

1. Record Nr.	UNINA9910828702603321
Autore	Adamy David
Titolo	EW 102 : a second course in electronic warfare // David L. Adamy
Pubbl/distr/stampa	Boston, : Artech House, c2004
ISBN	1-5231-1715-X 1-58053-687-5
Edizione	[1st ed.]
Descrizione fisica	1 online resource (290 p.)
Collana	Artech House radar library
Disciplina	623.043
Soggetti	Electronics in military engineering Information warfare
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references (p. 259-262) and index.
Nota di contenuto	Table of contents; Preface xv; 1 Introduction 1; 1.1 Generalities About EW 3; 1.2 Information Warfare 5; 1.3 How to Understand Electronic Warfare 6; 2 Threats 9; 2.1 Some Definitions 9; 2.2 Frequency Ranges 13; 2.3 Threat Guidance Approaches 15; 2.4 Scan Characteristics of Threat Radars 17; 2.5 Modulation Characteristics of Threat Radars 22; 2.6 Communication Signal Threats 26; 3 Radar Characteristics 33; 3.1 The Radar Function 33; 3.2 Radar Range Equation 36; 3.3 Detection Range Versus Detectability Range 42; 3.4 Radar Modulation 48; 3.5 Pulse Modulation 48. 3.6 CW and Pulse Doppler Radars 54 3.7 Moving Target Indicator Radars 58; 3.8 Synthetic Aperture Radars 63; 3.9 Low Probability of Intercept Radars 67; 4 Infrared and Electro-Optical Considerations in Electronic Warfare 77; 4.1 The Electromagnetic Spectrum 77; 4.2 IR Guided Missiles 82; 4.3 IR Line Scanners 87; 4.4 Infrared Imagery 90; 4.5 Night-Vision Devices 94; 4.6 Laser Target Designation 98; 4.7 Infrared Countermeasures 101; 5 EW.
Sommario/riassunto	Annotation Serving as a continuation of the bestselling book EW 101: A First Course in Electronic Warfare, this new volume is a second installment of popular tutorials featured in the Journal of Electronic Defense. Without delving into complex mathematics, this book gives engineers, defense contractors, managers, and government procurers a basic working knowledge of the technologies deployed in today's

electronic warfare (EW) systems. Organized into chapters with new introductory and supplementary material from the author, this unique book includes tutorials on radar characteristics, infrared and electro-optical systems, signal jamming, spectrum spreading, satellite communications, and emitter location systems. A thorough and challenging problem set for each class of EW technology covered in the book, complete with solutions, helps readers to evaluate EW systems and their applications.

---