Before the

FEDERAL COMMUNICATIONS COMMISSION
Washington, DC. 20554

In the Matter of	)	
	)	
Interference Immunity	)	**ET Docket No. 03-65**
Performance Specifications	)	
for Radio Receivers	)	
	)	
Review of the Commission's	)	**MM Docket No. 00-39**
Rules and Policies Affecting the	)	
Conversion to Digital Television	)	
	)	
	)	

To: The Commission

REPLY COMMENTS of Nickolaus E. Leggett
N3NL Amateur Radio Operator to the Comments Submitted by the American Radio Relay League

The following is a set of comments from Nickolaus E. Leggett, an amateur radio operator (Extra Class licensee – call sign N3NL), inventor (U.S. Patents # 3,280,929 and 3,280,930 and one electronics invention patent application pending), and a certified electronics technician (ISCET and NARTE). I also have a Master of Arts degree in Political Science from the Johns Hopkins University (May 1970).

My comments are a reply to the comments submitted by the American Radio Relay League, Inc (ARRL).

Background on Receiver Immunity Standards

The ARRL comments provide an excellent background on the history of receiver immunity standards legislation (Reference 1). Of particular interest is Senator Barry Goldwater's position that the regulation of these standards could not be left to the

marketplace because of the lack of progress with attempts at voluntary standards (Reference 2).

Consumer Electronics Immunity Standards

The ARRL correctly states that it would be very useful to establish stricter immunity standards for consumer electronic devices. This would limit the fundamental overload interference to consumer electronics from amateur radio, Citizens Band, cellular phones, and wireless systems. The current practice of providing just 1 Volt/meter protection is not adequate even in the case of low-power radio frequency (RF) sources.

The current situation results in many amateur radio operators staying off the air to keep the peace in their neighborhoods. The neighbors view the amateur radio operators as the "source" of the interference even though the interference is actually due to the design of the consumer electronics equipment itself. The design of the consumer electronics devices and legal liability issues prevent the amateur radio operators from attempting to modify the consumer electronics devices to correct the problems.

Any standards applied to consumer electronics should also encourage the design of products that are field repairable by suitably trained electronics technicians.

Receivers that Should Not be Governed by Interference Immunity Standards

The following types of receivers should not be subject to interference immunity standards:

1. As indicated by the ARRL, amateur radio is a basically experimental service that should not be restricted by receiver immunity standards. Amateur radio operators are capable of building and modifying receivers that are not

susceptible to interference. Therefore, amateur radio receiver design should not be regulated, in order to encourage amateur radio experimentation.

2. There should be no attempt to regulate the design of homemade radio receivers. This freedom encourages learning, experimentation, and the making of various projects presented in radio magazines.
3. Educational receiver kits are widely available for building receivers for AM, FM, and short-wave broadcast reception. These kits should not be required to conform to interference immunity standards. As a result of this freedom, the kits will continue to be simple in design allowing students to learn the details of component-level electronics theory, schematic diagram reading, circuit assembly, and soldering.

I discuss the details of these important educational types of receivers in my comments previously filed in this docket.

Poor People and Broadcast Receivers

A critical issue in this proceeding is its potential impact on poor people and their access to AM and FM broadcasts. We all tend to forget that there are numerous Americans who live in poverty or near poverty. These people have a difficult time affording ten dollars for a simple AM broadcast band pocket radio. This problem is made more severe by the frequent thefts of property in poor neighborhoods.

We must make sure that receiver design standards or regulations allow very inexpensive radio receivers to be manufactured and marketed. This is especially important as analog AM and FM broadcasts are eventually phased out in favor of digital broadcasting.

From a social science standpoint, it is vital for the poor to remain connected to their communities by means of AM and FM radio broadcasts. If new standards or regulations increase the complexity and cost of all radio receivers, poor people will be shut off from access to community events. This would create an underclass of communications-disadvantaged people who would drift away from the American mainstream community and values.

As a result of this basic social concern, the Commission should consider modifying the ARRL request for consumer electronics receiver standards to allow the poor to have a chance to purchase very inexpensive receivers.

Broadband over Power Line and Receiver Standards

Any receiver standards established will have to include the operation of the receiver under the influence of Broadband over Power Line (BPL) Internet service. BPL emits radio noise over a wide spectrum including much of the short-wave spectrum (high frequency). Future receivers will need to be designed for this RF environment. This will be a significant engineering challenge. Further information on BPL can be found in ET Docket No. 03-104.

Suggested Actions

Educational receiver kits and homebuilt projects should be exempt from receiver standards. Any standards that are established should provide for the manufacture and sale of very inexpensive radio receivers.

Respectfully submitted,

Nickolaus E. Leggett, N3NL
Amateur Radio Operator – Extra Class
1432 Northgate Square, Apt. 2A
Reston, VA 20190-3748
(703) 709-0752
nleggett@earthlink.net

August 5, 2003

Reference 1: Comments from the ARRL submitted on July 21, 2003 (pages 3 through 9).

Reference 2: Comments from the ARRL submitted on July 21, 2003 (page 8).

Statement of Service

A copy of this reply comment has been sent to the American Radio Relay League (ARRL) by USPS First Class Mail.

Mr. Christopher D. Imlay
Booth, Freret, Imlay, & Tepper, P.C.
14356 Cape May Road
Silver Spring, Md. 20904-6011

A copy has also been sent to the ARRL by electronic means.