

REPLY COMMENTS TO BRUCE PERENS OET 17-215 RE: PART 97.1 PURPOSE

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REFERENCED Bruce Perens original comments in OET 17-215 are found at:

https://ecfsapi.fcc.gov/file/102617713456/Perens_ET_17_215.pdf

Bruce Perens advocates for a total rewrite of Part 97 rules. He cites the “Basis and Purpose” section of the rules, Part 97.1 as a reason for doing this, and takes 6 pages out of a total 15 pages to explain that premise. Thus, it comprises 40% of his overall argument. I reply to the rest of the genuine technical matters in other reply comments on OET 17-215. Here, I take up the Part 97.1 portion.

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PERENS Page 1 Paragraph 3.1: Introduction

“The basis and purpose of the Amateur Service, at §97.1, might not be considered a technical rule and thus within the purview of the TAC or subject to this proceeding. However, this section provides the basis for Amateur Radio’s use of precious radio spectrum, and the justifications for the use of that spectrum are technical in nature..... So much valuable spectrum would not be allocated simply to facilitate the operation of a private club of tech nerds. The Amateur Service, and its use of radio spectrum, must serve the public interest, and must continue to do so, for there to be a justification for Amateur Radio to exist.....I believe it is thus necessary to re-define §97.1 to better justify the Amateur Service and its allocation of radio spectrum, within the context of society’s needs today rather than in 1953.”

I simply disagree. This section is the source material for one question on the license exam, and is a not significant enough matter for the FCC to divert its limited resources to deal with. Perens is just interested in creating a “mission statement”, a common practice of modern organizations. Part 97 is OLD. So is the Bible. But there is no rational reason for the “religious” fervor that recent FCC rule making petitions take to burn this poor old Part 97 book. This assertion about a mission statement is not a justification for demolishing an entire section of law that has worked well for decades.

In particular, the amateur HF spectrum has been the focus of all this recent unwarranted hullabaloo. **The HF spectrum is indeed a VERY SMALL AMOUNT OF “PRECIOUS SPECTRUM”.**

I would have to agree that the VHF, UHF, and microwave portions of the amateur service are substantial, and we should make better use of those frequencies. Indeed, I recommended in other comments that the ARRL, the sailing community, AMSAT, Winlink and users of HF email should partner to build a microwave spectrum amateur email service in orbit. That would serve the needs

better than HF, and would provide sufficient band width to improve routine email service. It would be an amazing asset for emergency communications, that would trump the balloons with internet during the Puerto Rico relief work.

Whether or not amateur radio should be used as a “common carrier” for routine internet service IS an issue that maybe should be considered as part of the Part 97.1 thought process. Part 97.1 “Purpose” does not mention anywhere routine daily delivery of business related email that can be provided by other commercial “common carrier” services. Other Part 97 rules seem to prohibit such activity. I therefore request that the FCC look into THAT matter, to KEEP EXISTING RULES AND ENFORCE THEM.

LATER, PERENS states on Page 7, Paragraph 4.1:

“Government services that are paid for by their user communities are commonplace. One example is the “Migratory Bird Hunting and Conservation Stamp”, commonly known as the “Duck Stamp”, operated by the U.S. Fish and Wildlife Service. This is a federal waterfowl hunting license which pays for ecological conservation of waterways used by migratory birds.”

I RETURN to the previous statement about a “**National Park for Nerds**”, to continue his conservation analogy. National Parks exist to preserve portions of the landscape, for use and enjoyment of citizens. The HF amateur bands are such a legacy that should be preserved also. National Parks are subsidized by general taxes and admission fees, or yearly park passes. Likewise, a small portion of the HF RF spectrum set aside for “Nerds” is not an excessive expenditure of funds for maintenance. The FCC does not have to build roads, although an occasional “park ranger” like Riley Hollingsworth is appreciated. **Fines for violators** can be used to defray the salary of the park ranger. **License fees** can also go to that effort. The federal government should also chip in. They support the national parks. Why not a park in the RF spectrum? In particular, I note in comments on OET 17-215 that the **“Vanity” licensing SHOULD recover the high costs of administering** THAT program, separately from the routine sequential licenses most of are happy with. Hams do not climb mountains and fall off cliffs in the RF spectrum, requiring expensive rescues. The FCC does not have to build any infrastructure, other than the enforcement. The FCC provides enforcement for commercial broadcasting, land mobile, cel phones, internet, and all other aspects of communications in the USA. While the FCC is spread pretty thin due to US budgeting issues, it is part of the job. No one is suggesting they delegate rule making or enforcement of broadcasting to anyone else. Amateur radio enforcement uses the same trained professionals. We DO earn our keep by assisting the FCC enforcement in the case of RF radiation from consumer devices like lighting. As is often repeated, amateurs often come to the aid of others in emergency situations. **RACES should be built up into a bigger structure** to make us more effective in that work. But amateur operators do not want the government to build us an expensive stadium. We do not set fire to the RF spectrum, causing expenses for fire fighting. For the most part, we do not wear anything out, except for the FCC in the case of **excessive rule making petitions. If the FCC charged filing fees to cover costs for that,** it would fix that expenditure, and maybe make people think twice before they hit “send” for a petition. Right now, a “trial balloon” petition just might make it through if no one notices it. Personally, I would love to spend more of my time on the air, or working on my equipment, instead of checking the FCC daily digest and responding to comments. This is getting tiresome. A moratorium for a year would be a great vacation.

CONCLUSION: Amateur radio does not represent a significant drain on national resources, and earns its keep in a variety of ways.

PERENS PARAGRAPH 3.3

FCC Part 97.1(a) says:

“Recognition and enhancement of the value of the amateur service to the public as a voluntary noncommercial communication service, particularly with respect to providing emergency communications.”

BRUCE PERENS SAYS:

Page 3, paragraph 3.3.1: “**Recommendation**: The text of §97.1(a) **should remain as it is**”

MY RESPONSE: OK, I AGREE, LEAVE IT AS IT IS. That was easy. So we can ignore those 3 pages. Lets get on with it.

BRUCE PERENS SAYS Page 3, Paragraph 3.4:

§97.1(b) This presently reads as: “**Continuation and extension of the amateur's proven ability to contribute to the advancement of the radio art.**”

“We can restate this mission in a way that’s much more relevant today. But we can not justify the allocation of spectrum for Amateur Radio solely for its innovation, which is still a far second to that carried out within the wireless industry.”

“3.4.1 Recommendation: The text of §97.1(b) should be modified to read:

Scientific and technological research, experimentation, and development carried out for the public benefit, using the unique access to radio spectrum and technology provided by the Amateur Service.

There is an Experimental Radio Service defined in Part 5, but this is mainly for commercial development. Amateur Radio rules, in contrast, exclude pecuniary interest and thus experimentation in the Amateur Service will continue to be for education and non-profit research and development. The Part 5 Experimental Service requires a much greater administrative overhead of the participant than experimentation within the Amateur Service.”

WELL, THAT IS WHY THEY CALL US “AMATEUR” RADIO SERVICE. Most of us do not have the equipment to do sophisticated work. I am fortunate enough to have bought and refurbished Hewlett Packard and Tektronix equipment for my workshop. Most amateurs do not have the college background or equipment to do high level research. Perens misses the point. During the recent Solar Eclipse, amateurs provided a lot of data to researchers to analyze. Ted Rappaport did some significant work in the UHF/microwave spectrum and received an award for it. New propagation modes are being uncovered by amateurs, and experimented with. Just as an amateur astronomer might not have a huge telescope, discoveries are made by them, and they should not be dismissed as unworthy either. Discoveries are not all in his narrow field of the digital world.

Perens does finally acknowledge:

“Fortunately, the advent of digital communications technology has spurred a renaissance of innovation within Amateur Radio. One example is the WSJT digital communications technology (FT8) introduced by Joe Taylor, a Nobel-prize-winning astrophysicist and Radio Amateur. Another is the digital voice technology introduced by the Codec2 and FreeDV projects, which have created an ultra-low-bandwidth digital voice codec as Open Source software, significantly improving the state of the art of digital voice codecs, and a suite of software modems and communication software to employ their codec over the air.” **NOTE:** Bruce Perens himself is one of the contributors to Codec 2.

SO WAIT NOW, there really ARE “continuing... contributions to the radio art” after all?

COMPARE THE WORDING OF EXISTING AND PROPOSED PART 97.1 B, SIDE BY SIDE:

“Continuation and extension of the amateur's proven ability to contribute to the advancement of the radio art.”

“Scientific and technological research, experimentation, and development carried out for the public benefit, using the unique access to radio spectrum and technology provided by the Amateur Service.”

SORRY, I DO NOT SEE A LOT OF DIFFERENCE IN MEANING. SAME THING, DIFFERENT WORDS. BUT CERTAINLY NOT A JUSTIFICATION FOR MASSIVE OVERHAUL OF AN ENTIRE SECTION OF PART 97 LAW FOR THIS WORDING.

2 pages of discussion to get to this point. No impact on where I can transmit. **OK, ENOUGH OF THIS, LETS MOVE ON.**

PERENS CONTINUES: Page 4, Paragraph 3.5

“§97.1(c) This presently reads as: Encouragement and improvement of the amateur service through rules which provide for advancing skills in both the communication and technical phases of the art.

This is oddly written, since it calls for improvement of the amateur service, perhaps for its own sake rather than to perform a service to the public. The statement implies an educational purpose, but only obliquely states one. Surprisingly, the word “education” doesn’t appear in §97.1, and there is no tie-in to the oft-promoted need to educate young citizens in STEM (Science, Technology, Engineering, Mathematics). That should change now. Education must be mentioned explicitly, and must be a prime justification of Amateur Radio if Amateurs are to retain access to radio spectrum.

3.5.1 Recommendation: The text of §97.1(c) should be modified to read:

Education in Science, Technology, Engineering, and Mathematics through participation in the design, investigation, construction, modification, testing, and operation of wireless technology through the Amateur Service.”

MY RESPONSE: Yes, the Part 97.1 C rules DO NOT say anything about “educating young citizens in STEM.” Also, “This is oddly written.” and I am not interested in a grammar and composition lesson.

Young citizens today have the exact same opportunity I had as a 14 year old, when I became a Novice. Young citizens today still have the exact same opportunity my 11 year old son had when he obtained his Novice license. He upgraded to Tech one year later. He upgraded to General in another year. He is just an average kid. I have served as an instructor (as have the members of our radio club) in dozens of licensing classes over the years, and helped a number of exceptional young citizens. ARRL publishes books, and has training for teachers who want to use amateur radio in the classroom. We are doing what we can reasonably do. The current American school system has FAILED compared to other developed countries. We need to fix the SCHOOLS, not do social engineering through Part 97 law.

THE SCHOOLS are tasked to TEACH. Ham radio is to make learning FUN, through hands on experience with information learned in SCHOOL in science class. If the SCHOOLS are failing, that is NOT amateur radio's fault. Bill Gates and others are working on improving the schools, and STEM instruction. We need to fix the schools by running instruction for 11 or 12 months instead of 9 months. We need to get exceptional TEACHERS for our schools by forgiving or subsidizing student loans for teachers. We definitely do NOT need student loans to turn out more “art history” majors. They can fund that themselves, if they want it.

CONCLUSION: Some have commented that our phones are getting smarter, while our kids are getting dumber. Whether or not that is so, amateur radio is not a causal problem. This sort of stuff does NOT belong in Part 97, it is educational philosophy. **MORE IMPORTANTLY, IT DOES NOT JUSTIFY A TOTAL REWRITE OF AMATEUR PART 97 RULES FOR CURRENT POLITICAL TRENDS.** Bill Gates is doing something BIG for education. But he is a wealthy benefactor with the resources and permission to do so, through charter schools. I am just a retired old lady, and I am doing my part. Has Bruce Perens ever taught a radio licensing class, or helped a kid build a simple transmitter and set up his first station? Our radio club went out to K-12 schools to promote amateur radio. Did Bruce Perens? To “provide for advancing skills in both the communication and technical phases of the art” as Part 97.1 C currently says, is enough to cover the educational part of the hobby. All the kids have to do is show up and take a test, get a license, and start WORKING on it. **OK, ENOUGH OF THIS, PLEASE, LETS MOVE ON.**

PERENS CONTINUES: Page 5, Paragraph 3.6:

§97.1(d) “This presently reads as: Expansion of the existing reservoir within the amateur radio service of trained operators, technicians, and electronics experts.”

Recommendation: **§97.1(d) can be deleted or allowed to stand as it is today.**”

I SPARED YOU THE DISCUSSION. GOOD. LETS LEAVE IT AS IS. PLEASE, LETS MOVE ON.

PERENS CONTINUES: Page 5, Paragraph 3.7:

“§97.1(e) *This presently reads as: Continuation and extension of the amateur’s unique ability to enhance international goodwill.*”

“3.7.1 Recommendation: *§97.1(e) can be deleted or allowed to stand as it is today.*”

“It’s clear that many, many more people today converse with those far away using the internet. So, while Amateur Radio still cultivates international goodwill, this mission would not justify allocation of spectrum to the Amateur Service.”

I just cannot let that disparaging statement go unchallenged. This condescending attitude from digital people is annoying. Just this week, I heard a 20 meter conversation where a foreign amateur radio operator invited an American ham to his home, for a visit. I would state from personal experience over the years that is COMMON. If breaking bread in your home is not “international good will” I do not know what is. You have to win people over, one at a time. Remember a Ping Pong tournament opened China to American visitors, and improved our relations? Not a big step, but every little bit helps. Amateur radio is a “National Park for Nerds” and needs no other justification. On the other hand, the wonderful internet is used to spread fake news to sabotage elections, recruit terrorists, and cause kids bullied on social media to commit suicide. Lets spend our efforts to clean that mess up and leave amateur radio to play nicely with nerdy pursuits that harm no one.

CONCLUSION: *“Recommendation: §97.1(e) can be deleted or allowed to stand as it is today.”* No good reason was presented to remove it. **GOOD. LETS LEAVE IT AS IS. PLEASE, LETS MOVE ON.**

PERENS CONTINUES: Page 6, Paragraph 3.8:

Summation of §97.1 Argument:

“currently-stated missions of Amateur Radio have already reached irrelevance.”

WE SIMPLY DISAGREE. IF IT IS IRRELEVANT TO PERENS, PERHAPS HE SHOULD FIND ANOTHER PURSUIT.

“The elimination of a Morse Code requirement in the U.S. caused a significant increase in the number of Radio Amateurs, and apparently an overall increase in the number of (competent but untested) Morse code users. But the number of licensed Amateurs in the U.S. appears to be leveling off at about 750,000, and was not matched in other countries, where Amateur Radio licensing numbers mostly continued to decline unchecked.”

THE GRAPH SHOWS A CONTINUING INCREASE. IT IS *NOT* LEVELING OFF IN THE USA, AS BRUCE STATES.

USA AMATEURS AND THE FCC CAN ONLY SOLVE THE PROBLEM HERE. OTHER COUNTRIES HAVE THEIR OWN PROBLEMS, NOT THE LEAST OF WHICH IS UNPARALLELED UNREST NOT SEEN SINCE WORLD WAR 2.

AGAIN, AS I STATED BEFORE, THE YOUNG PEOPLE HAVE TO AVAIL THEMSELVES OF THE OPPORTUNITIES THAT ARE PRESENTED BY TAKING AN EXAM AND GETTING TO WORK ON THEIR SELF EDUCATIONAL PURSUITS. THE REALITY OF LIFE IS THAT SUCCESS IS MOSTLY HARD WORK, WHICH IS A GOOD LESSON. HAMS NEED TO INDIVIDUALLY HELP THE NEW COMERS. TEACHERS AND SCHOOLS AND GOVERNMENTS NEED TO DO THEIR PARTS IN K-12 CLASSROOMS. UNIVERSITIES NEED TO FIGURE OUT HOW THEY HAVE FAILED. UNIVERSITIES NEED TO FIGURE OUT WHY HIGHLY SUCCESSFUL PEOPLE WALK AWAY FROM COLLEGE AND START CAREERS, BECAUSE THE UNIVERSITIES HAVE TOTALLY FAILED TO ENGAGE THEM IN USEFUL WAYS. AMATEUR RADIO IS NOT THE CAUSE, AND CAN ONLY PARTICIPATE AS A SMALL PART OF THE SOLUTION, AS BEST IT CAN. SADLY, NOT ALL CAN AFFORD TO HAVE HAM RADIO IN THEIR LIFE. THAT IS DUE TO STAGNANT INCOME BEYOND THE CONTROL OF FCC PART 97 RULES. NOT ALL CAN PUT UP GOOD ANTENNAS, BUT THE NEW FT8 MODE INNOVATION MAY MAKE IT POSSIBLE TO PARTICIPATE THAT WAY.

MY SCORE CARD AND SUMMARY:

Lets tally up the score card for each Part 97.1 sub paragraph.

PERENS PARAGRAPH 3.3, FCC Part 97.1(a)

“Recommendation: The text of §97.1(a) should remain as it is”

PERENS PARAGRAPH 3.4: FCC Part 97.1(b)

Existing;“Continuation and extension of the amateur's proven ability to contribute to the advancement of the radio art.”

Proposed: “*Scientific and technological research, experimentation, and development carried out for the public benefit, using the unique access to radio spectrum and technology provided by the Amateur Service.*”

Same thing, different words. No impact on where I can transmit.

NO JUSTIFICATION FOR MAJOR PART 97 REVISION.

PERENS PARAGRAPH 3.5: FCC Part 97.1(c)

Existing: “Encouragement and improvement of the amateur service through rules which provide for advancing skills in both the communication and technical phases of the art.”

Proposed: “*Education in Science, Technology, Engineering, and Mathematics through participation in the design, investigation, construction, modification, testing, and operation of wireless technology through the Amateur Service.*”

Same thing, different words. No impact on where I can transmit.

Schools are to educate young people. The do not engage them or succeed at that, but that cannot be fixed in Part 97.

NO JUSTIFICATION FOR MAJOR PART 97 REVISION.

PERENS PARAGRAPH 3.6: FCC Part 97.1(d)

“Recommendation: §97.1(d) can be deleted or allowed to stand as it is today.”

PERENS PARAGRAPH 3.7: FCC Part 97.1(e)

“Recommendation: §97.1(e) can be deleted or allowed to stand as it is today.”

PERENS PARAGRAPH 3.8: Summation of Argument

“*But the number of licensed Amateurs in the U.S. appears to be leveling off at about 750,000*”

NOT TRUE. JUST LOOK AT THE GRAPH. IT IS NOT LEVELING OFF.

Amateur radio is not why young people are failing in school and doing badly at STEM.

The educational system of schools and universities, and how student loan incentives are the cause. Part 97 cannot fix that.

It is up to government, and efforts of benefactors like Bill Gates and charter schools to do that.

Young people have the same opportunities to take a test and become hams they always did.

Young people increasingly have less income and live in cities or apartments where they cannot have antennas that work.

Bruce Perens cannot use Part 97 to do the social engineering to change any of that. It is the wrong tool.

IN ANY EVENT, HE HAS PRESENTED NO JUSTIFICATION FOR MAJOR PART 97 REVISION BY TINKERING WITH THIS BOILER PLATE IN PART 97 RULES.

FINAL SCORECARD TALLY:

THREE ARE

“Recommendation: Can be deleted or allowed to stand as it is today.”

TWO ARE

Same thing, different words. No impact on where I can transmit.

NO JUSTIFICATION FOR MAJOR PART 97 REVISION.

SUMMARY OF ARGUMENT

“currently-stated missions of Amateur Radio have already reached irrelevance.”

NOT SO.

“But the number of licensed Amateurs in the U.S. appears to be leveling off at about 750,000”

NOT TRUE. JUST LOOK AT THE GRAPH. IT IS NOT LEVELING OFF.

Amateur radio is not why young people are failing in school and doing badly at STEM.

THE AMERICAN EDUCATIONAL SYSTEM HAS FAILED. TELL ME SOMETHING NEW.

PART 97 CHANGES DO NOT WORK AS A TOOL FOR SOCIAL ENGINEERING.

ECONOMICS AND LIFESTYLES ARE FACTORS BEYOND OUR CONTROL.

MY RECOMMENDATION FOR BRUCE PERENS 17-215 COMMENTS ON PART 97.1:

IRRELEVANT. **SCORE CARD ZERO.** IGNORE. SPEND OUR TIME ON USEFUL PROJECTS INSTEAD OF LEGAL BOILER PLATE.

If amateur radio is a “National Park for Nerds”, so be it. It needs NO justification, at least for the small allocation of HF bands, any more than national parks do. It exists for FUN and enjoyment. It occasionally functions as a backup in emergencies. People who get involved in ham radio often seek education and careers in technical fields. Sometimes hams come up with something useful to the public. When the military recruits a ham, it takes less effort to train them. So all the original objectives for the amateur service are still being met.

The microwave and UHF bands are another matter. Hams better get to work or someone will auction them off. An AMSAT satellite would work better for free internet, if that is what the FCC intends for the amateur service. There is a “justification” if one is needed. For HF email, RACES should have permission to use STANAG or anything else that works in emergencies. The free commercial email use of amateur radio by the general population should be discontinued on HF. That is NOT provided for in the Part 97.1 mission statement, and is contradictory to other Part 97 .

OET 17-215 has had some worthwhile comments from broadcasting and manufacturing. More duplicate issues and unproductive petitions regarding amateur radio have proliferated, abusing the ECFS. The FCC should act on the existing rule making proceedings that have been duplicated here.

Respectfully submitted,

/S/

Janis Carson, AB2RA, licensed since 1959, Extra class, ARRL member for 40 years.