1. Record Nr. UNISA996392006303316

Autore	Nicholson Benjamin
Titolo	A blast from the Lord, or A vvarning to England, by way of exhortation to take heed, and not run upon their own destruction; which will be speedily, without true repentance. By a lover of the truth, and a prisoner for declaring truth abroad Ben: Nicholson [[electronic resource]]
Pubbl/distr/stampa	London, : Printed for Giles Calvert, and are to be sold at the Black-spread-Eagle, near the west end of Pauls., 1653
Descrizione fisica	[2], 20, [2] p
Soggetti	Detention of persons - England Censorship - England Great Britain Politics and government 1649-1660 Early works to 1800
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Intended to be issued with "Some returns to a letter which came from a general meeting of officers of the Army of England, Scotland, and Ireland, sitting at Jame's Westminster" (Wing N1106), although most copies lack it. The last leaf is blank. Annotation on Thomason copy: "March. 12". Reproduction of the original in the British Library.
Sommario/riassunto	eebo-0018

2. Record Nr. UNINA9910915710403321

Autore	Weinberg Graham V.
Titolo	Directed Energy System Performance Prediction / / Graham V. Weinberg
Pubbl/distr/stampa	Norwood, MA : , : Artech House, , [2023]
ISBN	9781523162659 1523162651 9781685690281 1685690289
Edizione	[1st ed.]
Descrizione fisica	1 online resource (202 p.) : illustrations (some color)
Collana	Artech House electronic warfare library
Soggetti	Directed-energy weapons
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Intro -- Directed Energy System Performance Prediction -- Contents -- Preface -- Acknowledgments -- Chapter 1: Introduction -- 1.1 An Introduction to DE -- 1.2 A Historical Sketch of DE Systems -- 1.2.1 High Power Radio Frequency -- 1.2.2 High Energy Lasers -- 1.3 A Selection of Systems -- 1.3.1 Stryker-Mounted Laser -- 1.3.2 U.S. Navy's Laser Weapon System -- 1.3.3 Boeing YAL-1 Airborne Laser Testbed -- 1.3.4 Epirus Leonidas High-Power Microwave Systems -- 1.3.5 Air Force Research Lab's Tactical High-Power Operational Responder -- 1.3.6 Other DE Systems -- 1.4 Purpose and Scope -- References -- Chapter 2: Some Principles of Mathematics and Physics -- 2.1 Probability and Statistics Basics -- 2.1.1 Fundamentals -- 2.1.2 Distributions and Properties -- 2.1.3 Statistical Conditioning -- 2.2 Principles of Stochastic Processes -- 2.2.1 Fundamental Processes -- 2.2.2 Queueing Theory -- 2.3 Physics Preliminaries -- 2.3.1 Wavelengths and Frequency -- 2.3.2 Propagation of Electromagnetic Energy -- 2.3.3 Signals and Fourier Analysis -- References -- Chapter 3: Fundamentals of HPRF Performance Modeling -- 3.1 An Overview of HPRF DEWs -- 3.2 Electronic Vulnerability Levels -- 3.3 HPRF Power Density Function -- 3.4 Narrowband and Wideband Effector PerformanceModeling -- 3.4.1 Example: A Damped Sinusoidal Signal -- 3.4.2 Power Density for Wideband and Ultrawideband Signals -- 3.5

Concluding Remarks -- References -- Chapter 4: HPRF Performance Prediction -- 4.1 One Threat -- 4.1.1 Narrowband Case -- 4.1.2 Wideband and Ultrawideband Case -- 4.2 Multiple Threats -- 4.2.1 Threats Arrive Simultaneously -- 4.2.2 Arrivals Through a Renewal Process -- 4.2.3 Threats Arrive Linearly -- 4.3 Concluding Remarks -- References -- Chapter 5: The HEL Irradiance Function -- 5.1 Lasers: An Overview -- 5.2 Laser Damage Thresholds -- 5.3 Gaussian Beam Profiles.
5.4 Irradiance Functions -- 5.5 Irradiance Function Examples -- 5.6 Some Final Comments on Irradiance Functions -- References -- Chapter 6: HEL Performance Prediction -- 6.1 Models for Thresholds -- 6.2 Single Target and Single Effector -- 6.3 Multiple Targets: Queueing Theory Approach -- 6.4 Multiple Sources on a Single Threat -- 6.5 Number of Effectors to Achieve Minimum Performance -- 6.6 Concluding Remarks -- References -- Chapter 7: Future Research Directions -- 7.1 HPRF DEW Considerations -- 7.2 Modeling Synchronized DEW Systems -- 7.3 Active Protection Systems -- 7.4 Adaptive Optics -- 7.5 Validation of Performance Models -- 7.6 Development of Performance Prediction for Acoustic Systems -- References -- Appendix A: Emerging Threat Exemplars -- A.1 Airborne Threats -- A.2 Ground-Based Threats -- A.3 Sea-Based Threats -- References -- Appendix B: Irradiance Function for Adaptive Optics -- References -- Appendix C: Distribution of Delays -- Reference -- List of Acronyms -- List of Symbols -- List of Units -- About the Author -- Index.

Sommario/riassunto

This book presents a unique and comprehensive introduction to performance prediction of directed energy (DE) systems using mathematical modeling frameworks, with focus on high power radio frequency and high energy laser performance. It provides system designers with a means for predicting DE system performance and measuring the required power levels necessary to neutralize targets including UAVs and other unmanned swarms. The book begins with a systematic and concise overview of DE systems, including its historical roots. You will then learn how to develop effective mathematical models and understand how to use these models to implement safer and efficient use of DE systems in various scenarios. A special section is devoted to examples and attributes of unmanned systems since these are viewed as primary targets suitably disabled by DE systems. There is also an extensive survey of the relevant tools of mathematics and physics for DE systems, together with a series of pertinent references you can follow for further information. The final section of the book outlines potential future research directions that interested researchers are encouraged to pursue. With its exclusive and unmatched coverage of predictive modeling for DE systems and performance, this is an important book for engineers and operators working in the defense industry, including government and private contractors, as well as research practitioners at universities and engineering organizations worldwide working in the field of DE system performance.