

FORMAL COMMENTS - COMMISSION NPRM 93-1

by James E. Arconati

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Office of the Secretary
Federal Communications Commission
1919 M Street, NW
Washington, DC 20554

Dear Commissioners:

FCC MAIL ROOM

I have examined the text of Docket No. 93-1. While I have no qualms with those parts of sentences covering digital cellular transmissions, I am convinced that the rest of this proposed rule would NOT contribute to the stated objective of ensuring "the privacy of cellular telephone conversations." In addition, I believe that the proposed rule would have adverse technological, legal, and economic impact. I have provided an original and nine copies of these comments so that each Commissioner can receive a copy.

Recent magazine articles on this topic indicate that there are already millions of scanning receivers in use that can receive frequencies in the 800 MHz range. The proposed law would not take effect for another year, providing ample opportunity for scanner manufacturers to sell many more.

Even if a scanner isn't capable of receiving signals in this frequency range, a simple converter can be used between the antenna and receiver to shift the frequency of the radio signals.

While the Commission can refuse type-acceptance of converters with 800 MHz input, there are very cheap and simple circuits that any electronics hobbyist can build. Plans have been published in electronics magazines. I have personally built converters using readily available parts and also using old UHF TV tuners.

Besides having no benefits, this proposed rule creates several problems:

1. Some technically ignorant people might get the idea their conversations are suddenly more secure. When they learn the truth they will be bitter and more distrustful of the government agencies that deceived them.
2. Privacy might even be reduced. Before the publicity on this topic, most people didn't realize it was so easy to listen to cellular phone calls. Many who never considered buying a scanner may buy one during the next year.
3. New regulations would place an unnecessary burden on electronics manufacturers who would have to change designs and have them recertified. In addition, designing a receiver to preclude being "readily altered" can be very difficult. Rather than risk being "compromised" by some clever hobbyist, most manufacturers will feel a

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need to over-design against alterations. This will have the effect of driving up costs to purchasers while adding no utility to the purchaser.

4. It would set an unfortunate precedent. If we have a ban on receivers capable of receiving a range of (public) frequencies used by the cellular industry, other businesses will expect the same treatment for "their" frequencies.

5. The regulations will have unintended and technology-hampering effects. For example, the 902 MHz band is now experiencing explosive growth for low power commercial and "ham" applications. There is the possibility that much of this equipment could easily be modified to pick up signals in the 800 MHz range even if the manufacturer didn't design it with that intention.

6. The regulation will create a "black market" in foreign-made and home-made equipment capable of receiving the (now-forbidden) frequencies.

The Electronic Communications Privacy Act of 1986 currently ensures the privacy of cellular telephone conversations with at least as much effect as this proposed rule.

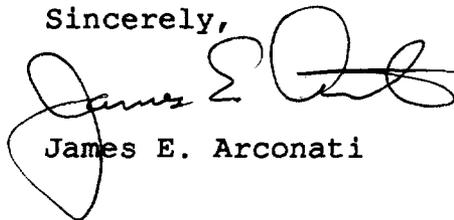
I'm all for guarding the privacy of telephone conversations, but this is not the way to do it. The only acceptable solution is for the cellular telephone companies to make encryption options available. Simple scrambling techniques would add very little to the cost of cellular telephones. The digital cellular phones systems (that will be in place by the time several million existing scanners have moved out of use) will be much more secure and will preclude eavesdropping by casual listeners.

In summary, I urge the Commission to reject the proposed regulations in Docket 93-1 because they would create many problems without making any progress toward the stated goal.

I realize that the Commission has been directed by the Telephone Disclosure and Dispute Resolution Act (Act), Pub. L.102-556. Therefore I have attached specific amendments to be used if the Commission feels it must take action on this ineffective measure. My changes are aimed at clarifying the wording, reducing the potential impact on the Amateur Radio Service, and relieving manufacturers from the need to completely redesign current equipment to meet the specific provisions of this ruling. Additionally, it is my desire to further reduce the enforceability of this measure.

Thank you for your attention to this important matter.

Sincerely,



James E. Arconati

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Changes to the Commission's proposed wording is shown in **bold italics**.

Parts 2 and 15 of title 47 of the Code of Federal Regulations are proposed to be amended as follows:

PART 2-FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS; GENERAL RULES AND REGULATIONS

1. The authority citation for part 2 continues to read as follows:

Authority: Secs. 4, 302, 303 and 307 of the Communications Act of 1934, as amended, 47 U.S.C. 154, 154(i), 302, 303, 303(r) and 307.

2. Section 2.975 is amended by adding a new paragraph (a)(8) to read as follows:

2.975 Application for notification.

(a) * * *

(8) Applications for the notification of receivers contained in frequency converters **designed for use used** with scanning receivers shall be accompanied by an exhibit indicating compliance with the provisions of 15.121 of this chapter.

* * * * *

3. Section 2.1033 is amended by adding a new paragraph (b)(12) to read as follows:

2.1033 Application for certification.

* * * * *

(b) * * *

(12) Applications for the certification of scanning receivers under part 15 shall be accompanied by an exhibit indicating compliance with the provisions of 15.122 of this chapter.

* * * * *

PART 15-RADIO FREQUENCY DEVICES

1. The authority citation for part 15 continues to read as follows:

Authority: Secs. 4, 302, 303 and 307 of the Communications Act of 1934, as amended, 47 U.S.C. 154, 302, 303 and 307.

2. Section 15.37 is amended by adding a last sentence to paragraph (b), and adding a new paragraph (f), to read as follows:

15.37 Transition provisions for compliance with the rules.

* * * * *

(b) * * * In addition, receivers are subject to the provisions in paragraph (f) of this section.

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(f) The manufacture ~~or importation~~ of scanning receivers, and frequency converters **designed for use used** with scanning receivers, that do not comply with the provisions of 15.121 shall cease on or before April 26, 1994. Effective April 26, 1993, the Commission will not accept applications for equipment authorization for receivers that do not comply with the provisions of 15.121. This paragraph does not prohibit the sale or use of authorized receivers **currently type-accepted, designed or** manufactured in the United States, or imported into the United States, prior to April 26, 1994.

3. Section 15.121 is added to read as follows:

15.121 Scanning receivers and frequency converters used with scanning receivers.

Scanning receivers, and frequency converters used with scanning receivers, must be incapable of operating (tuning), or readily being altered by the user to operate, within the frequency bands **currently** allocated to the Domestic Public Cellular Radio Telecommunications Service. Receivers capable of "readily being altered by the user" include, but are not limited to, those for which the ability to receive transmissions in the restricted bands can be added by clipping the leads of, or installing, a diode, resistor and/or jumper wire; or replacing a plug-in semiconductor chip. **Equipment which requires a separate desktop, laptop, or handheld computer to store frequencies is not subject to this ruling. Equipment designed for use in any amateur radio band is not subject to this ruling.** Scanning receivers, and frequency converters used with scanning receivers, must also be incapable of converting ~~digital~~ cellular transmissions **which use digital modulation methods** to analog voice audio.

Manufacturers acting in good faith but whose designs are later found to be in violation of 15.121 are subject to a maximum penalty of \$1/per year for each year in which a violation occurs.