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**REPORT OF THE RF SAFETY COMMITTEE  
TO THE  
ARRL BOARD OF DIRECTORS**

January 2017

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

1. RF Safety Committee Activities.
2. Monitoring recent scientific studies regarding RF Safety.
3. Participation in the scientific RF Safety community.
4. Administrative issues.

1 RF Safety Committee Activities

- 1.1 Dr. Lapin is coordinating an RF noise study for the FCC Technological Advisory Council that issued a Technical Inquiry (EC 16-191) to gain insight into noise sources and effects that are being experienced. Interestingly, there was a significant number of responses that misinterpreted the questions in the study and complained of “dirty electricity.” There are people who believe that power lines pick up RF energy from the air and deposit it in their homes, harming their health. The committee has discussed this claim in the past and agreed that there is no veracity to it. Some of these people make a living by selling meters to measure how “dirty” their electricity is and filters that can be plugged into AC outlets in the home in the hope of removing this RF energy. People in this vein also believe that devices that use power lines to transmit RF signals, such as smart meters, are injuring their health. There was a total of 101 responses to the TAC Technical Inquiry and 21 of them wrote about health effects from “dirty electricity.”

2 Monitoring Scientific Studies

- 2.1 Dariusz Leszczynski, PhD, adjunct professor of Chemistry at the University of Helsinki, Finland, wrote a paper in which he presented a hypothesis that while RF energy does not cause cancer in tissue it may enhance the effects of other cancer-causing substances. Dr. Leszczynski believes that this effect, which he calls, “cocarcinogenicity,” would explain the seemingly contradictory results of the many studies on RF effects. Dr. Leszczynski was a member of the IARC working group that classified RF energy as category 2B (possibly carcinogenic) and he feels that the cocarcinogen hypothesis is compatible with this classification. The hypothesis was reviewed by two experts that disagreed with it. John Moulder, PhD, professor of radiation biology at the Medical College of Wisconsin, pointed out that this is hardly a new hypothesis. The modern terminology for cocarcinogen is “epigenetic carcinogen,” which was examined by a number of major animal brain tumor studies in the 2000s; no effect was found in any of these. Other studies looked at other forms of cancer between 1997 and 2003 and most of them were negative. Epigenetic activity was studied in cell culture from 1985 through 2010 and some effects were found but could not be confirmed. Joel Moskowitz, PhD, at the school of public health at

University of California at Berkeley also disagreed with the cocarcinogenicity hypothesis because he believes that RF energy causes cancer.

- 2.2 IEEE Committee on Man and Radiation (COMAR) is considering making a response to a series of YouTube videos put out by Dr. Devra Davis that talk about the dangers of cell phones and portable computing devices. Dr. Davis recycles many of the arguments made more than 20 years ago, for being concerned about cell phone exposure especially in children, without considering the many studies that have been performed since then.

### 3 Participation in the Scientific RF Safety Community

- 3.1 Mr. Hare continues to serve on the ICES (IEEE) SCC-28 RF Safety Standards Committee.
- 3.2 Dr. Lapin continues to serve as a member of the IEEE Committee on Man and Radiation, COMAR.
- 3.3 Dr. Siwiak serves as a consultant to the Q-Track Corporation on matters of RF exposure related to body mounted small MF and HF transmitting loops.
- 3.4 Dr. Siwiak developed the accredited continuing education course, "Cell Phone and RF Exposure Awareness," which is offered online by SunCam Corporation.

### 4 Administrative Issues

- 4.1 Dr. Siwiak is a contributing editor for QST and Editor of QEX, and he shares any submitted RF Safety-related articles with the Committee.

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Chair, ARRL RF Safety Committee

**The ARRL RF Safety Committee**

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