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OPERATIONAL INTEGRATION OF INFORMATION
WARFARE HYPERTEXT BOOK

A Technology Product

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by

Maj Anthony C. Smith

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Preface

This paper provides a brief description of information available in the electronic version of this product. It includes information on the research methodology applied, and a summary of each major section in the electronic product. It also provides technical information, areas for further research, and instructions for obtaining a copy of the electronic product.

Abstract

This hypertext book provides a summary of Information Warfare (IW) concepts, and establishes planning guidance for employing these concepts in combat. Specifically, this book defines what IW is and why its important, summarizes current IW employment methods, discusses how to build an IW campaign plan, identifies key IW support agencies, and discusses IW's future potential. In defining IW, it takes an innovative look at IW's relation to the principles of war and the USAF Tenets of Aerospace Power, using historical examples for amplification. Further, it merges time tested campaign planning principles with IW concepts to assist commanders and planners in employing IW on the battlefield. It was designed to familiarize Air Education and Training Command (AETC) students, and potential field commanders, on this fast growing warfare discipline. This book can also serve as a ready reference for planning IW operations during a contingency- it attempts to summarize key concepts found in 115-plus DOD regulations, pamphlets, and instructions on IW, and related areas.

Material in this book is based on Joint and USAF publications, DOD research efforts, and numerous unclassified publications and periodicals. Further, it incorporates war planning principles taught at ACSC, and integrates them into an IW campaign. The ACSC faculty and staff can provide further references and expertise.

Chapter 1

Introduction

When most people hear the term Information Warfare (IW), they think of computer hackers, software viruses, and other high tech terms. This fails to realize that forms of IW have been around for centuries. The intent of this research is to overcome this ignorance, and educate today's military on the importance of IW, and how to use it on the battlefield. The project outlines Information Warfare (IW) concepts, provides operational guidance for employing these concepts, and supports training of battle staffs. The HTML product is broken into six major sections to include: 'Why is IW Important?'; 'What is IW?'; 'IW Employment Methods'; 'Building and IW Plan'; 'The IW Team'; and 'Future IW'. Each section has numerous hotlinks that interconnect each section, and connect the reader to applicable Internet sites that contain further information on the subject.

In its simplest terms, IW attempts to influence an adversary's thinking, while protecting and enhancing friendly thought processes. As such, it is key to achieving information superiority on the battlefield. Present U.S. military vision documents (e.g., Joint Vision 2010) emphasize information superiority, and the inherent role IW plays in achieving this, since it provides the foundation for all future warfighting skills. This electronic product looks at current joint and air force definitions and employment methods, and details present directions and vision for IW. Further, it merges joint

planning doctrine with these IW concepts to provide guidance on building an IW campaign plan.

Product Limitations

Since this product is unclassified, it intentionally avoids specific IW techniques and procedures which are sensitive or classified. Further research is required to develop a classified attachment to support real-world application of this product during a contingency. Another limitation stems from the rapid change in IW doctrine, concepts, and terminology. Periodic review of this product is required to ensure currency. One such change occurred recently, with addition of the term ‘information operations’ to cover employment of IW concepts during both peace and conflict. Since the term ‘warfare’ denotes conflict, the term ‘information warfare’ will be limited to information activities during hostilities only.

The next section of this document highlights specific research methodology used to build the HTML product, and provides specific information on each major section.

Chapter 2

Methodology

The latest available information on Joint and Air Force IW doctrine and vision set the foundation for this effort. The first main section, “Why is IW Important?”, highlights guidance from today’s military leadership and explores the potential significance of IW on the battlefield. It provides direct quotes from our military leadership, and extracts pertinent details from current vision statements to answer this question.

Merging principles found in related Joint and USAF documents, I identified commonly accepted terminology and employment methods for IW. This information provides the basis for the ‘What is Information Warfare?’, and ‘IW Employment Methods’ sections of this project. ‘What is IW?’ outlines current Joint and USAF for IW, and relates IW to the Principles of War and the USAF's Tenets of Aerospace Power. To amplify IW’s role in relation to the principles of war, and the Tenets of Aerospace Power, I identified historical precedence in the employment of IW. The ‘IW Employment Methods’ section defines present operational employment methods and concepts.

Using the above information as a baseline, I developed strategic and operational planning concepts—see the ‘Building an IW Plan’ section. This section provides instruction on building an IW Campaign Plan using joint planning methods. It discusses how to define enemy and friendly forces, establish objectives, determine centers of gravity,

assess risk and vulnerability, and focus intelligence. Part of the IW planning method includes research on societal structures accomplished by Alvin and Heidi Toffler. Information from the Operational Structures and War Theory courses taught at ACSC, provides common military planning techniques.

To identify the IW Team, I extracted information from the ‘Roles and Responsibilities’ sections of Joint and USAF publications, and explored current periodicals in this area—see ‘The IW Team’ section for details. This section documents the roles and missions of the major joint and USAF support agencies.

Finally, to build the ‘Future IW’ section of this product I extracted information from Joint and USAF vision documents, and incorporated ideas from various IW visionaries. This section examines the future of IW, to include present research and development directions for the US Military.

Chapter 3

Technical Information

Since this product was developed in hypertext markup language (HTML), it will operate with any standard WorldWide Web (WWW) browser. As you navigate through this document, the standard 'forward' and 'back' buttons on your WWW browser can jump you back and forth between pages that have already been viewed. There are also various hotlinks within each section of this document. A hotlink can be a picture, a 3-D image, or colored text (underlined). To see if an item is a hotlink, move your mouse pointer over the item--the pointer will change to a hand if the item is a hotlink. Some 3-D objects within this document have numerous hotlink destinations depending on where the mouse pointer is located on the image. Destinations requiring Internet access are identified with a 'WWW' either on the image, or in parentheses next to the text item. In addition to the embedded hyperlinks, buttons are available at the bottom of each major section to go to the next topic, return to the index page, or to view an outline of the entire site. The site map contains hotlinks to each major section, and subsection in this product. The chart below outlines the file structure for this product, and provides file names for each major section. To enter this project, open the 'abstract.htm' file with your WWW browser, or build an icon to automatically open this file.

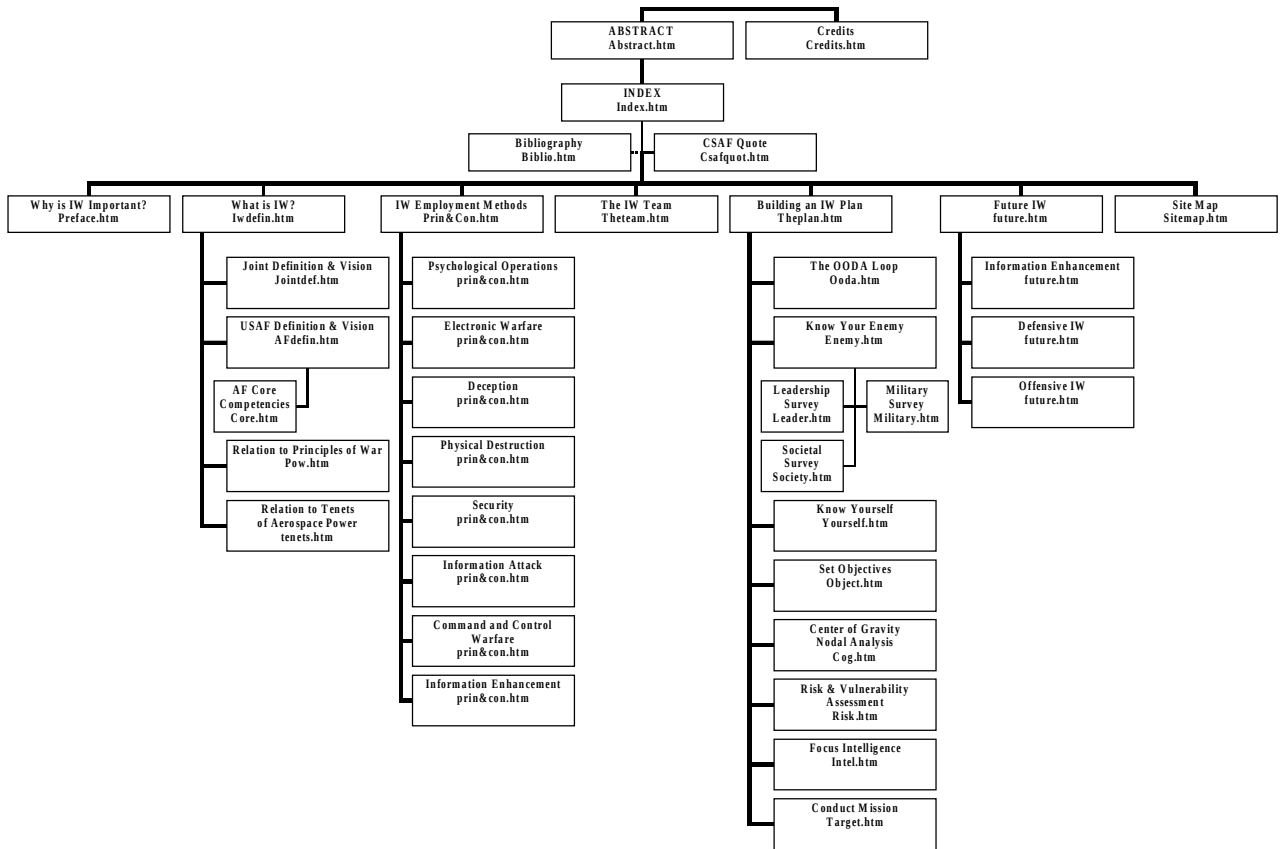


Figure 1. HTML Site Outline

Chapter 4

Conclusions and Recommendations

This project covers top-level planning information for field commanders. Further, it provides a planning tool (see ‘Building an IW Plan’) to guide employment of IW on the battlefield, and establish a detailed campaign plan. Terminology and employment ideas for IW are rapidly changing due to the intense interest in this area. Continued review of current doctrine and operational tactics is required to keep pace with the rapid evolution of IW.

Suggested areas for future research, and additions to this HTML product, include further defining the future of IW, incorporating IW targets into joint and USAF tasking orders (e.g., Air Tasking Order), establishing a classified add-on to this toolbox covering specific operational capabilities and support agencies, and defining other service doctrine and approaches to IW.

Appendix A

HTML Product Request

For copies of this electronic product, send formal requests to:

Commandant, Air Command and Staff College
Air University, Air Education and Training Command
225 Chennault Circle
Maxwell AFB, Alabama 36112-6426

Please specify the type of media desired (i.e., 3 ½" Disc or CD-ROM)

Glossary

Information: Data and Instructions.

Information Function: Any activity involving the acquisition, transmission, storage, or transformation of information.

Information Warfare: Any action to deny exploit, corrupt, or destroy the enemy's information and its functions; protecting ourselves against those actions; and exploiting our own military information functions.

Military Information Function: Any information function supporting and enhancing the employment of military forces.

NOTE: Definitions extracted from the *USAF Cornerstones of Information Warfare*.

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Maxwell AFB, Al 36112