

1. Record Nr.	UNINA9910459224003321
Autore	Deakin Richard S.
Titolo	Battlespace technologies : network-enabled information dominance / / Richard S. Deakin
Pubbl/distr/stampa	Boston : , : Artech House, , ©2010 [Piscataqay, New Jersey] : , : IEEE Xplore, , [2010]
ISBN	1-59693-338-0
Descrizione fisica	1 online resource (523 p.)
Collana	The Artech House intelligence and information operations series
Disciplina	623
Soggetti	Military art and science - Technological innovations Military engineering Warfare, Conventional - Technological innovations Electronic books.
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 and index.
Nota di contenuto	Battlespace Technologies: Network-Enabled Information Dominance; Contents; Acknowledgments; Chapter 1: Introduction; The changing pace of warfare; Increasingly diverse challenges and threats in the information age; The strategic context; Information and influence: the new weapons of war; The role of electronic combat systems in supporting information operations; From data to decision: the role of sensors in networked decision making; Networked warfare: myth and reality; Adapting to networked warfare; References; Endnote; Chapter 2: Principles and Evolution of Network-Enabled Warfare Setting the scene for network-enabled capabilities The utility of network-enabled capability; Intelligence, surveillance, and reconnaissance (ISR); Intelligence, surveillance, target acquisition, and reconnaissance(ISTAR); The impact of NEC on military doctrine and capabilities; References; Endnotes; Chapter 3: NEC Concepts; Core NEC themes; NEC vulnerability; References; Endnotes; Chapter4: NEC Techniques and Technologies; Data fusion; Applications of data and information fusion; Radio communications; Underwater data links and communications; Software-defined radios Networked communications, broadcast systems, and data links Data link

principles; Tactical data links; Instant messaging and chat systems; Collaborative networks; Network broadcast systems; References; Endnotes; Chapter 5: Future Trends in Network-Enabled Capabilities; Data collection and sensing; Data transportation and networking; Data analysis and interpretation; Networked decision making and C2; Effects systems; Platforms and hardware; Doctrinal aspects; References; Appendix A: Western Coalitions; European Union (EU); Western Economic Union (WEU); Euro-Atlantic Partnership Council Organization on Security and Cooperation in Europe (OSCE)North Atlantic Treaty Organization (NATO); United Nations (UN); Other international alliance organizations; Appendix B: Link-16 Network Message Sets and Network Participation Groups; Link-16 network participation groups; Appendix C: Modulation Techniques; Analog modulation; Amplitude modulation (AM); Frequency modulation (FM); Phase modulation (PM); Digital modulation; Appendix D: Frequency Classifications; Radio Society of Great Britain; Appendix E: The Kill Chain; References; Appendix F: The Defend Chain; Endnote List of Acronyms and AbbreviationsAbout the Author; Index

Sommario/riassunto

The era of mechanized warfare is rapidly giving way to the battle for information superiority - enabled by electronic technologies that provide data for detailed analysis of enemy forces and capabilities. Supported with over 400 four-color photographs and illustrations, this new book is written and designed specifically to help non-specialists quickly understand the complexities of Network Enabled Capability (NEC). It offers you expert guidance on how to achieve information dominance throughout the battlespace by effectively employing the technologies, concepts, and decision-making processes of network enabled warfare. Written in clear, nontechnical language with minimum mathematics, the book explains how to use sensor technologies, including radar and electronic warfare systems, to disseminate information to key decision makers in timely and relevant manner. You learn how these technologies allow for the effective acquisition and dissemination of intelligence, while denying the collection, dissemination and use of intelligence by enemy forces. Providing a complete understanding of the advantages and weaknesses of information warfare, this practical book shows you what factors need to be taken into account when designing systems and equipment for use in a network-enabled environment. Moreover, this forward-looking reference explores what evolving requirements to consider for future air, land, and sea battlespace scenarios. This is an extraordinarily valuable and useful resource for military staff, defense industry engineers and managers, and government officials involved with defense funding decisions.
