

Introduction

In composing *The Encyclopedia of Espionage, Intelligence, and Security (EEIS)*, our goal was to shape a modern encyclopedia offering immediate value to our intended readers by emphasizing matters of espionage, intelligence, and security most frequently in the news.

EEIS is not intended as a classical “spy book,” filled with tales of daring operations. Instead, within a framework of historical overviews, *EEIS* emphasizes the scientific foundations, applications of technology, and organizational structure of modern espionage, intelligence, and security. High school and early undergraduate students can use this book to expand upon their developing awareness of the fundamentals of science, mathematics, and government as they begin the serious study of contemporary issues.

EEIS is also intended to serve more advanced readers as a valuable quick reference and as a foundation for advanced study of current events.

EEIS devotes an extensive number of articles to agencies and strategies involved in emerging concepts of homeland security in the United States. Faced with a daunting amount of information provided by agencies, organizations, and institutes seeking to put their best foot forward, we have attempted to allocate space to the topics comprising *EEIS* based upon their relevance to some unique facet of espionage, intelligence, or security—especially with regard to science and technology issues—as opposed to awarding space related to power of the agency or availability of material.

A fundamental understanding of science allows citizens to discern hype and disregard hysteria, especially with regard to privacy issues. Spy satellites powerful enough to read the details of license plates do so at peril of missing events a few steps away. With regard to electronic intercepts, the capability to identify what to carefully examine—often a decision driven by mathematical analysis—has become as essential as the capacity to gather the intelligence itself. Somewhere between the scrutiny of

Big Brother and the deliberately blind eye lie the shadows into which terrorists often slip.

With an emphasis on the realistic possibilities and limitations of science, we hope that *EEIS* finds a useful and unique place on the reference shelf.

It seems inevitable that within the first half of the twenty-first century, biological weapons may eclipse nuclear and chemical weapons in terms of potential threats to civilization. Because informed and reasoned public policy debates on issues of biological warfare and bioterrorism can only take place when there is a fundamental understanding of the science underpinning competing arguments, *EEIS* places special emphasis on the multifaceted influence and applications of the biological sciences and emerging biometric technologies. Future generations of effective intelligence and law enforcement officers seeking to thwart the threats posed by tyrants, terrorists, and the technologies of mass destruction might be required to be as knowledgeable in the terminology of epidemiology as they are with the tradecraft of espionage.

Knowledge is power. In a time where news can overwhelm and in fact, too easily mingle with opinion, it is our hope that *EEIS* will provide readers with greater insight to measure vulnerability and risks, and correspondingly, an increased ability to make informed judgments concerning the potential benefits and costs of espionage, intelligence, and security matters.

■ K. LEE LERNER & BRENDA WILMOTH LERNER, EDITORS
CORNWALL, U.K.
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How to Use the Book

The *Encyclopedia of Espionage, Intelligence, and Security* was not intended to contain a compendium of weapons systems. Although *EEIS* carries brief overviews of specifically selected systems commonly used in modern intelligence operations, readers interested in detailed information regarding weapons systems are recommended

to *Jane's Strategic Weapon Systems*, or *Jane's Defense Equipment Library*.

Although *EEIS* contains overview of significant historical periods and events, for those readers interested in additional information regarding the history of espionage operations and biographies of intelligence personnel, the editors recommend Jeffrey T. Richelson's *A Century of Spies: Intelligence in the Twentieth Century* (Oxford University Press, 1995), Vincent Buranelli and Nan Buranelli's *Spy/Counterspy: An Encyclopedia of Espionage* (New York: McGraw-Hill, 1982), and Allen Dulles', *The Craft of Intelligence* (New York: Harper & Row, 1963).

The articles in *EEIS* are meant to be understandable by anyone with a curiosity about topics in espionage, intelligence, and security matters, and this first edition of the book has been designed with ready reference in mind:

- Entries are arranged alphabetically. In an effort to facilitate easy use of this encyclopedia, and to attempt order in a chaotic universe of names and acronyms the editors have adopted a "common use" approach. Where an agency, organization, or program is known best by its acronym, the entry related to that organization will be listed by the acronym (e.g. FEMA is used instead of Federal Emergency Management Agency). To facilitate use, the editors have included a number of "jumps" or cross-referenced titles that will guide readers to desired entries.
- To avoid a log jam of terms starting with "Federal" and "United States," titles were broken to most accurately reflect the content emphasized or subject of agency authority.
- "**See Also**" references at the end of entries alert the readers to related entries not specifically mentioned in the body of the text that may provide additional or interesting resource material.
- An extensive **Glossary** of terms and acronyms is included to help the reader navigate the technical information found in *EEIS*.
- The **Chronology** includes significant events related to the content of the encyclopedia. Often accompanied by brief explanations, the most current entries date represent events that occurred just as *EEIS* went to press.
- A **Sources** section lists the most worthwhile print material and web sites we encountered in the compilation of this volume. It is there for the inspired reader who wants more information on the people and discoveries covered in this volume.
- A comprehensive general **Index** guides the reader to topics and persons mentioned in the book. Bolded page references refer the reader to the term's full entry.
- The editors and authors have attempted to explain scientific concepts clearly and simply, without sacrificing fundamental accuracy. Accordingly, an advanced understanding of physics, chemistry, or biochemistry is not assumed or required. Students and other readers should not, for example, be intimidated or deterred by the complex names of biochemical molecules—where necessary for complete understanding, sufficient information regarding scientific terms is provided.
- To the greatest extent possible we have attempted to use Arabic names instead of their Latinized versions. Where required for clarity we have included Latinized names in parentheses after the Arabic version. Alas, we could not retain some diacritical marks (e.g. bars over vowels, dots under consonants). Because there is no generally accepted rule or consensus regarding the format of translated Arabic names, we have adopted the straightforward, and we hope sensitive, policy of using names as they are used or cited in their region of origin.
- *EEIS* relies on open source material and no classified or potentially dangerous information is included. Articles have been specifically edited to remove potential "how to" information. All articles have been prepared and reviewed by experts who were tasked with ensuring accuracy, appropriateness, and accessibility of language.
- With regard to entries regarding terrorist organizations, *EEIS* faced a serious dilemma. For obvious reasons, it was difficult to obtain balanced, impartial, and independently verifiable information regarding these organizations, nor could *EEIS* swell to incorporate lengthy scholarly analysis and counter-analysis of these organizations without losing focus on science and technology issues. As a compromise intended to serve students and readers seeking initial reference materials related to organizations often in the news, *EEIS* incorporates a series of supplemental articles to convey the information contained in the U.S. Department of State annual report to Congress titled, *Patterns of Global Terrorism*, 2001. These articles contain the language, assertions of fact, and views of the U.S. Department of State. Readers are encouraged to seek additional information from current U.S. Department of State resources and independent non-governmental scholarly publications that deal with the myriad of issues surrounding the nature and activities of alleged terrorist organizations. A number of governmental and non-governmental publications that deal with these issues are cited in the bibliographic sources section located near the index.

Key *EEIS* articles are signed by their authors. Brief entries were compiled by experienced researchers and reviewed by experts. In the spirit of numerous independent scientific watchdog groups, during the preparation of *EEIS* no contributors held a declared affiliation with any intelligence or security organization. This editorial policy not only allowed a positive vetting of contributors, but also assured an independence of perspective and an emphasis on the fundamentals of science as opposed to unconfirmable "insider" information.

When the only verifiable or attributable source of information for an entry comes from documents or information provided by a governmental organization (e.g., the U.S. Department of State), the editors endeavored to carefully note when the language used and perspective offered was that of the governmental organization.

Although some research contributors requested anonymity, no pseudonyms are used herein.

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Although certainly not on the scale of the challenge to provide security for a nation with approximately 85 deep-draft ports, 600,000 bridges, 55,000 independent water treatment systems, 100 nuclear power plants, and countless miles of tunnels, pipelines, and electrical and communications infrastructure, the task of incorporating changes brought on by creation of the Department of Homeland Security—and the most massive reorganization of the United States government since World War II—as this book went to press provided a unique challenge to *EEIS*

writers and advisors. The editors appreciate their dedication and willingness to scrap copy, roll up their sleeves, and tackle anew the smorgasbord of name and terminology changes.

As publishing deadlines loomed, *EEIS* was also well served by a research staff dedicated to incorporating the latest relevant events—especially information related to the search for weapons of mass destruction—that took place during war in Iraq in March and April of 2003.

EEIS advisors, researchers, and writers tenaciously attempted to incorporate the most current information available as *EEIS* went to press. The editors pass any credit or marks for success in that effort, and reserve for themselves full responsibility for omissions.

The editors gratefully acknowledge the assistance of many at St. James Press for their help in preparing *The Encyclopedia of Espionage, Intelligence, and Security*. The editors extend thanks to Mr. Peter Gareffa and Ms. Meggin Condino for their faith in this project. Most directly, the editors wish to acknowledge and thank the project editor, Mr. Stephen Cusack, for his talented oversight and for his tireless quest for secure engaging pictures for *EEIS*.

The editors lovingly dedicate this book to the memory of Wallace Schaffer, Jr., HM3, USNR, who died on January 8, 1968, in Thua Thien (Hue) Province, Vietnam.

“A small rock holds back a great wave.”—Homer, *The Odyssey*.