

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

January 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 the recent attempt of the City of Berkeley, CA to require health warning stickers on cell phones. Last year the attempt of the San Francisco Board of Supervisors to require cell phone carriers and manufacturers to include health warnings when selling cell phones failed in court based on a freedom of speech argument. Although the Berkeley City Council cannot point to any scientific studies that show links between cell phone use and cancer, people there are convinced that the danger exists.
- 1.2 The Committee discussed an article published on the website of a radio station in Houston, TX that stated that the radiation emanating from cellular telephones probably causes cancer. The poorly written article was riddled with factual errors and based its conclusions on cherry-picking of some of the worst performed scientific studies from the past. Committee members were amazed that this type of journalism can exist and were concerned that this type of article continues to stoke the fears of the scientifically naïve in our society.

2 Monitoring Scientific Studies

- 2.1 A peer reviewed study entitled “Occupational Electromagnetic Field Exposures Associated with Sleep Quality: A Cross-Sectional Study” was reviewed by the Committee. The authors studied the sleep quality of workers at power plants using questionnaires. The Committee members noted that in the paper’s introduction the authors demonstrated a lack of knowledge about biological effects of electromagnetic energy by lumping together exposure from cellular telephone RF and 50/60 Hz power line EMF. Also noted was that the authors did not consider other things that affect sleep, such as the high noise levels and ambient heat at power stations. Since the results were based on the subjects’ answers to questions after the fact, there was a high likelihood of recall bias (if you tell someone that you are looking for an effect their answers may be biased by that knowledge).

2.2 The Committee discussed a study from Sweden by Dr. Lennart Hardell. In this latest report, people who had used cellular telephones for more than 25 years and had been diagnosed with brain tumors were questioned about their cell phone use over that time. Their answers were compared with the remembrances of an equal number of people who had not been diagnosed with brain tumors. Clearly recall bias is a danger with this type of study, particularly when the subjects are asked to recall cell phone use from decades earlier. Dr. Hardell claimed that his data show an increase in risk of three times for cell phone use over more than 25 years. It was noted that as with many of Dr. Hardell's other studies, his results are the opposite of most other studies on the same topic. Most recently the largest study on this topic, the Interphone study, failed to find a link between cellular telephone use and brain tumors.

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.

4 Administrative Issues

- 4.1 The Committee is working on updating the RFSC Webpage on the ARRL website.
- 4.2 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.
- 4.3 Members of the Committee have been participating in the ARRL Centennial QSO Party using a designator of "RF" and handing out 35 points per QSO.

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