REPORT OF THE RF SAFETY COMMITTEE

TO THE

ARRL BOARD OF DIRECTORS

January 1999

While most of the past 6 months have been uneventful, the Fall of 1998 has seen a lot of activity that has been of interest to the RF Safety Committee. A very interesting and revealing set of stories appeared in the press about the problems that some cellular telephone companies have been having due to their use of unfortunate terminology with regard to RF safety. The committee also noted that in the FCC biennial review of Part 97 of its regulations there were two changes affecting the RF Safety regulations that needed some clarification.

The RF Safety Committee has participated in the following areas over the past six months:

2. RF Safety Committee Activities (FCC Biennial Review, Op Ed piece for QST)
3. Monitoring recent scientific studies regarding RF Safety (Responses to NIH Panel on ELF Effects).

3. Participation in the scientific RF Safety community (IEEE Conference, IEEE Standards Committee, NCRP, RF Safety at Ham Club meetings).

4. Administrative issues (Email reflector).

5. Future Plans (Rewriting RF Safety text, Dayton Hamvention).

1. <u>RF Safety Committee Activities</u>
    1. Even though most of the attention of the Amateur Radio community has been focused on the license restructuring proposals contained in the FCC's Biennial Review of Part 97 Rules and Regulations (FCC WT Docket No 98-143), the committee noted that there were two proposed rule changes that affect the RF Environmental Exposure regulations. The committee prepared comments to those sections and submitted them to the League's counsel on November 12 for incorporation into the official ARRL comments. These comments were not included in the official comments of the ARRL to the FCC when the December 1 filing was made. The proposed changes to the RF Safety related sections of Part 97 contain ambiguities with respect to the way that the power of a repeater transmitter is defined when determining the need for an environmental evaluation. The committee feels that this should be better defined and hopes that the comments can either be included with the January reply comments or as a separate filing.
    2. A story appeared in the popular press about RF Safety that the committee felt was important enough to respond to. Several European cellular telephone manufacturers have developed antennas that have directional patterns that, they

claim, decrease the amount of RF that is absorbed in the head of the user. They applied for patents for these antennas and, in their claims, described the inventions as designed to "minimize the health risks associated with using mobile phones." Groups of lawyers pounced on this wording and are now using it to imply that there are, indeed, health risks associated with the use of mobile phones. They claim bad faith on the part of the manufacturers, who previously stated (correctly) that there were no such health risks. This story illustrates how important it is to choose wording correctly and accurately. The committee has prepared a short article, which is slated to be used as an Op Ed piece in the May issue of QST, to remind hams of the sensitivity of this subject in the general public and also to introduce the committee to the ARRL membership.

2. Monitoring Scientific Studies
    1. There has been nothing published in the past six months that changes our understanding of the interactions between RF or ELF and biological tissue.
    2. Responses to the National Institutes of Health (NIH) panel's declaration that ELF fields contribute to the initiation of cancer continue. The most prominent of these came from the American Physical Society, who refuted the findings and, editorially, questioned the motivation of some of the panel members.
3. Participation in the Scientific RF Safety Community
    1. The Annual IEEE Engineering in Medicine and Biology Society conference in Hong Kong in October-November 1998 once again contained sessions related to Electromagnetic Bioeffects and was organized by Dr. Lapin. Drs. Cleveland and Lapin were slated to speak at a workshop on Electromagnetic Bioeffects, which was subsequently canceled due to low registration.
    2. Mr. Hare and Dr. Guy continue to serve on the IEEE Standards Coordinating Committee C95.1, which develops the standards for human exposure to RF energy.
    3. Dr. Guy continues to serve on the National Council for Radiation Protection (NCRP), which analyzes current scientific knowledge in RF Bioeffects and develops exposure standards.
    4. Drs. Guy and Lapin serve on the IEEE Committee on Man and Radiation, which develops informational text about various issues regarding the effects of nonionizing radiation on humans and medical devices. COMAR also publishes position papers about the dangers, or lack thereof, of various technologies with respect to nonionizing radiation.
    5. Dr. Siwiak received his Ph.D. degree, with the thesis topic: "Optimizing Body-Proximate Telecommunications Devices in Direct and Multipath Propagation."
    6. Dr. Siwiak serves on the Motorola Electromagnetic Exposure Committee.
    7. Dr. Griffin spoke to the Ophthalmology staff at Hazel Hawkins Hospital in Hollister, CA concerning corneal effects from radiation. His talk was well received and considered very informative by the audience, which was largely unaware of these interactions.
    8. Dr. Griffin has been promoted to the rank of Brigadier General in the U.S. Army.
    9. Dr. Maxwell has announced his retirement as of December 30, 1998.
    10. Dr. Lapin has been asked to speak about RF Safety at the February 1999 meeting of the Schaumburg Amateur Radio Club in Schaumburg, IL.

4. Administrative Issues
    1. Mr. Hare continues to administrate the RF Safety committee email reflector, which handles all correspondence between committee members. Traffic over the reflector is monitored by other ARRL staff members and we occasionally receive helpful comments from them.
5. Future Plans
    1. The committee is considering restructuring of the RF Safety text that appears in ARRL publications. We have requested comments from some of the ARRL editors, including those of the handbook and license manual. With the text divided into subject areas, it will be possible for future ARRL publications will be able to select different sections that are pertinent to the subject matter of the publication. For instance, it is not necessary to include a discussion of epidemiological research in the RF Safety text of a license manual. The current structure of the subdivision is taken from the outline of the workshop that was scheduled for the IEEE conference. When subdivided in this way, it should also be easier to update sections rather than reviewing the entire document every time a change is made.
    2. Dr. Lapin has contacted the organizers of the Dayton Hamvention to suggest that the 1999 Hamvention include a seminar about RF Safety, and has volunteered to staff it.
    3. Dr. Lapin is preparing an article for *QST* about how RF Safety was dealt with at the 1998 North Shore Radio Club Field Day site. The article should be ready for publication prior to Field Day 1999.

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    Chair, ARRL RF Safety Committee

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