

RF-Weapons for Non-Lethal Interference and Destruction of Communication, Information and Electronic Systems

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Radio-frequency weapons (RFW) offer the promise of reduced lethality attack against electronic systems used to support civil infrastructure and military operations. The basic requirements for RFW systems are small size, robust construction, and high radiated power specifications.

The objective of RF weapon systems is to disrupt or destroy electronic systems necessary to support military operations or civil infrastructure. Due to the subtlety of the attack, RF weapons offer the possibility of covert engagements, which in the case of mobile repetitive sources may be conducted over extended target areas. Short-pulse RF weapons are not anticipated to cause undesirable biological effects on personnel in the target area.

A range of high-power HPM and UWB sources have been developed, which are possible candidates for future RF weapon systems. These sources range from small, autonomous, man-portable systems to larger high-energy systems and multi-antenna arrays. This presentation includes an overview on various source technologies, together with some typical scenarios including a discussion of target effects.

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