

In the Name of God



Imam Ali Military Academy

Army Foreign Languages Center

English for the Students of

Electronic Warfare

BY

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کلیه حقوق برای دانشگاه افسری امام علی^(ع) محفوظ است

سخن انتشارات معاونت پژوهش

دانشگاه افسری امام علی^(ع) با توجه به قدمت و سابقه حرفه‌ای خود، سال‌ها است که با تهیه و تدوین کتب علمی، نظامی و آموزشی مورد نیاز، سعی در تعالی روزافزون دانش علمی دانشجویان این دانشگاه دارد و با هدف پرورش دانشجویان دانا، هوشمند و متعهد، در راستای پاسداری و دفاع از تمامیت ارضی نظام مقدس جمهوری اسلامی ایران گام‌های استوار و مؤثری برداشته است.

بر اساس مصوبات شورای پژوهشی و آموزشی دانشگاه، چاپ و نشر کتاب‌های آموزشی و کمک آموزشی سرلوحه کار قرار گرفته است. در راستای تحقق این اهداف با حمایت از تالیف، گردآوری و ترجمه کتب علمی، ابتدا منابع درسی مورد نیاز تأمین می‌گردد و در مرحله بعد تدوین منابع علمی، کمک آموزشی و پژوهشی در دستور کار قرار گرفته است.

برای چاپ کتاب، علاوه بر ارزش علمی، می‌بایست اهداف عالیه ارتش جمهوری اسلامی ایران، اهتمام به محتوای ارزشی و معنوی کتاب، هماهنگی با سرفصل‌های وزارت علوم و کاربردی و تخصصی نمودن کتاب‌های تدوین شده و ... لحاظ شود. البته دشواری‌ها و موانع این راه بر هیچ یک از صاحب‌نظران پوشیده نیست.

به امید آنکه گام‌های ارزشمند و مفیدی که برداشته شده است، سرآغاز حرکت و پویایی بیش از پیش این دانشگاه مقدس باشد. از این‌رو از تمامی منتقدان، استادان و هیئت‌های علمی تمامی دانشگاه‌های کشور یاری و مدد می‌جوییم تا هر گونه کاستی و نقص‌های احتمالی را هر چند که کم و ناچیز باشند، متذکر گردند.

ان شاء الله

Table of Contents

<u>Unit</u>	<u>Page No.</u>
Introduction	
One: Military Leadership	1-14
Two: War	15-30
Three: Principles of War	31-44
Four: Electronics	45-56
Five: Military Communications (signals)	57-66
Six: Fundamentals of Electronic War	67-78
Seven: Radar & Satellite	79-92
Eight: Combat Operations and Electronic Warfare	93-104
Nine: Electronic Warfare Organization	105-114
Ten: Signal Site Selection/Set Up and Security	115-126
Eleven: Digital Electronics	127-140
Twelve: Signal Support Responsibilities	141-152
Annex: Annex to Unit Twelve	153-158
Glossary: English-Persian	159-166

In The Name Of Allah

Introduction

In the course of the history of ELT education inhabitants of the surrounding mountains of ELT, i.e., Scientists, Businessmen, Engineers, etc. found ELT courses unsatisfactory and unsuccessful for their purposes. Consequently, English as the global language of science, technology and business received prime importance in the form of special courses called English for Specific Purposes (ESP) which appeared as an innovative trend in the form of language teaching and learning. However, ESP has paid scant attention to the question of *how* people learn, focusing instead on the question of *what* people learn.

To avoid the relatively unsuccessful trend of ESP education in Iran and follow the latest theoretical Strategic Based Instruction (ABI) in TEFL, Imam Ali Military University (IAMU) of Iranian Army has embarked upon a comprehensive project of ESP materials preparation in order to found ESP education primarily on learner-centered while having a glance at the language-centered approach. To this end, IAMU attempts to design, develop and prepare a set of ESP course books on all various branches of military education. The materials are specially designed so that they can meet a triple-purpose:

- To improve the students reading comprehension ability;
- To improve their word power particularly special Electronic Warfare terminologies; and
- To offer them translation skill so that they can autonomously master translation primarily from English into Persian and sometimes vice versa.

As one of the series of ESP textbooks, this volume is specially prepared for Army Electronic Warfare (EW) students. It establishes how the familiarity with EW can support army operations and describes what EW experts/officers do to support commanders across the patterns of operations.

To meet the objectives, the book comprises twelve units each enjoying primarily five main sections including: *comprehension check*, *vocabulary section*, *grammar focus*, *translation*, and *key word list*. Each section mainly addresses development of certain aspects of learner's knowledge but the common rationale behind all of them is to develop innovation, and autonomous learning through plenty of innovative, specially designed exercises to the extent that learner can be empowered in the process of learning through what is called Instrumental Enrichment.

This volume is, therefore, divided into twelve units:

The first three units (**Military Leadership, War, and Principles of War**) tap common needs among the students of all military branches including those of EW.

Unit Four, entitled **Electronics**, having defined the notion of electronics, makes the students familiar with the main uses of electronics, output-input systems and analog circuit as far as it is concerned with EW.

Military Communications is an issue which is more elaborated in Unit Five. Here, Military Communications or Signals are introduced part of the Command, Control, Communications and Intelligence Model. Along with offering a very concise historical review of the topic, this unit elaborates notions like Network-Centric Warfare (NCW), EW, ES, EA and EP.

Unit Six aims to make the learners familiar more specifically with the **Fundamentals of EW**. Thereby, the function of EW in modern battle, the function of modern weapon (E-bomb), and various types of EA are discussed.

Unit Seven addresses the function of **Satellite and Radar** in present-day world. Significance, utilities, and processes of their use in war in general and in EW in particular are more elaborated. Though a lengthy unit, the author deemed inclusion of this much points necessary for the students.

Combat Operations and Electronic Warfare is a crucial subject, which elaborates the implications of EW in combat operations. In line with this purpose, Unit Eight, reminding the principles of war, furthers the students knowledge on IEW and procedure of planning for EW.

Unit Nine can be identified as a special topic in which the students are enabled to have a picture of **EW Organization**. In this unit, EW working groups, the main organizational levels of EW, and the necessity of EW flexibility in terms of organizational structure are discussed.

Signal Site Selection/Set up and Security accommodating three separate while interrelated points was worthy of being dedicated a separate unit. To this end, Unit Ten makes the students practically familiar with the basic considerations in selecting and setting up along with the pertinent security issues in EW.

Unit Eleven, as a complementary part to Unit Four, addresses the definition, aspects, and types of **Digital Electronics**. To this end, distinctions between digital electronics and analog systems and the advantages as well as the disadvantages of each one are explained.

Supporting Unit Nine, Unit Twelve entitled: **Signal Support Responsibilities**, makes the students acquainted with various organizational responsibilities of staff members in an EW organization. Due to the importance of the topic, an additional

part; Annex to Unit Twelve, has also been included so that the students can enrich their knowledge, if willing.

In addition to the **Word List** section at the end of each unit which includes certain terms along with the key words necessary for further comprehension of pertinent reading passage, the volume is characterized by a **Glossary** section covering major special financial and military terms and expressions in five two-column pages.

Last but not least, the book reflects the language policy of the Army Foreign Language Centre of Imam Ali University. In spite of the great efforts and cares made, *no perfection is claimed* by any means. My personal advice is that the book be exposed to pilot teaching so that it can be evaluated from various perspectives. Meanwhile, I personally welcome any constructive comments from colleagues, students and any other readers.

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