

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

January 2021

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

1. RF Safety Committee Activities.
2. Monitoring current events and 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 was approached by the Radio Society of Great Britain for help with their RF exposure safety program. While the FCC developed RF exposure regulations that went into effect for radio amateurs in 1998, their counterpart in the United Kingdom, Ofcom, is just now writing similar rules for the first time. We felt that a collaboration on this subject between RSGB and ARRL would be beneficial to both organizations, particularly considering the major changes that are going into effect in the next few years with the FCC's RF exposure regulations. A subcommittee, consisting of Dr. Lapin, Mr. Tell, Mr. Butcher, and Dr. Siwiak, meets every other week with its counterpart in the UK via Zoom.
- 1.2 One significant difference that has become apparent between the RF exposure regulations in the US and those proposed for the UK is the scientific standard used to develop the exposure thresholds. The FCC has based its regulations on a combination of NCRP Report 86 and IEEE C95.1-1991. Ofcom is basing its new regulations on ICNIRP-2020. As we have discussed the differences between the UK and US exposure regulations, it has become evident that, though the two standards are similar, there are some basic differences that could have significant effects on how radio amateurs must comply with them. The latest FCC RF Exposure NPRM is considering the use of either the IEEE C95.1-2019 revision or ICNIRP-2020.

2 Monitoring Current Events and Scientific Studies

- 2.1 Several years ago the State Department reported that several diplomats in Cuba and China were plagued with mysterious neurological symptoms. Recently the National Academy of Sciences released a report that placed the blame for these symptoms on directed, pulsed microwave signals. The report admitted that this conclusion was circumstantial and based on very little direct evidence but they still cited reports over the past 50 years of a microwave clicking effect that was demonstrated in the laboratory. The consensus among bioeffects researchers however is that the NAS report is nonsense. Those that had experienced the microwave clicking effect noted how subtle it was and that the amount of power density necessary to cause this effect would heat the entire body and be very noticeable.

3 Participation in the Scientific RF Safety Community

- 3.1 Mr. Tell continues to serve as the chairman of the ICES (IEEE) TC-95 Subcommittee SC-2 RF Safety Standards Committee.
- 3.2 Mr. Hare continues to serve on the ICES (IEEE) SCC-28 RF Safety Standards Committee.
- 3.3 Mr. Tell continues to serve as the chairman of the IEEE Committee on Man and Radiation, COMAR.
- 3.4 Dr. Lapin continues to serve as a member of the IEEE Committee on Man and Radiation, COMAR.

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.
- 4.2 In August the Committee welcomed a new member, Matt Butcher, KC3WD. Matt is a consultant in RF exposure assessment and serves as the co-chair of subcommittee 1 (Techniques, Procedures, and Instrumentation) of the IEEE C95.3 (IEEE Recommended Practice for Measurements and Computations of Radio Frequency Electromagnetic Fields with Respect to Human Exposure to Such Fields) standards committee.

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

The ARRL RF Safety Committee

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