



ELECTRONIC WARFARE

2017

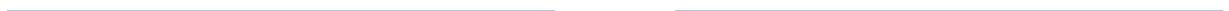
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Introduction

The objective of the e-book Electronic Warfare of the Erasmus+ Strategic Partnership Program is to provide an overview of the fundamentals of electronic warfare regarded as one of the pillars of Command and Control Warfare (C2W) and of Information Operations (InfoOps).

In order to understand the role of Electronic Warfare within the operations, electromagnetic environment needs to be studied, in which particular activities are conducted, its relations to further environment of warfare, and to the ground, naval, air, space, and last but not least the information dimension.

In order to overview the electromagnetic environment and to understand its most significant characteristics the physical spectrum needs to be understood, individual ranges of the physical spectrum need description, and the features of propagation of waves in the given spectrum ranges have to be summarized.

The overview of various military and civil applications of electromagnetic energies comprises an important part of the teaching material, including the brief introduction of the threats towards to such applications and the procedures of attacking them.

This teaching material presents the operational environment of electronic warfare, its role in information operations and cyber warfare, its relations to computer-network operations (CNOs), the definition of electronic warfare, its activities and measures. The interrelations among electronic warfare support measures, electronic counter measures and electronic protective measures are discussed in separate subsections.

A separate chapter is devoted to the issues of the measures of operational applications of electronic warfare, particularly to the specific features of their use in land operations and in air operations.

In the end of the teaching material some major issues of electronic warfare command and control are discussed along with the major tasks of the staff responsible for coordinating electronic warfare activities. The introduction of the planning process of electronic warfare, that of the contents of its important elements, and the control principles of electronic warfare comprise an important part of this chapter.

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