red Cross, Salvation Army and others to facilitate government and NGOs to provide essential disaster relief communications. This activity and the drills necessary to provide readiness are an appropriate use of amateur radio. Digital modes have found heavy use locally on VHF and have distinguished themselves by their effectiveness. Likely they will do so as well on HF frequencies.

It is understood by the amateur community that disaster related communications are of a transitory nature, and when the relief operations are complete, the frequencies are then cleared for normal amateur use. This is not the case with day to day email services, which only are increasing.

It is important to realize that if the current ongoing interference issues are not dealt with soon, interference to EmComm will likely result. HF email use without adequate channel busy detection may cause it. Possibly narrow band or frustrated analog HF radio users may interpret it as deliberate interference from HF email and increase power to continue to maintain communications without realizing that it may be EmComm.

FCC must take urgent action to minimize this possibility by regulatory action limiting HF wide band digital to its own part of the amateur spectrum.

#### ISSUE 4:

Forty meters is unduly damaged by wide band digital operations. Due to its use by ITU regions 1, 2, and 3, each with their own unique band plan, ARRL has failed to address interference properly. In their HF band plan proposal published in their QST magazine dated April 2015, they state:

"After reviewing members' comments, and bearing in mind the fact that most communications on 40 meters by American amateurs is with other stations in North America and not DX" (page 70)

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"the committee concluded that it is not realistic to try to bring the ARRL band plan for 40 meters into alignment with the rest of the world." (page 70)

Forty meters is unique in that at any time of day at any time in the sunspot cycle, it is open to some part of the world. I crossed Australia off my "bucket list" on 40 meter CW this year with only a dipole and 100 watts. I frequently operate SSB split frequency (listen on international frequency allocation, transmit in US frequency allocation) and can contact Europe during the evenings with only 100 watts and a dipole antenna. Forty meters IS a good band for communicating outside the US, and the only reason it is not used more for that activity is the lack of coordination with other ITU zones.

To the second comment, I can only add: What, it wasn't important enough for someone at ARRL to bother with?

FCC should take regulatory action to alleviate the interference. There are a number of options:

OPTION A: Adopt ARRL HF band plan proposal for 40 meters as printed in April 2015 QST magazine. Expands RTTY/DATA further into CW; likely unpopular for that reason. Does nothing to move or limit interference generators by regulation of frequencies; if FCC does not regulate, ARRL plans are only "voluntary".

I do not like this option as proposed by ARRL because it does not solve the problem.

OPTION B: In exchange for added space requested on 80 meters (upward to 3650 KHz), eliminate all wide band digital on 40 meters. Winlink can still connect on 80 meters or 30 meters instead of 40 meters since propagation characteristics are close. For EmComm, they can still also use 60 meter channels, as specified in HFLink allocation tables, further helping with available channels for high speed data.

This eliminates all complaints from US hams about US based high speed data, whether automatically or with the control operator present.

I like this one. Think outside the box and try something new.

OPTION C: Think WAY outside the box. Nothing says that high speed data has to be immediately adjacent in frequencies to narrow band data. HFLink has a SSB channel for ALE at 7296.0 for North America. For EmComm use, being able to easily switch back and forth from voice to data on SSB would possibly be an advantage. Properly worded regulations could allow RACES stations to use SSB on a limited basis for EmComm if needed to coordinate digital operations during emergencies.

The most desirable frequencies for weak signal work on CW, narrow data, and SSB on 40 meters are at the low end of the band, below 7175 KHz. Remove the high speed data from that area and relocate it to the TOP END of 40 meters, where it is less desirable from a ham radio weak signal work standpoint.

This would require FCC regulation for the 15 KHz ARRL is recommending in their HF band plan for wide band data, from 7285 to 7300 KHz. It would positively cream Radio China on 7285 in the afternoons, as well as the foreign broadcasts on 7290 at the same time. These stations should not be there anyway.

To correct for operations listed in the ARRL Considerate Operators guide such as the AM calling frequency at 7290, all ham operations in the high end of 40 meters and would have to be shifted lower accordingly. This would have minimal impact on Extra and Advanced Phone, and would reduce General Phone on 40 by 15 KHz. Extra and Advanced would gain clearer listening frequencies for split frequency SSB operations in the deal. General class operators would have an incentive to upgrade, but maybe lose something in the deal on voice; however, they would get clearer CW and narrow band data in return. Maybe they will see it as a wash.

This is not as radical as it sounds. In fact, it is exactly what is being proposed for 30 meters (wide band digital at the TOP of the band). The only difference is that SSB at the same transmit band width (2.8 KHz) is not permitted on 30 meters. Ten meters does the exact same thing for voice modes that are wider. FCC rules limit FM to the top 200 KHz of ten meters. AM calling frequencies are 29.0 to 29.2 MHz. Below that, SSB voice all the way down to 28.3 MHz.

I like this idea, and have provided a table at the end spelling out the provisions, which actually set aside most of the bandwidth the ARRL is requesting.

ISSUE 10:

What about 160, 80, 20, and 15 meters? There is no reason this same approach (wide band digital and acds stations at the TOP of the band) would not work fine on 80 meters, 20 meters, and 15 meters. Significant increases in available frequencies are being proposed by ARRL on those bands as well. If they are going to take it anyway, I would rather lose the TOP end of the band than the bottom end. It should also be considered for 160 meters in case wide band digital modes start showing up there, just to keep them away from the weak signal work on the low end of 160.

Note that HFLink has an EmComm channel at 3996 KHz similar to the one at 7296 KHz. A special set aside for emergency use by RACES and such can be made as the one I suggested for 40 meters on this band.

Now is the time for FCC to think outside the box. Just because we always did it this way is no reason to continue, because what we are currently doing just plain is NOT working. Preserve the original uses of amateur radio. Provide for the new uses of amateur radio. Alleviate the interference.

Don't procrastinate. REGULATE.

Amateur radio is a technical pursuit, not "Internet CB" or an "AP".

ISSUE 11:

Due to the small size of the so called WARC bands at 17 meters (18 MHz) and 12 meters (24 MHz), NO ACDS automatic or wide band digital operations should be allowed on those bands at all.

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EXECUTIVE SUMMARY:

Sailmail costs \$250 per year for a legal commercial provider for all forms of email. An FCC marine SSB license is a one time \$200 fee. For someone who owns a vessel, it is not a hardship to cope with waiting a bit to contact a Winlink Gateway for their free internet in the HF band plan proposed below. For emergency communications, the Coast Guard specifically states that contact should be voice, not email, which is not monitored 24/7/365. See Coast Guard web page to verify this.

FCC should require all automatically controlled data stations to operate only within a specified set of frequencies.

FCC should require all automatically controlled digital stations to have a working "channel busy" detector.

Automatically controlled data stations should be legally coordinated within that band of frequencies as is the practice on VHF and UHF repeaters. The potential for interference over a much larger geographic area is much worse on HF.

This is an excellent opportunity for its proponents to demonstrate that they can operate with efficient spectrum management by sharing multiple automatically controlled digital stations on the same frequency using channel busy detectors and activation schemes that only communicate with one station at a time. Analog VVHF FM repeaters can do this with subaudible tones. Surely software can be written that does this function for HF Winlink using wide band digital signals can do so also.

FCC should require all wide band digital signals to operate within a specified set of frequencies within an amateur band.

FCC should limit the bandwidth (not the data signalling rate or baud rate) of digital signals exceeding 500 Hz or less to a maximum of 2.8 KHz as ARRL proposed, but limit the use of this bandwidth to only specified frequency bands to avoid conflict with existing modes.

FCC should set aside for exclusive use of the incumbent modes of operation (CW and narrow band digital weak signal work) which prohibits wide band operations by limiting bandwidth (not baud rate or data signalling rate) to 500 Hz or less. In that regard, I am in agreement with ARRL, but add to it by specifying the exact frequencies permitted in FCC regulation in a table below.

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FCC should require all wide band digital stations to identify with CW at the same intervals as other amateur stations to allow enforcement and monitoring. Amateur VHF and UHF repeaters do this without any hardship. I would add that many commercial repeaters use a CW identification for their installations without hardship. If the monitoring station does not know CW, a recording can be made easily, or software decoders are commonly available.

Did I forget to mention that amateur radio is a technical pursuit, not "Internet CB" or an "AP".

ALTERNATE HF BAND PLAN WITH ACDS AND WIDE BAND DIGITAL AT THE TOP END OF BAND:

(Frequencies expressed in KHz)

ACDS and wide band (2.8 KHz) allowed ONLY in following specified segments.  
CW identification required at same intervals as all other amateur modes.

Other allocations in the band including, calling frequencies, nets, and other activities shifted downward to accommodate changes. This preserves weak signal CW and RTTY and incumbent uses of amateur radio on the low end of the band and compensates voice/image for loss of band space at the top of the band.

160 METERS: 1990-2000 (NOT requested by ARRL, but just in case someone wants it later. It also prohibits a total takeover later which could result from NO regulation.)

80 METERS: 3860-4000 (40 KHz, was 15 KHz, ARRL requested 50 KHz. Better for HFLink and EmComm and RACES people with SSB at 3996 KHz.)

40 METERS: 7285-7300 (Was 5 KHz ACDS but everyone ignored it. ARRL requesting 10 KHz for wide data, for a total of 15 KHz, exactly what they asked for, but in a different place. Better for EmComm and HFLink people.)

30 METERS: 14140-14150 (exactly what ARRL requested. Narrow data 14130-14140 protected now from wide band data.)

20 METERS: 14300- 14350 (Was ACDS 17 KHz plus wide band all over, ARRL requesting 50 KHz, exactly what they requested, only in a different place. Good also for EmComm and HFLink, their SSB channel at 14346 KHz.)

17 METERS: Band too narrow. No ACDS or wide band data (500 Hz max narrow only).

15 METERS: 21380-21450 (WILL BE 80 KHz) - (Was 10 KHz ACDS, requesting same. Was 40 KHz wide data, ARRL requesting 110 KHz, with narrow data protected in 30 KHz.) During sunspot minima, Winlink will not be very useful on this band. ARRL does not seem to grasp propagation characteristics well over long periods. Perhaps the ARRL HF Band Planning Committee report should have been peer reviewed by the ARRL DX Advisory Committee. During sunspot minima, any wide data that would work on 15 meters could just as well be done on 10 meters, where there is plenty of room and Novice/Tech Data is allowed.

12 METERS: Band too narrow, No ACDS or wide band data (500 Hz narrow only).

10 METERS: 28120-28189 (Exactly as ARRL requested. Narrow RTTY/data protected at 28070-28120 as ARRL requested.) The 10 meter band is sufficiently large that the data can be here, instead of near the top end somewhere in the 29.2 to 29.5 region, which is used for satellite downlinks.

HFLink frequencies referred to above may be found at:

<http://hflink.com/channels/>

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Respectfully submitted,

/s/

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ARRL member