

UNITED STATES OF AMERICA
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C.

Proposals For)	FCC Dockets
Restructuring Of)	RM-10867,
Amateur Radio)	RM-10868,
Licensing)	RM-10869,
		RM-10870

**WRITTEN COMMENTS OF
DON SCHELLHARDT, ESQUIRE**

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DON SCHELLHARDT, ESQUIRE

My name is Donald Joseph Schellhardt. I am a Government Relations Attorney and a writer. I am also a future Amateur Radio operator. I joined the AMERICAN RADIO RELAY LEAGUE (ARRL) earlier this year and plan to take the Technician's License Examination in the near future.

On numerous occasions over the past several years, I have prepared, and filed with the FCC, Written Comments, Reply Comments, Petitions For Rulemaking and other documents on behalf of THE AMHERST ALLIANCE, the NATIONAL ANTENNA CONSORTIUM and/or the 42 Anti-IBOC Petitioners (in FCC Docket 99-325). However, the *present* Written Comments are filed *solely* on behalf of myself as an individual.

**Maintaining A Robust
Emergency Communications Capability:
A Core Obligation Of The Amateur Radio Service**

As a newcomer to the ham radio community, I cannot begin to address the various details of the various proposals for restructuring of Amateur Radio licensing. However, as a seasoned Government Relations professional, and also as a citizen of the United States, I can and will make 4 generally applicable points with respect to the Amateur Radio Service.

**The Increased Potential
For
“Megadisasters”**

1. *For the sake of the United States of America, it is more important than ever for the Amateur Radio Service to retain, and indeed expand, its traditional emergency communications capability.*

The events of September 11, 2001, and subsequent engagements with terrorists, have certainly underscored the increasing importance of maintaining well-equipped, well-motivated and *well-informed* corps of civilian “first responders”, both paid and volunteer. Hams have traditionally played a role in the ranks of the latter, often providing the very first information to move in and out of a disaster area.

Unfortunately, however, the events of September 11 are far from “the worst that could happen”. There is a range of possible catastrophes lying between Extinction Level Events (ELEs) -- that is, planetwide cataclysms, such as a total nuclear war or an asteroid impact -- and “mere” natural or man-made disasters, such as the terrorist attacks of September 11 or the San Francisco earthquake of 1906. Such events are large enough to disrupt (or even suspend) the basic operations of human civilization over a wide geographical area, but are not large enough to destroy human civilization (or even human life itself) across all or most of the globe.

For such globally “intermediate” events, I have coined the word “megadisaster”. Again, such an event is less than an ELE but still much more than what most people envision when they hear the word “disaster”.

Almost *exactly* 2 years ago, on April 24, 2002, I filed personal Written Comments in FCC Docket RM-10412, supporting a Petition For Rulemaking to require that manufacturers must make at least *some* Amateur Radio equipment repairable in the field. On page 13 of those personal Written Comments, I offered one possible definition of a “megadisaster”:

“*Megadisaster*: A life-threatening disaster, either natural or man-made in origin, of sufficient intensity and scale that it: (a) destroys and/or disables much, most or all of the basic infrastructure and services over an area of *at least* 10,000 square miles, for a period of *at least* weeks or months; and (b) prevents and/or significantly restricts the flow of relief supplies and personnel, from areas which are not directly affected, for a period of *at least* two weeks.”

It was my contention in those Written Comments, and it continues to be my contention, that the probability of a “megadisaster” is on the rise in the United States.

(A) First, and most obviously, the knowledge and technologies needed to produce Weapons of Mass Destruction -- nuclear, chemical and biological -- have been diffusing over the decades into the hands of more and more governments *and*, at least in the case of chemical and biological weapons, into the hands of independent organizations as well. *The destructive potential* of relatively advanced technology is becoming available to more and more people, with a growing portion of those people being poor enough and/or desperate enough to have relatively little to lose.

(B) Second, and somewhat less obviously, *the vulnerability of non-destructive human technology* has been increasing. Many of our nation’s basic infrastructure technologies have become more centralized, or at least more interconnected, making themselves subject to the general tendency of systems to become more easily disrupted as they become

more complicated. (There is a reason why cockroaches, and some strains of bacteria, outlived the dinosaurs -- and still roam the earth to this day.)

One major example of this tendency is the nation's power grid, whose interconnections have arguably increased economic efficiency but clearly increased the frequency and scale of power outages. Other examples include The Internet -- which is now so integral to commerce that a single computer virus can cripple business throughout the world -- and solid state electronics, which is much more vulnerable to accidental or deliberate electromagnetic disruption than vacuum tubes ever were.

A *potential* "catastrophe-in-waiting" is gaining momentum from the growing tendency of governments, other institutions and individuals to rely on satellites for communications and/or navigation, *without* "backup" such as land lines or knowledge of celestial navigation. The United States, the former Soviet Union and the People's Republic of China probably possess already the ability to target and destroy Global Positioning Satellites and communications satellites -- knowing that the loss of such satellites would be a major blow to both the military and economic capabilities of rival powers.

(C) Finally, in a trend that has been barely noticed by most, *human beings have been systematically relocating themselves "In Harm's Way"*.

The classic example is migration to California. Early in the 19th century, an 8.5 earthquake -- with an epicenter near what is now Los Angeles -- damaged or demolished Franciscan Missions from San Diego to Carmel. At the time, fatalities (and even injuries) were low because: (i) the Missions were almost the only buildings between San Francisco Bay and the Mexican border, and (ii) the total population of California at the time (composed almost completely of Native Americans) has been estimated at less than 100,000 people. Today, millions of buildings, and tens of millions of people, can be found within the seismic footprint of that earlier earthquake. Geologically, most seismologists agree that a new earthquake of at least 8.0 -- aka "The Big One" -- is already overdue for Southern California.

Even larger earthquakes occurred centuries ago in southern Illinois (at least 9.0), along the New Madrid Fault, and under Charleston, South Carolina (an estimated 11.0!!). These 2 areas rarely have major tremblors, but when they do the earthquakes put Southern California earthquakes to shame. Although Charleston was a relatively small port when struck by a major earthquake in the 1700's, and although the New Madrid Fault lay mostly below open space when its last major earthquake struck in the early 1800's, a re-occurrence of these earthquakes today could endanger

lives from Jacksonville to Atlanta to Norfolk, if not beyond, and from Chicago to Omaha, Kansas City, Indianapolis and Memphis.

I could go on -- noting, for example, the geological similarities between Mount Saint Helens and Mount Rainier, plus the latter's proximity to Metro Seattle. Hopefully, however, my point has been taken.

We cannot, by any honorable means, reduce human population through attrition, or even stabilize it, overnight. Nevertheless, pending the eventual arrival of Zero Population Growth, we *can* recognize, and we *should* recognize, that the very ability of our species to "be fruitful and multiply, and subdue the earth" has put tens of millions of Americans much closer to a *megadisaster* than most of them imagine.

The Need For Amateur Radio "To Earn Its Keep"

2. *For the sake of the Amateur Radio Service itself, it is more important than ever for the Amateur Radio Service to retain, and indeed expand, its traditional emergency communications capability.*

It is no secret that new, wireless technologies have greatly increased the total demand for access to the radio spectrum. In light of the greatly increased competition for spectrum access, it is morally *and* politically more important than ever for the Amateur Radio Service to

“earn its keep” by demonstrating that *the value of the services it provides to (and for) The American People is greater than the asserted value to the economy of alternative commercial uses.*

From the beginning of its existence, the Amateur Radio Service has been a *Service* in at least 3 fundamental ways:

- (A) Training people, directly or indirectly, officially or unofficially, for careers in communications and/or the sciences (*and* for leadership and teamwork in *all* endeavors)**
- (B) Fostering a tradition of technological innovation**
- (C) Acting as a source of emergency communications during (and after) disasters, whether natural or man-made -- *and*, as a related supplemental activity, enhancing the communications capabilities of the U.S. military**

***All* of these services have been important to the American People, and their government, and *all* of them remain important. Still, it is at least arguable that the *single* most important public service by the Amateur Radio community -- at *this* time in history -- is its ability to establish and maintain the flow of emergency information in and out of disaster areas (or megadisaster areas), as well as its related ability to speed the flow of U.S. military communications.**

Needless to say, my public policy recommendations to the FCC, in these personal Written Comments, do not *require* assent to my view that emergency communications are the *single* most important public service performed by the Amateur Radio community at *this* time in history.

However, the thinking process behind these public policy recommendations may be clearer now that this underlying conviction has been stated explicitly.

**Recommendations For
Amateur Radio Licensing Requirements**

In light of the 2 imperatives discussed above -- the growing need for the nation to prepare more effectively for possible “megadisasters”, and the growing need for the Amateur Radio Service to justify its claim to a share of the radio spectrum -- I hereby offer 2 recommendations with respect to Amateur Radio licensing requirements.

The Need To Retain Morse Code Requirements

3. *I strongly recommend to the FCC, and am personally willing to comply with, a minimal Morse Code requirement for entry-level Amateur Radio licenses -- including the Technician's Class license -- and more advanced Morse Code requirements for more advanced Amateur Radio licenses.*

Morse Code is the most disaster-resistant communications technology there is.

Its ability to use simple materials -- even *primal* materials -- makes Morse Code the "Swiss Army knife" for communications after a megadisaster.

I rest my case.

The Need For "Continuing Education" In Emergency Communications Skills

4. *I strongly recommend to the FCC, and am personally willing to comply with, lifelong licensing requirements for "Continuing Education" in emergency communications skills -- including mandates for periodic participation in "hands on" emergency communications services and/or*

exercises. Under no circumstances, short of an incapacitating disease or disability, should any licensed Amateur Radio operator, including a Technician Class licensee, be able to hold a license for more than 5 years without earning: (a) at least 8 hours of certified instruction in emergency communications skills; and (b) at least 4 hours of certified participation in actual emergency communications services and/or exercises.

Conclusions

For the reasons set forth herein, I urge the Federal Communications Commission to adopt the public policy recommendations which are contained in these Written Comments.

Respectfully submitted,

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