

Progress in the Development of HEMP and IEMI Standards by the International Electrotechnical Commission (IEC)

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The International Electrotechnical Commission (IEC) headquartered in Geneva, Switzerland has been working since 1989 to produce standards and reports to describe the threats of and protection methods for the high-altitude electromagnetic pulse (HEMP) and other high power electromagnetic threats such as intentional electromagnetic interference (IEMI). This presentation will review the work that has been performed in the past and the new work that is underway.

At the present time IEC Subcommittee 77C (SC 77C) has produced 17 publications covering both HEMP and IEMI. The HEMP work began in 1989 and has continued to the present time. In 1999 the work of SC 77C expanded to cover the threats of man-made high power electromagnetic fields with a focus on the protection from electromagnetic weapons designed to interfere with commercial equipment and systems. Three recent publications have dealt with these subjects:

- IEC 61000-1-5: High power electromagnetic (HPEM) effects on civil systems
- IEC 61000-2-13: High power electromagnetic (HPEM) environments – Radiated and conducted
- IEC 61000-4-33: Measurement methods for high power transient parameters

The presentation will describe the organization, membership and operation of SC 77C and will emphasize the coordination of the HEMP and IEMI work with the normal EMC work of the IEC. The current work program, including the maintenance of published standards and new projects that have been approved by the National Committees of the IEC will also be discussed.

In conclusion the presentation will provide information for those who may be interested in participating in the future work of IEC SC 77C.