

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

July 2015

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 The Committee discussed an article that appeared in Medscape, an information website for medical professionals. Medscape presented a continuing medical education activity entitled "Risk for Glioma Triples With Long-Term Cell Phone Use," based on Lennart Hardell's latest publication [*You may recall Dr. Hardell's work being mentioned in past RFSC reports; in every case his conclusions have contradicted the vast majority of similar studies leading us to question anything with his name on it*]. The Committee members noted that the Medscape article was attempting to teach an incomplete lesson, that a single research paper could be evaluated without considering other research, most of which in this field contradicts the study that they were referencing. Even though Medscape also published a dissenting opinion, it was particularly disturbing that a respected medical publication was presenting incorrect research as if it was accepted fact to be used as a lesson to medical professionals. Committee members who were also Medscape subscribers registered dissenting comments with the editor. Evidently these comments had an effect because in the next month the Medscape editor published somewhat of a retraction: "*Editor's Note: An earlier version of this article suggested the connection between cell phone use and cancer was "compelling"; it now more accurately reflects the inconclusive state of the science.*"

## 2 Monitoring Scientific Studies

- 2.1 An opinion article by Robert Szczerba appeared in Forbes magazine, in which he commented on a survey article in the *Journal of Microscopy and Ultrastructure* that concluded that “children and adolescents are at considerable risk from devices that radiate microwaves (and that adults are at a lower, but still significant, risk).” Mr. Szczerba correctly pointed out several deficiencies of this survey article, including the very limited number of articles that were included in the survey and that the journal that published the article is relatively new and minor [*RFSC Comment: As well as not being a journal that specializes in the topic, which is an indication that the article may have had problems getting accepted by journals in which the editors, reviewers and readers know something about the topic*]. The authors used several other unsupported and non-scientific arguments to support their hypothesis, such as: Children absorb more microwave energy than adults, the warnings included in cell phone manuals prove that an overexposure problem exists, government warnings have been issued but the public is unaware of them, and current exposure limits are inadequate and outdated and need to be revised. These statements were largely taken at face value by the authors with little or no scientific support.
- 2.2 An animal research study from a group in Germany, entitled “Tumor promotion by exposure to radiofrequency electromagnetic fields below exposure limits for humans” was published. The authors studied mice that had been treated with a known carcinogen and later exposed to electromagnetic energy. They concluded that while the exposure did not cause the disease it appeared to have accelerated the growth of the cancer. In making their conclusions the authors noted that a dose-response relationship was not present in their results. Lack of a dose-response relationship is often an indication that a different mechanism is at work, which may have nothing to do with the intended electromagnetic exposure.
- 2.3 Another opinion article in Forbes Magazine, this time by Geoffrey Kabat, was entitled “How many scientists does it take to squelch a critic? Hint: 124.” Dr. Kabat is an epidemiologist at Albert Einstein College of Medicine and he has written criticisms of the IARC (International Agency for Research on Cancer) classification of radiofrequency energy as a “possible carcinogen.” The IARC responded with a document published in *Environmental Health Perspectives* that listed 124 authors from IARC and academia. They strongly claimed that their evaluation process was based solely on scientific evidence and not political pressure. Dr. Kabat had stated that a number of scientists who were directly related to the IARC dissociated “themselves from the agency’s approach to evaluating carcinogenic hazards.” Dr. Kabat had written about one epidemiologist who had “done extensive research on cell phones had resigned from the committee over a frivolous charge of having a conflict of interest.” He also wrote about a second epidemiologist, who is an expert on brain cancer, who “had resigned from the committee, apparently in disgust over the proceedings.” Finally, Dr. Kabat interviewed a molecular toxicologist who had been on the committee and had described the proceeding to him. His criticism of the proceeding that led to the classification of radiofrequency energy as a “possible carcinogen” was well documented but the IARC was apparently unaware of the evidence and attacked Dr. Kabat

as someone who is opposed to epidemiology. That's an odd thing to say about an epidemiologist. Dr. Kabat is a scientist to watch.

- 2.4 Evidently a reporter for the Style section of the New York Times was swayed by some EMF activists and wrote an article outside of his area of expertise, entitled "Could wearable computers be as harmful as cigarettes?" It seems to have snuck by the Styles editor. After a couple of days of complaints the editor wrote a pretty good rebuttal of his own writer's article. Unfortunately you have to reach the end of the article to find it.

### 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. He generally shares the voting ballots for changes to the standards with the Committee prior to voting on them.
- 3.2 Dr. Lapin continues to serve as a member of the IEEE Committee on Man and Radiation, COMAR.
- 3.3 Dr. Lapin served as a consultant in a power-line exposure question.
- 3.4 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.
- 3.5 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 The Committee is working on updating the RFSC Webpage on the ARRL website.
- 4.2 The Committee thanks Director Tom Frenaye, K1KI, for forwarding RF-safety related articles to the committee.
- 4.3 Members of the Committee continue to review articles submitted to QST, looking for potential RF safety issues that should be dealt with prior to publication.

Gregory Lapin, Ph.D., P.E., N9GL  
Chair, ARRL RF Safety Committee

**The ARRL RF Safety Committee**

Chair

Gregory D. Lapin, Ph.D., P.E., N9GL  
1206 Somerset Ave  
Deerfield, IL 60015-2819

Committee Members

Robert E. Gold, M.D., W0KIZ  
9197 N. Clydesdale Rd  
Castle Rock, CO 80104-9102

Kai Siwiak, P.E., Ph.D., KE4PT  
10988 NW 14th St  
Coral Springs, FL 33071-8222

William Kaune, Ph.D., W7IEQ  
160 Cedarview Dr  
Port Townsend, WA 98368-9527

Bruce Small, M.D., KM2L  
10540 Stoneway  
Clarence, NY 14031-2100

James W. Ross, M.D., M.P.H., W4GHL  
4599 Black Rail Ct  
Providence Forge, VA 23140-3733

Guy L. (Bud) Tribble, M.D., Ph.D., N6SN  
101 Fallen Leaf Dr  
Hillsborough, CA 94010-6918

Emeritus Committee Members

Gerald Griffin, M.D., K6MD  
123 Forest Ave  
Pacific Grove, CA 93950-2619

William Raskoff, M.D., K6SQL  
1769 Escalante Way  
Burlingame, CA 94010-5807

Liaison to the ARRL Board of Directors

Kent Olson, KA0LDG  
148 Ironwood Dr  
Horace, ND 58047-4002

ARRL HQ Staff Liaison

Ed Hare, W1RFI  
ARRL Headquarters  
225 Main St  
Newington, CT 06111-1400

ARRL HQ Administrative Liaison

Lisa Kustosik, KA1UFZ  
ARRL Headquarters  
225 Main St  
Newington, CT 06111-1400