

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	RM-10867
Amendment of Part 97 of the Commission's)	
Rules Governing the Amateur Radio Service to)	RM-10868
Implement Changes to Article 25 of the)	
International Radio Regulation Adopted at the)	RM-10869
2003 World Radiocommunication Conference)	
)	RM-10870

Via the ECFS

Reply to Comments Made by James A. Cour on 31 March 2004
by Leonard H. Anderson

I wish to thank the Commission for providing a forum for commentary by all citizens. Please allow me to state that I am a retired electronics design engineer with no vested interest in any professional or amateur radio activity or educational institution nor with any of those who have commented on this petition or Rule Making. All of the following comments are those of a private citizen fortunate to experience a half century in the radio-electronics industry and military of the United States, that including radio communications.

Mr. Cour has made the same Comment on all four Petitions for Rule Making of 2004. This Reply to Comments is of a like nature and submitted the same on all four proceedings.

A. That the Commission Should Consider The Basic Purpose of the Amateur Radio Service

1. While I agree with Mr. Cour that “...*the Commission should carefully consider whether the proposals adequately address the stated goals* [three of the definitions in §97.1.]” both the Commission and Mr. Cour must consider a number of already-established facts.¹

2. The Amateur Radio Service is a **voluntary activity** done without pecuniary interest. It is *de facto* if not *de jure* a recreational activity, done for personal pleasure. In short, a **hobby**.

3. The word *service* as used throughout Title 47, Code of Federal Regulations, refers to a type and kind of radio activity that is regulated by the Commission. Except for Public Safety Radio Services, none of the *services* in Title 47 C.F.R. are directly a *service to the community or nation*. Many radio amateurs misuse the word *service* in referring to their own activity as if it were on par with the military or with any

¹. Mr. Cour at 1.

governmental agency. Amateur Radio *can* contribute a true service to the community but that is no more than any responsible citizen can do. Amateur Radio was entered into by an overwhelming majority of licensees as a **hobby**.

4. There should be nothing wrong with considering Amateur Radio as a hobby. Such is stimulating, educational, and valuable in honing already-learned skills. Many electronics technicians and engineers have entered into professional careers through early, pre-work exposure to Amateur Radio. It should also be noted that many electronics technicians and engineers have entered the work force for the simple reason of electronics being a fascinating technology, constantly evolving, capable of enriching and healing the lives of all citizens in our nation.²

B. Elimination of the Manual Telegraphy Test for All Amateur Radio License Classes³

5. On this matter, I can heartily agree with Mr. Cour and the Commission's previous statements on a manual telegraphy test not being an indicator to the Commission as to any license applicant's skills sufficient to grant a license.⁴

6. Manual as well as electronically-assisted telegraphy is used every day by thousands in the United States amateur bands plus as many in other countries. None of the 18 Petitions for Rule Making presented in 2003 to 2004 have any direct or implied statements requesting elimination of that mode. However, the efficacy of telegraphy skills as a **licensing criterion** has disappeared.

7. Manual telegraphy tests are good only for proficiency in manual telegraphy. All allocated modes and modulations are optional for Amateur Radio use. There has never been any manual skill test for any of the other modes or modulations allocated to Amateur Radio in the history of the Commission's existence nor in the three radio regulating agencies that existed in the United States between 1912 and 1934.

8. Except for Maritime Radio Service and Amateur Radio, **no other radio service** uses manual telegraphy for any sort of communications or broadcasting. **No** public safety agency uses manual telegraphy for communications. The United States military does **not** use manual telegraphy for communications.⁵

² *Radio* is considered a discipline within the broad scope of *electronics* technology. In the medical field, such instruments as a Radio Frequency Cautery or *Computer-Assisted Tomography (CAT)* utilize Radio Frequencies plus other electronics disciplines, neither example for communications purposes. In the same vein, *Nuclear Magnetic Resonance (NMR)* imaging does not involve nuclear materials but rather on the resonances at Radio Frequencies of elements and molecules within the body.

³ *Manual* telegraphy refers to telegraphy as it was originally *sent by hand and received by ear*. The adjective clarifier is to differentiate between that and *teleprinter telegraphy* as done by teleprinter mechanisms. Teleprinter telegraphy is now included under the broader definition of *data* in the Commission's regulations.

⁴ Proceedings 90-53 and 98-143 as well as Report and Order 99-412.

⁵ Only 4 Military Occupation Specialties (MOS) in the U.S. Army require Morse Code *cognition*. Three of those MOSs are 98C, 98H, 98K, all for Military Intelligence interception and signals analysis. The remaining MOS is 18E, Special Forces Communications Sergeant, with the only occupation description being that an 18E

Maritime Radio operator telegraphy rating is required only in the Great Lakes waterways and then for ships over a weight heavier than most pleasure craft. Maritime Radio uses VHF voice on harbor areas and river waterways, Single-sideband voice and Data on the open ocean. Amateur Radio telegraphy skills have very little transfer value applicable to all other radio services, certainly not for a *ready pool* in the nation to assist any other radio service.

9. The Commission has not mandated manual telegraphy use over and above any other mode or modulation in Amateur Radio for quite some time.⁶ All allocated modes and modulations are optional for use. It is illogical to maintain manual testing in a singular skill for licensing when the use options exist for all.

C. Regulation Compliance and RF Safety Stressed In *Lowest-Level* License Class Examinations

10. I will agree with Mr. Cour on his suggestions for stressing basic knowledge for regulation compliance and RF safety.⁷ Those should exist for **all** license classes. I will disagree with Mr. Cour on any special operations requirements for those *who "...learn about amateur radio through low power operations using local FM repeaters and, to a lesser extent, satellite communications."*⁸ The alleged learning environment about Amateur Radio is not an examination topic and is irrelevant to the Comment. For that matter, *learning about Amateur Radio* can begin with **listening only** and at **any band** for live, on-line operations. Listening to Amateur Radio bands does not require any license in the United States.

D. Technician Class Licensee Skills Are Inadequate For Automatic Upgrade In The Future⁹

11. No convincing statements have been made on that allegation by Mr. Cour. He states, *The level of technical skill required by amateurs is especially important since we are permitted to design and build our own radios without 'type acceptance'. The knowledge required to obtain the present Technician Class license is not sufficient to be a General Class licensee.*" Those two sentences do not correlate.

12. As a very long-term hobbyist in electronics and as a working electronics design engineer, I can state without noted references that **none** of the existing question pool statements **nor** the minimum number of correct written test element questions is anywhere close to any qualification - by the whole - to adequately *design or build* any electronic system or sub-system. An Amateur Radio license, any class, is basically for **operation, not design**. It is terribly presumptuous of any licensee to consider themselves *designers* because they have permission to transmit.

must be familiar, but nothing definitive about such *use*.

⁶ Such use by a minimum number of hour's operation via telegraphy was once required for Amateur Radio license renewal, as far back as the 1950s. Proof was provided by individual operating log books, then also required.

⁷ Mr. Cour at 4, 5, 6, apparently about the RM-10870 Petition.

⁸ Mr. Cour at 7.

⁹ Mr. Cour at 9.

13. The Commission is not chartered by law to be an academic organization and Amateur Radio licenses are not any certificates of learning. Licenses are simply grants from the Commission based on the Commission's determinations. Licenses are, in the most basic and general sense, regulatory tools. That many radio amateurs think their licenses are some proof positive of intellectual achievements is their own fantasy and that self-perceived concept has become an *urban myth* of large proportions.

14. Except for the particular *Communicator class* proposal in RM-10870, **all** radio amateurs, **any** class, may build their own radios.¹⁰ The **design** of radios is a much more complex matter and could not be adequately covered in several hundred multiple-choice questions. Not even the entirety of the existing Amateur Extra written examination total is adequate proof of actual design knowledge or ability.¹¹

15. Designing and building of electronics, including radios, may be learned at many schools and institutions, even informally at amateur club meetings or through home experimentation and study. Existing Amateur Radio regulations on the technical requirements of amateur transmitters apply **equally** to **all** amateur transmitters, ready-built or home-constructed. That an amateur transmitter does meet regulations should be proof enough that a radio amateur has learned sufficient knowledge of design and construction.

16. The restriction of automatic upgrade of Technician class to General class in any petition seems to just one of emotional consideration by long-time radio amateurs too influenced by the old class distinctions brought on by the former *Incentive Plan* licensing structure. Regulations which affect **all citizens** should not be dictated by a minority of long-timers with old class-society opinions. However, the Commission must strike a balance between their objectivity and obligations versus that of self-styled spokesmen for the *amateur community's standards levels*. I demur on any path choice for such future automatic updates for existing no-code-test Technician class licensees.

Summary

Mr. Cour's Comments are considered thoughtful and well presented. We generally agree with few disagreements. His comments seem equitable and fair, without too much of the emotional bias obviously present in some long-time, high-license-class radio amateurs. Emotionalism does not belong in radio regulations affecting all citizens. The Commission is urged to keep options of choice available to all citizens, not to a minority. Option is not a failure.

¹⁰ RM-10870 at 18, proposal calling for *Communicator class* allowed only ready-built transmitters or assembly of transmitter kits from approved kit manufacturers. Existing regulations have a numerical maximum of one external transmitter power amplifier construction or modification per year, §97.313 (a).

¹¹ Yes, even a young Boy Scout can learn to "design" a crystal radio receiver in one day, perhaps using a round food carton as a coil former, the rest of the items salvaged from junk yard components. That may have been done in the first amateur transmitters using damped-wave arc-discharge oscillators or *Spark* transmitters, sans any active devices such as tubes. However, *Spark* is forbidden. There are so-called *Science Fair* project kits which have crystal radio receivers; approximately \$20 at Michaels craft chain stores. None of that really involves *design*, just tinkering and assembly, following directions.

I thank the Commission for allowing an independent citizen's viewpoint to be heard and with the ability to share a half century's accumulation of experience and knowledge in radio and electronics at work and in hobby electronics activities plus informal observation of radio amateur activities since 1947.

Respectfully submitted this 4th day of April, 2004,

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