

Abstracts

Electronic warfare systems

A.E. Spezio. "Electronic warfare systems." 2002 *Transactions on Microwave Theory and Techniques* 50.3 (Mar. 2002 [T-MTT] (50th Anniversary Issue)): 633-644.

Electronic warfare (EW) is an important capability that can advance desired military, diplomatic, and economic objectives or, conversely, impede undesired ones. In a military application, EW provides the means to counter, in all battle phases, hostile actions that involve the electromagnetic (EM) spectrum—from the beginning when enemy forces are mobilized for an attack, through to the final engagement. EW exploits the EM environment by sensing and analyzing an adversary's application of the spectrum and imposing appropriate countermeasures (CMs) to hostile spectrum use. EW sensors are one means by which the military gathers tactical intelligence from noncooperative forces. EW sensors, together with EW CMs, mitigate the effectiveness of an adversary's electrooptic/infrared, and radio frequency-controlled weapons. EW enhances the survivability of the host force through control and manipulation of the EM environment and denies or limits its use by an adversary. EM spectrum CMs to threat systems can be selectively applied on a time- and/or frequency-multiplexed basis so that host force use of the EM spectrum is uninhibited.

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