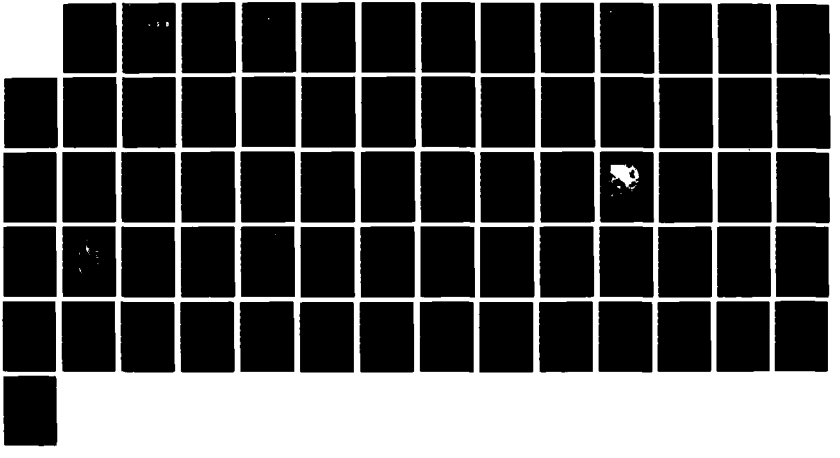
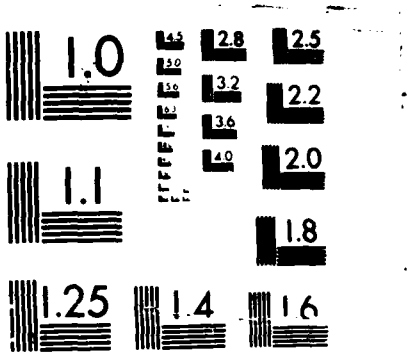
AD-A180 286 THE EUROPEAN MILITARY ENVIRONMENT: NATO AND THE WARSAW 1/1
PACT VOLUME 1 THE..(U) AIR COMMAND AND STAFF COLL
MAXWELL AFB AL C A STEVENS APR 87 ACSC-87-2365
UNCLASSIFIED F/G 15/1 NL





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS 1963-A

(2)

AIR COMMAND AND STAFF COLLEGE

STUDENT REPORT

THE EUROPEAN MILITARY ENVIRONMENT:
NATO AND THE WARSAW PACT- VOLUME I:
THE EUROPEAN ENVIRONMENT
(UPDATE: 1982 PRESENT)
MAJOR CHARLES A. STEVENS 87-2565

"insights into tomorrow"

DISCLAIMER

The views and conclusions expressed in this document are those of the author. They are not intended and should not be thought to represent official ideas, attitudes, or policies of any agency of the United States Government. The author has not had special access to official information or ideas and has employed only open-source material available to any writer on this subject.

This document is the property of the United States Government. It is available for distribution to the general public. A loan copy of the document may be obtained from the Air University Interlibrary Loan Service (AUL/LDEX, Maxwell AFB, Alabama, 36112) or the Defense Technical Information Center. Request must include the author's name and complete title of the study.

This document may be reproduced for use in other research reports or educational pursuits contingent upon the following stipulations:

-- Reproduction rights do not extend to any copyrighted material that may be contained in the research report.

-- All reproduced copies must contain the following credit line: "Reprinted by permission of the Air Command and Staff College."

-- All reproduced copies must contain the name(s) of the report's author(s).

-- If format modification is necessary to better serve the user's needs, adjustments may be made to this report--this authorization does not extend to copyrighted information or material. The following statement must accompany the modified document: "Adapted from Air Command and Staff Research Report (number) entitled (title) by (author) ."

-- This notice must be included with any reproduced or adapted portions of this document.

REPORT NUMBER 87-2365

TITLE THE EUROPEAN MILITARY ENVIRONMENT: NATO AND THE WARSAW PACT--VOLUME I: THE EUROPEAN ENVIRONMENT (UPDATE: 1982-PRESENT)

AUTHOR(S) MAJOR CHARLES A. STEVENS, USAF

FACULTY ADVISOR MAJOR JOHN PERRIGO, ACSC/3822STUS

SPONSOR LIEUTENANT COLONEL JOHN W. NIEBLING CAIRE/EIW

Submitted to the faculty in partial fulfillment of requirements for graduation.

AIR COMMAND AND STAFF COLLEGE
AIR UNIVERSITY
MAXWELL AFB, AL 36112

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE

A180 286

REPORT DOCUMENTATION PAGE

1a. REPORT SECURITY CLASSIFICATION UNCLASSIFIED	1b. RESTRICTIVE MARKINGS
2a. SECURITY CLASSIFICATION AUTHORITY	3. DISTRIBUTION/AVAILABILITY OF REPORT STATEMENT "A" Approved for public release; Distribution is unlimited.
2b. DECLASSIFICATION/DOWNGRADING SCHEDULE	
4. PERFORMING ORGANIZATION REPORT NUMBER(S) 87-2365	5. MONITORING ORGANIZATION REPORT NUMBER(S)
6a. NAME OF PERFORMING ORGANIZATION ACSC/EDCC 6b. OFFICE SYMBOL (If applicable)	7a. NAME OF MONITORING ORGANIZATION
6c. ADDRESS (City, State and ZIP Code) Maxwell AFB AL 36112-5542	7b. ADDRESS (City, State and ZIP Code)
8a. NAME OF FUNDING/SPONSORING ORGANIZATION 8b. OFFICE SYMBOL (If applicable)	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER
8c. ADDRESS (City, State and ZIP Code)	10. SOURCE OF FUNDING NOS PROGRAM ELEMENT NO / PROJECT NO / TASK NO / WORK UNIT NO
11. TITLE (Include Security Classification) THE EUROPEAN MILITARY ENVIRONMENT: NATO	
12. PERSONAL AUTHOR(S) Stevens, Charles A., Major, USAF	
13a. TYPE OF REPORT 13b. TIME COVERED FROM _____ TO _____	14. DATE OF REPORT (Yr., Mo., Day) 1987 April 15. PAGE COUNT 68
16. SUPPLEMENTARY NOTATION ITEM 11: AND THE WARSAW PACT--VOLUME I; THE EUROPEAN ENVIRONMENT (UPDATE: 1982-PRESENT)	
17. COSATI CODES FIELD / GROUP / SUB. GR.	18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)

19. ABSTRACT (Continue on reverse if necessary and identify by block number)

This study surveys changes during the past five years in the Soviet/Warsaw Pact military threat to NATO, NATO's capabilities to meet that threat, and the U.S./Allied command structure in Europe. The study also reviews several current political and military issues which NATO faces. The study concludes with recommended changes to The European Environment, a text currently used by the Center for Aerospace Doctrine, Research, and Education (CADRE) to introduce students in the Combined Air Warfare Course (CAWC) to the military environment in Europe.

20. DISTRIBUTION/AVAILABILITY OF ABSTRACT UNCLASSIFIED/UNLIMITED ☐ SAME AS RPT. ☒ DTIC USERS ☐	21. ABSTRACT SECURITY CLASSIFICATION UNCLASSIFIED
22a. NAME OF RESPONSIBLE INDIVIDUAL ACSC/EDCC Maxwell AFB AL 36112-5542	22b TELEPHONE NUMBER (Include Area Code) (205) 293-2483 22c OFFICE SYMBOL

DD FORM 1473, 83 APR EDITION OF 1 JAN 73 IS OBSOLETE

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE

PREFACE

This study of recent developments in the European military environment is designed for orientation of USAF personnel to the European theater. This project surveys changes during the past five years in the Soviet/Warsaw Pact military threat to the North Atlantic Treaty Organization (NATO), NATO's capabilities to meet that threat, and the U.S./Allied command structure in Europe. The paper also reviews several current political and military issues which impact NATO's cohesiveness and effectiveness. The project concludes with recommended changes to The European Environment, a text currently used by the Center for Aerospace Doctrine, Research, and Education (CADRE) to introduce students in the Combined Air Warfare Course (CAWC) to the military environment in Europe.

ABOUT THE AUTHOR

Major Charles A. Stevens was born in Columbus, Ohio on 12 March 1952. After secondary schooling in Severna Park, Maryland, he attended the U.S. Air Force Academy, graduating with a Bachelor of Science in International Politics in June 1974. Following commissioning as a Second Lieutenant, he attended imagery intelligence officer training at the Armed Forces Air Intelligence Center at Lowry Air Force Base, Colorado. Upon graduation in March 1975, he became a Wing Prediction and Interpretation Officer with the 307th Strategic Wing at U-Tapao Royal Thai Air Force Base, Thailand. In September 1975 he left Thailand to become an imagery analyst at the National Photographic Interpretation Center in Washington D.C. In 1979 he returned to the Air Force Academy for a four-year stint as the head lacrosse coach. In 1983 he was selected to attend the Defense Intelligence College in Washington D.C. and completed the Postgraduate Intelligence Program there in June 1984. He immediately proceeded to Headquarters Air Force Intelligence where he spent a year as the Program Element Monitor for Tactical Imagery Exploitation Systems, followed by 15 months as a CSAF Current Intelligence Briefer. In August 1986 he left the Pentagon to attend the Air Command and Staff College. He is married to the former Jeanne Collins of Odenton, Maryland.

TABLE OF CONTENTS

LIST OF ILLUSTRATIONS

TABLES

FIGURES

EXECUTIVE SUMMARY

Part of our College mission is distribution of the students' problem solving products to DoD sponsors and other interested agencies to enhance insight into contemporary, defense related issues. While the College has accepted this product as meeting academic requirements for graduation, the views and opinions expressed or implied are solely those of the author and should not be construed as carrying official sanction.

"insights into tomorrow"

REPORT NUMBER 87-2365

AUTHOR(S) MAJOR CHARLES A. STEVENS, USAF

TITLE THE EUROPEAN MILITARY ENVIRONMENT: NATO AND THE WARSAW PACT--VOLUME I: THE EUROPEAN ENVIRONMENT (UPDATE: 1982-PRESENT)

I. Purpose: To research recent military developments in the European theater, which should be incorporated into an updated version of The European Environment.

II. Problem: The textbook which the USAF's Combined Air Warfare Course (CAWC) uses to introduce students to the military environment in Europe and use as a reference in their assignments is in need of an update. The text has been revised several times since its initial publication in 1976, but was last updated in 1982. Significant events in the European theater since that time impact on the text's utility.

III. Discussion: A reading of The European Environment reveals significant portions of the text which are out-of-date. The third chapter, "Evolution of the North Atlantic Treaty Organization" and its associated appendix (Appendix A), "Current Issues," in particular, have suffered from age. This chapter currently ends with a section titled "NATO in the 1970s." Appendix A reviews military and political issues which NATO faced in 1982. Likewise, Chapter 4, "Allied Organizations in Peace and War," which outlines the structure of NATO and organizations supporting it as well as the forces and weapons systems fielded by the Alliance, is no longer accurate and needs major revision.

CONTINUED

IV. Findings: Since 1981, several significant military developments took place in Europe and should be addressed by The European Environment. NATO sought to counter a tremendous growth in Warsaw Pact conventional strength through new and more capable weapons systems and through modifications to strategy. In 1983, NATO began the deployment of U.S. nuclear-armed Pershing II and ground launched cruise missiles (GLCMs). Also, the NATO Airborne Early Warning Force (NAEF) became operational and 18 E-3As were deployed to Geilenkirchen, West Germany. In 1984, NATO adopted the concept of Follow On Forces Attack (FOFA) to delay, disrupt or destroy Soviet/Warsaw Pact rear echelon forces. In addition, the area of responsibility for USEUCOM changed dramatically with the creation of USCENTCOM in 1983. USAFE established four tactical missile wings and two additional air divisions. Spain became a member of NATO in 1982 and in 1986 reaffirmed that decision through a national referendum. Congress took several steps such as mandating a European Troop Strength (ETS) ceiling and passing the "Nunn initiatives" to encourage greater European military contributions and greater arms cooperation among Alliance members. President Reagan's SDI program, announced in 1983, raised concerns among European allies over their role in SDI.

V. Recommendations: These issues along with several others should be incorporated into a new edition of The European Environment. The CADRE should adopt the changes recommended in the appendix of this paper and update the current version of the text. This action will help ensure CAWC students receive the latest and best information on the European theater.

Chapter One

INTRODUCTION

BACKGROUND

In 1977, the U.S. Air Force (USAF) established the Combined Air Warfare Course (CAWC) to prepare USAF officers to conduct and manage tactical air combat operations during the employment of combined forces. The CAWC is offered by the Air University's Center for Aerospace Doctrine, Research, and Education (CADRE) located at Maxwell Air Force Base (AFB), Alabama and is the only USAF course which prepares USAF officers for staff positions on joint, combined, or air component commander's staffs. CAWC is taught as a 4-week, in residence, course for active duty officers and also as a 2-week course for Air National Guard and Reserve officers throughout the Air Force. Originally the primary emphasis of the course was on the Soviet/Warsaw Pact threat to the North Atlantic Treaty Organization (NATO), but the course has been broadened to include substantial material on other theaters of operation. The course culminates with a computer-assisted theater wargame set in NATO's Central Region.

THE PROBLEM

The textbook which the CAWC uses to introduce students to the military environment in Europe and use as a reference in their new assignments is in need of an update. The text, The European Environment, was originally prepared at the USAF Air Command and Staff College (ACSC) in 1976 as part of an orientation course, "The European Military Environment: NATO and the Warsaw Pact," designed for officers assigned to the European theater of operations. The text was the first volume of what ultimately became a three volume set of course instructions. Although ACSC no longer uses any of the volumes in its course of instruction, the CAWC still uses The European Environment to teach doctrine and command arrangements in the European theater. The text has been revised several times since 1976 and was last updated in 1982. However, recent significant events in the European theater impact on the text's utility.

This study researches changes in the European military environment since 1981 and recommends updates to the text to reflect these changes. No major rewrite of the document will be attempted; rather, this study concentrates on those sections of the text most affected by events which have occurred since 1981. As with the original text, exhaustive detail will be avoided in favor of broad brush coverage.

The study surveys U.S. government documents, NATO publications, and recent articles in periodicals and books which deal with changes impacting on the military environment in Europe.

The primary question of the study is "What changes have occurred in the European military environment since 1981 which change The European Environment?" To answer this question, the study investigates and identifies changes which have occurred in the following areas: Soviet/Warsaw Pact military threat opposite NATO; NATO's organizational concepts, strategies, and structure; organizational structure of Allied and U.S. commands which support NATO; U.S. and Allied weapons systems deployed in Western Europe; and current political and military issues which impact NATO's cohesiveness and effectiveness. The study concludes with recommended changes to The European Environment.

The Air University annually awards certificates to approximately 150 active duty and 80 Guard/Reserve officers who complete the CAWC. As a result of this study, officers completing this course will be provided with more accurate knowledge of the European theater, thus enhancing their ability to cope with the pace and demands of theater air combat operations.

Chapter Two

REVIEW OF RELATED LITERATURE

An investigation of the literature concerned with the European military environment reveals numerous publications including official U.S. government documents, NATO-sponsored periodicals and books, and private sector periodicals and books dealing with the subject. Much of the literature is comprised of annual publications or articles which focus on developments during the previous year which affect the East-West balance of military forces in the European theater. Other valuable sources include articles and studies which explore specific issues impacting NATO, often in an attempt to influence the direction of NATO policies.

Particularly useful U.S. Defense Department (DOD) publications concerning this subject include the Secretary of Defense's Annual Report to Congress and the Organization of the Joint Chiefs of Staff's Military Posture. Both documents are published annually in support of the DOD's budget submissions to Congress and, because of this, include extensive assessments of the threat which the requested DOD resources are designed to counter. In addition, both publications discuss the military balance of forces and include information on the status of various U.S. and NATO defense programs.

Other official DOD publications valuable for the study of the military environment in Europe include the organizational charts for the various U.S. component commands which transfer forces to NATO. These charts provide information on the numerical designations of subordinate units and highlight command relationships.

Another key source of information on the European military environment is the NATO Information Service which publishes numerous documents and texts concerning NATO. Perhaps the most useful of these publications for this study is the NATO Handbook, an annually updated publication which includes major sections on how NATO is structured and how it operates. This text also lists key officials within NATO and includes an appendix outlining the chronology of international events since 1945 which have had an impact on the Alliance.

In addition to the NATO Handbook, a second NATO Information Service publication particularly appropriate for this study is NATO Final Communiques 1981-1985. This book includes both synopses and complete texts of all the final

communiques issued by ministerial sessions of the North Atlantic Council, the Defense Planning Committee, and the Nuclear Planning Group.

NATO also publishes a monthly periodical titled NATO Review. This magazine serves as a forum for discussion of issues affecting NATO and of policies put forth by its leaders to deal with these issues.

Not quite so useful for the purposes of this study, but potentially of future value, is NATO Facts and Figures. This NATO Information Service publication, in its 10th edition, thoroughly and extensively details the history, structure and operation of NATO. However, this text has not been updated since 1981, and although an 11th edition is reportedly in draft, until its publication NATO Facts and Figures will remain of limited use to the student seeking the latest information on the European environment.

A final valuable source of information on the European mililtary environment published within the NATO hierarchy is the ACE Output. This document is published bimonthly by the Public Information Office of the Supreme Headquarters Allied Powers Europe (SHAPE), and includes excerpts from speeches and articles recently presented or written by the SHAPE senior leadership. The ACE Output frequently addresses current NATO issues and often includes threat information as well.

The European theater plays a central role in DOD planning for military strategy and force structure and, thus, is a frequent topic addressed by researchers at DOD professional military schools. In particular, several monographs published by the U.S. National Defense University focus on specific issues concerning the military environment in Europe. The Sixteenth Nation: Spain's Role in NATO, by William L. Heiberg, despite being published prior to the Spanish NATO referendum in March 1986, concisely summarizes the issues facing the Alliance resulting from Spanish membership. In addition, NATO Politico-Military Consultation by Thomas J. Kennedy, Jr. examines the NATO consultative process and U.S. procedures for participating in it.

Turning to the private sector, numerous publications annually address the NATO-Warsaw Pact balance of forces, as well as other developments affecting the European military environment. The most useful of these annuals for purposes of this project are those published by the prestigious International Institute for Strategic Studies (IISS) in London.

The IISS annually publishes The Military Balance and Strategic Survey, which address the organization and levels of worldwide military forces, and worldwide military developments and trends, respectively. The Military Balance features short essays on the U.S., the Soviet Union, and their NATO and Warsaw Pact allies. These essays are followed by a detailed accounting of force levels within each nation. The book also

includes an assessment of the conventional force balance between NATO and the Warsaw Pact.

Other annual books providing current information on the changes in the European military environment include both the American Defense Annual, published by Ohio State University's Mershon Center, and the International Security Yearbook, published by the Georgetown Center for Strategic Studies. The first text focuses on issues broadly impacting U.S. national defense policy and the second text focuses on worldwide events. Both books include chapters devoted exclusively to European military issues.

A third book which reflects annual developments in the European theater is the SIPRI World Armaments and Disarmaments Yearbook. This text annually reports on worldwide defense expenditures and weapons production, but also includes a chapter specifically devoted to NATO. This chapter discusses issues being debated among NATO's members, as well as weapons systems which NATO has fielded or is developing.

In addition to these annuals, many other books published in the past five years explore in depth issues concerning the European military environment. For the purposes of this study, however, most of these works are not particularly useful since more current information on the issues addressed can be found in periodicals. Nevertheless, John M. Collins' U.S.-Soviet Military Balance 1980-1985, which thoroughly explores the balance of military forces between the two superpowers, provides an excellent historical summary of developments in NATO and Warsaw Pact doctrines and strategies in the early 1980's.

Especially useful among periodicals which regularly contain articles addressing the European military environment is NATO's Sixteen Nations. This independent publication is devoted exclusively to developments affecting the Alliance and regularly features articles by key NATO military leaders.

Other periodicals key to the study of the European theater include military trade publications, such as Air Force Magazine and Armed Forces Journal International, which often include articles concerning NATO and the Warsaw Pact. For example, the annual May issue of Air Force Magazine is titled "The Air Force Almanac." Among its features is a section on United States Air Forces in Europe (USAFE) which includes an organizational chart depicting USAFE's major operating units and their location. Armed Forces Journal International more closely reviews current worldwide defense developments and, in the process, often features interviews with senior U.S. and NATO policymakers.

Finally, since the political-military situation in Europe has played such a key role in international security in the 20th century, many periodicals which regularly address the international political arena, in general, and American national security affairs, in particular, often contain articles concerning developments in the European military

environment. The Economist, in an insert within its August 1986 issue, featured an excellent analysis of the military situation in NATO's Central Region and how NATO and Warsaw Pact forces might be employed in a future conflict. Likewise, both Foreign Affairs in 1982 and The Atlantic in 1986 featured articles by several former U.S. government officials including McGeorge Bundy, former Special Assistant to the President for National Security Affairs, who advocated a change in NATO's policy of reliance on nuclear weapons to ultimately repel Soviet/Warsaw Pact aggression.

In summary, for the purposes of this project there is no shortage of literature addressing the European military environment. Trends and developments in forces between East and West are annually featured in both U.S. government and NATO publications, as well as in several private sector products. Furthermore, in depth discussions of key issues impacting the European theater are also abundant. How these numerous sources will be used in the context of this project will be discussed in the following chapter.

Chapter Three

RESEARCH DESIGN AND PROCEDURE

Given the CAWC's immediate requirement for an update to its text, the research technique used for this project will be descriptive in nature. The project will consist of a review of The European Environment to determine portions of the text in obvious need of revision, followed by a study of relevant literature to identify information which should be included or modified in the book. As stated earlier, the project concludes with a summary of recommended changes to the text.

A reading of The European Environment reveals some sections of the text which are in need of major revision, others which merely need minor changes, and many which need no change at all.

The portion of the text requiring the greatest amount of surgery includes the third chapter, "Evolution of the North Atlantic Treaty Organization." This chapter, and its associated appendix (Appendix A) titled "Current Issues," analyzes the formation and historical evolution of NATO. Presently the final section of this chapter is entitled "NATO in the 1970's" and obviously requires an update. Likewise, Appendix A, which reviews current military and political issues impacting NATO as of 1982, needs at least major revision, if not rewriting.

A second portion of the text in need of revision is Chapter 4, "Allied Organizations in Peace and War," which outlines the structure of NATO and the organizations supporting it as well as the forces and weapons systems fielded by the Alliance. Since the text was last updated in 1982, NATO has not only introduced new weapons systems to the European theater, but also has implemented several changes within its organizational structure.

Unlike the previously mentioned sections of the text, the initial chapter, "An Introduction to the European Environment," is only in need of minor revision. This chapter essentially is an introduction to the Soviet/Warsaw Pact challenge which NATO faces in Europe. Information on the topics addressed in this chapter basically has not changed over the past several years; however, several figures associated with this chapter, but included at the end of the text, need to be updated.

The remainder of the text, with the obvious exception of the bibliography, which must be revised to reflect sources used to update the book, requires little, if any, modification. Appendix C, "The North Atlantic Treaty and the Protocols of Accession," requires only the addition of the protocol for Spain's accession to NATO. Chapter 2, "A Historical Perspective," is a brief review of the history of Europe in the 20th century, and focuses on trends which led to the development of NATO. This chapter needs no update. Neither does Appendix B which provides a limited summary of European history prior to World War I. Only minor editorial changes, such as new figure numbers or citation numbers resulting from changes in other parts of the text, will be required in these last two sections.

Thus, much of The European Environment, primarily due to its historical nature, remains accurate and requires little modification. At the same time, however, other sections of the text, for the very same reason, must be updated to reflect events occurring since the book's last revision. The next chapter reviews developments in the European region since 1982, which should be addressed by The European Environment.

Chapter Four

FINDINGS

INTRODUCTION

Since 1981, several significant military developments took place in Europe and should be addressed by The European Environment. Some of the developments resulted from changes in the European political environment while others were driven by improvements in technology. Most of the developments involved changes to the weapons systems and force structures of NATO and the Warsaw Pact. Perhaps the most significant development was the tremendous growth in Warsaw Pact conventional strength, which NATO attempted to counter through the introduction of U.S. nuclear-armed Pershing II and ground launched cruise missiles (GLCMs). In addition to these developments and partly as a result of them, NATO is also facing a number of political and military issues in 1987 which threaten the effectiveness of the Alliance to respond to an offensive threat. Most of these issues, such as "burden sharing" and arms cooperation, are not new. Nevertheless, given the growth in the Soviet/Warsaw Pact threat and in the destructive potential and cost of modern weapons systems, the consequences of failure to resolve such issues have increased substantially. As with the present layout of the The European Environment, a discussion of weapons systems and force structure developments comprises the initial portion of this chapter, followed by a review of several of the current issues faced by NATO.

WEAPONS SYSTEMS/FORCE STRUCTURE CHANGES

Soviet/Warsaw Pact Developments

During the past five years, the Soviets and Warsaw Pact nations continued their buildup in military strength with some of the most significant increases occurring in the capabilities of tactical missile and air forces opposite NATO. In late 1981, the Soviets began replacing the 70-km range FROG-7 in Group of Soviet Forces Germany (GSFG) divisions with the 120-km range SS-21. Recently, East Germany and Czechoslovakia reportedly began the same activity in their units (14:44;

11:47). In addition, several years ago, Moscow began replacing the 900-km SS-12 SCALEBOARD in East Germany and Czechoslovakia with the SS-22, an improved missile with similar range. Finally, in 1985, the Soviets began replacing the SCUD (range 300-km) with the newest Soviet shorter-range ballistic missile, the SS-23 (range 500-km) (14:44-45). These new missiles feature terminal guidance and can carry conventional as well as chemical and nuclear munitions (44:62).

The Soviets and their Eastern European allies also modernized and expanded their tactical air forces during the past five years. The Soviets deployed two new look-down/shoot-down interceptor aircraft, the Su-27/FLANKER and the MiG-29/FULCRUM, and also delivered more advanced aircraft to their Warsaw Pact allies (44:63). East Germany, Hungary, and Czechoslovakia reportedly acquired the Su-22/FITTER; Czechoslovakia and Bulgaria acquired the MiG-23/FLOGGER and the Czechs and Hungarians also acquired the newest Soviet ground attack aircraft, the Su-25/FROGFOOT (10:31; 11:47).

In the air defense arena, significant developments included the deployment of the Soviet SA-5/GAMMON long-range, high altitude surface-to-air missile (SAM) system in Eastern Europe. Two such sites are reportedly in East Germany while Czechoslovakia and Hungary also reportedly contain one site apiece (8:19).

NATO Weapons Systems Developments

NATO responded to the Soviet/Warsaw Pact buildup with improvements in its own force structure. Perhaps the most significant change in the NATO weapons systems inventory since 1981 was the deployment of Pershing IIs and GLCMs, but NATO also incrementally upgraded the capabilities of its air forces.

In 1979, in response to the Soviet deployment of SS-20s, NATO embarked on a dual-track program of longer range (1,000-1,500 km) intermediate-range nuclear forces (LRINF) modernization and arms control negotiations. Unless the Soviets were willing to reduce their SS-20 deployments, the U.S. would assign to NATO 108 Pershing IIs (all in West Germany) and 464 GCLMs (160 in the United Kingdom, 112 in Italy, 48 in Belgium, 48 in The Netherlands and 96 in West Germany) (8:25).

When negotiations broke down in 1983, NATO began deliveries of Pershing IIs to West Germany and GLCMs to the United Kingdom and Italy, despite significant Western European public protest (16:95). Following those initial deliveries, protests diminished and deployment of these missiles, scheduled to continue through 1988, proceeded on a gradual, but steady pace. Simultaneously with the delivery of these missiles, the U.S. began withdrawing its Pershing IA shorter range (150-1,000 km) intermediate-range nuclear force (SRINF) missiles on a one-for-one basis and by late 1985, all U.S. Pershing IAs had

been withdrawn from Europe (47:32). Likewise, as a result of the NATO Nuclear Planning Group's 1983 "Montebello Decision," the U.S. also completely withdrew all its atomic demolition munitions (ADMs) from Europe (44:227).

In addition to its tactical missile upgrade, NATO also modernized its air forces during the past five years. In the tactical fighter arena, improvements included the deployment in the theater of F-16 fighters by the U.S., Denmark, Belgium, The Netherlands, and Turkey, as well as Canada's deployment of its CF-18 (10:37).

Another key improvement during the period involved the NATO Airborne Early Warning Force (NAEWF). Eighteen Boeing E-3A Sentry aircraft became operational and were deployed to Geilenkirchen Airbase (AB) in West Germany (32:56). As a complement to the E-3As, Great Britain was to provide 11 Nimrod Mk.3 aircraft based at Waddington in the U.K. However, in December 1986, the British government cancelled the Nimrod Mk.3 program due to its failure to meet Royal Air Force requirements, and to tremendous cost overruns. Instead, the British decided to order six E-3As from Boeing, with an option to purchase two additional such aircraft. The impact of this decision on the NAEWF remains to be seen (19:22).

NATO Organizational Structure Changes

In the past five years, NATO's organizational structure did not change significantly; nevertheless, some key developments deserve mention. The most dramatic change in the Alliance was the admission of Spain to NATO in 1982. However, due to internal Spanish politics, changes to NATO's organizational structure as a result of Spanish membership have been minimal. (Spain's role in NATO will be discussed in more detail in the following section on current issues.) NATO's military structure is essentially the same as it was in 1981, with Allied military forces being allocated to three major NATO commands: Allied Command Europe (ACE); Allied Command Atlantic (ACLANT); and Allied Command Channel (ACCHAN) (12:36). However, the NATO Airborne Early Warning Force (NAEWF) Command, a principle subordinate command established in October 1980, has yet to be addressed in The European Environment.

The NAEWF is under the shared operational command of the three major NATO commanders--SACEUR, SACLANT, and CINCHAN--but SACEUR serves as the Executive Agent for day-to-day administration of this force (12:37). NAEWF Command headquarters is collocated in Brussels with Supreme Headquarters Allied Powers Europe (SHAPE). NAEWF E-3As manned by multinational crews are home-based at Geilenkirchen, West Germany, but they regularly operate from forward operating bases at Preveza, Greece; Trapani, Italy; and Konya, Turkey as well as from a forward operating location at Oerland, Norway. Eventually the force will include the British E-3A contingent

which will be manned solely by British crews and will operate from Waddington (33:25).

Turning to U.S. commands supporting NATO, several changes primarily driven by the deployment of new weapons systems occurred in United States European Command (USEUCOM) during the past five years. Of particular interest to users of The European Environment were developments in United States Air Forces Europe (USAFE).

Perhaps the most significant change to the USAFE organizational structure resulted from the deployment of the GLCMs. Four tactical GLCM wings were established--the 501st at RAF Greenham Common; the 487th at Comiso Air Station (AS), Italy; the 485th at Florennes AB, Belgium; and the 38th at Wuescheim AS, West Germany. The 501st resides within Third Air Force, the 487th is within Sixteenth Air Force, and the remaining two wings belong to the Seventeenth Air Force (48:1). Other significant changes in USAFE included the establishment of two air divisions in West Germany--the 65th at Sembach AB for electronic combat and the 316th at Ramstein AB for tactical fighter operations and combat support--and an electronic combat wing, the 66th, at Sembach (38:111).

Several organizational changes in the naval and ground components of USEUCOM--United States Naval Forces, Europe (USNAVEUR) and United States Army in Europe (USAREUR)--also should be addressed in The European Environment (2:1060-1062; 6:372-376). The most significant development concerned USNAVEUR. The commander of USNAVEUR, who formerly did not simultaneously occupy a NATO command billet, is now dual-hatted as Commander Allied Forces Southern Europe (CINCSOUTH) (49:--).

A final development which impacted the European military environment should be mentioned in this portion of the chapter, although it occurred not as a result of an organizational change within NATO or a U.S. component supporting NATO, but rather as a result of a change within the DOD. This development was the change in the area of responsibility of USEUCOM.

With the activation of United States Central Command (USCENTCOM) on 1 January 1983, the area of responsibility of USEUCOM changed dramatically. No longer was USEUCOM responsible for the Persian Gulf region. This region, along with the African Horn countries (Egypt, Sudan, Ethiopia, Somalia and Kenya), became the responsibility of USCENTCOM (44:284). USEUCOM was allocated responsibility for the remainder of sub-Saharan Africa and retained responsibility for all of Western Europe, as well as the Mediterranean Sea and its littoral countries, excepting Egypt (46:14).

CURRENT ISSUES

This next section of the paper provides a brief overview of a number of political and military issues facing NATO in early 1987. Certainly the issues discussed are by no means the only ones facing the Alliance today, but a review of all issues is beyond the scope of this paper. This author feels the selected issues are not only representative of the problems faced by an organization with as diverse a membership as NATO, but also will be of particular interest to the Air Force officers who will be enrolled in the CAWC. The section begins with a look at several membership issues.

Greek-Turkish Disputes

Turkish and Greek antagonism continues to hamper NATO's effectiveness in the Southern Region. Just a little more than a decade ago these two NATO allies went to war over Cyprus and, as a result, in 1974 Greece withdrew its military forces from NATO (18:1). In 1980, Greece reentered the NATO military structure through the "Rogers Agreement" which attempted to resolve questions over air defense command and control agreements in the Aegean Sea (34:7). Specifically, both Greek and Turkish negotiators agreed to the establishment of the 7th Allied Tactical Air Force (ATAF) to be headquartered in Larissa, Greece and to be commanded by a Greek. The 7th ATAF commander was then to sit down with the Turkish commander of the 6th ATAF in Izmir and along with the commander of Allied Air Forces Southern Europe (AIRSOUTH) "determine the best air defense arrangements for NATO purposes in wartime with no predetermined solution" (34:8). However, the present Greek government under President Andreas Papandreou, first elected in 1981 and reelected in 1986, has refused to appoint a 7th ATAF commander and has demanded a return to pre-1974 command and control arrangements before so doing (36:135). The most politically volatile issue between the two countries continues to be political rule on Cyprus, but other disagreements include the Greek militarization of the island of Lemnos and Greek advocacy of air space sovereignty extending 10 miles around Greek islands in the Aegean (36:134; 34:9).

As a consequence of the Greek-Turkish disputes, security of NATO's southern flank is in disarray. Although Greek military forces have theoretically rejoined NATO, there is no subordinate land or air Allied Forces Southern Europe (AFSOUTH) command headquartered in Greece, and Greek forces have withdrawn from NATO military exercises on several occasions (36:135).

Spanish Role in NATO

Another issue impacting NATO's southern flank is the role Spain will play in NATO, particularly in light of the Spanish NATO referendum. Spain acceded to the North Atlantic Treaty in May 1982. Within months, however, the Spanish Socialist Party under the leadership of Felipe Gonzalez became the majority party in the Spanish Parliament. Mr. Gonzalez, who became the new prime minister, had argued in principle against Spanish membership in NATO and had promised to hold a national referendum concerning this subject, if elected to office. Subsequently, he froze negotiations concerning integration of Spanish forces into NATO's military structure, pending the results of such a referendum (15:3).

In March 1986, the referendum was finally held and the Spanish electorate decisively voted to remain within the Alliance. This decision represented a victory for Prime Minister Gonzalez, who had reversed his earlier position and had campaigned heavily in support of Spain remaining a NATO member. The outcome also represented a victory for NATO, whose senior leaders feared Spain's withdrawal would be a serious blow to NATO unity (22:A1). This victory was not as decisive as it sounds, however, since the referendum's terms for continued Spanish membership included nonintegration of Spanish forces into the NATO military structure, nonnuclearization of Spanish territory, and a reduction in U.S. troop presence in Spain (22:A20). Thus, at least for the near term, Spain has apparently taken a route similar to that of France.

For NATO, this relationship may not be entirely adverse, for while integration of Spanish forces into NATO would enhance NATO's military capability, this move would also raise some difficult political questions as well. Spain's forces would moderately improve NATO's air defenses and would significantly increase NATO's naval capabilities, particularly in the Atlantic approaches to the Mediterranean (15:40). At the same time, however, development of NATO command arrangements involving Spanish forces would likely be hampered by arguments over "turf protection." Compromises would have to be reached with Portugal and Great Britain, in particular, over the Spanish role in the Bay of Biscay, the Atlantic Ocean access routes to the Mediterranean Sea, and in the western Mediterranean basin (4:50-54). In essence, NATO already enjoys the Spanish military contributions and would continue to do so, except in the most dramatic of turns in Spanish domestic policy, without the headaches which military integration would bring (15:40-41). Of more importance to NATO, however, is the access which it has through U.S. bilateral agreements to air and naval bases in Spain.

As stated, the terms of the Spanish NATO referendum also called for a reduction to the U.S. military presence in Spain. Prior to the referendum, there was strong sentiment in

Spain for such a reduction (18:92). In a 1984 paper on Spanish security policy, Prime Minister Gonzalez reportedly placed a high priority on reducing the U.S. military presence in Spain. In addition, shortly following the referendum, the Spanish defense minister expressed a similar desire during a trip to the U.S. (27:88). Consequently, during the ongoing base-rights negotiations, Spain likely will seek at least a slight decrease in the U.S. military presence in Spain.

Burden Sharing

One of the key issues which has plagued NATO since its creation is that of "burden sharing." Many Americans have long criticized their European NATO allies for not assuming their adequate share of the burden of defense against the Warsaw Pact (39:--). Proponents of this thesis argue the U.S. contributes not only a greater amount of the NATO defense budget in real terms, but also contributes a higher percentage of domestic spending toward European defense. Europeans, on the other hand, argue their contribution often cannot be quantified in terms of dollars and cents (9:30; 37:--). Both sides drum up financial, manpower, and force structure statistics to prove their side of the argument. These arguments will inevitably persist since, as Secretary of Defense Caspar Weinberger points out, "There is no universally accepted formula for calculating each country's fair share" (44:269). Regardless, the U.S. has recently taken some significant steps to point out its frustrations over this issue.

These steps have taken the form of Congressional edicts governing support to NATO. In 1982, Congress mandated a European Troop Strength (ETS) ceiling of 315,600 (raised to 326,414 in 1984) on U.S. military personnel in Europe in an attempt to encourage greater European military contributions to the Alliance (3:132). Further, in 1984, Senators Sam Nunn (D-GA) and William Roth (R-DE) sponsored an amendment to the FY 1985 defense authorization bill to make U.S. force levels in Europe contingent upon greater conventional defense efforts on the part of Western Europe. Specifically, the U.S. would have required its European allies to achieve a three percent annual real increase in their defense spending or the U.S. would withdraw 90,000 of its troops from Europe by the end of the 1980s (16:235; 5:98). This amendment was barely defeated, but only after heavy lobbying efforts by the Reagan administration and West European governments. Nevertheless, both this amendment and the ETS decision have had a significant impact on the NATO defense effort and have strongly signaled Congressional dismay over the burden sharing issue.

The impact of these measures have arguably both added to and detracted from NATO security. The European response to the near passage of the Nunn-Roth Amendment was to commit greater resources to improving NATO's conventional defenses. In

December 1984, NATO's Defense Planning Committee (DPC) endorsed a six-year, $7.85 million common infrastructure program to improve Allied ammunition stocks and aircraft shelters at collocated operating bases for U.S. reinforcing aircraft. This expenditure represented a 40% real increase over then existing expenditures for such purposes (5:98). At the same time, however, the ETS ceiling has complicated the deployment of new U.S. forces and weapons systems, such as the Pershing IIs and GLCMs, to NATO, since forces must be constantly juggled to insure they do not exceed the ceiling. DOD argues the ETS ceiling is artificial and bears no relationship to the threat. Further, DOD points out the limit "reduces the conventional defense contribution of the United States to NATO since the obligation to deploy and man intermediate nuclear forces in Europe must be accomplished within this ceiling" (44:268). To date, however, Congress has not been persuaded by these arguments and has shown no inclination to abolish the ETS ceiling.

Rationalization, Standardization, and Interoperability

A second major issue NATO has faced since its creation is rationalization, standardization, and interoperability (RSI) of the variety of weapons systems employed by the various Allied national military forces. Recently NATO has taken some steps toward improving the RSI of weapons systems, but major problems remain.

Notable examples of general cooperation between the Allies include several in the realm of aerial warfare. Deployment of the F-16 fighter aircraft now being flown in the U.S., Dutch, Belgian, Turkish and soon the Greek Air Forces, as well as the Tornado, which is being flown by the Germans, British, and Italians, are two of the biggest examples of cooperation. Another successful RSI effort has been the integrated force of NATO AWACS aircraft. Nevertheless, a look at both the AWACS program and the follow-on European fighter programs reveals major RSI problems still persist.

To satisfy Great Britain, which was seeking to protect its aircraft and avionics industries, the 1978 NATO decision to deploy an integrated AWACS force also included a provision that 11 British-developed Nimrod Airborne Early Warning (AEW) Mk.3 aircraft were to be included among the force. This decision required the E-3A systems to be made compatible with those of Nimrod AEW (7:26). The Nimrod AEW program, however, experienced extensive delays and tremendous cost overruns and, in December 1986, the British government cancelled the program and stated they would purchase six E-3As with an option for two additional such aircraft. The first of these aircraft will not be delivered until 1991 and NATO, as a result, faces a shortage of AWACS aircraft, not to mention the loss of resources invested by Great Britain in the Nimrod AEW program.

A look at the follow-on European fighter programs also shows the problems remaining in the area of RSI. France, Great Britain, Germany, Italy, and Spain met in 1983 to try to produce a joint outline for an aircraft to be deployed beginning in 1995. Great Britain, with help from Germany and Italy, started on the European Aircraft Program (EAP), as the consortium's project had become to be known, while the French started work on their own experimental combat aircraft later called the Rafale-A. France split away from the EFA consortium in July 1985 primarily due to French desires for a lighter aircraft and a bigger share of the program. Meanwhile, the EFA consortium, bolstered by the addition of Spain, continued their efforts on the EAP. Both the EAP and the Rafale-A made their maiden flights in the summer of 1986 and both are likely to ultimately be produced with engines, armament, and radar different not only from each other, but also from any advanced U.S. aircraft deployed during the same time period (28:54-55).

Concerns over problems of NATO cooperation, though not specifically those of aircraft development, have reached the attention of the U.S. Congress. In 1985, Senator Nunn sponsored an amendment to the FY 1986 Defense Authorization Bill to encourage NATO cooperation on weapons systems development. The amendment promised up to $200 million of American aid for cooperative research and development among the Allies, plus a further $50 million for DOD's side-by-side testing of European weapons systems with their American counterparts (14:40). Specific kinds of systems which Senator Nunn advocated DOD consider for testing included the following: submunitions and dispensers; anti-tank and anti-armor guided missiles; mines, for both land and naval warfare; runway-cratering devices; torpedoes; mortar systems; light armored vehicles and major sub-systems thereof; utility vehicles; high-velocity anti-tank guns; short-range air defense (SHORAD) systems; and mobile air defense systems and components (26:28). Congress ultimately only appropriated $100 million for weapons research and $25 million for testing in FY 1986, but the effort, nevertheless, provoked a response from NATO armaments ministers. In an unprecedented special session in February 1986, they tentatively agreed to jointly fund six weapons research programs, including the following: an artillery-delivered Autonomous Precision Munition; Joint Surveillance and Target Attack Radar (JSTARS) and Corps Airborne Standoff Radar (CASTOR) interoperability; a NATO identification system; Air Force Modular Stand-off Weapons; a Multifunctional Information Distribution System; and a common NATO computer language based on DOD's ADA computer language. From three to ten member nations agreed to cooperate in each of these six programs. Although the agreements may not appear to represent a significant degree of cooperation, one U.S. DOD spokesman called them "a really remarkable achievement...the first time NATO nations have begun to apply...national

resources to cooperative programs based on NATO military guidelines to improve conventional defense" (25:30). Since that session, six additional cooperative programs were agreed to and Congress approved an additional $185 million to continue the so-called "Nunn initiatives" (31:20,22). Nevertheless, it remains to be seen whether the Allies will be able to agree on the needed compromises to allow the products of these programs to be successfully developed and deployed.

NATO Strategy Debate

NATO's strategy of Flexible Response is under debate as a result of recent developments in Soviet/Warsaw Pact force structure and strategy, as well as Western public concern over the role of nuclear weapons in future conflicts. Flexible Response features forward defense as the "preferred" option to counter possible Warsaw Pact aggression, but NATO reserves the right to use theater and/or strategic nuclear weapons, if necessary, to halt and reverse a Warsaw Pact advance (3:127). In view of the massive Soviet/Warsaw Pact conventional superiority, General Bernard W. Rogers, Supreme Allied Commander Europe (SACEUR), has estimated he would have to call for the release of nuclear weapons within the first four or five days of an attack, regardless of whether nuclear weapons had already been employed by Soviet forces (21:37).

FOFA Versus AirLand Battle. Particular concerns have been raised over the relationship between the Follow on Forces Attack (FOFA) plan (often referred to as the Rogers Plan), adopted by NATO in November 1984, and the AirLand Battle doctrine adopted in 1982 by the U.S. Army. As doctrine, AirLand Battle describes how U.S. Army corps and divisions plan to conduct military operations to meet worldwide U.S. commitments. Senior SHAPE leaders very strongly argue that FOFA, on the other hand, is not a doctrine, but is merely a defensive operational subconcept within the NATO strategy of Flexible Response designed to counter Soviet operational maneuver groups in Europe (30:13). Similarities and differences between the two deep strike initiatives are shown in Figure 1. Both are designed to delay, disrupt, or destroy enemy formations behind the battlefront before they can have an impact on the outcome of the battle (3:129-130). FOFA, however, is much more defensive in nature and, unlike AirLand Battle, advocates interdiction through the use of aircraft and missiles only, with no follow-on strikes by ground force units (3:130).

Regardless of similarities and differences between FOFA and AirLand Battle, the effectiveness of both would be enhanced through the use of emerging technologies (ET). ET refers to assets, both in existence and being developed, which increase the effectiveness of conventional defense. Examples of ET include target seeking munitions and reconnaissance for target

	U.S. AirLand Battle	NATO Follow-on Forces Attack
APPLICABILITY		
Global	X	
Europe Only		X
Eurasia Only		
BASIC ATTRIBUTES		
Offensive		
Defensive		X
Combination	X	
DOCTRINAL PURPOSES		
Win Campaigns		
Win Battles	X	
Deter/Defend		X
MILITARY OBJECTIVES		
Delay/Disrupt	X	X
Reduce Risks From:		
TNF Attacks	X	X
Air Attacks	X	X
Facilitate Maneuver	X	
Facilitate Main Body Breakthrough		
TASKS		
Reconnoiter	X	X
Interdict/Destroy	X	X
Secure LOCs/Facilities For Own Use		
TACTICS		
Stress Firepower		X
Facilitate Maneuver	X	
Avoid Decisive Action		
FORCES		
Aircraft/Missiles	X	X
Ground Forces		
Conventional	X	
Special Ops	X	X
Nuclear, Chemical		
Last Resort	X	X
Open Option		
CONTROL		
Centralized		X
Decentralized	X	
PRESSING PROBLEMS		
Real-Time Intelligence	X	X
Specialized Munitions	X	X
Air Defense Suppression	X	X
Logistic Support		
Control		

Source: John M. Collins, U.S.-Soviet Military Balance 1980-1985.

Figure 1. FOFA vs. AirLand Battle

acquisition and target data transmission (30:15). The potential of ET to enhance conventional defense contributes to a second area of debate over Flexible Response, and that is the role of nuclear weapons in NATO's strategy.

No First Use of Nuclear Weapons. As a result of public concern over the dangers surrounding the use of nuclear weapons in future conflicts, several influential former officials involved in U.S. national security affairs advocate that NATO adopt a declared policy of no first use of nuclear weapons in Europe. In 1982, McGeorge Bundy, George Kennan, Robert McNamara, and Gerard Smith first outlined a version of this proposal in an article in Foreign Affairs and, in 1986, expanded upon the idea in an article appearing in The Atlantic. In the their thesis, they argue the threat of first use of nuclear weapons adversely impacts NATO's capability to fight a conventional war since numerous dual-capable (conventional or nuclear) weapons systems would be withheld during the initial conventional phase of a conflict--a time when they are most needed--for use in the subsequent nuclear phase. Further, NATO's reliance on its nuclear threat for deterrence makes it difficult to muster the political and financial support necessary to sustain conventional forces sufficient for defense. Together, these actions virtually guarantee a nuclear phase would occur in any future NATO/Warsaw Pact conflict. Finally, since many of NATO's nuclear weapons are concentrated in a relatively small number of storage facilities in forward areas, these weapons are vulnerable to preemptive attack or, if deployed, susceptible to being quickly overrun. This situation could require a quick decision to use or lose these weapons in a conflict, perhaps before a conventional defense is even attempted (21:36-7).

Proponents of the "no first use" concept argue that to enhance conventional defense and to better strengthen the cohesion of the Alliance, NATO should declare a "no first use" policy, gradually remove nuclear weapons from the European theater, and commit greater resources toward conventional weapons. Bundy and his associates maintain removal of U.S. weapons would not "decouple U.S. security" from that of European allies since the web of U.S. installations and personnel in Europe would still insure any war in Europe would still be an American war. Western economic resources are far greater than those of the Warsaw Pact and, if committed to conventional defense, would guarantee the Warsaw Pact would face a long conventional campaign even if they decisively won the initial battle. In addition, the Allied nuclear threat would still remain a deterrent. American nuclear forces would still be required to reply should the Warsaw Pact first employ such weapons. Likewise, independently controlled British and French nuclear forces would still be available to initiate nuclear strikes, but would not be compelled to do so since they

are more survivable due to their distance from the East-West border (21:39).

Such arguments have not garnered much support in Europe. The European allies still maintain U.S. nuclear weapons are necessary to deter the Warsaw Pact and to guarantee a U.S. response should deterrence fail. Because of these feelings, General Rogers, though strongly advocating increased commitment of resources to NATO conventional defense and acknowledging he would be required to call for release of nuclear weapons in the first several days of a massive Warsaw Pact assault, does not support a "no first use" policy and feels the key factor for NATO deterrence remains "the threat of the first-use of nuclear weapons" (35:21). Nevertheless, as he goes on, the real reason NATO has "continued to mortgage [its] deterrence and defense in Europe to the nuclear response . . . is because nations have not been prepared to provide the resources to bring the conventional forces up to a point where they are sufficient for a defensive alliance" (35:22).

Strategic Defense Initiative

The final NATO issue to be discussed is President Reagan's Strategic Defense Initiative (SDI), first announced in March 1983. Specifically, European allies are concerned over their role in SDI and whether the U.S. development of a workable system to shield itself from the Soviet nuclear threat might result in the U.S. becoming more reluctant to come to Europe's aid in the event of a Warsaw Pact attack. Perhaps worse, they fear the U.S. might become more prone to take risks with European security--risks the U.S. would not consider if itself was in danger of nuclear attack (1:6).

President Reagan's announcement of the SDI research program caught the Europeans by surprise, but in the past several years the U.S. has strongly sought to assure its allies that SDI would enhance European security and that the U.S. welcomed a European scientific, industrial, and technical contribution to the program. The Reagan administration has emphasized the program will include research toward defense against theater and tactical ballistic missiles, as well as intercontinental ballistic missiles, and that European allies would be closely consulted throughout each step of the program (17:12; 24:17). Finally, to calm European fears that SDI might result in an overwhelming technological gap between the U.S. and Europe, the Reagan administration announced European firms would be welcome to compete for SDI contracts (17:19). As a result of these efforts, the Allies have generally come to support the SDI program, as evidenced by the adoption of a resolution supporting strategic defense by the North Atlantic Assembly in October 1985 (24:1).

SUMMARY

As discussed above, a number of significant developments have occurred in Europe since The European Environment was last updated in 1982. Both NATO and the Warsaw Pact modernized their weapons systems deployed in the European theater and, of particular concern to CAWC students, NATO and its U.S. component commands underwent some organizational stucture changes. In addition, in 1987 NATO faces a number of military and political issues which, if not fundamentally new, nevertheless have been cast in new light by recent events. The final chapter of this paper will provide recommendations for how these developments and issues should be incorporated into a new edition of The European Environment.

Chapter 5

RECOMMENDATIONS

Based on the findings outlined in the previous chapter, this author recommends a number of changes to The European Environment to ensure the CAWC students receive the latest and best information on the European theater. A summary of these changes is furnished in the appendix which follows this chapter. These changes include not only revisions to the text of the book, but also to several of the figures and tables included within it. In addition, this author recommends a change to the caveat which governs distribution of the book. A short explanation of the appendix is required to minimize confusion faced by the CAWC project officer ultimately tasked with preparing the revised book for printing and publication.

The appendix begins with recommended changes to the front cover of The European Environment and proceeds page-by-page through the book. The recommended changes to the text are referred to by page number, column letter (either A or B depending on whether the left or right column of the text is to be updated), and line number. Lines are numbered sequentially and include all lines containing text as well as subordinate headings. Blank lines are not counted. Regarding figures and tables, where this author was able to locate appropriate replacements, they are included within the appendix; else, recommendations are provided on how the present graphics should be modified. All citations within the appendix, with the exception of those denoted with an asterisk, are numbered with respect to the bibliography of this paper. Citations marked with an asterisk refer to sources contained within the bibliography of The European Environment. Given the dynamic nature of the European theater, this author made no attempt to update the current bibliography of The European Environment. Any significant late-breaking event which occurs prior to publication of the book and which demands mention in the new edition would probably change the numbering of the bibliographic references. This action, in turn, would require the renumbering of all the citations within the text. This renumbering process, along with the incorporation of the sources listed in the appendix with those sources listed in the bibliography of the current book, must be accomplished prior to publication of a revised version of this book; however, this task is left to the CAWC project officer.

The reasoning behind each of the changes recommended in the book will not be discussed, since, for the most part, they follow directly from the findings presented in Chapter Four. Several of these changes, however, deserve specific mention. First, this author proposes the title of the revised edition be changed to The European Military Environment: NATO and the Warsaw Pact, which was the title of the original course for which the present text was only one volume. This title more accurately reflects the subject matter dealt with by the book. Second, Appendix B, "Historical Survey: Europe to the Beginning of the First World War" should be deleted. This material adds little to the book and its deletion will save a few cents in publication costs. Finally, this author recommends a change to the caveat which governs the distribution of this book. Presently the book is caveated FOR OFFICIAL USE ONLY (FOUO). A review of Air Force Regulation 12-30, Air Force Freedom of Information Act Program, which governs use of the FOUO caveat, does not reveal the book, either in its present or updated form, fits any of the categories of documents requiring such a caveat (42:5-7). No records concerning why the book was originally caveated FOUO are available, but this action may have been taken because the document included unclassified data taken from classified sources. In the event this reasoning lay behind the original FOUO caveat, this author has replaced such data with either the same or equivalent information taken from unclassified sources.

As a result of the changes recommended by this study, The European Environment should once again become a valuable resource for training students at the CAWC. Former SACEUR, General Richard L. Lawson, once said of American officers in NATO staff positions,

> ...too many officers spend a long time coming up-to-speed in the NATO environment which detracts from their capacity to have the kind of positive inspirational impact we hope all our officers will achieve. The Allies look to us as the leaders of the Alliance and gauge the level of U.S. commitment to the Alliance, in part, by the quality of the officers we assign to NATO Headquarters (45:2).

A revised edition of The European Environment incorporating the recommended changes outlined in this study should at least partially contribute to alleviating this problem.

APPENDIX

RECOMMENDED TEXT CHANGES

Front Cover + p. i
Delete "Volume 1 THE EUROPEAN ENVIRONMENT" as well as "FOR OFFICIAL USE ONLY"

p. ii, lines 3-4
Delete "It will also support Air Command and Staff College curriculum development."

p. ii, line 6
Delete "It" and begin sentence with "This document"

p. iii, line 2
Change to read as follows:
This study of the European military environment is designed for orientation of USAF

p. iii, line 6
Change to read as follows:
This text provides a general introduction to Europe and NATO and can either be

p. iii, line 12
Change "Volume 1" to "This study" and "situation, providing" to "situation and provides"

p. iii, lines 17-18
Delete last sentence and replace with the following:
A survey of current issues impacting NATO along with the text of the North Atlantic Treaty and its protocols of accession are provided in appendices.

p. iv, lines 1-8
Change to read as follows:
This text was originally prepared at the USAF Air Command and Staff College (ACSC) as part of a three-volume survey course. Student researchers in the ACSC Class of 1976 (Student Group I) prepared the original document. This text was subsequently revised by members of the ACSC Class of 1977 (Student Group II), Class of 1979 (Student Group III), Class of 1980 (Student Group IV), and class of 1982 (Student Group V). The most recent

revision was provided by Major Charles A. Stevens, ACSC Class of 1987.

p. iv, line 12
Add Major John Perrigo

p. v, lines 5-9
Delete entirely

p. vii
Add "The Dual Track" after "NATO in the 1970s", revise page numbers as needed, and delete "FOR OFFICIAL USE ONLY"

p. viii
Delete "Appendix B, Historical Survey: Europe to the Beginning of the First World War" and "FOR OFFICIAL USE ONLY" and revise page numbers as needed

p. ix
Delete "Figure 19 USEUCOM Area of Responsibility", Figures B-1 through B-6, and "FOR OFFICIAL USE ONLY." Change Figure 20 to 19, 21 to 20, 22 to 21, and 23 to 22. Add "Figure A-1 FOFA vs. AirLand Battle". Revise page numbers as needed.

p. 1, col. a, line 8
Change "30" to "35"

p. 1, col. b, lines 23-24
Change "forces are discussed in detail in Volume II of this assessment, a brief" to "forces will not be discussed in detail in this assessment, a brief"

p. 2, Figure 1.
Replace with Figure 2 of this paper

p. 3, col. b, line 10
Change "1981" to "1986"

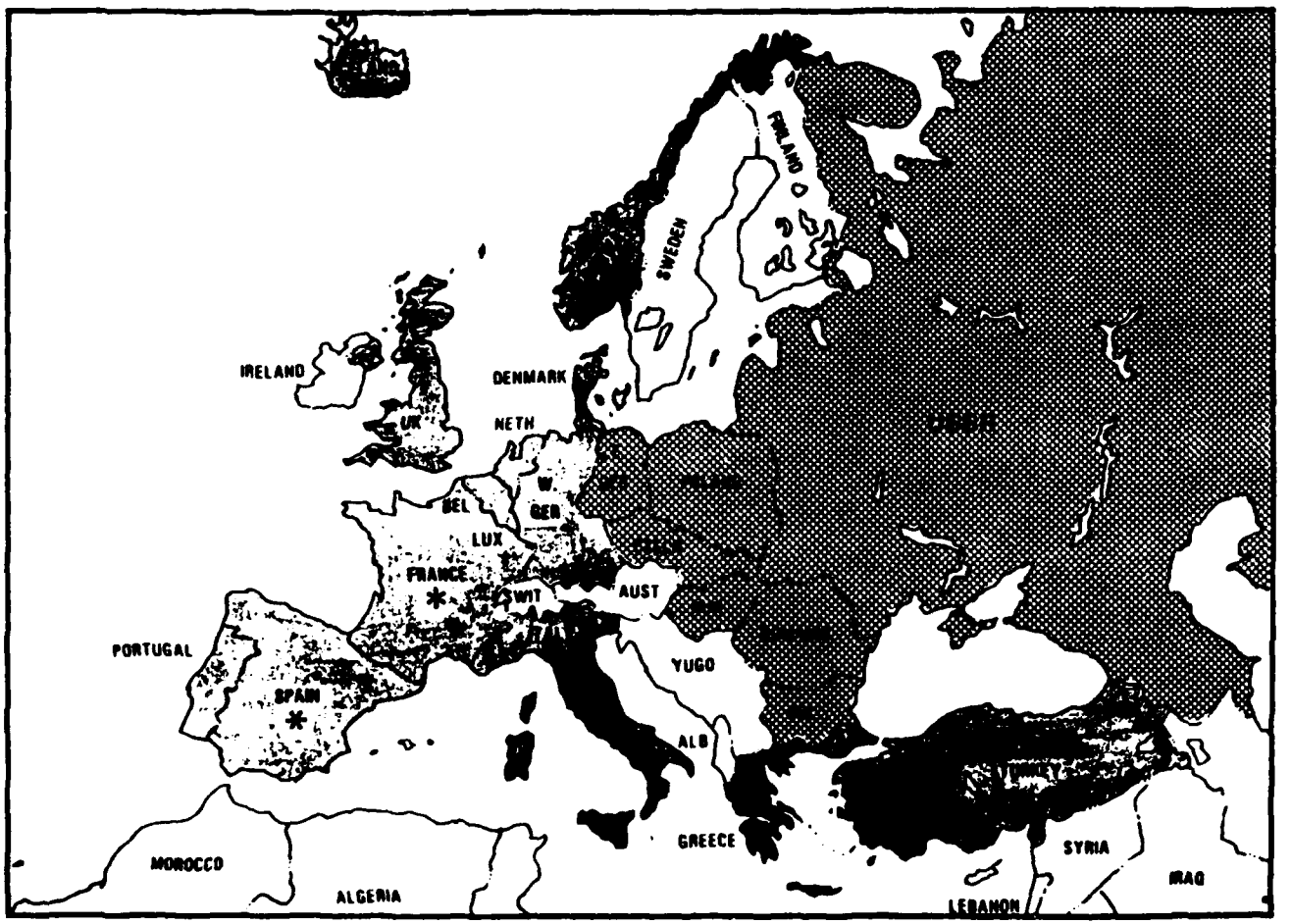
p. 4, col. b, line 46
Change "Polaris/Poseidon" to "nuclear ballistic missile"

p. 5, col. a, line 30
Change "50:68-74*" to "51:68-74*"

p. 5, col. a, line 35
Add "Spain," after "Italy,"

p. 5, col. b, lines 56-60
Delete entirely and replace with the following:

WESTERN EUROPE, NATO AND THE WARSAW PACT



* DOES NOT PARTICIPATE IN INTEGRATED MILITARY STRUCTURE

Figure 2.

One recent bright light along NATO's Southern Flank has been the accession of Spain to the North Atlantic Treaty. Nevertheless, this development has been more a psychological boost to NATO than a major breakthrough in military terms. Spain's admission to NATO signaled both the East and West that NATO was a viable and healthy organization; but Spain's military forces are primarily organized for security of Spanish territory and do not have the appreciable capability for projection into the most likely areas of future European conflict (4:ix). Furthermore, Spain has elected not to allow them to be integrated into NATO's military structure. Such integration would be difficult in any event due to, among other reasons, problems in developing acceptable command and control relationships with Portugal, historically NATO's Atlantic gateway (4:51). Cooperation between the two countries is essential since their strategic

p. 8, col. b, lines 21-26
Move "(72:11)*" to immediately following "deployment"; Change the remainder of the paragraph to read as follows:
Chronic economic and political difficulties have weakened NATO defense posture in the Southern Region and Turkish, Greek, and Spanish military forces are in need of modernization despite recent improvements (8:94).

p. 8, col. b, line 28
Change "82" to "87"

p. 8, col. b, lines 29-36
Delete entirely and replace with the following:
Modernization programs have allowed NATO naval forces to maintain an overall advantage over the Warsaw Pact; nevertheless, Soviet naval forces remain capable of threatening US and allied forces operating in the maritime approaches to Europe and of posing a threat to reinforcement and resupply shipping in the Atlantic Ocean (47:41).

p. 19, col. b, lines 33-36
Change to read as follows:
February 1952, while the Federal Republic of Germany, officially acceded to the treaty on 18 February 1952. The newest NATO member, Spain, formally became a member of NATO on 30 May 1982. (See Appendix B for the Protocols of Accession for these four nations.)

p. 21, col. b, line 41
Delete "While" and began sentence with "On"

p. 21, col. b, lines 48-51
Following "1976", add "(See Table 2 for comparison of current NATO and Warsaw Pact conventional forces.)". Delete final two sentences and add the following paragraphs:

THE DUAL TRACK

NATO continued to weigh its concern over the steady Soviet/Warsaw Pact military buildup against Alliance desires to achieve an East-West detente. Through the remainder of the decade and into the 1980s, NATO pursued arms control and disarmament negotiations simultaneously with efforts to upgrade NATO's force posture.

Allied nations became particularly concerned with the increasing Soviet capability in longer range theater nuclear weapons--especially the SS-20 mobile missile--and in 1979 embarked on a dual track program of longer range intermediate-range nuclear force (LRINF) modernization and arms control negotiations. The Alliance agreed unless the Soviets were willing to sufficiently reverse their SS-20 deployments, the U.S. would assign to NATO 108 Pershing IIs (all in West Germany) and 464 ground launched cruise missiles (GLCMs) (160 in the United Kingdom, 112 in Italy, 48 in The Netherlands and 96 in West Germany) (8:25).

Bilateral intermediate-range nuclear force (INF) negotiations and strategic arms reduction talks (START) between the U.S. and the Soviet Union began in November 1981, but these negotiations broke down in 1983 (40:146-148). Subsequently, in November 1983, the U.S. began deliveries of Pershing IIs to West Germany and GLCMs to the United Kingdom and Italy, despite significant Western European public protests (40:145). Following these initial deliveries, however, protests diminished and deployments of these missiles, scheduled to continue through 1988, proceeds on a gradual, but steady, pace (44:227).

Two additional developments in the 1980s have seemingly reversed, or at least halted, the weakening of NATO's Southern Flank. In 1980, Greece was reintegrated into the NATO military structure, while in 1982, Spain became the 16th member of NATO. While subordinate NATO command elements essential for the effective integration of Greek forces into the NATO military structure have yet to be established, and the role which Spain will play in NATO's defense has yet to be ironed out, these developments, nevertheless, have been a boost to Alliance morale. (See Appendix A for further discussion of the Greek and Spanish situations, as well as of other current issues impacting the Alliance.)

p. 23, Table 2
Replace with Table 1 of this paper

p. 23, col. b, line 4
Delete "and in Volume III."

Conventional Force Comparisons: NATO and Warsaw Pact

	NATO						Warsaw Pact				
	Europe					*Ratios of*		Soviet		Non-Soviet	
	North[a]	South[b]	(Spain)	US	Total (excl Spain)	*NATO/Pact Totals*	Total	North[c]	South[d]	North[c]	South[d]
Manpower (000)											
Total uniformed manpower[e]	1,629	1,319	(320)	2,144	5,092	*1 / 1.23*	6,290	5,130		717	443
Reserves (all services)	2,292	2,344	(1,085)	1,683	6,319	*1 / 1.29*	8,149	6,265		1,181	703
Total ground forces	990	1,017	(230)	771	2,779	*1 / 1.02*	2,827	1,991		498	338
Total ground force reserves[f]	1,737	1,809	(800)	1,057	4,603	*1 / 1.10*	5,080	3,500		995	585
Total ground forces deployed in Europe	624	1,017	(230)	217	1,858	*1 / 1.46*	2,704	1,170 (500)	698 (65)	498	338
Divisions[g]											
Divs deployed in Europe Tk[h]	12	2	—	2½	16½	*1 / 1.94*	31½	15	6	8	2½
manned in peacetime Mech	6	8	—	2½	16½	*1 / 2.94*	48	23	9	10	6
Other	2½	2	—	1½	5½	*1 / 1.82*	10½	5	½	2½	2
Divs for reinforcement Tk	5	2	(1)	4½	11½	*1 / 2.23*	26	16	4	4	2
manned or on mobil- Mech	13½	21	(1)	8½	43½	*1 / 1.48*	64	16	26	7	15
ization of reserves[i] Other	16½	16	(3½)	15½	46½	*35 / 0.1*	1½	—	1½	—	—
Total divs, war Tk	17	4	(1)	6	27	*1 / 2.14*	57½	31	10	12	4½
mobilized[g] Mech	21½	29	(1)	11	61½	*1 / 1.82*	112	39	35	17	21
Other	19½	18	(3½)	16½	54	*4.76 / 1*	11½	5	1½	2½	2
Ground Force Equipment											
Main battle tanks	8,981	6,333	(883)	5,000	20,314	*1 / 2.29*	46,610	19,500	12,700	9,770	4,640
Arty, MRL	4,086	4,218	(1,300)	670	8,974	*1 / 2.68*	24,035	10,000*	6,300*	4,300*	3,435*
Mor (over 120mm)	1,760*	500*	(400)	—	2,149	*1 / 2.83*	6,072	4,000*	1,000*	422*	650*
SSM launchers (dual-capable)	165	6	—	216	387	*1 / 3.19*	1,235	693	185	203	154
ATK guns	280	—	—	—	280	*1 / 5.54*	1,550	570*	420*	190	370
ATGW launchers (crew-served, AFV-, hel-mounted)	885	126*	—	800*	1,811	*1 / 1.95*	3,525	1,300*	1,035*	750	440
AA guns	1,429	1,850*	(414)*	100	3,379	*1 / 1.04*	3,525*/	1,100*	1,120*	1,350	1,250
SAM launchers (crew-served, ground forces only)[k]	522	100	(33)	164	786	*1 / 6.83*	5,365*/	2,500*	1,620*	1,000	245
Armed helicopters	312	174	(44)	228	714	*1 / 2.92*	2,085	1,580	505	114	70
Naval Units											
Submarines cruise missile	—	—	—	—	—	—	37	35	2	—	—
attack	84	48	(8)	51	183	*1 / 1.91*	154	108	40	3	3
Carriers	4	4	(1)	5	13	*4.33 / 1*	3	1	2	—	—
Cruisers	—	2	—	12	14	*1 / 1.5*	21	14	7	—	—
Destroyers	32	38	(11)	34	104	*2.17 / 1*	48	29	18	—	1
Frigates	91	51	(11)	48	190	*3.52 / 1*	54	33	13	3	5
Corvettes/large patrol craft	29	42	(18)	—	71	*1 / 1.62*	115	41	29	30	15
FAC (G/T/P)	93	55	(12)	6	154	*1 / 1.95*	300	45	100	76	79
MCM[l]	142	67	(12)	3	212	*1 / 1.45*	308	185	65	54	4
Amphibious[m]	85	140	(24)	25	250	*1 / 2.1*	145	73	37	35	—
Naval and Maritime Aircraft											
Bombers	—	37	—	—	37	*1 / 5.41*	200	100	100	—	—
Attack	97	10	(10)	170	277	*1 / 1.1*	184	50	100	34	—
Fighters	—	12	—	105	117	—	—	—	—	—	—
ASW	8	12	—	50	70	*1 / 2*	70	20	50	—	—
MR/ECM	100	36	(20)	55	191	*1 / 1.4*	154	99	45	10	—
ASW hel	238	115	(25)	30	383	*4 / 1*	82	30	40	—	12
Land Combat Aircraft[n]											
Bombers	72	—	—	150	222	*1.06 / 1*	210	210		—	—
FGA	873	841	(40)	444	2,158	*1 / 1.03*	2,216	1,025	540	421	230
Fighters	118	238	(107)	96	452	*1 / 2.38*	1,075	590	315	135	35*
Interceptors	44	—	—	18	62	*1 / 20.89*	1,295	*	*	810	485*
Reconnaissance	142	156	(20)	51	349	*1 / 1.27*	443	221	72	90	60
ECM	*	*	*	*	*	—	60	55	5	—	—

* Estimated figures.

[a] Comprises Norway, Denmark, W. Germany, Luxembourg, Netherlands and Belgium, and includes forces actually deployed from Britain, Canada, US (Atlantic), France (Army, Navy, Atlantic-deployed elms incl Naval air)

[b] Comprises Turkey, Greece, Italy, Portugal, France (Navy), US Sixth Fleet and forces deployed in Southern Europe.

[c] Comprises Poland, E. Germany and Czechoslovakia, and includes Soviet forces in those countries and in the Leningrad, Baltic, Belorussian and Carpathian MD

[d] Comprises Hungary, Romania and Bulgaria, and includes Soviet forces in Hungary and in the Odessa, Kiev, North Caucasus and Trans-Caucasus MD

[e] 'Uniformed manpower' refers to main forces only and excludes para-military forces

[f] 'Reserves'. Many countries have Reserve obligations into middle age; where not otherwise stated in the country entry, a five year post-conscript period has arbitrarily been selected in calculating the numbers. In Pact countries a large proportion of these older reservists are probably assigned to 'shadow' formations and units with stored obsolete equipment, potentially doubling the mobilizable forces from those shown but necessarily at very low standards of efficiency. This table, however shows equipment totals for listed Category 1, 2 and 3 divisions only

[g] Divisions are not a standard formation between Armies. 3 brigades or regiments are considered to be a divisional equivalent

[h] 'Tk' includes tank and armoured divs. 'Mech' includes mechanized, motorized and motor rifle. 'Other' includes airborne, air-portable, mountain, amphibious, light infantry and naval infantry

[i] Mobilization and reserve reinforcement systems vary considerably. A distinction between the two categories of immediate reinforcement and 'when mobilized' must of necessity be judgmental, especially for NATO. See country entries for detail

[j] Figures in part on unit organization

[k] Field forces only. Soviet Air Force and APVO equipment is considered primarily to be for airfield defence and not for use by field formations

[l] Excludes support craft and inshore boats

[m] Excludes LCU, LCAC, LCA, small craft

[n] OCU aircraft are included in these totals

[o] Included in the figure above

Source: The Military Balance: 1986-1987

Table 1.

p. 24, col. b, line 4
Change "15" to "16"

p. 24, Figure 12
Replace with Figure 3 of this paper

p. 25, col. a, line 16
Change "15" to "16"

p. 25, col. a, line 20
Change "(Figure 16)" to "(Figure 12)"

p. 26, col. a, line 12
Change "(Figure 13)" to "(Figure 14)"

p. 26, col. a, line 12
Add the following sentence:
In addition, SACEUR shares with SACLANT and CINCHAN operational command over the NATO Airborne and Early Warning and Control Force Command and acts as the Executive Agent for day-to-day operations of this force (12:37).

p. 29, col. a, lines 2-4
Delete last sentence of paragraph

p. 29, col. a, line 37
Add the following paragraph:
Command arrangements for Greek and Spanish military forces await the resolution of these countries' relationship to the integrated military structure of NATO. (See Appendix A for further discussion.)

p. 32, col. a, lines 5-6
Change to read as folows:
Striking Fleet Atlantic, Submarines Allied Command Atlantic and Standing Naval Force Atlantic (12:57-58).

p. 33, col. a, line 9
Delete "(70:1)*"

p. 33, col. b, lines 4-5
Delete "(Figure 19)"

p. 33, col. b, line 25
Change "(70:2)*" to "(41:1)"

p. 33, col. b, line 32-37
Change to read as follows:
USEUCOM's area of responsibility covers the following: all of Western Europe, including the Scandinavian countries and the United Kingdom; the Mediterranean Sea and its North African

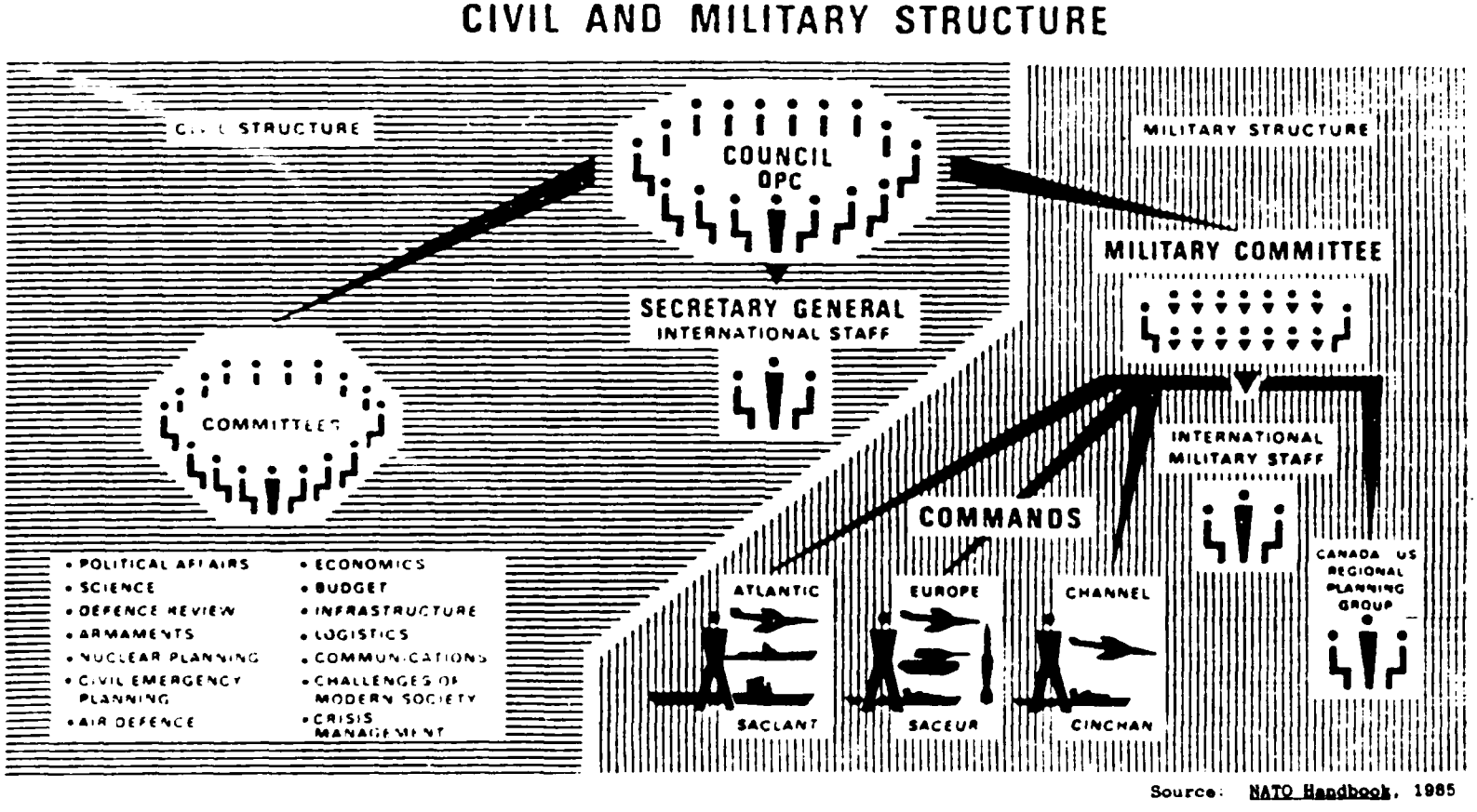


Figure 3. NATO Organization

littoral countries, except Egypt; and Sub-Saharan Africa with the exception of Sudan, Ethiopia, Somalia, Djibouti, and Kenya which, along with Egypt, are the responsibility of U.S. Central Command (44:283-284; 46:14).

p. 33, Figure 18
Delete "31 December 1979"

p. 34, Figure 19
Delete entirely

p. 34, col. b, line 21
Change "Figure 20" to "Figure 19"

p. 35, Figure 20
Replace with Figure 4 of this paper and renumber as Figure 19

p. 35, col. a, line 8
Add the following to the end of the paragraph:
In addition, CINCNAVEUR is also CINCSOUTH, while the Sixth Fleet commander is also the commander of STRIKFORSOUTH (43:2-15; 2:1062).

p. 35, col. a, lines 9-15
Delete entirely

p. 35, col. b, lines 4-11
Change to read as follows:
There are over 300,000 U.S. military personnel assigned in the USEUCOM area. Of the approximately 295,000 specifically assigned to USEUCOM, about 220,000 are assigned to USAREUR, 61,000 to USAFE, and about 14,000 Navy and 1,000 Marine Corps personnel ashore to USNAVEUR (46:11).

p. 35, col. b, line 24
Change "(70:11)*" to "(38:108)"

p. 35, col. b, lines 17-18
Change to read "Mediterranean, North and Sub-Saharan African areas."

p. 36, Figure 21
Replace with Figure 5 of this paper and renumber as Figure 20

p. 37, Table 3
Replace with Table 2 of this paper

p. 37, col. a, line 3
Change "Figure 21" to "Figure 20"

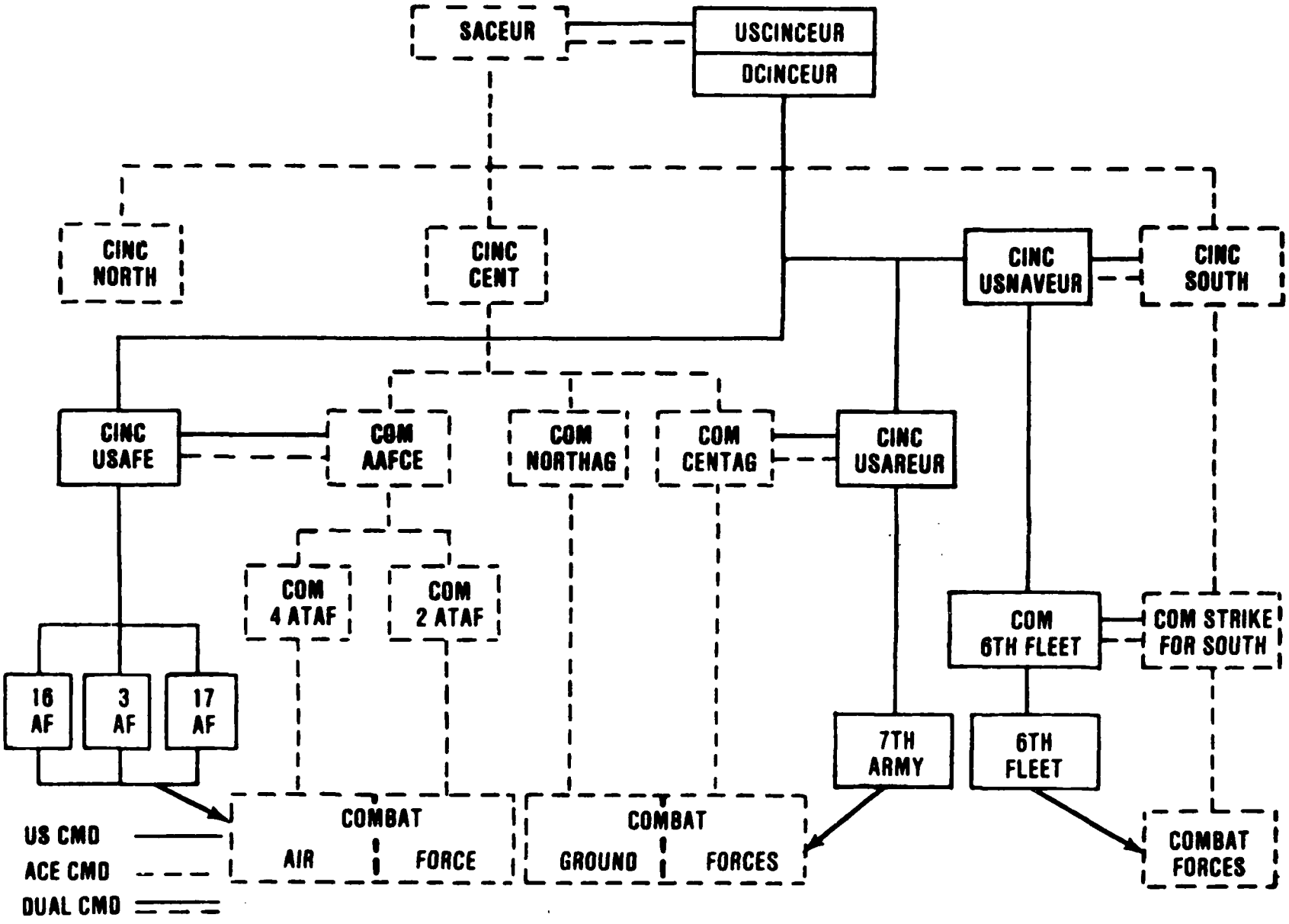
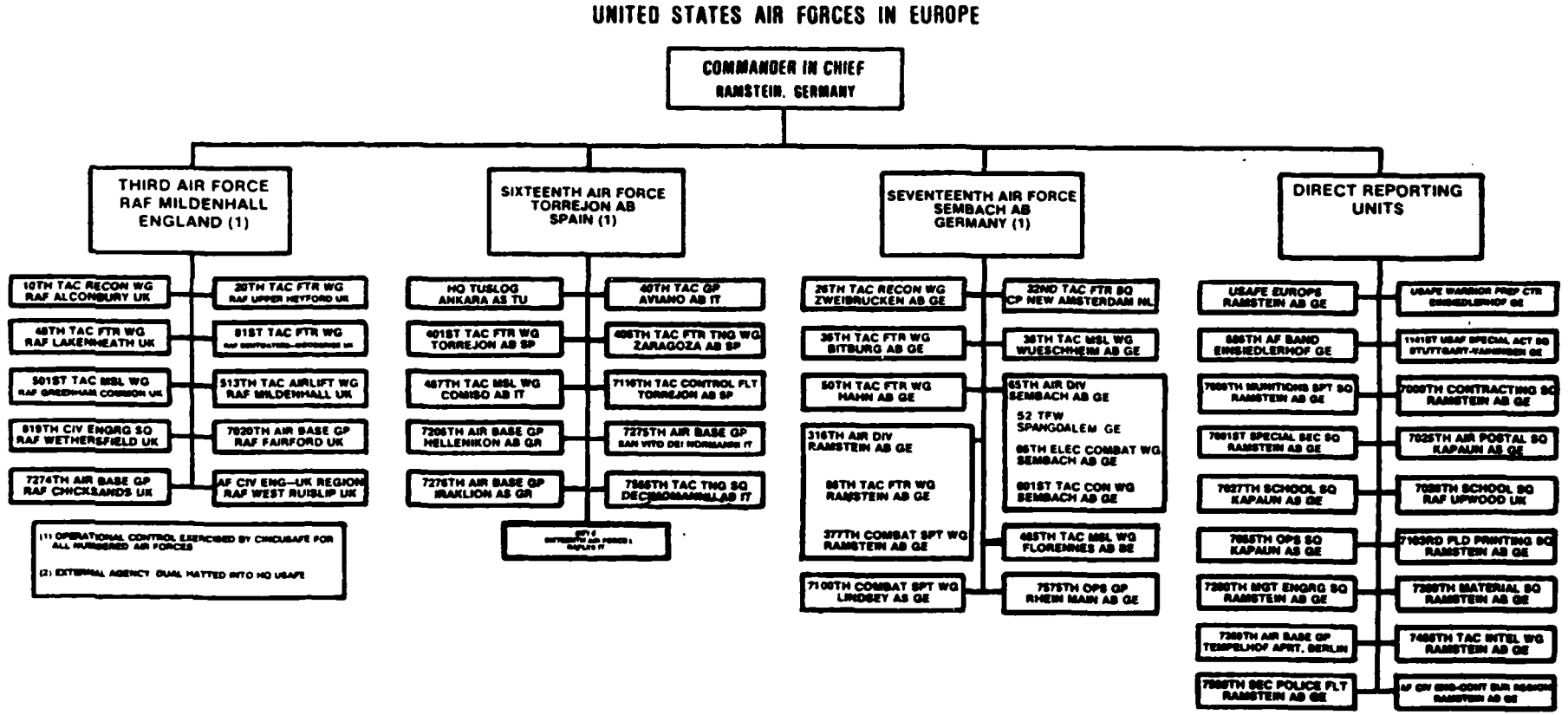


Figure 4. U.S./Allied Command Structure



Source: USAFE Visual Aid 23-1, 1 February 1986

Figure 5.

The Major Operating Units of USAFE

Unit	Location	Weapon Systems/Missions
	England	
10th Tactical Recon Wing	RAF Alconbury	RF-4, F-5 SAC TR-1
20th Tactical Fighter Wing	RAF Upper Heyford	F-111, EF-111
48th Tactical Fighter Wing	RAF Lakenheath	F-111
81st Tactical Fighter Wing	RAF Bentwaters/Woodbridge	A-10, MAC Rescue HC-130, HH-53
501st Tactical Missile Wing	RAF Greenham Common	BGM-109G GLCM
513th Tactical Airlift Wing	RAF Mildenhall	USAFE EC-135, MAC rotational C-130, SAC rotational KC-135, SAC SR-71
819th Civil Engineering Squadron	RAF Wethersfield	Support, civil engineer heavy repair squadron
7020th Air Base Group	RAF Fairford	SAC rotational KC-135
7274th Air Base Group	RAF Chicksands	Support, communications
	Spain	
401st Tactical Fighter Wing	Torrejon AB	F-16
406th Tactical Fighter Training Wing	Zaragoza AB	Tactical range support/weapons training detachments, SAC rotational KC-135
	Italy	
40th Tactical Group	Aviano AB	Rotational USAFE aircraft
487th Tactical Missile Wing	Comiso AS	BGM-109G GLCM
7275th Air Base Group	San Vito AS	Support, communications
	Turkey	
Hq TUSLOG	Ankara AS	Logistics management
39th Tactical Group	Incirlik AB	Rotational USAFE aircraft
7217th Air Base Group	Ankara AS	Command and logistical management
7241st Air Base Group	Izmir AS	NATO unit support
	Greece	
7206th Air Base Group	Hellenikon AB	Support, communications
7276th Air Base Group	Iraklion AS, Crete	Support, communications
	The Netherlands	
32d Tactical Fighter Squadron	Camp New Amsterdam	F-15
	Belgium	
485th Tactical Missile Wing	Florennes AB	BGM-109G GLCM
	West Germany	
65th Air Division	Sembach AB	Electronic combat
316th Air Division	Ramstein AB	F-4 (converting to F-16)
26th Tactical Recon Wing	Zweibrucken AB	RF-4, C-23
36th Tactical Fighter Wing	Bitburg AB	F-15
50th Tactical Fighter Wing	Hahn AB	F-16
52d Tactical Fighter Wing	Spangdahlem AB	F-4E/G
86th Electronic Combat Wing	Sembach AB	Electronic combat
86th Tactical Fighter Wing	Ramstein AB	F-4 (converting to F-16)
377th Combat Support Wing	Ramstein AB	Support
601st Tactical Control Wing	Sembach AB	Command control communications
38th Tactical Missile Wing	Wueschem AS	BGM-109G GLCM
7100th Combat Support Wing	Lindsey AS	Support, command control communications, USAF Regional Medical Center-Wiesbaden
7350th Air Base Group	Tempelhof Central Airport, Berlin	Support, communications
600th Combat Support Squadron	Hessisch-Oldendorf AS	Communications

Source: Air Force Magazine, May 1986

Table 2.

p. 37, col. b, lines 4-10
Delete entirely

p. 38, Figure 22
Renumber as Figure 21 and add the units (all in Germany) listed below:
As subordinate to Commander in Chief: 18th Engineer Brigade, Karlsruhe
As subordinate to V Corps: 12th Aviation Group, Wiesbaden; 41st Field Artillery Brigade, Babenhausen; 42nd Field Artillery Brigade, Giesen
As subordinate to VII Corps: 11th Aviation Group, Schwabisch Hall; 7th Field Artillery Brigade, Wertheim; 210th Field Artillery Brigade, Herzogenaurach

p. 38, col. a, lines 3-4
Delete last sentence of paragraph

p. 38, col. a, lines 9-10
Change "(70:2)*" to "(6:373-376)" and "Figure 22" to "Figure 21"

p. 38, col. b, line 11 to p. 39, col. a, line 2
Change to read as follows (Note asterisks next to citation numbers referencing sources presently listed in The European Environment):

Air Force assets assigned to USAFE span the tactical aircraft inventory, but USAFE also receives support from several other major commands which operate specialized aerial platforms. Fighter aircraft include the F-15 and F-16 with the last of the F-4 ground attack units presently being converted to the F-16 (38:111). RF-4s provide an all-weather, day/night reconnaissance capability and F-111s provide a responsive, all-weather, day/night interdiction capability (56.88)*. Close air support is furnished by A-10s which deploy to forward operating locations from their home base at Bentwaters/Woodbridge in the United Kingdom. In addition, EF-111s offer electronic combat support, while F-5Es are used for aggressor training (38:111). "Strategic and tactical airlift is provided under a joint USAFE-MAC plan of coordinated control" (57.88)*. CINCUSAFE exercises operational control of tactical airlift resources through the MAC Theater Airlift Manager (TAM). In Europe, the TAM is known as the Military Airlift Center, Europe (MACE). Tactical airlift is provided by two C-130 squadrons--one on rotation from the U.S. at RAF Mildenhall in England, and one permanently assigned at Rhein-Main AB, Germany. Another dual-based squadron is available for NATO exercises (60.13374)*. MAC also operates a fleet of 18 C-23A Sherpas to move spare parts throughout the theater. Providing an aerial refueling capability are rotationally-assigned Strategic Air Command (SAC) KC-10s and KC-135s. SAC also operates the SR-71 and TR-1 from bases in the United Kingdom to provide additional reconnaissance in the

theater. Finally, USAFE hosts the USAF's only operational BGM-109G GLCM wings (38:111).

p. 39, Figure 23
Renumber as Figure 22 and make the following changes:
Delete MIDDLE EAST FORCE
Change subordinate units to the Sixth Fleet as follows:
TASK FORCE 60 (Carrier Striking Force); TASK FORCES 61 & 62 (Amphibious/Landing Forces); TASK FORCE 63 (Service Force); TASK FORCES 64 & 69 (Submarine Forces); TASK FORCE 66 (Area ASW Coordination); TASK FORCE 68 (Maritime Surveillance Force)

p. 39, col. a, line 20
Delete "The U.S. Naval Forces, Europe (USNAVEUR)" and begin sentence with "USNAVEUR"

p. 39, col. b, line 2
Change "Figure 23" to "Figure 22" and add the following:
The commander in chief of USNAVEUR is dual-hatted as Commander in Chief Allied Forces Southern Europe (43:2-15).

p. 39, col. b, lines 14-18
Change to read as follows:
The aircraft complement of each CV, typically about 86 aircraft, is composed of the following squadrons: two fighter squadrons of F-14s; three attack squadrons of F/A-18s, A-6s, or A-7s; one fixed and one rotary wing antisubmarine warfare (ASW) squadron, respectively equipped with S-3s and SH-3Hs; and an early warning squadron equipped with the E-2C (23:50-55).

p. 40, col. b, line 2
Change "allied" to "Allied"

p. 40, col. b, lines 12-13
Delete entirely

p. 41-44
Delete all but the last paragraph of Appendix A and replace with the following discussion. (Note: Figure 2 of this paper becomes Figure 23 in the updated Appendix A.)

The NATO Alliance has faced a wide range of challenges since its inception, primarily due to the political diversity of its members. NATO can be characterized as a free association of sovereign states. This characteristic insures NATO's cohesiveness in times of conflict; but during peace the differences among national interests of the member countries frequently lead to divisive situations. NATO's demise has been predicted since its inception, but at this point NATO has outlasted the commitments of its original charter.

This appendix provides the reader with a brief overview of several key military and political issues which currently face the Alliance. Certainly the issues presented are by no means the only ones facing the Alliance today, but they are representative of the problems faced by an organization with as diverse a membership as NATO. Most of these issues such as "burden sharing" and arms cooperation are not new, but given the growth in the Soviet/Warsaw Pact threat and in the destructive potential and cost of modern weapons systems, the consequences of failure to resolve such issues have increased substantially. The appendix begins with a review of several membership issues.

Greek-Turkish Disputes

Turkish and Greek antagonism continues to hamper NATO's effectiveness in the Southern Region. Just a little more than a decade ago these two NATO allies went to war over Cyprus and, as a result, in 1974 Greece withdrew its military forces from NATO (18:1). In 1980, Greece reentered the NATO military structure through the "Rogers Agreement" which attempted to resolve questions over air defense command and control agreements in the Aegean Sea (34:7). Specifically, both Greek and Turkish negotiators agreed to the establishment of the 7th Allied Tactical Air Force (ATAF) to be headquartered in Larissa, Greece and to be commanded by a Greek. The 7th ATAF commander was then to sit down with the Turkish commander of the 6th ATAF in Izmir and along with the commander of Allied Air Forces Southern Europe (AIRSOUTH) "determine the best air defense arrangements for NATO purposes in wartime with no predetermined solution" (34:8). However, the present Greek government under President Andreas Papandreou, first elected in 1981 and reelected in 1986, has refused to appoint a 7th ATAF commander and has demanded a return to pre-1974 command and control arrangements before so doing (36:135). The most politically volatile issue between the two countries continues to be political rule on Cyprus, but other disagreements include the Greek militarization of the island of Lemnos and Greek advocacy of air space sovereignty extending 10 miles around Greek islands in the Aegean (36:134; 34:9).

As a consequence of the Greek-Turkish disputes, security of NATO's southern flank is in disarray. Although Greek military forces have theoretically rejoined NATO, there is no subordinate land or air Allied Forces Southern Europe (AFSOUTH) command headquartered in Greece, and Greek forces have withdrawn from NATO military exercises on several occasions (36:135).

Spanish Role in NATO

Another issue impacting NATO's southern flank is the role Spain will play in NATO, particularly in light of the Spanish NATO referendum. Spain acceded to the North Atlantic Treaty in

May 1982. Within months, however, the Spanish Socialist Party under the leadership of Felipe Gonzalez became the majority party in the Spanish Parliament. Mr. Gonzalez, who became the new prime minister, had argued in principle against Spanish membership in NATO and had promised to hold a national referendum concerning this subject, if elected to office. Subsequently, he froze negotiations concerning integration of Spanish forces into NATO's military structure, pending the results of such a referendum (15:3).

In March 1986, the referendum was finally held and the Spanish electorate decisively voted to remain within the Alliance. This decision represented a victory for Prime Minister Gonzalez, who had reversed his earlier position and had campaigned heavily in support of Spain remaining a NATO member. The outcome also represented a victory for NATO, whose senior leaders feared Spain's withdrawal would be a serious blow to NATO unity (22:A1). This victory was not as decisive as it sounds, however, since the referendum's terms for continued Spanish membership included nonintegration of Spanish forces into the NATO military structure, nonnuclearization of Spanish territory, and a reduction in U.S. troop presence in Spain (22:A20). Thus, at least for the near term, Spain has apparently taken a route similar to that of France.

For NATO, this relationship may not be entirely adverse, for while integration of Spanish forces into NATO would enhance NATO's military capability, this move would also raise some difficult political questions as well. Spain's forces would moderately improve NATO's air defenses and would significantly increase NATO's naval capabilities, particularly in the Atlantic approaches to the Mediterranean (15:40). At the same time, however, development of NATO command arrangements involving Spanish forces would likely be hampered by arguments over "turf protection." Compromises would have to be reached with Portugal and Great Britain, in particular, over the Spanish role in the Bay of Biscay, the Atlantic Ocean access routes to the Mediterranean Sea, and in the western Mediterranean basin (4:50-54). In essence, NATO already enjoys the Spanish military contributions and would continue to do so, except in the most dramatic of turns in Spanish domestic policy, without the headaches which military integration would bring (15:40-41). Of more importance to NATO, however, is the access which it has through U.S. bilateral agreements to air and naval bases in Spain.

As stated, the terms of the Spanish NATO referendum also called for a reduction to the U.S. military presence in Spain. Prior to the referendum, there was strong sentiment in Spain for such a reduction (18:92). In a 1984 paper on Spanish security policy, Prime Minister Gonzalez reportedly placed a high priority on reducing the U.S. military presence in Spain. In addition, shortly following the referendum, the Spanish defense minister expressed a similar desire during a trip to the U.S.

(27:88). Consequently, during the ongoing base-rights negotiations, Spain likely will seek at least a slight decrease in the U.S. military presence in Spain.

Burden Sharing

One of the key issues which has plagued NATO since its creation is that of "burden sharing." Many Americans have long criticized their European NATO allies for not assuming their adequate share of the burden of defense against the Warsaw Pact (39:--). Proponents of this thesis argue the U.S. contributes not only a greater amount of the NATO defense budget in real terms, but also contributes a higher percentage of domestic spending toward European defense. Europeans, on the other hand, argue their contribution often cannot be quantified in terms of dollars and cents (9:30; 37:--). Both sides drum up financial, manpower, and force structure statistics to prove their side of the argument. These arguments will inevitably persist since, as Secretary of Defense Caspar Weinberger points out, "There is no universally accepted formula for calculating each country's fair share" (44:269). Regardless, the U.S. has recently taken some significant steps to point out its frustrations over this issue.

These steps have taken the form of Congressional edicts governing support to NATO. In 1982, Congress mandated a European Troop Strength (ETS) ceiling of 315,600 (raised to 326,414 in 1984) on U.S. military personnel in Europe in an attempt to encourage greater European military contributions to the Alliance (3:132). Further, in 1984, Senators Sam Nunn (D-GA) and William Roth (R-DE) sponsored an amendment to the FY 1985 defense authorization bill to make U.S. force levels in Europe contingent upon greater conventional defense efforts on the part of Western Europe. Specifically, the U.S. would have required its European allies to achieve a three percent annual real increase in their defense spending or the U.S. would withdraw 90,000 of its troops from Europe by the end of the 1980s (16:235; 5:98). This amendment was barely defeated, but only after heavy lobbying efforts by the Reagan administration and West European governments. Nevertheless, both this amendment and the ETS decision have had a significant impact on the NATO defense effort and have strongly signaled Congressional dismay over the burden sharing issue.

The impact of these measures have arguably both added to and detracted from NATO security. The European response to the near passage of the Nunn-Roth Amendment was to commit greater resources to improving NATO's conventional defenses. In December 1984, NATO's Defense Planning Committee (DPC) endorsed a six-year, $7.85 million common infrastructure program to improve Allied ammunition stocks and aircraft shelters at collocated operating bases for U.S. reinforcing aircraft. This expenditure represented a 40% real increase over then existing expenditures for such purposes (5:98). At the same time,

however, the ETS ceiling has complicated the deployment of new U.S. forces and weapons systems, such as the Pershing IIs and GLCMs, to NATO, since forces must be constantly juggled to insure they do not exceed the ceiling. DOD argues the ETS ceiling is artificial and bears no relationship to the threat. Further, DOD points out the limit "reduces the conventional defense contribution of the United States to NATO since the obligation to deploy and man intermediate nuclear forces in Europe must be accomplished within this ceiling" (44:268). To date, however, Congress has not been persuaded by these arguments and has shown no inclination to abolish the ETS ceiling.

Rationalization, Standardization, and Interoperability

A second major issue NATO has faced since its creation is rationalization, standardization, and interoperability (RSI) of the variety of weapons systems employed by the various Allied national military forces. Recently NATO has taken some steps toward improving the RSI of weapons systems, but major problems remain.

Notable examples of general cooperation between the Allies include several in the realm of aerial warfare. Deployment of the F-16 fighter aircraft now being flown in the U.S., Dutch, Belgian, Turkish and soon the Greek Air Forces, as well as the Tornado, which is being flown by the Germans, British, and Italians, are two of the biggest examples of cooperation. Another successful RSI effort has been the integrated force of NATO AWACS aircraft. Nevertheless, a look at both the AWACS program and the follow-on European fighter programs reveals major RSI problems still persist.

To satisfy Great Britain, which was seeking to protect its aircraft and avionics industries, the 1978 NATO decision to deploy an integrated AWACS force also included a provision that 11 British-developed Nimrod Airborne Early Warning (AEW) Mk.3 aircraft were to be included among the force. This decision required the E-3A systems to be made compatible with those of Nimrod AEW (7:26). The Nimrod AEW program, however, experienced extensive delays and tremendous cost overruns and, in December 1986, the British government cancelled the program and stated they would purchase six E-3As with an option for two additional such aircraft. The first of these aircraft will not be delivered until 1991 and NATO, as a result, faces a shortage of AWACS aircraft, not to mention the loss of resources invested by Great Britain in the Nimrod AEW program.

A look at the follow-on European fighter programs also shows the problems remaining in the area of RSI. France, Great Britain, Germany, Italy, and Spain met in 1983 to try to produce a joint outline for an aircraft to be deployed beginning in 1995. Great Britain, with help from Germany and Italy, started on the European Aircraft Program (EAP), as the consortium's

project had become to be known, while the French started work on their own experimental combat aircraft later called the Rafale-A. France split away from the EFA consortium in July 1985 primarily due to French desires for a lighter aircraft and a bigger share of the program. Meanwhile, the EFA consortium, bolstered by the addition of Spain, continued their efforts on the EAP. Both the EAP and the Rafale-A made their maiden flights in the summer of 1986 and both are likely to ultimately be produced with engines, armament, and radar different not only from each other, but also from any advanced U.S. aircraft deployed during the same time period (28:54-55).

Concerns over problems of NATO cooperation, though not specifically those of aircraft development, have reached the attention of the U.S. Congress. In 1985, Senator Nunn sponsored an amendment to the FY 1986 Defense Authorization Bill to encourage NATO cooperation on weapons systems development. The amendment promised up to $200 million of American aid for cooperative research and development among the Allies, plus a further $50 million for DOD's side-by-side testing of European weapons systems with their American counterparts (14:40). Specific kinds of systems which Senator Nunn advocated DOD consider for testing included the following: submunitions and dispensers; anti-tank and anti-armor guided missiles; mines, for both land and naval warfare; runway-cratering devices; torpedoes; mortar systems; light armored vehicles and major sub-systems thereof; utility vehicles; high-velocity anti-tank guns; short-range air defense (SHORAD) systems; and mobile air defense systems and components (26:28). Congress ultimately only appropriated $100 million for weapons research and $25 million for testing in FY 1986, but the effort, nevertheless, provoked a response from NATO armaments ministers. In an unprecedented special session in February 1986, they tentatively agreed to jointly fund six weapons research programs, including the following: an artillery-delivered Autonomous Precision Munition; Joint Surveillance and Target Attack Radar (JSTARS) and Corps Airborne Standoff Radar (CASTOR) interoperability; a NATO identification system; Air Force Modular Stand-off Weapons; a Multifunctional Information Distribution System; and a common NATO computer language based on DOD's ADA computer language. From three to ten member nations agreed to cooperate in each of these six programs. Although the agreements may not appear to represent a significant degree of cooperation, one U.S. DOD spokesman called them "a really remarkable achievement...the first time NATO nations have begun to apply...national resources to cooperative programs based on NATO military guidelines to improve conventional defense" (25:30). Since that session, six additional cooperative programs were agreed to and Congress approved an additional $185 million to continue the so-called "Nunn initiatives" (31:20,22). Nevertheless, it remains to be seen whether the Allies will be able to agree on the needed

compromises to allow the products of these programs to be successfully developed and deployed.

NATO Strategy Debate

NATO's strategy of Flexible Response is under debate as a result of recent developments in Soviet/Warsaw Pact force structure and strategy, as well as Western public concern over the role of nuclear weapons in future conflicts. Flexible Response features forward defense as the "preferred" option to counter possible Warsaw Pact aggression, but NATO reserves the right to use theater and/or strategic nuclear weapons, if necessary, to halt and reverse a Warsaw Pact advance (3:127). In view of the massive Soviet/Warsaw Pact conventional superiority, General Bernard W. Rogers, Supreme Allied Commander Europe (SACEUR), has estimated he would have to call for the release of nuclear weapons within the first four or five days of an attack, regardless of whether nuclear weapons had already been employed by Soviet forces (21:37).

FOFA Versus AirLand Battle. Particular concerns have been raised over the relationship between the Follow on Forces Attack (FOFA) plan (often referred to as the Rogers Plan), adopted by NATO in November 1984, and the AirLand Battle doctrine adopted in 1982 by the U.S. Army. As doctrine, AirLand Battle describes how U.S. Army corps and divisions plan to conduct military operations to meet worldwide U.S. commitments. Senior SHAPE leaders very strongly argue that FOFA, on the other hand, is not a doctrine, but is merely a defensive operational subconcept within the NATO strategy of Flexible Response designed to counter Soviet operational maneuver groups in Europe (30:13). Similarities and differences between the two deep strike initiatives are shown in Figure 1. Both are designed to delay, disrupt, or destroy enemy formations behind the battlefront before they can have an impact on the outcome of the battle (3:129-130). FOFA, however, is much more defensive in nature and, unlike AirLand Battle, advocates interdiction through the use of aircraft and missiles only, with no follow-on strikes by ground force units (3:130).

Regardless of similarities and differences between FOFA and AirLand Battle, the effectiveness of both would be enhanced through the use of emerging technologies (ET). ET refers to assets, both in existence and being developed, which increase the effectiveness of conventional defense. Examples of ET include target seeking munitions and reconnaissance for target acquisition and target data transmission (30:15). The potential of ET to enhance conventional defense contributes to a second area of debate over Flexible Response, and that is the role of nuclear weapons in NATO's strategy.

No First Use of Nuclear Weapons. As a result of public concern over the dangers surrounding the use of nuclear weapons in future conflicts, several influential former officials

involved in U.S. national security affairs advocate that NATO adopt a declared policy of no first use of nuclear weapons in Europe. In 1982, McGeorge Bundy, George Kennan, Robert McNamara, and Gerard Smith first outlined a version of this proposal in an article in Foreign Affairs and, in 1986, expanded upon the idea in an article appearing in The Atlantic. In the their thesis, they argue the threat of first use of nuclear weapons adversely impacts NATO's capability to fight a conventional war since numerous dual-capable (conventional or nuclear) weapons systems would be withheld during the initial conventional phase of a conflict--a time when they are most needed--for use in the subsequent nuclear phase. Further, NATO's reliance on its nuclear threat for deterrence makes it difficult to muster the political and financial support necessary to sustain conventional forces sufficient for defense. Together, these actions virtually guarantee a nuclear phase would occur in any future NATO/Warsaw Pact conflict. Finally, since many of NATO's nuclear weapons are concentrated in a relatively small number of storage facilities in forward areas, these weapons are vulnerable to preemptive attack or, if deployed, susceptible to being quickly overrun. This situation could require a quick decision to use or lose these weapons in a conflict, perhaps before a conventional defense is even attempted (21:36-7).

Proponents of the "no first use" concept argue that to enhance conventional defense and to better strengthen the cohesion of the Alliance, NATO should declare a "no first use" policy, gradually remove nuclear weapons from the European theater, and commit greater resources toward conventional weapons. Bundy and his associates maintain removal of U.S. weapons would not "decouple U.S. security" from that of European allies since the web of U.S. installations and personnel in Europe would still insure any war in Europe would still be an American war. Western economic resources are far greater than those of the Warsaw Pact and, if committed to conventional defense, would guarantee the Warsaw Pact would face a long conventional campaign even if they decisively won the initial battle. In addition, the Allied nuclear threat would still remain a deterrent. American nuclear forces would still be required to reply should the Warsaw Pact first employ such weapons. Likewise, independently controlled British and French nuclear forces would still be available to initiate nuclear strikes, but would not be compelled to do so since they are more survivable due to their distance from the East-West border (21:39).

Such arguments have not garnered much support in Europe. The European allies still maintain U.S. nuclear weapons are necessary to deter the Warsaw Pact and to guarantee a U.S. response should deterrence fail. Because of these feelings, General Rogers, though strongly advocating increased commitment of resources to NATO conventional defense and acknowledging he

would be required to call for release of nuclear weapons in the first several days of a massive Warsaw Pact assault, does not support a "no first use" policy and feels the key factor for NATO deterrence remains "the threat of the first-use of nuclear weapons" (35:21). Nevertheless, as he goes on, the real reason NATO has "continued to mortgage [its] deterrence and defense in Europe to the nuclear response . . . is because nations have not been prepared to provide the resources to bring the conventional forces up to a point where they are sufficient for a defensive alliance" (35:22).

Strategic Defense Initiative

The final NATO issue to be discussed is President Reagan's Strategic Defense Initiative (SDI), first announced in March 1983. Specifically, European allies are concerned over their role in SDI and whether the U.S. development of a workable system to shield itself from the Soviet nuclear threat might result in the U.S. becoming more reluctant to come to Europe's aid in the event of a Warsaw Pact attack. Perhaps worse, they fear the U.S. might become more prone to take risks with European security--risks the U.S. would not consider if itself was in danger of nuclear attack (1:6).

President Reagan's announcement of the SDI research program caught the Europeans by surprise, but in the past several years the U.S. has strongly sought to assure its allies that SDI would enhance European security and that the U.S. welcomed a European scientific, industrial, and technical contribution to the program. The Reagan administration has emphasized the program will include research toward defense against theater and tactical ballistic missiles, as well as intercontinental ballistic missiles, and that European allies would be closely consulted throughout each step of the program (17:12; 24:17). Finally, to calm European fears that SDI might result in an overwhelming technological gap between the U.S. and Europe, the Reagan administration announced European firms would be welcome to compete for SDI contracts (17:19). As a result of these efforts, the Allies have generally come to support the SDI program, as evidenced by the adoption of a resolution supporting strategic defense by the North Atlantic Assembly in October 1985 (24:1).

p. 44, col. b, line 20
Change "30" to "35"

p. 44, col. b, line 26
Change "during the 1980s." to "during the remainder of the 1980s."

p. 45-52
Delete Appendix B entirely

p. 53
Change "Appendix C" to "Appendix B"

p. 53, col. a, line 36
Change to read as follows:
Reprinted from NATO Facts and Figures, 1976, except Spanish protocol which is reprinted from Spanish Accession to NATO, 1982.

p. 55, col. b, line 48
Add the following paragraphs:
Protocol to the North Atlantic Treaty on the accession of Spain

The parties to the North Atlantic Treaty, signed at Washington on April 4 1949,

Being satisfied that the security of the North Atlantic area will be enhanced by the accession of the Kingdom of Spain to that Treaty,

Agree as follows:

Article I

Upon the entry into force of this Protocol, the Secretary General of the North Atlantic Treaty Organization shall, on behalf of all the parties, communicate to the Government of the Kingdom of Spain an invitation to accede to the North Atlantic Treaty. In accordance with article 10 of the Treaty, the Kingdom of Spain shall become a Party on the date when it deposits its instrument of accession with the Government of the United States of America.

Article II

The present Protocol shall enter into force when each of the parties to the North Atlantic Treaty has notified the Government of the United States of America of its acceptance thereof. The Government of the United States of America shall inform all the parties to the North Atlantic Treaty of the date of the receipt of each such notification and of the date of the entry into force of the present protocol.

p. 62, line 2
Add the following phrase:
Dual-hatted in NATO as Commander in Chief Allied Forces Southern Europe (CINCSOUTH).

p. 62, line 26
Add the following entry:
NAEWF ..... NATO Airborne Early Warning Force. Comprised of E-3A AWACS aircraft manned by multinational crews.

p. 67, Figure 2
Change source information to read as follows:
Information extracted from: The Military Balance: 1986-1987
London: The International Institute of Strategic Studies, 1986.

Change force data on each country as follows:

NORWAY
- 1 Brigade Group
- 14 Submarines (6 on order)
- 5 Frigates
- 2 Corvettes
- 37 Fast Attack Craft
- 94 Combat Aircraft

DENMARK
- 5 Mechanized Infantry Bde
- 4 Submarines (3 on order)
- 10 Frigates
- 16 Fast Attack Craft
- 96 Combat Aircraft (12 on order)

FRG
- 24 Submarines
- 7 Destroyers
- 6 Frigates (2 on order)
- 5 Corvettes
- 40 Fast Attack Craft
- 105 Naval Air Combat Aircraft (66 on order)

E. GERMANY
- 3 Frigates
- 20 Corvettes
- 60 Fast Attack Craft

POLAND
- 1 Naval Aviation Division (44 Combat Aircraft)
- 3 Submarines
- 2 Corvettes
- 16 Fast Attack Aircraft (1 Frigate on order)

USSR (north entry)
- 156 Submarines (inc. 39 SSBN)
- 73 Major Surface Combatants
- 325 Naval Combat A/C (inc. 95 Naval Bombers)
- 1 Naval Infantry Brigade
- 9 Mtr Rifle Division
- 1 Abn Division
- 1 Arty Division
- 1 Air Assault Division
- 1 MD AF (240 Combat A/C

USSR (south entry)
- 34 Submarines
- 45 Major Surface Combatants
- 40 Naval Bombers
- 30 Naval Attack A/C

p. 69, Figure 3
Change source information to read as follows:
Information extracted from: The Military Balance: 1986-1987
London: The Institute for Strategic Studies, 1986.

Change force data on each country as follows:

ITALY (north entry)
- 1 Armor Division
- 3 Mech Division
- 2 Mech Bde
- 4 Mtr Bde
- 5 Alpine Bde
- 1 Abn Bde
- 378 Combat A/C (227 on order)

ITALY (south entry)
- 2 Helo Carriers (1 on order)
- 9 Submarines (2 building)
- 2 Cruisers (2 on order)
- 4 Destroyers (2 on order)
- 16 Frigates
- 8 Corvettes (4 on order)

GREECE (north entry)
- 1 Armor Div
- 1 Mech Div
- 11 Inf Div
- 3 Armor Bde
- 292 Combat A/C (40 on order)

GREECE (south entry)
- 10 Submarines (2 on order)
- 16 Destroyers
- 7 Frigates
- 22 Fast Attack Craft (10 on order)

TURKEY (north entry)
- 2 Mech Inf Div
- 14 Inf Div
- 6 Armor Bde
- 2 Mech Inf Bde
- 11 Inf Bde
- 448 Combat A/C (160 on order)

TURKEY (south entry)
- 17 Submarines (1 on order)
- 13 Destroyers
- 4 Frigates (4 on order)
- 26 Fast Attack Craft

ROMANIA
- 2 Armor Div
- 8 Mtr Rifle Div
- 2 SCUD Bde
- 2 Arty Bde
- 3 Mountain Bde
- 378 Combat A/C

BULGARIA
- 8 Mtr Rifle Div
- 5 Armor Bde
- 3 SCUD Bde
- 275 Combat A/C

SOUTHERN USSR MILITARY DISTRICT (South-Western TVD)
- 7 Tank Div
- 8 Mtr Rifle Div
- 3 Arty Div
- 1 Abn Div
- 1 Air Army (200 Combat A/C)
- 2 MD AF (280 Combat A/C)

SOVIET BLACK SEA/MEDITERRANEAN FLEET
- 70-80 Major Surface Combatants
- 40-42 Submarines

USA
- 2 Carriers
- 12 Surface Combatants
- 1 Marine Amphibious Unit

4 Submarines

p. 71, Figure 6
Change legend to read as follows:
* The USSR has 3 tactical Air Forces and 1 Air Army deployed in Eastern European portion of Western TVD (1000 Combat A/C)
** The U.S. has deployed 3 numbered AFs in Europe (730 Combat A/C)

Change source information to read as follows:
Information extracted from: The Military Balance: 1986-1987 London: The International Institute of Strategic Studies, 1986.

Change force data on each country as follows:

NETHERLANDS
1 Armor Bde
4 Mech Inf Bde
210 Combat A/C
(81 on order)

BRITAIN
3 Armor Div
1 Mech Bde
1 Arty Bde
13 Combat A/C Sqdns
(Approx. 230 A/C)

BELGIUM
1 Armor Bde
1 Mech Inf Bde
3 Aviation Sq

CANADA
1 Mech Bde
1 Air Gp (48 A/C)

NETHERLANDS
1 Armor Bde

FRG
17 Armor Bde
15 Armor/Inf Bde
3 Abn Bde
1 Mountain Bde
2 Home Defense Bde
525 Combat A/C
(40 on order)

HUNGARY
1 Armor Div
5 Mtr Rifle Div
1 SCUD Bde
1 Arty Bde
155 Combat A/C

BELGIUM
2 Mech Inf Bde
144 Combat A/C
(plus 37 in store)

G.D.R.
2 Armor Div
4 Mtr Div
2 SCUD Bde
1 Spec. For. Bde
337 Combat A/C

USSR* (in G.D.R.)
10 Tank Div
9 Mtr Rifle Div
1 Arty Div
1 SS-12 Bde
2 SS-23 Bde
5 Attack Helo Rgt
(approx. 1000 Helo)

CZECH
5 Armor Div
5 Mtr Rifle Div
1 Arty Div
444 Combat A/C

USSR* (in Czech)
2 Tank Div
3 Mtr Rifle Div
1 SS-12 Bde
2 SCUD Bde
1 Arty Bde
2 Attack Helo Rgt
(approx. 100 Helo)

POLAND
5 Armor Div
8 Mtr Rifle Div
1 Abn Div
1 Amph Assault Div
4 SCUD Bde
4 Arty Bde
1 SAM Bde
675 Combat A/C

USA**
2 Armor Div
2 Mech Div
1 Armor Bde
1 Mech Bde
2 Armd Cav Rgt
7 Arty Bde
9 SSM Bn
3 Tac Msl Wg

USSR* (in Hungary)
2 Tank Div
2 Mtr Rifle Div
1 Air Assault Bde
200 Combat A/C

USSR* (in Poland)
2 Tank Div
1 Attack Helo Rgt
(approx. 120 Helo)

Delete "(Non-Pact, Non-Sino Border Forces)" and all entries below and add the following:

EUROPEAN USSR (Western TVD)
17 Tank Div
18 Mtr Rifle Div
2 Abn Div
3 MD AF (890 Combat A/C)

Rear Cover
Delete "FOR OFFICIAL USE ONLY" from top and bottom

BIBLIOGRAPHY

A. REFERENCES CITED

Books

1. American Defense Annual 1986-1987. Edited by Joseph Kruzel. Lexington, Massachusetts: D.C. Heath and Company, 1986.

2. Brown, Ashley. War in Peace: The Marshall Cavendish Illustrated Encyclopedia of Post War Conflict--vol. 6. Freeport, New York: Marshall Cavendish Corporation, 1985.

3. Collins, John M. U.S.-Soviet Military Balance 1980-1985. Washington: Pergamon-Brassey's International Defense Publishers, 1985.

4. Heiberg, William L. The Sixteenth Nation: Spain's Role in NATO. Washington: National Defense University Press, 1983.

5. International Security Yearbook. Edited by Barry M. Blechman and Edward N. Luttwak. Boulder, Colorado: Westview Press, 1985.

6. Isby, David C. and Charles Kamps Jr. Armies of NATO's Central Front. New York: Jane's Publishing Inc., 1985.

7. The Military Balance: 1982-1983. London: The International Institute for Strategic Studies, 1982.

8. The Military Balance: 1983-1984. London: The International Institute for Strategic Studies, 1983.

9. The Military Balance: 1984-1985. London: The International Institute for Strategic Studies, 1984.

10. The Military Balance: 1985-1986. London: The International Institute for Strategic Studies, 1985.

11. The Military Balance: 1986-1987. London: The International Institute for Strategic Studies, 1986.

12. NATO Handbook. Brussels: NATO Information Service, 1985.

13. Spanish Accession to NATO: Arguments, Facts, and Figures. Brussels: International Secretariat North Atlantic Assembly, 1982.

14. Strategic Survey 1985-1986. London: The International Institute for Strategic Studies, 1986.

15. Treverton, Gregory F. Spain: Domestic Policy and Security Policy. London: The International Institute for Strategic Studies, 1986.

16. World Armaments and Disarmaments SIPRI Yearbook 1985. Philadelphia: Taylor and Francis, Inc., 1985.

Articles and Periodicals

17. Abshire, David M. "SDI-The Path to a More Mature Deterrent." NATO Review, Vol. 33, No. 2, April 1985, pp. 8-16.

18. Barger, Millard. "NATO's Southern Flank: Finding Promise Amidst Problems." Armed Forces Journal International, Vol. 123, No. 5, November 1985, pp. 90-94.

19. Brown, David A. "British Select Boeing AWACS, Cancel Nimrod AEW Program." Aviation Week and Space Technology, Vol. 125, No. 25, 22 December 1986, p. 22.

20. Bundy, McGeorge, et al. "Nuclear Weapons and the Atlantic Alliance." Foreign Affairs, Vol. 60, No. 4, Spring 1982, pp. 753-768.

21. -----. "Back From the Brink." The Atlantic, Vol. 258, No. 2, August 1986, pp. 35-41.

22. Burns, Tom. "Spaniards Vote to Remain in NATO." The Washington Post, 13 March 1986, p. A1, A20.

23. Craig, Kenneth. "Floating Air Power." NATO's Sixteen Nations, Vol. 30, No. 5, September 1985, pp. 48-57.

24. Cross, James. "NATO Legislators Overwhelmingly Support Strategic Defense." NATO Review, Vol. 33, No. 6, December 1985, pp. 16-21.

25. Ganley, Michael. "NATO Armaments Ministers Agree on Six Cooperative Research Programs." Armed Forces Journal International, Vol. 123, No. 10, April 1986, p. 30.

26. -----. "Senate Sanctions Nunn Plan to Spur NATO Conventional Arms Cooperation." Armed Forces Journal International, Vol. 122, No. 12, July 1985, pp. 28-30.

27. ----- and Benjamin F. Schemmer. "An Exclusive AFJ Interview with Eduardo Serro, Spain's Secretary of Defense." Armed Forces Journal International, Vol. 124, No. 1, August 1986, pp. 80-88.

28. King, Robert. "Euro Fighter Makers Shape Up to Slug It Out." Armed Forces Journal International, Vol. 124, No. 2, September 1986, pp. 54-55.

29. ----- and Benjamin F. Schemmer. "With Full NATO Membership, Spain's Defense Industry Takes on a New Image." Armed Forces Journal International, Vol. 124, No. 1, August 1986, pp. 90-91.

30. Mark, Gen. Hans-Joachim, German Army. Excerpts of an interview with Suedwestfunk Radio on 18 December 1984. ACE Output, Vol.3, No. 2, March 1985, pp. 11-17.

31. Odorizzi, Charles D. and Benjamin F. Schemmer. "DOD Allots $2.9 Billion for R&D with Allies over Next Five Years." Armed Forces Journal International, Vol. 124, No. 5, December 1986, pp. 20-22, 74.

32. Owen, Kenneth. "Air Defense: Europe's Achilles Heel?" Aerospace America, Vol. 22, No. 7, July 1984, pp. 54-58.

33. Petersen, Stefan. "The Guardians." Defence Update International, No. 64, October 1985, pp. 24-29.

34. Rogers, Gen. Bernard W. Excerpts of an interview with Politicia Themata magazine on December 21, 1984. ACE Output, Vol. 3, No. 2, March 1985, pp. 1-11.

35. -----. Excerpts of Interview with Bob Burns, Associated Press on January 31, 1986. ACE Output, Vol. 4, No. 2, March 1986, pp. 17-23.

36. Snyder, Jed C. "Strategic Bias and Southern Flank Security." The Washington Quarterly, Vol. 8, No. 3, Summer 1985, pp. 123-142.

37. Sullivan, Leonard, Jr. "Allied Burden Sharing: Another View." The Atlantic Community Quarterly, Vol. 24, No. 1, Spring 1986, pp. 73-79.

38. "United States Air Forces in Europe." Air Force Magazine, Vol. 69, No. 5, May 1986, pp. 108-111.

39. Yates, Jonathan Paul. "Burden Sharing in NATO: Myth and Reality." The Atlantic Community Quarterly, Vol. 24, No. 1, Spring 1986, pp. 67-72.

40. Yost, David S. "European-American Relations and NATO's Initial Missile Deployments." Current History, Vol. 83, No. 492, April 1984, pp. 145-148, 184.

Official Documents

41. Air Force Fact Sheet 81-16. United States European Command. Washington: Department of Air Force, May 1981.

42. Air Force Regulation 12-30. Air Force Freedom of Information Act Program. Washington: Department of Air Force, 15 December 1982.

43. AFSC Pub 1. Joint Staff Officers Guide. Norfolk, Virginia: National Defense University, July 1984.

44. Department of Defense Annual Report to the Congress, Fiscal Year 1987. 5 February 1986.

45. Lenz, Maj. John O. Wearing Your NATO Hat--A Practical Guide for the USAF Officer Serving in NATO. Maxwell AFB, Alabama: Air Command and Staff College, 1983.

46. Rogers, Gen. Bernard W. "U.S. European Command: Muscle in the Heartland." Defense/84, Arlington, VA: American Forces Information Service, November-December 1984, pp. 10-15.

47. United States Military Posture for FY 1987, prepared by the Organization of the Joint Chiefs of Staff, Washington: U.S. Government Printing Office, 1985.

48. USAFE Visual Aid 23-1. USAFE Organizational Chart. Ramstein AB, Germany: United States Air Forces in Europe, 1 February 1986.

Other Sources

49. Brown, Cmdr R.M. NATO Strategy and Concepts Officer, CNO OP-603J, Pentagon, Washington D.C. Telecon, 4 February 1987.

B. RELATED SOURCES

Books

American Defense Annual 1985-1986. Edited by George E. Hudson and Joseph Kruzel. Lexington, Massachusetts: D.C. Heath and Company, 1985.

Bentinck, Marc. NATO's Out-of-Area Problem. London: The International Institute for Strategic Studies, 1986.

Kennedy, Thomas J., Jr. NATO Politico-Military Consultation: Shaping Alliance Decisions. Washington: National Defense University Press, 1984.

NATO Facts and Figures. Brussels: NATO Information Service, 1981.

NATO Final Communiques 1980-1985. Brussels: NATO Information Service, 1986.

Articles and Periodicals

Barger, Millard and Benjamin F. Schemmer. "In the Era of NATO Arms Cooperation, Germany Gears Up for More Aggressive, Imaginative Sales Offensive." Armed Forces Journal International, Vol. 123, No. 1, August 1985, pp. 52-54, 86.

Davidson, Ian. "U.S., E.C. Disagree on How to Deal With Terrorism." Europe, No. 256, May 1986, pp. 16-17.

DePorte, A.W. "The Atlantic Alliance at 35." Headline Series, No. 268, March/April 1984.

DeYoung, Karen. "Britain Cancels Nimrod; Plans to Buy U.S. Plane." The Washington Post, 19 December 1986, p. A31, A34.

Dodd, Norman L. "NATO 1985." Asian Defence Journal, September 1985, pp. 49-59.

Ganley, Michael and Benjamin F. Schemmer. "An Exclusive AFJ Interview with Senator Sam Nunn." Armed Forces Journal International, Vol. 123, No. 13, July 1986, pp. 38-50.

Gessert, Robert A. "The Airland Battle and NATO's New Doctrinal Debate." RUSI: Journal of the Royal United Services Institute for Defense Studies, Vol. 129, No. 2, June 1984, pp. 52-60.

King, Robert. "Are NATO's Navies Shipshape?" Armed Forces Journal International, Vol. 123, No. 9, March 1986, pp. 38-42.

Kuniholm, Bruce R. "Rhetoric and Reality in the Aegean: U.S. Policy Options Towards Greece and Turkey." SAIS Review, Vol. 6, No. 1, Winter-Spring 1986, pp. 137-157.

LeCuyer, Jack A. "Burden Sharing: Has the Term Outlived Its Usefulness?" The Atlantic Community Quarterly, Vol. 24, No. 1, Spring 1986, pp. 63-65.

Meacham, James. "The Sentry at the Gate: A Survey of NATO's Central Front." An insert in The Economist, Vol. 300, No. 7461, August 1986, pp. 1-22.

Moreau, Adm Arthur S., Jr. "The Southern Region--A Buttress for NATO." NATO's Sixteen Nations, Vol. 31, No. 6, pp. 16-22.

Moriau, Lt. Gen. Alexander, Belgian Air Force. "NATO Must Show Political Resolve in Dealing with Soviets." ROA National Security Report, Vol. 4, No. 10, October 1986, pp. 1-4.

"The North Atlantic Treaty." Air Force Magazine, Vol. 69, No. 2, February 1986, pp. 65-74.

Odorizzi, Charles D. "An Exclusive AFJ Interview with Ambassador David M. Abshire." Armed Forces Journal International, Vol. 124, No. 5, December 1986, pp. 26-34.

Phillips, James A. "U.S.-Greece Relations: An Agonizing Reappraissal." Backgrounder, No. 445, 18 July 1985, pp. 1-12.

Ulsamer, Edgar. "The Potential Checkmate in Europe." Air Force Magazine, Vol. 69, No. 11, November 1986, pp. 54-57.

Official Documents

Air Force Fact Sheet 84-26. North Atlantic Treaty Organization. Washington: Department of Air Force, June 1984

END

6-87

DTIC