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THE JOINT LESSONS LEARNED SYSTEM AND INTEROPERABILITY

A thesis presented to the Faculty of the U.S. Army Command and General Staff College in partial fulfillment of the requirements for the degree

MASTER OF MILITARY ART AND SCIENCE

by

ALAN D. LANDRY, MAJ, USA
B.S., United States Military Academy, 1974

Fort Leavenworth, Kansas
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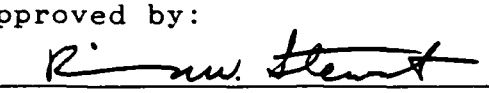 , Thesis Committee Chairman

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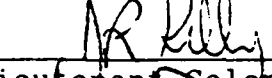 , Member, Graduate Faculty

Lieutenant Colonel J.R. Kelly, M.S.

 , Member, Graduate Faculty

Major T. A. Griswold, B.S.

 , Ph.D., U.S. Army

Lieutenant Colonel G.A. Bernabe

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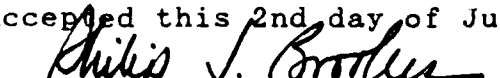 , Director, Graduate Degree Programs

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The opinions and conclusions expressed herein are those of the student author and do not necessarily represent the views of the U.S. Army Command and General Staff College or any other governmental agency. (References to this study should include the foregoing statement.)

ABSTRACT

THE JOINT LESSONS LEARNED SYSTEM AND INTEROPERABILITY
by Major Alan D. Landry, USA, 213 pages.

This study analyzes the evolution of the Joint Lessons Learned System. It examines historical evidence of interoperability issues in US joint military operations from World War II to the present. Three major conflicts: World War II, Korea, and Viet Nam, are surveyed to identify basic issues, factors affecting problem resolution, and general trends. Six contingency operations: Lebanon, 1958; Congo, 1964; Dominican Republic, 1965; Cambodia (Mayaguez), 1975; Iran, 1980; and Grenada, 1983, are then examined in similar fashion.

This review provides the rationale for an effective, institutionalized Joint Lessons Learned System. Based on the evidence, the study then traces the evolution of the Joint Lessons Learned System from 1979 to the present. Primary tools of analysis are two US General Accounting Office Reports issued in 1979 and 1985, recent Congressional documents, the 1986 Goldwater-Nichols Defense Reorganization Act, and interviews with key personnel involved in Joint and Army Lessons Learned Systems.

Basic conclusions of the study are: interoperability issues are resistant to resolution; clear patterns of failure exist in critical fields including planning, intelligence, communications, fire support, logistics, airlift, command and control; and lessons learned activities have not been institutionalized in a systematic and cohesive fashion. Resolution of recurring interoperability issues depends on reversal of these trends.

The study concludes that increasingly enhanced threat force capabilities are certain to escalate the costs of success in future military operations. The study argues that the defense community should carefully nurture the embryonic Joint Lessons Learned System and move quickly to develop supporting Service Lessons Learned Systems. Cost-effective recommendations are offered which, if implemented, could significantly alter the effectiveness of current lessons learned activities and assure their survival in times of austerity and challenge.

ACKNOWLEDGEMENTS

This project has consumed more time and energy over the past year than I care to remember. For the many late nights when my wife, Paula, fulfilled both roles as mother and father to our four children, I thank her. I would never have begun this work without her encouragement. I could not have finished it without her unfailing support. To my children: Emily, Sarah, Britton, and John, I can only say that I am sorry for all the times you needed me and I was not there for you. I know you understand how important this work was to me. May it never seem more important than my love for all of you.

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Finally, I would like to acknowledge a debt to the Army for giving me this opportunity to grow, and to the many fine officers and soldiers whom I have been privileged to serve with. You are the cause and the hope of this thesis.

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THE PROBLEM

This study is about the Joint Lessons Learned System (JLLS) and its relationship to, and impact on, the Army's ability to conduct effective joint operations. It evaluates the means by which significant interoperability issues are identified, analyzed, and ultimately resolved to prevent their recurrence in future operations. This first chapter frames the parameters of the analysis and establishes the context of the problem.

Chapter 2 considers historical evidence of interoperability problems occurring in the last three major conflicts. This broad survey aids in understanding and assessing interoperability problems in recent joint contingency operations, which is the subject of the next chapter.

Chapter 3 examines joint contingency operations in Lebanon (1958), the Congo (1964), the Dominican Republic (1965), Cambodia (the Mayaguez Incident - 1975), Iran (Hostage Rescue Mission - 1980), and Grenada (1983).

Historical evidence of recurring interoperability issues provides the basic rationale for establishing and sustaining an effective JLLS.

Against this backdrop, the evolution of the JLLS is examined in Chapter 4. Calls for change from selected military reformers and from the US Government General Accounting Office are discussed and analyzed in considerable detail. The components of the JLLS, agencies involved in the process, on-going initiatives, and governing directives are considered. The system by which interoperability issues are identified during joint exercises and operations, worked within the system, and ultimately resolved, is critically reviewed with specific recommendations for improvement offered.

The dynamic and complex environment within which the JLLS and any supporting Service systems must operate provides important context for the assessment; consequently, observations about that environment are offered in each chapter. A discussion of working JLLS issues is the final element considered in projecting likely interoperability problems for future joint operations.

The final chapter of the study proposes a model for an "ideal" Joint Lessons Learned System tailored to fit the realities of the current and projected US national defense environment. The chapter concludes with specific recommendations for change which are judged as essential if lessons learned activities are to mature beyond their current state.

The analysis ultimately seeks to influence the conscious, coordinated, long-term commitment of sufficient resources by both Joint and Army leadership to institutionalized, supportive lessons learned activities. This study contends that organizational fragmentation and ad hoc approaches to lessons learned activities are inherently flawed and likely to result in increasingly serious consequences on battlefields of the future.

Research Question

The primary research question of this study is whether or not effective, institutionalized means exist to identify, analyze and resolve joint interoperability issues affecting the US Army. The following subordinate questions are related:

a. Is there a system to capture joint operational lessons learned from past military experiences, current worldwide conflicts, and joint operations (to include exercises and actual operations)? If so, what is the overall system and what are its components? Who is charged with overall responsibility for its execution?

b. What is the history of lessons learned activities within the Army and joint arena? Are there trends which illustrate service attitudes toward lessons learned activities? Is there historical evidence of interoperability

problems in joint operations conducted since 1947? What patterns exist in this area? What factors have affected lessons learned activities in both unilateral and joint activities? Are there any discernable differences between the two categories? Is there evidence of a "filtering" effect as lessons are staffed from service to joint channels and from lower to higher? What is the impact of classification on the lessons learned process? What is the relationship between after-action reports and resolution of interoperability issues?

c. If a system does exist to capture joint interoperability issues, does the same system demand timely analysis and resolution? How are doctrinal, organizational, materiel, training, and planning solutions implemented? Do service/joint organization, doctrine, training, and materiel acquisition processes facilitate the timely resolution of such issues? What measures exist to prevent repetition of previous errors in future operations?

d. To what degree are the Joint Staff and the Army committed to sustaining an effective lessons learned program? How is commitment reflected? What resources are allocated to the effort? What organizational support has been provided? Where do lessons learned agencies fall in the formal chains of command? What voice do they have over their resource requirements? With whom do they compete? What are the impacts of recent reductions in defense expenditures?

e. How effective have lessons learned systems historically been in capturing and resolving joint operational lessons learned? Does the present system support current operational doctrine and projected operational requirements based on historical trends? What is the nature of the current/projected environment within which the lessons learned systems must operate? Is the current system matched to the environmental constraints as well as to the needs of the military? If not, what improvements are possible? What is currently being done to accomplish them? What would the "ideal" lesson learned system look like? What alternatives exist and what are the tradeoffs in terms of risks/costs/gains?

Background

Certain aspects of this research question have emerged in various forums in recent years. Since the end of the Korean conflict, the US has projected joint military power on numerous occasions. In several of these operations, the performance of the joint forces provoked debate, often intense and occasionally contradictory, for military reform. These calls for change consistently demanded improvements in the ability of the services to operate effectively in a joint environment.[1] With the military either unable or unwilling to reform itself from the inside, increasingly credible voices for change were ultimately successful in gaining

reorganization of the Department of Defense with the Goldwater-Nichols Defense Reorganization Act of 1986.[2] This study contends that this law has created an important "window of opportunity" for effecting meaningful joint change in a manner not possible since passage of the National Security Act of 1947. It has provided essential tools for military leaders to use in establishing and institutionalizing a truly effective Joint Lessons Learned System.

Congressional interest over military matters has heightened with declining DOD budgets and a corresponding desire that authorized and appropriated funds be invested wisely by the services. Neither the Congress nor the American public has evidenced toleration for funding five separate military services which are incapable of operating effectively together, nor are they likely to in the future.

The result of this recent interest has been a renewed emphasis on all things joint, from Joint Staff organization and authority to Joint Professional Military Education (JPME) and joint operations. Profound changes in these areas have now become matters of law as the Congress moved to fill the vacuum left by the services and their corresponding Military Departments.[3]

The effectiveness of these changes is uncertain - the next joint operation is the only true test. There are many underlying questions which deserve consideration. Since the last major joint combat operation involving US troops, what

have the services learned about working together and how did they learn it? In over 40 years of legislated jointness, have institutionalized approaches to lessons learned activities been implemented to ensure that interoperability lessons are not learned then relearned? Can the services fight more effectively today as a team than they could in previous operations?

A Joint Lessons Learned System is central to these concerns. From the outset, it should be understood that there has never been a single Joint Staff organizational element or activity bearing that title. For purposes of this study, the term "Joint Lessons Learned System (JLLS)" is used as a convention to describe the set of officially-sanctioned joint activities which identify, analyze, and resolve issues arising from military exercises and operations.

Because the current JLLS is new and represents a dramatic departure from the past (as developed in Chapter 4), many professional military officers are surprised to discover that one exists at all. That system's effectiveness must ultimately be judged by the next joint operation. However, progress in interoperability is achievable today by examining, assessing, and improving existing lessons learned systems where deficiencies exist.

It is equally important to understand that the environment within which lessons learned systems must work is marked by decreasing resources[4] and by increasing reliance on

the use of joint vice unilateral service forces for the conduct of military operations.

Framed by these considerations, this study assesses the ability of the current JLLS to operate within that environment and effectively resolve pressing interoperability issues in a timely manner. That analysis serves as the foundation for proposing a "model" lessons learned system which addresses current system deficiencies, facilitates future cost/risk comparisons, and makes comparison of alternatives meaningful in the context of the environment.

Assumptions

The following assumptions are made for this study:

(1) To be inculcated into the services, lessons learned must be made available to those forces and resolved by changes in organization, doctrine, training, or materiel.

(2) Operational deficiencies are generally not remedied by publication of after-action reports.

(3) Publication of directives concerning lessons learned activities does not ensure compliance with those directives, but does serve as a prerequisite for institutionalization of lessons learned activities.

(4) Senior leader commitment to any military program can be measured by resource allocation (funds, personnel,

facilities, etc.). The effectiveness of the measurement is heightened as available resources are increasingly strained.

(5) Joint operations will be the modus operandi for contingency operations in the foreseeable future.

(6) Interoperability issues that have arisen in previous operations and not resolved are subject to repetition in future operations.

(7) The separate services (through the Military Departments) will retain considerable control over their traditional roles of organizing, training, and equipping their respective forces.

(8) US national interests will remain reasonably consistent with those of the past presenting the same likelihood for projection of military power to protect those interests.

(9) Regardless of the effects of political partisanship, the Department of Defense budget will continue to reflect little, if any, real growth over the next several years.

Definitions of Terms

The following definitions are provided to aid understanding of the various elements of the Joint and Army Lessons Learned Systems discussed throughout the text. Many

of these are extracted from draft publications and may evolve in the transition to fielded doctrine. They represent the best currently available.

(1) Army Remedial Action Program (ARAP): A Headquarters, Department of the Army (HQDA) program which facilitates change through tasking, and tracking of service issues to proponents for resolution. Implements, parallels, and complements the Joint Chiefs of Staff (JCS) Remedial Action Program. (Draft Army Regulation (AR) 11-XX, 25 April 1988)

(2) Center For Army Lessons Learned (CALL): A HQDA-sanctioned agency integral to the US Army Training and Doctrine Command (TRADOC) which functions as the focal point for the proposed Army Lessons Learned System. (Draft AR 11-XX, 25 April 1988)

(3) Interoperability: The ability of systems, units or forces to provide services to and accept services from other systems, units or forces and to use the services so exchanged to enable them to operate effectively together. (JCS Pub. 1, 1 June 1987)

(4) Issue: A category of lessons learned that requires action by the subject-matter proponent to change, develop, or refine doctrine, training, organization, materiel, or leadership development. (Draft AR 11-XX, 25 April 1988)

(5) Joint Force: A general term applied to a force which is composed of significant elements of the Army, the Navy or the Marine Corps, and the Air Force, or two or more of these services, operating under a single commander authorized to exercise unified command or operational control over joint forces. (JCS Pub 1, 1 June 1987)

(6) Lessons Learned: Validated knowledge and experience derived from observations and historical study of military training and combat operations. (Draft AR 11-XX, 25 April 1988)

(7) Remedial Action Program (RAP): A program managed by the Joint Chiefs of Staff (JCS) to make observations and identify issues during a JCS exercise, determine which issues require corrective actions and assign responsibility for their resolution, and to manage and review the status of corrective actions for issues identified through the program. (Draft AR 11-XX, 25 April 1988)

(8) TRADOC Support To Exercise (TSTE): A major US Army Training and Doctrine Command (TRADOC) program to provide exercise support to major Army commands (MACOMs) and Army components of the Unified Commands during JCS combined/ joint training exercises and major FTXs. Input to the Army's Center for Army Lessons Learned (CALL) provides feedback to supported units, the TRADOC community, and the Total Army. (Draft AR 11-XX, 25 April 1988)

(9) Wartime Army Lessons Learned Program (WALLP): A proposed Army program which focuses on the collection, analysis, and dissemination of lessons learned from actual combat experiences involving US forces. It involves the creation of observer/analysis teams at the division, corps, and theater level for the rapid identification and assimilation of significant combat lessons. (Draft AR 11-XX, 25 April 1988)

Potential Limitations/Considerations

In A Guide to the Study and Use of Military History Maurice Matloff warned:

> While the historian seeks the truth, in human affairs truth is relative, limited by the available materials and filtered through the spectacles with which the scholar views happenings of the past.[5]

He argues that in the confusion and tension of battle, even the participants can not be expected to view with absolute clarity:

> Neither do they see from the same position or angle. Few men in battle have a clear conception of what is going on. Censorship may suppress facts, especially in news dispatches and communiques. Military reports submitted to higher headquarters are not always complete. Important facts may not be known at the time; errors and failures may be glossed over; rumors of dubious origin may spread rapidly and even find their way into official reports.[6]

While this study acknowledges these inherent limitations of the historical method, it further suggests that they should be considered in perspective. This study

relies on identifying the existence of trends rather than on presenting irrefutable proof of specific operational details. This is not so much a matter of analytical rigor as it is of focus - trends are far more valuable to the analysis of problems.

Similarly, there is no attempt or intent to judge the participants of the joint operations studied, or to suggest their culpability for operational shortfalls. Emphasis is not on operational errors, but rather on historical trends and on the system(s) which exist to capture and resolve them.

With these considerations in mind, the following general limitations are recognized:

(1) Evidence: Information concerning US joint contingency operations is indispensible for the study. Much open-source information is available to confirm and corroborate the existence of recurring interoperability problems. However, some of the best source material for the more recent operations is still considered too sensitive for publication, and remains classified.

A clear disadvantage of classified studies is that they have an inherently limited audience. The use of classified information in this study would provide minimal additional evidence while seriously limiting its utility. To assure the widest possible audience for this study, therefore, every effort has been made to keep it unclassified. In any instance where classification precludes the

full articulation of some important point, annotation is provided in the text, and classified references are mentioned for those desiring further review.

(2) Dynamic Nature of the Process: Both the Army and Joint Lessons Learned Systems are dynamic processes constantly responding to internal and external requirements. Both processes, but most especially the joint process, are currently undergoing major transition. The fact that several key documents relevant to the study are either drafts or unpublished documents testifies to the state of change.[7] Such factors aid in determining the degree to which lessons learning is an institutionalized process undergoing evolutionary growth or an ad hoc process changing with the concerns of each new advocate. Significant change in lessons learned processes, for better or worse, may occur even during the period in which this report is being prepared. As a consequence, draft interim guidance representing the most recent policy for lessons learned activities is accorded preference over previously approved guidance.

Significance of the Study

This thesis has been chosen to provide a meaningful addition to available literature on a sorely neglected and vitally important subject. It offers original insights into the current state of military lessons learned activities, insights which are meaningful and relevant to an evolving

Army and the joint operational environment within which it does, and will continue to, operate.

By approaching the subject from a joint perspective using historically validated cases where the opportunity to learn interoperability lessons was present, the study provides a useful framework to evaluate the current system and develop proposals for improvement. Where deficiencies in the current system are suspected, realistically achievable recommendations are offered.

Finally, this study offers a realistic and achievable model for building current lessons learned activities into a comprehensive Joint Lessons Learned System which is responsive to the services' needs, affordable in the context of the current and projected environment, and useful as a tool to evaluate future lessons learned proposals.

Methods and Procedures

This study comprises two major functional divisions. The first relies upon the historical method to establish evidence of interoperability problems in past joint military operations. The second is somewhat more complicated, relying on a combination of methods to identify the specific elements of the Joint and Army Lessons Learned Systems, to define the environment within which they must operate, and to assess their effectiveness, ultimately leading to the definition of an "ideal" model for lessons learned.

The same rigor for evaluating evidence is used throughout. The lessons learned systems are defined by operative regulations and directives, published or draft. Because of the state of flux surrounding the processes, verification of such information was sought and obtained through direct contacts with proponent agencies for both the Joint and Army programs. A critique of the joint system spanning the period 1979-1985 was found in two US Government General Accounting Office reports, and confirmed by selected Congressional testimony and reports.

Supporting background material was found in the works of noted military reformers and reporters on the movement. While the biases of this group are evident, their perspectives were useful in gaining an understanding of the complexities of the current joint military environment.

Further information to evaluate system effectiveness in resolving interoperability issues was obtained from Center for Army Lessons Learned (CALL) action files. Where practicable, this information was corroborated through personal interviews with key individuals involved in the process.

Review of Literature

Research was initially conducted to determine the nature and extent of current Joint and Army Lessons Learned Systems, and to review previous operations for historical evidence of interoperability problems. This review confirmed

the existence of an active, if recently generated, lessons learned program in the Army, with the Center for Army Lessons Learned (CALL) as its unchallenged centerpiece.[8] A number of draft regulations and other documents represent local (CALL) attempts to institutionalize lessons learned activities in the Army as a complete, comprehensive Army Lessons Learned System.[9]

Considerable evidence also suggests that Joint Staff efforts to institutionalize a similar joint system initially lagged behind the Army, but recent actions have begun to reverse the situation. Direct contacts with Joint Staff action officers involved in the program were required to obtain basic information about the joint system due to its newness and to the virtual lack of directives governing the various parts of the system prior to late 1988.[10] Even then, those directives concerned individual elements of the evolving JLLS rather than the JLLS as a whole. No such umbrella controlling regulation for lessons learned activities for either the Army or the Joint Staff exists today.

Evidence also indicates that critical linkages between the Joint and Army Lessons Learned Systems are problematic and evolving. Serious interoperability deficiencies identified in previous joint military operations have yet to be resolved in spite of these systems.[11]

To understand the causes for this, it is important to note that the current lessons learned systems grew out of post-Grenada reactions and have not evolved to maturity. In general terms, they lack the consistent organizational support and adequate resourcing so critical to resolving the very complex interservice issues.[12] Key directives essential to the legitimacy of these new organizations have been drafted but not approved and there is further evidence that key aspects of the Joint and Army Lessons Learned systems have eroded in the interim.

This is worrisome because of an historical lack of commitment to lessons learned activities. Current efforts to institutionalize lessons learned systems within the Joint Staff and the Army may reverse this trend but at present, these represent more promise than reality.[13] Contrasted against these positive developments are legitimate concerns that lessons learned activities have been subordinated to almost every other major military activity, that they lack sufficient resources to evolve to maturity, and that they are increasingly vulnerable to certain funding cuts and other resource constraints.[14]

Much unclassified literature confirms recurring interoperability problems in previous joint operations. These include problems in the areas of communications, command and control, fire support, intelligence, planning, airlift and logistics, among others, which will be developed

in detail in Chapters 2 and 3. Sources used in this stage were Combat Studies Institute (CSI) Leavenworth Papers; various reports by participants in, and reviewers of, the operations; and selected Congressional records. Further insights were also obtained from periodicals and works by the so-called military reformers and others interested in the state of the military.

The literature review revealed the complete lack of any comprehensive or historical treatment of the broad subject of joint lessons learned as a process or a system. Regarding the narrower topic of Army lessons learned, there is a single, recently published (September 1988) study, Lessons Learned - A History of US Army Lesson Learning, by Dennis J. Vetock of the US Army Military History Institute. This work is the first comprehensive examination of its subject and it only incidentally mentions the joint aspects of the problem.[15]

Beyond the cursory, incomplete treatment afforded lessons learning in all other works, the subject has been generally ignored. There is no document available today which addresses the Joint and Army Lessons Learned systems in the scope and context of this study.

While it lies beyond the scope of this study to investigate in detail the underlying reasons for this apparent neglect, a brief review of potential causes may aid in understanding the problem. The unfortunate fact is that

neglect of the subject in literature mirrors the treatment of lessons learned systems in actuality. In the complex and largely political environment of the Defense Department, areas such as research and development, materiel acquisition, and personnel are generally given higher priority for resources.[16] While this will be further developed in Chapters 4 and 5, lessons learned activities have been unable to attract the resources or advocates of these "big ticket" items. Particularly in times of decreasing defense budgets, where there is money, there is interest. Conversely, smaller programs such as lessons learned activities are not likely to generate significant interest within the decision layers of the defense community, nor are they likely to attract the advocates necessary for survival in a competitive environment.

Another possible factor contributing to neglect of the subject is lack of agreement that lessons from the past are important. Some believe that the past holds no relevance to the future. In The Straw Giant, Arthur Hadley contends that Americans habitually try to solve their military problems by leaving them behind.[17] Similarly, in "A Perspective on Military History," Colonel Thomas E. Griess reflects the argument of some critics that history is dead and simply not relevant to the living present, and is consequently of marginal value.[18] To such critics, lessons learned activities may seem unimportant. One aspect of their argument is described by John Shy in "First Battles in

Retrospect" as a natural inclination to dismiss any but the most recent military experience because fundamental changes in military technology render such past experiences irrelevant.[19]

Whether these arguments truly underlie the historical neglect of lessons learned activities or not, the fact remains that they have attracted effective advocates. As Vetock notes, not a single lessons learned system since World War I has managed to survive longer than the conflict it served.[20]

The search of extant literature confirms this lack of focused attention to the processes by which the nation's military forces learn from their mistakes. That void is the primary subject of this study. In the famous words of George Santayana:

> Those who cannot remember the past are condemned to repeat it.[21]

As Shy counters the previously-mentioned critics, technological changes are undeniably important considerations when evaluating past military experiences, but they should not justify the unthinking rejection of lessons from the past.[22] This study asserts that past joint experiences hold powerful keys to preventing mistakes in future joint military operations, keys which can be used today to better prepare joint forces to fight and win that first next battle. But this requires an effective Joint Lessons Learned System to identify, analyze, and resolve difficult, complex inter-

service issues. As stated by Lieutenant General J. R. Thurman in his Foreword to the first Leavenworth Paper, The Evolution of US Army Tactical Doctrine, 1946 - 1976:

> Future conflicts are not likely to develop in the leisurely fashions of the past where tactical doctrines could be refined on the battlefield itself. It is, therefore, imperative that we apprehend future problems with as much accuracy as possible.[23]

Apprehending future problems is not possible without understanding and resolving past problems. That is the purpose for establishing a Joint Lessons Learned System. History demands it; projections for operations of the future confirm the need.

CHAPTER 1 ENDNOTES

[1] David C. Hendrickson, Reforming Defense: The State of American Civil-Military Relations (1988):35, 55-56, 63-99 for complete discussion of the nature of the military reform movement.

[2] US Army War College, Army Command and Management: Theory and Practice - A Reference Text for Department of Command, Leadership, and Management (1987): 8-8; US Congress, Public Law 99-433: Goldwater-Nichols Department of Defense Reorganization Act of 1986, 99th Congress (October 1,1986): 100 Stat. 992. For more complete history of JCS reorganization proposals leading to this law, see also US Congress, HASC No. 98-8, Reorganization Proposals for the Joint Chiefs of Staff, Hearings before the Investigations Subcommittee, (1983): 1-130, and HASC No. 97-47, Reorganization Proposals for the Joint Chiefs of Staff (HR 6828, Joint Chiefs of Staff Reorganization Act of 1982, HR 6954), (1982): 1-971.

[3] Hendrickson: 111. See also Louis J. Moses, The Call for JCS Reform - Crucial Issues (1985): 53-54.

[4] Frank C. Carlucci, Annual Report to the Congress - Fiscal Year 1989 (February 18, 1988): 122 - 126.

[5] Maurice Matloff, "The Nature of History" in John E. Jessup, Jr. and Robert W. Coakley, eds., A Guide to the Study and Use of Military History (1982): 5.

[6] Matloff: 11.

[7] Includes:

US Army, Draft AR 11-XX, Army Lessons Learned Program: System Development and Application (25 April 1988),

US Army, Concept Draft: Wartime Army Lessons Learned Program (1988),

JCS, Draft JCS Admin Pub 1.1 (October 1988): III-8-27 through III-8-56.

[8] Richard W. Stewart, Ph. D., "Lesson Learning: The Past Through Tomorrow" (August 1988): 5-6.

[9] See endnote [7]:

US Army, Draft AR 11-XX, Army Lessons Learned Program: System Development and Application (25 April 1988);

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[10] Information provided in telephone conversation with CDR Commons, OJCS/J7, 26 October 1988. Subsequent confirmation provided in 1 November 1988 OJCS J7 response to request for copies of controlling documents for the JCS Lessons Learned Program. Current status pending receipt of response to 1 January 1989 letter to Maj Simonson, OJCS/J7 EAD.

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[12] Anderson Interview, CALL;

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Stewart: 12.

[13] US General Accounting Office, Report to the Secretary of Defense: Management Of The Joint Chiefs of Staff Exercise Program Has Been Strengthened, But More Needs To Be Done (March 5, 1985): 1-42;

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[14] Same as note 12.

[15] Dennis J. Vetock, Lessons Learned: A History of Army Lesson Learning (1988): iii.

[16] John O. Marsh and Carl E. Vuono, Joint Posture Statement for Fiscal Year 1989 (1988): 3; Carlucci: 297.

[17] Arthur T. Hadley, The Straw Giant (1986): 278.

[18] Thomas E. Griess, "A Perspective on Military History," in John E. Jessup and Robert W. Coakley's A Guide to the Study and Use of Military History (1982): 25.

[19] Charles E. Heller and William A. Stofft, editors, America's First Battles (1986): 345.

[20] Vetock: 120.

[21] From A Life of Reason (1906) as quoted in Stewart: 9-10.

[22] Heller: 345.

[23] Robert A. Doughty: Forward.

CHAPTER 2

ESTABLISHING THE NEED:
INTEROPERABILITY IN MAJOR US CONFLICTS

This chapter explores the history of interoperability issues in US joint military operations in major conflicts from World War II to the present. The experiences in World War II, Korea, and Viet Nam provide background information for examining joint contingency operations in the next chapter. Historical evidence of interoperability problems in these major conflicts lends an appreciation for the complexity and magnitude of interoperability issues and identifies the need for a system capable of identifying, analyzing, and resolving such problems.

This survey is not a detailed operational critique - that is subject matter for official lessons learned publications and operational reports. Nor is it intended as a criticism of the participants. It is an overview conducted to identify interoperability issues and develop a logical basis from which to assess the effectiveness of the current Joint and Army Lessons Learned Systems in later chapters.

World War II:

The Legacy of Early Joint Operations

In Toward Combined Arms Warfare: A Survey of 20th-Century Tactics, Doctrine, and Organization, Jonathan M. House assesses the lack of adequate air-ground coordination as one of the major issues to emerge from World War II.[1] Although aircraft had seen limited service in World War I, World War II essentially marked the beginning of large joint air-ground operations. In so doing, it ushered in expanded requirements for joint service interaction and cooperation which the services were ill-prepared, and less disposed, to meet. Mechanized attacks, airborne operations, and amphibious operations each demanded levels of joint service cooperation and support never before required.[2]

The experience of US soldiers who invaded Normandy in 1944 illustrates the problems that had become all too common:

> ...radios issued to infantry, tank, and fighter aircraft units had incompatible frequencies, making communication among the arms impossible.[3]

Units that could not talk to one another were not likely to form effective combat teams on the increasingly complex and lethal battlefields. Not unexpectedly, it would take much time and experience for the soldiers and airmen to work out the details of joint coordination on the battlefield.

Unfortunately, more than that would be required to form effective joint teams. The continual lack of communication and coordination between air and ground forces was common to every theater of the war, with results that were often as tragic as they were predictable.[4]

Lieutenant Colonel Charles R. Shrader's 1982 study, Amicicide: The Problem of Friendly Fire in Modern War, chronicles some of the more dramatic consequences of this problem.[5] To gain a better appreciation of its longevity, variety and complexity, a partial listing of incidents occurring in the European Theater has been compiled from the study and is presented at Fig. 2-1.

Air and ground forces were clearly capable of forming formidible combat teams. Just as certainly they were capable of misdirecting their considerable power against one another, as these results testify, with devastating effectiveness. When compared to the number of casualties inflicted by hostile fires, these numbers may be accepted as an insignificant fraction. This study contends that such attitudes often mask interoperability issues and deny their timely, effective resolution. No preventable loss of life can ever be acceptable.

While the air-ground interoperability problems in the Pacific never resulted in the magnitude of loss experienced in the European theater, they were nonetheless costly and resistant to solution. As in Europe, serious incidents

NORTH AFRICA AND EUROPE[6]

DATE:	INCIDENT:	RESULT
9 Nov 42	1st Bn 60th Inf failed to mark position with identification panels	Resultant disorganization postponed attack
24 Nov 42	702st Tank Destroyer Bn attacked by US P-38s	Virtually all vehicles out of action (O/A)
2 Dec 42	Co B, 701st TD Bn strafed by 4 P-38s	3 KIA, 2 WIA
3 Feb 43	Portions of 701st TD Bn hit by US B-25s	Unknown
11 Jul 43	First of several attacks on CCA, 2nd AD during 11 - 18 Jul 43 in Sicily	14 Vehicles/75 WIA
12 Aug 43	Attack on 2nd Bn, 30th Inf, 3rd ID CP	19 WIA 4 remaining howitzers O/A
15 Mar 43	Allied bombing Abbey of Monte Cassino	28 KIA/114 WIA/Demolished HQ trailer of British 8th Army commander
15 Mar 43	Allied bombing of town of Venafro	57 killed (mil. and civ)/ 179 wounded
22 Jun 44	During attack on Cherbourg Br. 2d TAF and US 9th AF attack wrong area	CP of 314th Inf Rgmt, 79th ID strafed/heavy friendly losses
24 Jul 44	Operation COBRA: St. Lo breakthrough air attack and short bombings	US Ammunition dump destroyed/ 30th ID 25 KIA/131 WIA
25 Jul 44	Operation COBRA: Day 2 - heavy bombers	111 KIA/490 WIA/60 MIA/ Death of LTG Lesley J. Mc Nair
7-8 Aug 44	Operation TOTALIZE (Caen II): use of heavy bombers	25 Allied KIA/131 WIA
15 Aug 44	US fighters strafe HQ of US 3rd Army and XIX TAC near Laval	1 US fighter destroyed
22 Sep 44	Flight of 4 US P-38s drop napalm on 30th ID in Operation CISCO (breach of West Wall)	2 KIA/4 WIA/6 veh & ammo dump destroyed
2 Oct 44	Allied bombing of Belgian town of Genck	34 civ. killed/45 civ. wounded
2 Nov 44	US Artillery position near Roetgen bombed by fighter-bomber group of IX TAC	7 KIA/17 WIA
23 Dec 44	6 B-26s of 322nd Bomb Group drop 86 250-lb bombs on Malmedy	$\geq$ 37 US KIA/numerous civ deaths/ town set on fire
25 Dec 44	4 B-26s of 387th Bomb Group drop 64 250-lb bombs on Malmedy	significant casualties
25 Dec 44	11 P-38s from 430th Fighter Sqdn bomb CCB, 3rd AD	39 KIA/? WIA

Figure 2.1: Air Amicicide Table

involving both medium bombers and fighter-bomber aircraft were not uncommon, causing suffering, reduced combat power, disruption to combat plans, and significant morale impacts for ground soldiers.[7] In General Douglas MacArthur's 1942 operations in Papua, for example, the Army Air Corps Forces under General George C. Kenney attacked 32nd Infantry Division forces on a weekly basis because of the air to ground communications problem.[8] Shrader adds that on at least six occasions during the Buna Campaign, 5th Air Force planes caused friendly casualties.[9]

Shrader's survey profiles 24 reported incidents such as this in the Pacific compared to 53 in Europe. When these incidents are combined, the type and percentage of errors resulting in amicicide were: misidentification (11.6%); coordination (16.9%); pilot/crew (20.8%); mechanical (5.1%); and unknown (45.4%).[10] As with the European cases, the Pacific incidents spanned the period from 1942-1945.[11] The problem was not short-lived.

Anti-aircraft amicicide was also a costly battlefield problem indicating interoperability shortfalls. This is perhaps best illustrated by Allied operations to reinforce the beachhead at Gela, Sicily, on 11 July 1943.[12] In this operation, over 2000 soldiers from the 504th Parachute Regiment, 367th Parachute Field Artillery Battalion, and 307th Airborne Engineer Battalion were to be dropped by 144 aircraft of the US 52nd Troop Carrier Wing. As the aircraft

approached the coast of Sicily, they were engaged by both US Navy and Army anti-aircraft crews with deadly accuracy. Of the initial force of over 2000, the commander of the 504th had a total of 37 officers and 518 combat effective troops on the ground on 12 July. Allied fires had caused 319 casualties, destroyed 23 aircraft, badly damaged 57 others, and completely disrupted the operation.[13] General Eisenhower directed an investigation, but the board was unable to fix the specific causes for the incident. Shrader concludes that a lack of training and discipline on the part of the ground crews coupled with a failure in coordination were likely contributory causes.[14] Perhaps more telling is the summary offered by Major General Matthew B. Ridgway, Commander 82nd Airborne Division, on 2 August 1943:

> Deplorable as is the loss of life which occurred, I believe that the lessons learned could have been driven home in no other way, and that these lessons provided a sound basis for the belief that recurrences can be avoided....The losses are part of the inevitable price of war in human life.[15]

The lesson, however, lasted only until two nights later on the east coast of Sicily. A force comprised of 1,900 men from the British 1st Parachute Brigade aboard US and British carriers encountered heavy anti-aircraft fire from Allied ships off the coast and over Sicily with tragic results.[16] Of the 124 aircraft on the mission, 11 were destroyed, 50 more damaged, and 27 forced to return to base

without accomplishing the mission. Only 39 aircraft dropped the soldiers within a mile of the designated drop zones.

Interoperability problems were not limited to ground-to-air and air-to-ground operations. Ground amicicide was also common in both European and Pacific theaters, between different units of the same service as well as between services - for the same basic reasons as for other types of amicicide: inexperienced troops, inadequate coordination, confusion in battle, and misidentification.[19] Shrader recounts:

> Amphibious assaults, the dominant tactical form in the Pacific war, were very difficult to coordinate and control, and amicicide incidents were frequent for both the Army and the Marines....The Army and Marines on Guam, as on so many other islands of the Pacific, found it extremely difficult to maintain contact with adjacent units and to keep their operations adequately coordinated.[18]

In his conclusion on the subject, Shrader further states:

> By far the most significant causitive factor in all ground amicicide incidents appears to have been some lack of adequate coordination between units....This was especially true of incidents that occurred in the Pacific during World War II (twelve out of sixteen)....While human error cannot be eliminated from war, its incidence and effects can be attenuated somewhat if due attention is given it by those charged with the lives of men and the fate of their nation.[19]

Shrader's contention that key leaders are responsible for directing resources to resolution of interoperability problems is a theme that permeates this study. That friendly soldiers and civilians lost their lives at the hands of friendly arms was an unpalatable, but perhaps unavoidable

consequence of the changed nature of warfare. However effective pre-war training was, new joint procedures would have to be generated in the heat of battle. The unbroken litany of serious interoperability incidents that continued through 1945 at enormous cost is greater cause for concern.

The services' inability to find reasonably effective answers to prevent such waste of life and resources indicates a serious shortfall in the early application of joint resources. While the means existed to deploy joint forces together on the battlefield, there was no similar mechanism to force the services to resolve the problems arising from such employment. Perhaps even from the outset, the problem of interoperability was insoluble.

The evidence suggests otherwise. The opportunity to learn from mistakes repeatedly surfaced and was recognized, but "lessons learned" were either quickly unlearned, or perhaps more accurately, never learned at all. Serious interoperability issues existed from the war's beginning; however, adequate attention and resources were simply not given to them. At the time, there was no system dedicated to identifying, analyzing, and resolving those problems to avoid further loss once they became evident.

The evolving relationships among the services add important context to the problem. Russell F. Weigley states in History of the United States Army that in the pre-World War II period, the Army, the government, and the public

neglected the tactical use of aircraft to support ground troops by advocating the "grander" strategic use of airpower against enemy cities, factories, and commerce.[20] The fractious relationship between ground and air components during the interwar period was highlighted by increasingly vocal calls for an independent air arm capable of independent strategic action.

When solutions to interoperability problems were needed they usually resulted from individual initiatives by local commanders in the field rather than from orderly, organized change coordinated at the highest military levels. In this manner, lack of formal US doctrine or training procedures for air-ground cooperation until late in the war led local commanders to develop their own local solutions to the problem.[21] The 5th US Army and the XII Air Force collocated their headquarters, met daily to coordinate air strikes, and developed a system of liaison officers and communications.[22] Similarly, the 9th US Tactical Air Force eventually developed local procedures with some of the ground units in France and Germany.[23] By the end of the war, almost all armies had established informal local procedures to assure coordination in air-ground operations. The larger issues over roles, missions, doctrine and tactics which lay at the roots of these problems remained to be worked to resolution.[24]

While air-to-ground coordination was only one of many divisive issues which sundered the services and limited their interoperability during the war, it ideally portrays the intractable nature of interoperability problems and hints at the complex, deeply felt underlying issues.

World War II not only added new requirements for Army ground and air cooperation, but also demanded unprecedented levels of cooperation between the Army the Navy which would not be realized.[25] Weigley indicates that one of the many causes for the disaster at Pearl Harbor in 1941 was the lack of coordination and communication between the services in Hawaii.[26] Personalities of commanders admittedly contributed more to the problem than to the solution on occasion. The dysfunctional relationship between General MacArthur and Admiral Nimitz, for example, negatively affected Army and Navy representatives serving the JCS throughout the war.[27]

Given the antagonistic interservice environment prior to and during World War II, it is not surprising that those issues requiring unparalleled degrees of interservice cooperation and compromise would defy resolution for the term of the war. Nor would there be any great effort to find the common ground. In relative terms, interoperability issues could, and would have to, wait for resolution.

It would not be accurate to place responsibility for the US military's failure to learn from its mistakes solely on interservice rivalry; however, the facts do suggest that

unhealthy competition was a recognized and potent force dominating interservice relationships, a force which undoubtedly presented an obstacle to timely and efficient resolution of problems identified on the European and Pacific battlefields. Ironically, costly issues such as fratricide were not initially responsible for progress in interservice cooperation. The immediate cause was the need to deal more effectively with the British who maintained the edge in combined strategic planning due to superior organization and interservice command arrangements.[28] Thus, competition in strategic negotiations led to the establishment of the Combined Chiefs of Staff and actually proved to be a more potent unifying force than the blood of amicicide.

The Post World War II Period and Unification

In the post-war years, many of these same issues rose to the surface in the renewed debate over unification of the services. The concept of unification was not new, nor was the recognition that individual service interests could impede interservice coordination required to secure the nation's interests. From the time of the Spanish-American War, it was clear that separate and differently organized War and Navy Departments could hinder the coordination required by the new "global" nature of warfare.[29]

Unification had, in fact, been proposed as a solution as early as 1921.[30] At that time, the Army successfully opposed the idea on the grounds that it would exacerbate the growing air debate. More to the point, unification was seen as a ruse which would lead to further reductions to the Army budget.

The experiences of World War II, recognition of the impotence of the JCS, and awareness that the loss of its air arm was inevitable prompted a change in the attitude of senior Army leaders toward the unification.[31] The changed perspective also reflected the Army's pragmatic realization that the certain post-war budget cuts could be better controlled in a single-service arrangement.

General Marshall endorsed the principle of unification in 1941.[32] During the period 1943 and 1944, the Army worked unification proposals through the JCS and finally with the Congress. In 1944, however, Secretary of the Navy James Forrestal persuaded the Secretary of Defense to have the Army hold its proposals until after the war. The Navy opposed unification out of concern that it could lose its own air arm, and conceivably, the Marines. The Navy's delaying action succeeded.

At war's end, another important factor was added to the crucible of interservice conflict. The explosion of atomic weapons over Hiroshima and Nagasaki fueled air advocates' arguments over the strategic role of air power and

appeared to render massed ground forces obsolete.[33] In so doing, it further diminished the already limited consideration being given to tactical air support to ground forces.

Nuclear weapons added an even more hostile dimension to the bitter nature of interservice rivalry. As each service sought to justify its roles and missions on the nuclear battlefield, the competition for increasingly limited resources only intensified.[34] Post-war budgets were too modest for anything but a skeleton force and limited research and development, thus exacerbating the growing controversy over roles and missions. The Army Air Forces continued to pursue complete autonomy, the Army sought approval for a comprehensive universal military training law, and the Navy tried to retain its full wartime force structure while adapting it to nuclear warfare. Thus, key issues of military missions, defense organization, funding, and strategy comprised the post-war challenge and framed the legacy of joint but not integrated services.[35]

The issue of unification of the services evolved into a murky stream of counterproposals, compromises, and counter-offensives leading ultimately to the compromise codified as the National Security Act of 1947.[36] The failings of the Act as the key unifying force for resolving interservice issues and enhancing interservice coordination are important. The ambiguous language of the law essentially legitimized the fragmented status quo and plagued key military and civilian

leaders from the very beginning.[37] As Weigley states:

> The JCS remained the committee that it had always been, with the inherent weaknesses of a committee. Neither the Secretary of Defense nor JCS was equipped to develop a coherent and positive military program...
>
> In short, the National Security Act split off the Air Force from the Army, but it failed to provide the insurance of interservice cooperation that the Army believed must accompany that step.[38]

Consequently, during this period, relations between the different services and branches continued to be marked by controversy and discord. Conflicting interests were not confined to matters of roles and missions, but were pervasive. Attempts to formulate improved doctrine in areas of recognized weakness such as fire support, and to develop new weapon systems such as the helicopter, were influenced by competing interests of the services.[39]

Thus the stage was set for not less than 30 formal studies which would be conducted between 1947 and 1985 for the US Congress to determine how the Defense Department should best be organized to meet the nation's needs.[40] A Joint Lessons Learned System would eventually be recognized as one of those needs.

The Korean Conflict

The Korean conflict witnessed both a measure of progress in the interoperability of US military forces and a continuation of the debate over proper roles, missions, and

contributions of the various arms. Larger, more pressing issues, however, were to emerge as the very first shots were fired.

In Leavenworth Paper No.1, The Evolution of US Army Tactical Doctrine, 1946 - 1976, Major Robert A. Doughty recounts that all US planning in the post-World War II days had focused on global warfare.[41] General Matthew B. Ridgway, commander of the 8th Army in Korea and later US Commander in Chief in the Far East, would later recall that the Army was in a state of "shameful readiness" when the Korean conflict began.

The price for failure was to be high. Many US soldiers lost their lives in the initial stages of the war as the Army strove to adjust its tactics, doctrine, organizations, and equipment to meet the unprojected needs of conflict in Korea.[42] Lessons were being learned, but in Korea as in the last war, learning was initially through the bitter experiences of soldiers on the ground rather than through any coordinated Joint Lessons Learned System, although the Army at least made the attempt to send observers to gather lessons and prepare reports.[43]

Coordination and communications between ground and air forces continued to be problematic.[44] Ironically, the use of air to support ground forces, the role least liked by the Air Force, became indispensible to the survival and operational success of ground forces. Had the Air Force

better prepared itself in the post-war period with greater attention to the close air support mission, better planning and acquisition of more suitable aircraft, it could have favorably altered the US balance of power in Korea.[45] As it was, the Army could not have succeeded without the amount of support it did receive.

Not surprisingly, the services' division over roles and contributions continued:

> Throughout the latter phases of the war tactical air continued to play a key role even though some argued that aircraft were often used when artillery would have been sufficient. Perhaps the greatest controversy arose over the actual contribution of the Air Force, particularly in its interdiction role.[46]

Once again, the lines were drawn with the Air Force arguing that air interdiction had caused the Communists to sue for peace while the Army countered that it was the ability of the ground forces to seize and hold terrain that made the difference.[47] In the end, continued interservice rivalry would "blur and almost erase" the most important lesson of the Korean conflict - that air and ground operations should not be artificially separated.[48] That lesson would not be learned here.

Another lesson which was learned, however, was that interservice rivalry could have direct impacts on the battlefield. The Army depended heavily on the Air Force for close

air support, and was at least initially deprived of a supportive relationship. House relates:

> The US Air Force preferred to concentrate on interdiction missions, and established a cumbersome procedure for requesting close air support.[49]

Lt. Gen. James Van Fleet, Commander 8th US Army, was so dissatisfied with the resulting situation that he submitted a formal proposal to General Mark Clark requesting that each of his four Army corps permanently receive an Air Force fighter-bomber squadron to assure more responsive support.[50]

As in World War II, the situation would improve over time as the local air and ground commanders became more familiar with one another's operations and developed local procedures to work together.[51] The contribution of the helicopter, which began to see limited service in Korea, deserves mention. To some degree, its ability to provide responsive support to ground commanders in areas such as medical evacuation and troop movement mitigated the frustration with the Air Force.[52] Even in this, interservice rivalry made its mark. Post-World War II interservice agreements had given the Air Force control over design and procurement of helicopters for Army use. This arrangement inhibited timely development of the system with results that bled over into the Korean conflict.[53]

The growing depth of the interservice rift, and the Army's frustration with the other services, is clearly

indicated by the following extract from the 1954 Field Service Regulation:

> Army combat forces do not support the operations of any other component.
>
> - FM 100-5, 27 September 1954[54]

In a similar vein, the Army's distressing attitude about the Korean conflict lessons is clear from the following quote:

> ...the official position was that no real changes in doctrine had occurred or had been necessary during the war....A 1954 study at the Infantry School noted that a more appropriate title [to a training bulletin] might be 'Lessons Relearned in Korea.' One of the training bulletins of the Army Field Forces concluded, 'The mass of material from Korea...reaffirms the soundness of US doctrine, tactics, techniques, organization, and equipment.'[55]

By touching all the cornerstones for change, the Army appeared to be obviating the need for a Joint, or for that matter, an Army, Lessons Learned System. Where there were no acknowledged problems, there was no need for solutions, or for systems that pursued them.

Viet Nam

The Army that entered Viet Nam was a far different Army from the one which had entered the Korean conflict. It was a better trained, better equipped, better armed, and much larger force. This was, to some degree, a reaction against the unpreparedness which had proven so costly at the start of that conflict.[56] Combat in Viet Nam, as in Korea, was to

demand close coordination among the services. It would also challenge US interservice command arrangements.

In contrast to former arrangements, the military in Viet Nam experienced the benefits of a true Joint command, the Southwest Pacific Command, which reported directly to the Secretary of Defense. No service headquarters was placed between that command and the National Command Authorities.[57]

This stronger joint command structure had resulted from an investigation of the command difficulties encountered in Korea which ultimately lead to passage of Reorganization Plan No. 6 in April 1953. The law strengthened the operational role of the Secretary of Defense at the expense of the services and the JCS.[58] This diminution of service powers foreshadowed the legislated changes that would occur in 1986.

The Army's Viet Nam experience was also to differ from that of Korea because the service had gained its own dedicated air assets (helicopters) in the post-war period. This addition to the force structure would further reduce the friction with the Air Force which had previously resulted from lack of responsive air support.[59] In the post-Korean War period, the Air Force had grown increasingly disinterested in tactical transport and close air support missions and, instead, focused its limited energies and resources on strategic missions.[60] Thus, largely by default, the Army was able to continue development of the helicopter within the framework of its internal needs.[61]

Viet Nam arguably represents what some term the highest point in liaison and cooperation between ground and air units.[62] Even so, interservice fighting over roles and missions continued:

> Inevitably, the US Air Force protested the US Army's use of armed helicopters and even fixed-winged aircraft in a close air support role in Viet Nam....Despite USAF protests, American and Vietnamese ground commanders felt compelled to use any air support that was available, including army aviation when air force channels proved unresponsive.[63]

By 1967 the US Air Force was providing large amounts of close air support to the Army. However, as there was no serious air threat, the artificially high level of support masked the continuing rivalry between the Army and Air Force over mission priorities.[64] In spite of Air Force protests, the Army fully integrated the helicopter and helicopter tactics into its operations.[65]

There were other significant differences. Major advances in tactical communications, increased mobility, and enhanced and more flexible command and control capabilities created a completely different type of tactical operation from that of previous conflicts.[66] Furthermore, the majority of fighting in Viet Nam was unconventional and largely fought as small unit operations, requirements derived from the unconventional nature of the enemy.[67]

Technological advances also played a significant role in combat operations in Viet Nam and influenced interoper-

ability. Artillery, ammunition, fire direction, troop location, troop identification, and battlefield communications all benefited from technological improvements in the 1960s.[68] Improved procedural controls such as the MACV Rules of Engagement evidenced a new and growing concern over limiting amicicide among combatants and non-combatants alike, notwithstanding complaints within the military that such rules were undue restrictions on the use of firepower.

In spite of procedural and technological improvements, frequent costly incidents of amicicide were to occur in the Viet Nam conflict. Some of these very improvements simply exaggerated human error, already identified as a major cause of amicicide.[69] The increased capabilities of high performance aircraft and ordnance which could be delivered faster and closer to friendly positions than before enhanced combat power, but also increased the need for exacting control to prevent friendly casualties. These and other similar developments increased the importance of human actions. Where such actions failed, the benefits of technology and improved procedures were negated.[70]

As in the Korean conflict and World War II before that, friendly casualties in Viet Nam were to result from faulty communications, poor coordination, and inability to precisely locate friendly troops in the dense jungles.[71] The same basic problems affecting previous combat operations were repeated. In some instances, post-war advances only served

to accentuate the importance of the "human in the loop," and far too little attention was given to developing a system to meet the growing coordination and cooperation needs.

SUMMARY

Conclusions extracted from a brief survey are properly suspect. There is simply too much that can not be seen or properly considered in the context of the period; hence, conclusions may potentially mislead or misinform. Professor Michael Howard's caution in A Guide to the Study and Use of Military History is noteworthy:

> ...the differences brought about between one war and another by social or technological changes are immense, and an unintelligent study of military history which does not take account of these changes may quite easily be more dangerous than no study at all. Like the statesman, the soldier has to steer between the dangers of repeating the errors of the past because he is ignorant that they have been made, and of remaining bound by theories deduced from past history although changes in conditions have rendered these theories obsolete.[72]

While it does not presume to answer the serious issues identified in these conflicts, this brief survey of the American experience with jointness does offer insights important to joint operations and joint lessons learned activities. The threads of repeated problems form patterns of attitude and action which illustrate how the military learns its lessons (when it does); even as indicators they are useful.

One such indicator is the historical role of service interests in influencing the outcome of major issues. Each service has a distinct heritage and unique history which predate unification efforts and predetermine, to some degree, service positions on many basic issues. Evidence of distinct service interests dominating joint interests, or otherwise affecting the timely resolution of non-service interests is found in each major conflict.

Another major indicator emerging from this survey is the ability of interservice rivalry to inhibit the timely, efficient resolution of interoperability issues encountered on the battlefield. When the tragedy of fratricide in World War II through Viet Nam is considered in the context of the larger disagreements between the services, the failure to find joint solutions in doctrine, tactics, organizations, and equipment acquisition is not surprising. In short, inter-service rivalry has proved to be an intense, pervasive force capable of influencing resource allocation and thereby limiting timely resolution of interoperability issues.

The adept ability and willingness of some of the services to use bureaucratic maneuvering to pursue parochial interests at the expense of the other services (and the Joint Community) has also inhibited resolution of interoperability issues in the past. Such power tactics have influenced issues at every level from the strategic (reorganization) to the tactical (calls for close air support). This capability

must be understood if an effective Joint Lessons Learned System is to be realized.

A significant factor continues to be the fairly consistent intensity of interservice rivalry and concurrent service-peculiar attitudes toward effective service integration. Rejection of such calls has been most pronounced in the Navy, perhaps because it is the only service with dedicated air, ground, sea, and space elements. These same factors also seem to contribute to a general conservatism or resistance to internal change observed in the services which often leads to the imposition of directed change by the Congress. While the interservice rivalry issue is not pursued further in the text, it has unquestionably influenced the development of the joint arena that exists today, and it remains an important element to consider when seeking solutions to interoperability issues.

The stubborn resistance of the more serious interoperability issues to resolution is another factor that permeates the history of these major conflicts. Such difficult issues as fratricide, even in a climate of improved interservice relations, seem to have a life of their own derived from the very nature of warfare and the technology used to wage it. These resistant interoperability issues would benefit the most from an institutionalized Joint Lessons Learned System capable of providing a counterbalance to the parochial service interests identified above.

The impact of technology is seen as an increasingly important factor which can serve to inhibit or promote interoperability. As weapons become more capable, the price for human failure increases. Thus, the need for closer interservice coordination and cooperation is likely to increase rather than decrease, and any capability that contributes to that jointness should be carefully considered regardless of peacetime cost.

Another disturbing notion, that lessons learned in one war appear irrelevant to future conflicts, also surfaced in the review. A lesson not recognized is condemned to remain a lesson unlearned. On more than one occasion, the services have validated Professor Howard's warning by failing to steer around the first obstacle of ignorance.

Equally curious is the recognition in past wars that laws demanding jointness do not necessarily result in integrated military operations. As has often been demonstrated in the past, joint forces can and do deploy in ostensibly joint operations without working in an integrated fashion, and they are just as likely to do so in the future.

There is little question that commanders in the field have had to develop local solutions to interoperability issues and problems in the absence of any coordinated program to fill the long-standing need. As service headquarters concerned themselves with preservation of service integrity

and autonomy, local commanders worked to integrate operations and improve operational effectiveness.

Improper or inadequate coordination and communications have appeared with disturbing frequency as a root cause of interoperability problems. In fairness, these also served as a primary cause of intra-service problems throughout the time frame considered. Actions taken to resolve these two prominent causes of previous interoperability problems could significantly enhance joint operational effectiveness, and should therefore be a priority task of current lessons learned systems.

Of perhaps wider significance is the fact that in the last three major conflicts, US forces either entered battle unprepared to fight, or unprepared to fight the type of conflict required by the nature of the enemy. There was much learning on the field, to be sure, but such learning exacted an exhorbitant price in time and in lives lost. Both of these resources may be far more limited in the next conflict. Threat capabilities at both ends of the spectrum of conflict are increasing dramatically. Time will almost certainly be on the side of the enemy. Just as likely, that threat will be better prepared to deny US forces the luxury of learning as they fight without sustaining serious consequences.

Finally, the conclusion that politics has been as strong an influence in service decisions as sound military considerations is inescapable. The military does not merely

serve political ends. It is, in reality, a political entity with an extensive, entrenched bureaucracy quite capable of acting on the basis of other-than-military considerations. Any discussion of lessons learning must therefore be concerned not only with military requirements, but with political realities as well. Such is the legacy of the US joint experience in major conflicts since World War II.

CHAPTER 2 ENDNOTES

[1] Jonathan M. House, Toward Combined Arms Warfare: A Survey of 20th Century Tactics, Doctrine, and Organization (August 1984): 189.

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[5] Charles R Shrader, Amicicide: The Problem of Friendly Fire in Modern War (December 1982): 29-54.

[6] Shrader: 32-50.

[7] Shrader: 50.

[8] House: 128.

[9] Shrader: 51.

[10] Shrader: 63.

[11] Shrader: 50-54.

[12] Shrader: 67-74.

[13] Shrader: 67-68 quoting Garland and Smyth's Sicily and the Surrender of Italy, US Army in World War II, (1965: reprint Washington, D.C., Office of the Center of Military History 1970): 175.

[14] Shrader: 68.

[15] Shrader: 68 quoting Garland: 67-68.

[16] Shrader: 68-69 quoting Garland: 118.

[17] Shrader: 90.

[18] Shrader: 93-94.

[19] Shrader: 102-103.

[20]Russell F. Weigley, History of the United States Army (1984): 411-412.

[21]House: 132, see also Doughty: 3.

[22]House: 132.

[23]Ibid.

[24]House: 133.

[25]Weigley: 490.

[26]Ibid.

[27]Ibid.

[28]Weigley: 455.

[29]Weigley: 489.

[30]Ibid., paragraph citation.

[31]Weigley: 491, paragraph citation.

[32]Ibid.

[33]House: 141, paragraph citation.

[34]Allan R. Millett and Peter Maslowski, For the Common Defense: A Military History of the United States of America (1984): 478, paragraph citation.

[35]Millett and Maslowski: 478-479.

[36]Weigley: 490-494.

[37]Ibid.

[38]Weigley: 494.

[39]Doughty: 7.

[40]Louis J. Moses, The Call For JCS Reform: Crucial Issues (1985): 6.

[41]Doughty: 7.

[42]Doughty: 7-10.

[43]Vetock: 86.

[44] Doughty: 9.

[45] Weigley: 522.

[46] Doughty: 11-12.

[47] Doughty: 12.

[48] Ibid.

[49] House: 153.

[50] Ibid.

[51] Ibid.

[52] House: 153-4.

[53] House: 154; Doughty: 4.

[54] U.S. Army, FM 100-5 (27 Sep 54) as quoted in Doughty:12.

[55] Doughty: 12.

[56] Weigley: 535; House: 29.

[57] Weigley: 547.

[58] Weigley: 548.

[59] Doughty: 37.

[60] Doughty: 27.

[61] Ibid.

[62] Doughty: 37.

[63] House: 162.

[64] Ibid.

[65] Ibid.

[66] Doughty: 30.

[67] Doughty: 30-31.

[68] This discussion is from Shrader: 16-17.

[69] Ibid.

[70]Shrader: 17,55.

[71]Shrader: 55,59.

[72]Michael Howard, "The Use and Abuse of Military History," Journal of the Royal United Service Institution, 107 (1962):7, as quoted in Jessup and Coakley: 33.

CHAPTER 3

THE LEGACY OF CONTINGENCY OPERATIONS

> Since 1945 the United States has employed its armed forces in support of national objectives more than 270 times. Most of these operations were in underdeveloped areas of the world. Most were joint operations, and many were conducted in concert with the armed forces of other nations. Nearly all bore the hallmarks of contingency operations: they were emergencies in which the mission, the time and forces available, and the operational area were limited.
>
> Lieutenant General Gerald T. Bartlett
> July 1988[1]

This chapter further examines the history of interoperability issues by focusing on joint contingency operations. A distinction has been made between the major conflicts and these contingency operations because of the unique characteristics of such limited operations, their recognized place within the spectrum of conflict, and the greater likelihood of their occurrence. The exploration of joint operations would be incomplete without them.

This chapter examines US operations in Lebanon (1958), the Congo (1964), the Dominican Republic (1965), Cambodia (1975), Iran (1980), and Grenada (1983). As with the previous chapter, this survey is not a comprehensive

exposition of operational details, nor is it a criticism of the participants. Because its underlying theme is learning from mistakes, it selectively focuses on problem areas rather than successes. This intended focus should not be misconstrued to imply that the operations were unsuccessful - in fact, most achieved their overall objectives. However, lessons are not learned and future mistakes are not prevented by the self-congratulatory and non-critical reflections which all too frequently follow successful military operations. Such literature is widely available for the curious reader.

This study, instead, examines historical evidence of interoperability issues in US joint contingency operations so that trends may be identified and possible causes explored. This chapter completes the historical consideration of US joint operations which provides the underlying rationale for a comprehensive, robust, and institutionalized Joint Lessons Learned System.

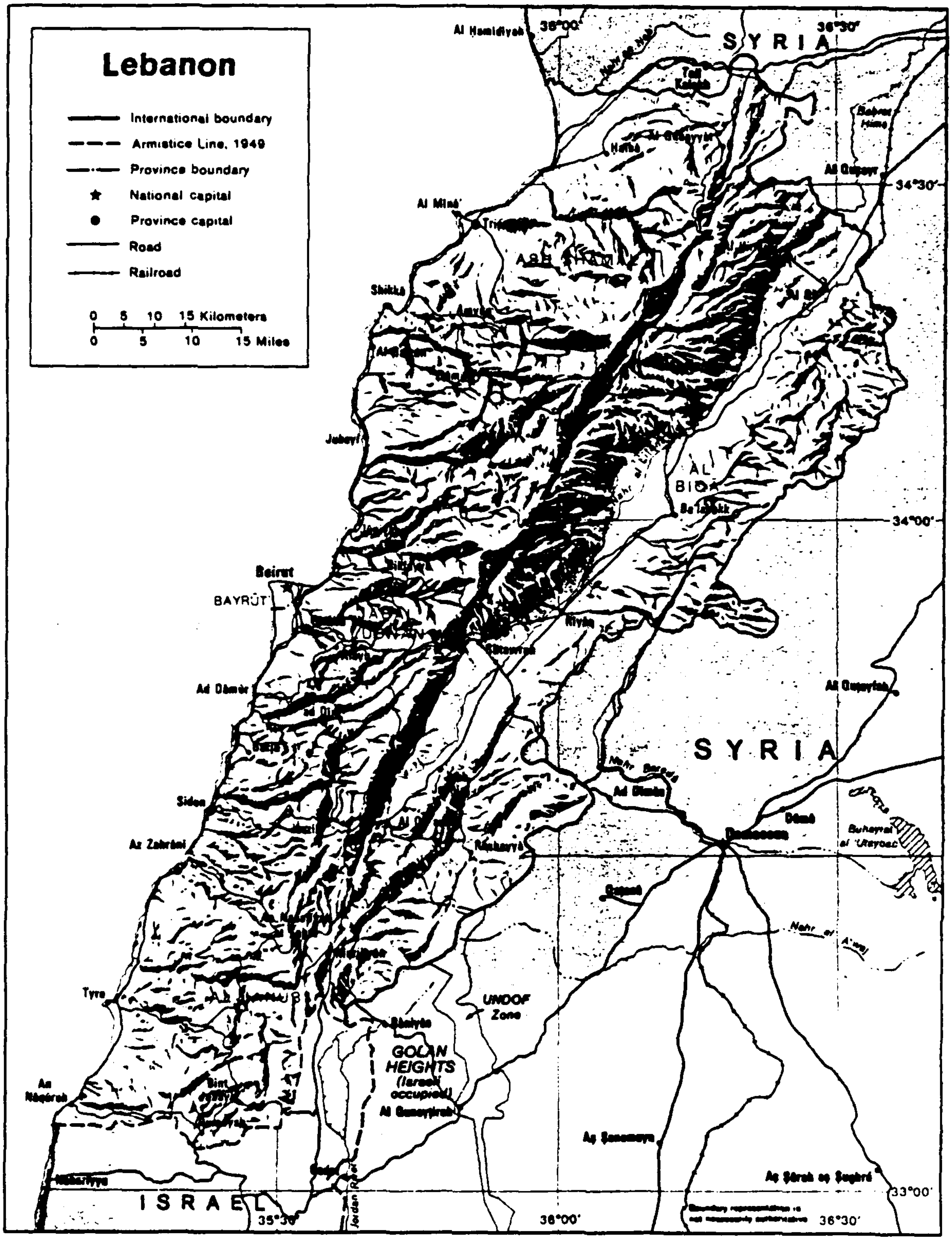
Lebanon - 1958

In the summer of 1958, the United States conducted the largest American troop deployment between the Korean and Viet Nam conflicts. That joint operation has been hailed as one of the most successful operations of its kind.[2] On 15 July 1958, elements of the US Sixth Fleet landed several US Marine battalions in Lebanon to be joined in short order by soldiers from the Army's European Command and by a

Composite Air Strike Force (CASF) from the United States (See Map 1). The joint force spent 102 days in Lebanon in a peace-keeping role before returning to home station. The operation was code-named BLUEBAT, and it marked the US response to Lebanese President Camille Chamoun's request for US military intervention under the provisions of the Eisenhower Doctrine. The projection of US military power was intended to assist the government of Lebanon to maintain internal security. Serious domestic disturbances had resulted from President Chamoun's intent to succeed himself as president for a second six year term (in violation of the Lebanese constitution), as well as from deeper-seated problems of ethnic and religious divisiveness.

Although the operation was a success by most standards, errors in judgment, organization, planning, and execution provide fertile ground for lessons learned. In Dr. Roger J. Spiller's study of the operation, "Not War But Like War": The American Intervention in Lebanon, many issues reflecting on the ability of the Services to operate together are discussed.[3] While some lie perhaps more appropriately on the fringes of interoperability, they all frame major interservice issues and contribute to understanding the overall nature of the operation - many will be seen again in later operations.

MAP 1


Lebanon
International boundary
Armistice Line, 1949
Province boundary
National capital
Province capital
Road
Railroad
0 5 10 15 Kilometers
0 5 10 15 Miles
SYRIA
SYRIA
ISRAEL
Beirut
BAYRŪT
Tyre
Sidon
Az Zahrānī
Ad Dāmūr
Jubayl
Al Mīnā'
Al Ḩamīdīyah
UNDOF Zone
GOLAN HEIGHTS (Israeli occupied)
36°00'
36°30'
34°30'
34°00'
33°00'
35°30'
36°00'
36°30'

There were a number of serious problems in planning and controlling the operation. During the notification sequence, for example, the executing commands received directions from not only the JCS (in their role as the Joint Chiefs) but also from the separate service Chiefs of the Air Force and the Army, and the US European Command as well.[4] Planning was not only fragmented, it was compartmented as well. This affected planning at lower levels because:

> ...high security classifications on such plans as BLUEBAT and GRANDIOS prevented most people from knowing enough about what they contained actually to make the plans work when the time came. Several staff officers later complained that these restrictions impeded planning and made execution even more vexatious than it would have otherwise have been.[5]

Simply put, in an effort to protect sensitive information, people with a legitimate need to know about the operation remained intentionally uninformed. This issue continues to affect joint contingency operations today.

Lieutenant Colonel Gary H. Wade examined this same basic problem in Rapid Deployment Logistics: Lebanon, 1958. Although his focus is admittedly on the logistical aspects of the operation, LTC Wade contends that the excessive security restrictions nullified much of the sound logistical planning that preceded the operation, and resulted in the breakdown of that planning.[6] For example, the logistical command designated to serve as the headquarters for the technical and service units of the ATF was unable to obtain basic information to complete its assigned mission. Although the

specific units to perform support functions had already been carefully picked, the units themselves were completely unaware that they would be deployed. They were not told what their support requirements would be, where they were going to deploy, or the number of troops they were to support. They were also unaware of the actions already accomplished by those few planners who had access to the operation plan.

The results were of more than academic interest. Logistical units simply could not be integrated into the operational plans due to the classification problem. Thus loading plans were not prepared, movement plans were not prepared, and airfield departure routes were not planned.[7] In turn, these planning shortfalls resulted in flawed execution. The support units lacked the experience of the airborne units in rapid deployment operations, and were least able to adjust to the situation. Moreover, security restrictions prevented them from training to the new requirements prior to mission execution.[8]

There are additional examples of poor planning and coordination between the Army and the Air Force for the phase of the operation which involved airlifting elements of the 24th Infantry Division from Germany to Adana Air Base in Turkey, and ultimately to Lebanon.[9] On the day of execution, the Army Task Force (ATF) had not yet determined the dimension and number of loads to be deployed, in spite of the fact that joint planners had reviewed the basic deployment

configuration in February. This problem was exacerbated because the supporting Air Force Headquarters (USAFE) failed to inform the Task Force of the number and type of aircraft available for lift until 1430 on 15 July, the day of the deployment. Thus, calculations for loads could not be computed until just prior to the deployment.

Further difficulties were encountered as the makeup of the airlifting force continued to fluctuate after the load plans were finally developed.[10] To aggravate the situation, nearly every Army Task Force element had underestimated its load. Additionally, no estimate had been made of the time it would take for the airlift to deploy to Turkey, unload, and return for follow-on echelons.

These seemingly minor issues over mundane matters gain added significance when time is a major consideration, as it will prove to be in later contingencies. Airlift operations from Lebanon to Grenada have consistently provided raw material for joint lessons learned activities. However, without an institutionalized Joint Lessons Learned System to analyze these problems and seek joint solutions, each deploying force would have to find answers for itself in the press of the deployment.

Some of the TF airlift difficulties could have been resolved at the departure airfield had an aerial port team been available to assist in the loading operation. The Air Force failed to provide one.[11] On 24 June, Army planners had

requested a full-time Air Force liaison officer from the airlift unit. In denying the request, the Air Force compromised by promising monthly liaison visits to the deploying unit. By the time of the operation the liaison officer had yet to appear.

As a result of this lack of coordination and cooperation, the soldiers of the Task Force were required to reconfigure, rig, and load the aircraft, tasks which were not completed until 0300 the following morning. Had the ATF encountered a formidible opponent on arrival in Lebanon, this unnecessary drain of time and energy could have had far more serious consequences. As it was, the deployment was a confused operation and more importantly, the ATF was not ready for departure when it was cleared to leave.[12]

There were other problems. The air base at Adana was ill-equipped to handle the required airflow which included hundreds of aircraft, tons of equipment, and thousands of men.[13] The congestion during the first two days of the operation was so great that aircraft had to enter a holding pattern above the airfield until sufficient ramp space could be cleared. Adana was not served by port facilities, and the ground transportation network servicing the area was very limited. Yet the decision was made to use the base not only as the forward staging base for the Army Task Force, but also as the base for the Composite Air Strike Force (CASF).

The CASF consisted of a headquarters element, tactical fighters, reconnaissance, bombers, and support aircraft from scattered installations in the United States.[14] There was cause for concern over its qualifications to support the deployment of ground forces. Few of the F-100 pilots had ever practiced strafing, delivery of conventional bombs, or launch of conventional rockets. Similarly, the B-57 crews were not proficient in conventional ordnance delivery; they had focused their training on the Air Force's priority mission - strategic nuclear bombing. It is fortunate that CASF support was not put to the ultimate test.

The failure both at Adana and Lebanon to secure the airbases prior to landing vulnerable, unarmed troop transport seems grossly negligent in the context of current sensitivity to such matters, yet such was the case in 1958. By 17 July, the single staging base at Adana had at least 165 aircraft parked on its ramps.[15] Unarmed, fully loaded transport aircraft arrived in an area of potential combat before the Air Force fighters achieved air superiority. Perhaps the lack of an air threat in the area justified this decision. However, the cavalier manner in which the joint deployment occurred offered a lucrative target for any adversary inclined to take advantage of it. The problem of force vulnerability would be learned with dramatic effect in Lebanon years later but not before it would be repeated in the intervention in the Dominican Republic.

Despite critical overcrowding at both Adana and Beirut, and recognized light opposition, Admiral Holloway (overall commander of the operation as Commander in Chief, Specified Command, Middle East) inserted more marines in Lebanon than the total force of the Lebanese Army.[16] In spite of the apparent lack of military need, the decision was made to further congest the area by ordering the Army's Task Force to Beirut on 19 July. When the Task Force arrived in Beirut, they discovered that no landing arrangements had been provided for them - the vast armada of loaded aircraft were forced to enter the "normal" air traffic pattern. As the aircraft landed and unloading began, the TF was again forced to operate without an aerial port team. Again, the TF soldiers were called to fill the void. These troops lacked even a single fork lift as they began offloading the 170 sorties in the airlift. The process would occupy the soldiers for the entire first week.[17] The massing of over 10000 soldiers and their supplies in an area less than four square miles south of Beirut again raised the specter of force vulnerability 5 days after the initial landing of US forces in Lebanon.[18]

The introduction of the Army element led to problems in joint command and control. Due to the burgeoning ground contingent, Admiral Holloway requested the JCS appoint a Land Force Commander on 21 July.[19] In spite of nine months of joint planning for just such a contingency, no provision had

been made for this position, important as it obviously was to achieving interoperability.

When the command was at last given to an Army general, other problems occurred. The new commander had no staff; consequently, the ATF staff was pressed into service to support both the Land Force Commander and the ATF commander.[20] Additionally, the lack of joint operational experience between the Navy and the Army negatively affected the operation in critical operational areas. Admiral Holloway established a Joint Operations Center aboard his command vessel to ease the problem, but joint coordination was still far from a reality.

For example, both the Air Force at Adana and naval air elements from the Sixth Fleet were responsible for providing air cover for the deployed ground forces.[21] But these operations conducted over very limited airspace were extremely dangerous because there was no joint doctrine for them. Furthermore there were neither common radio frequencies in use nor were there "agreed-upon" panels for ground forces to use to mark their positions. The same was true of target and front-line markings. More significantly, procedures to coordinate and integrate ground artillery and naval gunfire with airstrikes remained to be worked out. These serious interoperability issues were not addressed by the Joint Force until 4 August, twenty days after the Marines had landed.

Intelligence shortfalls also inhibited interoperability during the operation.[22] Intelligence prior to deployment was characterized as either poor or non-existent. In another of the major lessons learned at the end of each contingency only to be repeated in the next, this operation was to suffer from a lack of reliable maps. The only maps available through the Army Map Service were based on 1941 and 1945 French editions. As a result of the growing crisis in the area, the British had undertaken a revision based on a 1957 survey of the area, and some of these maps were made available to the Sixth Fleet in July. However, there would be no standard issue at the start of the operation. USAFE and USAREUR did not receive copies until after the deployment.

The map problem is but a single area where intelligence affected operations, but it is representative of the overall lack of adequate intelligence support for deployed forces. As a consequence, deployed US forces expected to face an external conventional threat that was non-existent, and they were forced to modify their views and their operations as in-country experiences confirmed the error.[23] By 29 July, the ATF was aware that its major threat was not a conventional force, but rather small groups attempting to infiltrate into the city to cause minor disturbances.[24] The real threat was more political than military, and the deployed military force was simply ill-prepared, and perhaps

not entirely responsible for, gathering much needed political intelligence required to meet that threat. Thus US commanders eventually sought and received intelligence support from the US embassy to fill the void.[25]

The deployment to Lebanon paints a picture of forces limited in their ability to plan and execute joint operations. Virtually every official report on BLUEBAT opens with the statement that had the deployment been opposed, disasters would have resulted from problems that could have, and should have, been resolved prior to execution.[26] Some of these higher-level after action reports ended on the optimistic, but mistaken, conclusion that future military reforms would prevent these problems in such operations in the future.

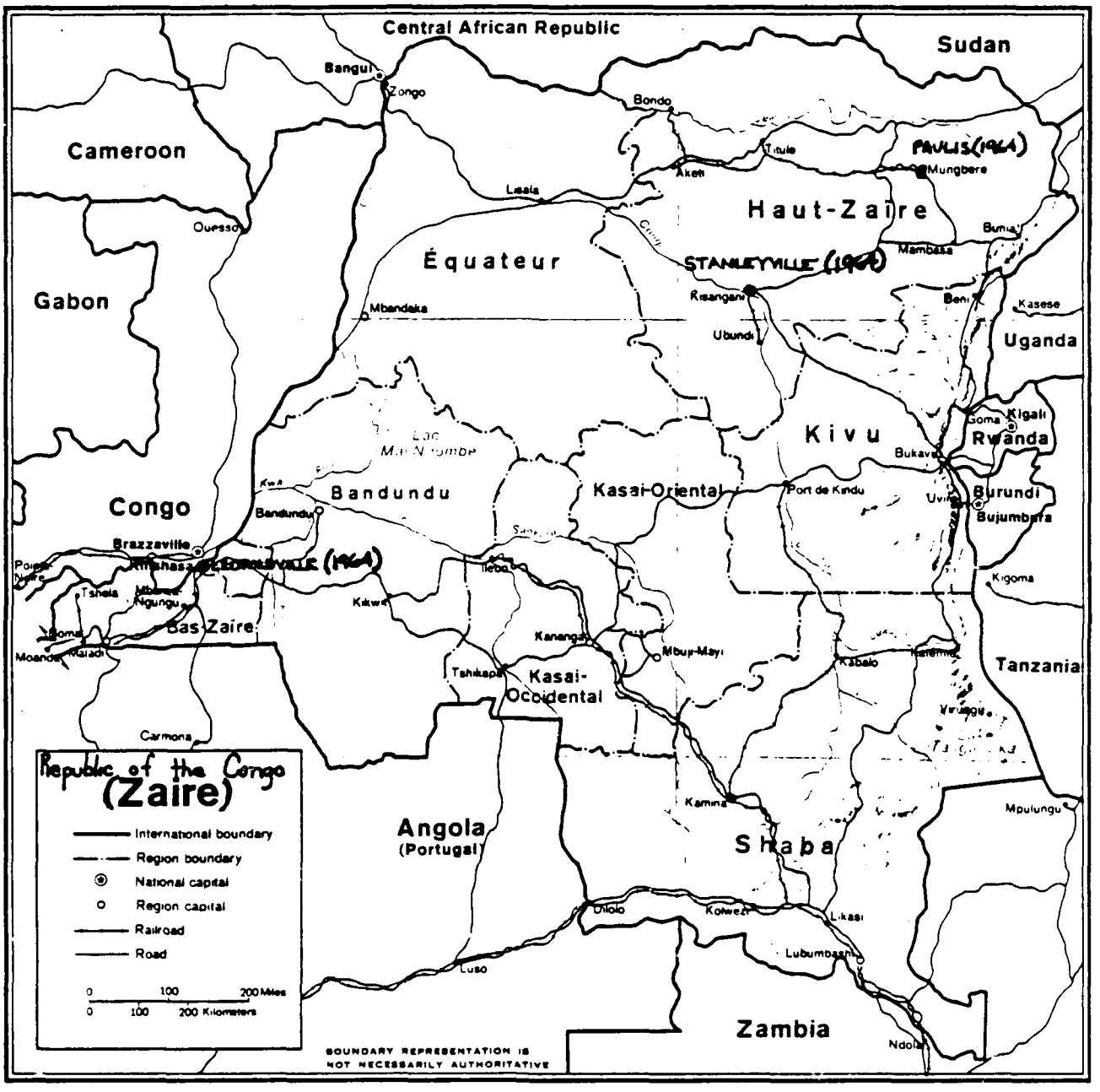
The Congo - 1964

In Major Thomas P. Odom's study, Dragon Operations: Hostage Rescues in the Congo, 1964-1965, Lieutenant General Gerald T. Bartlett notes that DRAGON ROUGE and DRAGON NOIR were the first, and in many ways the most complex hostage rescue missions conducted during the Cold War period.[27] These combined US-Belgium operations were designed to rescue European residents trapped in the internal Congolese civil war started by the Simba Rebellion. The Simbas had seized nearly 2000 European hostages. At various stages in the strife, they vented their generic hatred for whites by

brutally executing them, often after torture. There was also convincing evidence of cannibalism. The growing concerns of Western nations for the safety of those hostages led to the joint, and later combined, planning of hostage rescue missions to secure their release. This planning culminated in the execution of Operations DRAGON ROUGE (23 November 1964) to rescue hostages in Stanleyville, and DRAGON NOIR (26 November 1964) to rescue hostages in Paulis (See Map 2). The role of the United States was to provide airlift to a Belgian Paratroop Battalion of approximately 545 soldiers, 8 jeeps, and 12 AS-24 motorized tricycles from Kleine-Brogel Air Base in Belgium to a staging base at Ascension Island for operations in the Congo.[28]

This operation is so unique that it appears, on the surface, to offer little useful to this study. The Belgians bore the brunt of the operational activity while the US military only provided airlift for the paratroopers, communications support, and medical assistance. Also, the operation involved a relatively small force, and was fraught from beginning to end with strategic and political complications intrinsic to combined operations. However,the operation offers several interesting insights which add to the base of knowledge concerning joint interoperability issues and lessons learned activities.

MAP 2


Central African Republic
Sudan
Cameroon
Gabon
Congo
Zaire
Uganda
Rwanda
Burundi
Tanzania
Angola
(Portugal)
Zambia
Bangui
Zongo
Bondo
Aketi
Titule
PAULIS (1964)
Mungbere
Lasia
Haut-Zaïre
Ouesso
Équateur
STANLEYVILLE (1964)
Mambasa
Bunia
Kisangani
Beni
Kasese
Mbandaka
Ubundi
Goma
Kigali
Kivu
Bukavu
Lac Mai-Ndombe
Bandundu
Kasai-Oriental
Port de Kindu
Uvira
Bujumbura
Brazzaville
Kinshasa
LEOPOLDVILLE (1964)
Ilebo
Kigoma
Tshela
Matadi
Bas-Zaire
Kenge
Kananga
Mbuji-Mayi
Kabalo
Tshikapa
Kasai-
Occidental
Carmona
Kamina
Mpulungu
Shaba
Dilolo
Kolwezi
Likasi
Lubumbashi
Luso
Ndola
Republic of the Congo
(Zaire)
International boundary
Region boundary
National capital
Region capital
Railroad
Road
0 100 200 Miles
0 100 200 Kilometers
BOUNDARY REPRESENTATION IS
NOT NECESSARILY AUTHORITATIVE

Planning for this operation was complicated from the start by lack of any mission statement from the political leaders down to the military planners. Planning was therefore ad hoc, and characteristically deficient.[29] Operational intelligence was seriously lacking (to include aerial photography of the area), forces selected (for political rather than military considerations) were too small for the task, and inadequate consideration was given by all to the requirements for airlift, communications, and medical support.[30] These planning shortfalls assumed far greater significance because of the extreme time sensitivity of the operation, because it was combined, and more importantly, because neither the Belgians nor the Americans had ever conducted such a combined airborne operation.[31]

Due in great part to the caliber of officers assigned to the operation, serious doctrinal and operational issues were resolved prior to the operation. US officers convinced the Belgians to use the American CARP (computed airborne release point) system and new "Close Look" doctrine (a line-astern, low level airborne delivery technique) for the operation. Additionally, they provided C-130 jump training for the paratroopers, and training on the operation and use of US communications equipment.[32] In sum, areas of potentially serious interoperability failures were identified and resolved by the officers prior to the operation. This

positive lesson could have proved invaluable to a Joint Lessons Learned System had one existed to take advantage of it.

Command and control of the operation was less successful. Reflecting the truly confused political aspects of the situation, lines of authority for DRAGON ROUGE and DRAGON NOIR were likewise muddied.[33] The Belgians had no control headquarters and therefore had to rely on US communications for connectivity to their national Joint Staff. At the tactical level, the significant confusion surrounding the chain of command is clearly illustrated by the following entry in the diary of Lieutenant Colonel James M. Erdmann, USAF (Colonel Erdmann was a member of USAFE's J-2 section assigned as principal intelligence officer and rear detachment commander for the contingency operations):

> Too many bosses. 9 commanders in the operation by this time. 1) State Dept., 2) Hqs USAF, 3) EUCOM, 4) JTF LEO, 5) JTF LEO ADVON, 6) Air Lift Commander (with 2 higher HQ - 322 ADIV and EUCOM/USAFE), 7) COMISH, 8) Belgian Army at Kamina, 9) CIA man and Cuban (B-26) pilots.[34]

Perhaps the most interesting comment about this list is that it omitted CINC USSTRICOM, General Paul D. Adams, who had been appointed by the JCS to assume operational control of the assault force at Ascension or Kadina.[35]

In a related matter, Erdmann encountered considerable difficulty establishing and maintaining open communications for the deployed force throughout the operations.[36] At Baldwin Command Post (CP) on Ascension Island, Erdmann

was sorely understaffed and poorly equipped to provide adequate support to both the Belgian force commander and the USAF lift commander. After quickly establishing two secure stations for TOP SECRET traffic, Erdmann soon discovered that mission needs exceeded his capabilities. His circuits remained backlogged for the next two days. As a consequence, the CP began to rely more on communications provided by a USAFE single-sideband net. This situation was further complicated by the lack of a communications annex in the basic OPLAN, and more seriously affected by use of two different code-word systems on the same net. A joint communications support element (JCSE) was dispatched to Ascension. However it did not arrive in time to prevent or resolve the communications problems which would impede the operation until its end.

The communications failures harbored serious consequences for the operation which were avoided only through luck and timely decisions made by commanders on the ground. Overemphasis on security was the primary cause for the communications systems overload.[37] Overcrowding on voice nets, absence of a communications annex to the operation order, poor net discipline resulting from confusion, multiple (5) languages in use by friendly forces, and lack of essential communications equipment verify the magnitude and complexity of this problem.

In hostage rescue operations, rapid action is essential - lives are generally in the balance. Sound planning and effective command and control are prerequisites for such rapid action. It is fortunate for the American and Belgian hostages that the Simbas hesitated to execute them. The command and control system used in DRAGON ROUGE and DRAGON NOIR could not have prevented such tragedy.[38]

As a final thought to this review of the operation, Odom's comments in his Preface are particularly relevant to this study:

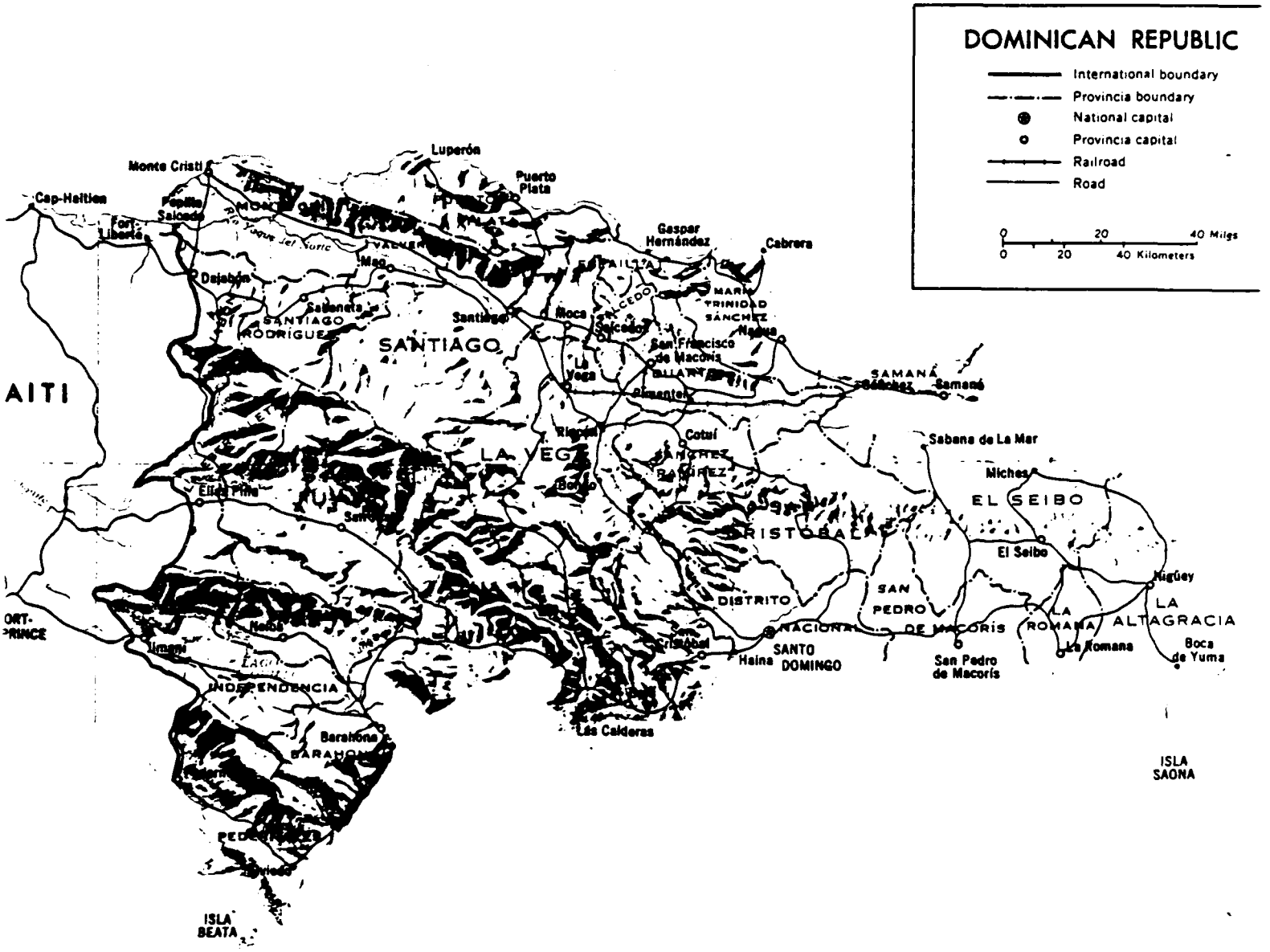
> The United States' record in evacuation or hostage rescue operations is particularly dismal. As such operations are typically joint efforts by the Army, Navy, Marines, or Air Force, interservice rivalry has consistently crept into the picture. The continual realignment of the Unified Command Plan and the establishment of special commands such as US Strike Command have not eliminated these problems. Unfortunately the need for such type operations has not decreased. Indeed, in a peacetime environment, such military operations are the most likely contingency facing planners.[39]

Given that assessment, a Joint Lessons Learned System seems to be a reasonable if not critical mandate. Unfortunately, no such system existed, and no lesson from the Congo would benefit the next US contingency operation.

The Dominican Republic: 1964-1965

In April 1965, US forces again deployed to secure US national interests on foreign soil (See Map 3). The intervention in the Dominican Republic (Operation POWER PACK) lasted from April 1965 to September 1966, and was initiated

MAP 3


DOMINICAN REPUBLIC
International boundary
Provincia boundary
National capital
Provincia capital
Railroad
Road
0 20 40 Miles
0 20 40 Kilometers
AITI
Monte Cristi
Luperón
Puerto Plata
Cap-Haitien
Fort Liberté
Pepillo Salcedo
Dajabón
Mao
Gaspar Hernández
Cabrera
Sabaneta
SANTIAGO RODRIGUEZ
SANTIAGO
Santiago
Moca
Salcedo
MARIA TRINIDAD SÁNCHEZ
Nagua
San Francisco de Macorís
La Vega
SAMANA
Samaná
Cotuí
Sabana de La Mer
Miches
EL SEIBO
El Seibo
Higüey
LA ALTAGRACIA
La Romana
Boca de Yuma
SAN PEDRO DE MACORIS
San Pedro de Macorís
DISTRITO NACIONAL
SANTO DOMINGO
Haina
Las Calderas
Neiba
Barahona
INDEPENDENCIA
ISLA BEATA
ISLA SAONA

at President Lyndon Johnson's direction to prevent the establishment of a "second Cuba" in the Western Hemisphere.[40] It was America's first intervention in Latin America in 30 years. Following closely on the heels of the intervention in Lebanon, however, it permits the reader to assess progress in resolving some of the interoperability problems which had affected previous joint operations.

When the President determined that a political solution to the crisis was unlikely, he directed employment of US forces to the area, ostensibly to protect American lives and property, but just as likely to prevent a regime sympathetic to the Communists from ascending to power.[41] In the months that followed, US Navy, US Air Force, US Army, and US Marine Corps forces conducted stability operations in the Dominican Republic. They performed a variety of missions ranging from combat, civic action and civil affairs to psychological warfare and special operations.[42] They were also required to evacuate noncombatants, conduct joint and combined operations, and establish direct interface with non-military agencies (CIA, FBI).[43]

At the height of the operation, the US in-country strength would climb to nearly 24,000 troops to support these multi-faceted, and sometimes conflicting requirements.[44] In the 17 months from the arrival of a US Naval Task Force off the Dominican shore to the departure of the last US units,

the operation would become increasingly political as the Johnson Administration attempted to balance military necessities with political realities which were often unclear to the soldiers and their commanders on the ground.[45] Yet by most measures, the US intervention in the Dominican Republic was a successful stability operation. Order was restored, a democratic system of government was established, and a potential Communist takeover had been averted, all at a cost of 27 US soldier's lives and 172 wounded.[46]

Even so, the contingency exposes several problem areas worthy of consideration in this study, some direct repeats from the Congo and Lebanon operations, others setting precedent for operations to follow - all of them potentially costly in terms of lives and property lost. Four major problem areas were joint planning, communications, airlift operations and intelligence.

Joint planning created recurring problems. Efforts to exclude the JCS from Presidential planning meetings where military options were considered sorely affected planning.[47] In spite of the fact that the JCS, by law (USC Title 10), were the designated principal military advisors to the President, they were intentionally severed from their lawful responsibilities. At the level where interoperability issues could best be discussed and resolved, the voice heard by the President was either muted or silent.

As with the previously discussed contingency operations, communications difficulties also plagued POWER PACK. These problems affected the chain of command at every level from the President and the Chairman, JCS, to the tactical commanders in the field. The strategic/operational problems were partially a result of inadequate communications equipment available at the scene of the operation.[48] But another major contributing factor was a command and control structure which initially delegated operational control of ground forces in the Dominican Republic to a US Navy Admiral who was not ashore and who could not communicate directly with the forces he was responsible for.[49] The American Embassy further complicated the situation by issuing execute orders to the deployed military forces making it difficult for national leaders to know the true situation on the ground.[50] Some units even arrived in the Dominican Republic prior to receiving JCS-issued mission execute orders.[51] Thus, the JCS, and the President, were at times unaware of the size and composition of the deployed US contingent. [52]

Tactical communications were also a problem. Early in the operation a decision was made for Task Group (TG) 44.9 (six naval ships and the 6th Marine Expeditionary Unit) to prepare for the evacuation of 1200 Americans in and around Santo Domingo, an operation requiring extensive communication with the American Embassy at the capitol.[53] However, as neither the TG nor the embassy had communications equipment

capable of reaching the other, coordination for the pending operation relied on the TG's helicopters and the assistance of an embassy employee who owned a ham radio. That radio was the only means capable of reaching the command ship located 30 miles offshore. After the embassy received communications equipment from the Marines, they discovered that it was not powerful enough to reach the command ship, thus the services of the ham operator were required through April 30. This complicated coordination for the evacuation, but did not prevent its successful completion.

After the President decided to alert and deploy elements of the 82nd Airborne Division, XVIIIth Airborne Corps Headquarters, and Tactical Air Command (TAC), difficulties arose in the airlift procedures.[54] On 26 April as the initial alerts went out to those units, many of the problems of the Army/Air Force airlift to Lebanon in 1958 were repeated. Neither service had up-to-date deployment plans based on LANTCOM's recently approved and published OPLAN 310/2-65 involving contingency operations in the Dominican Republic. Neither the XVIIIth Airborne Corps nor the 82nd possessed a copy of the plan. Nineteenth Air Force (Tactical Air Command's planning agency) had not yet published its component airlift plan.[55] Thus, planners at all levels used seriously outdated plans and inaccurate information. Additionally, XVIIIth Airborne Corps lacked current troop lists and the 82nd had not modified its plans

to reflect the significant organizational changes for the newly established ROAD division configuration. Frenzied planning occurred in each of these staffs from 27-29 April as they worked to resolve inaccuracies before the execute order was given.

Once loading of the unit began, additional delays were caused by lack of qualified loadmasters, too few inspectors, insufficient lighting at the airfield, and inadequate amounts of loading equipment.[56] As a direct result of these delays the deploying elements did not attain required alert status until a short time before receipt of the deployment order. Both TAC and the 82nd were critical of the airlift operation in after-action reports.[57] TAC acknowledged the excessive time required to attain readiness and the 82nd cited the absence of unity of effort and singleness of purpose required in rapid response operations.

The situation worsened as the JCS directed four additional battalion combat teams (BCTs), command and support elements, and TAC assets to assume heightened alert status on 29 April.[58] Pope Air Force Base, as with Adana in 1958, was ill-equipped to handle the additional airlift requirements and required billeting for hundreds of flight crews and other support personnel. The required parking plans, loading plans, and flight plans for these new contingents also drained limited resources. The JCS decision overwhelmed an already-strained system.

Tactical ground commanders later voiced much frustration over the Air Force's inflexibility in not permitting them to adjust pre-planned loads to fit the tactical situation.[59] While they recognized the difficulties such last minute modifications cause for the Air Force, the Army commanders were nonetheless adamant that a better system had to be found. In spite of orders from the JCS, General Palmer (initially ODCSOPS, HQDA; later Commander of US Forces in the Dominican Republic), and Major General York (Commander, 82nd Airborne Division) that only "mission essential" equipment be loaded, the Air Force resisted any modifications to the pre-planned load configurations. As a result, the Army commanders were unable to stop the airflow of unneeded heavy equipment such as 2 1/2 ton trucks, while other airlifted loads arrived short of rations, water, and ammunition. General York was moved to comment:

> It appears that in some respects the Army is still fighting World War II. The back-up required to fight an SS division in Europe is not a good guide to use when determining the support required to fight irregular forces in stability operations. We must, in conjunction with the Air Force, develop procedures permitting greater flexibility and quick response to changing tactical and support requirements.[60]

As late as the deployment to Grenada in 1983, many of these same general difficulties were to be encountered.

This inflexibility was not limited to equipment. General Palmer was also unable to obtain priority consideration for air transportation of needed intelligence analysts,

military police, signal, civil affairs, and other categories of specialists exceeding the numbers projected in the original plans.[61] Furthermore, he asked the JCS to authorize a continuous airstream of transports rather than the serial lifts desired by the Air Force. In a serial lift, no aircraft can depart until all the aircraft in a given package are loaded. Palmer's previous experiences taught him that the serial approach tired out his soldiers as they waited for the package to fill. More importantly, he was convinced that the serial approach overtaxed arrival airfield capabilities. In spite of his sound arguments, the JCS were reluctant to depart from the established procedure. Several personal attempts were required before such authorization was finally given.[62]

These airlift problems do not seem particularly critical in light of the more serious interoperability issues. Joint airlift operations often lack the dramatic impact of other types of interoperability issues, yet they form the start point for most joint operations, and hence, set the tone for the remainder of the operation. Where time is critical, where minutes can mean the difference between life and death as it did in the Congo in 1964, successful joint airlift operations may be the center of gravity for the entire operation. The airlift problems affecting this contingency are significant in the context of such previous operations. They also illustrate the difficulties individual

tactical commanders encountered as they attempted to resolve such issues in the absence of an institutionalized lessons learned system. While individual commanders may achieve short term solutions to their pressing needs, it is not likely that their efforts will benefit the force as a whole or carryover into successive operations. Only an institutionalized lessons learned system is likely to produce such long-term change.

Joint intelligence problems also troubled the operation. In the planning phase, commanders (especially in the alerted 82nd units) required current information on the identity, strength, locations, and intentions of all involved parties, as well as information on key facilities in Santo Domingo.[63] They did not receive it. The LANTCOM OPLAN had little intelligence information of use to the Airborne unit, and at first there was no secure channel between the 82nd and higher units to remedy the dearth of operational intelligence. As the JCS were not always in the information loop, CINCLANT was also unclear about the situation and unable to provide assistance. On 29 April, the 82nd sent a liaison officer to Norfolk to access what useful information they did receive, and this helped planners at Ft. Bragg, but intelligence problems were far from over.

After deployment, inaccurate maps caused soldiers to stray into rebel territory. Information about the enemy was practically nonexistent, trained linguists were in short

supply, and communications-intercept equipment was ineffective against the Japanese hand-held radios used by the rebels.[64] Additionally, because of the urban nature of the operations, the Army units depended on Air Force reconnaissance flights for timely intelligence.[65] The ground troops needed a 5-6 hour turnaround time. A lethargic processing procedure required each request to be routed through the Joint Task Force headquarters before submission to the Joint Air Force/Army Direct Air Support Center. This delayed turnaround time by as much as 12 hours. Finally, when the Army assigned a Military Intelligence warrant officer to the center to assist them in understanding Army requirements, the problem was resolved.

Because of inadequate intelligence, it was not until the middle of May that the order of battle for the rebel troops in the Santo Domingo area was fairly accurately established.[66] Beyond the capitol, little was known, nor would it become known until an interagency operation involving the XVIIIth Airborne, the Embassy, the CIA, and AID, known as GREEN CHOPPER was executed 3-5 May.[67]

As this operation was active, elements of the 7th Special Forces Group from Ft. Bragg were arriving in the Dominican Republic to take over the GREEN CHOPPER mission. This unit would encounter the same joint deployment problems experienced by their predecessors.[68] They departed from Pope AFB on a space-available basis, arrived in-country with

little information or equipment and with communications equipment inadequate for the task, and had too few support personnel to sustain the large number of operators.

There were other ghosts of Lebanon. General Wheeler (CJCS) ordered the scheduled airdrop of 1800 paratroopers in 33 C-130s with an additional 111 C-130s laden with equipment to be changed to an airlanding at San Isidro in the Dominican Republic.[69] The airfield was "assumed to be in friendly hands" despite the fact that the source of that information had also reported the possibility of armed rebel bands in the area.[70] Major General York (Commander, 82nd Airborne Division) was convinced that it was unwise to airland planes loaded and rigged for a heavy equipment parachute drop. His protestations to airland only those airplanes with troops and airdrop the equipment were refused by the Pentagon - all would airland. Washington's decision to airland the troops probably saved the lives of many of York's soldiers, even though it exposed an extremely vulnerable US force to the unknown threat of roaming rebel bands at the airfield. The designated parachute drop zone was a grassy area near the airfield which had been inspected by a US officer. The area was covered with coral - a troop airdrop could have caused many casualties.

The force landed at the airfield with both the Commander of Land Forces in the Dominican Republic (newly named position for Major General York) and the Airlift Task

Force Advanced Echelon Commander aboard the lead aircraft.[71] As with the US forces in Lebanon, there seems to have been a blatant disregard for the ability of even lightly-armed bands to inflict grevious harm to the most capable of forces while landing and disembarking. In the face of a more determined, more capable enemy, the initial assault force of the 82nd could have been slaughtered at San Isidro airfield. The soldiers of the 82nd had not even been issued ammunition based on the assumption that the airfield was in friendly hands. They could not have responded if the intelligence reports had been wrong. Once again, lessons not learned from the Congo or Lebanon were lessons to be repeated in the Dominican Republic.

In another example of repeated history, plans had been approved for tactical fighters from Homestead AFB to gain air superiority over the Dominican Republic and then to escort the 82nd Airborne assault force into the country.[72] To speed the arrival of the assault force, the JCS decided to delay the arrival of the fighters until 2 May. The decision was a violation of basic air doctrine, but the JCS assessed the risk to the force to be low enough to be worth the tradeoff in time gained.

On Friday, 30 April, the President authorized deployment of the remainder of the 82nd and the 4th Marine Expeditionary Brigade, as well as the XVIIIth Airborne Corps Headquarters, to the Dominican Republic.[73] The President

also directed the CJCS to select "the best general in the Pentagon" to command the deployed forces, and General Wheeler selected Lieutenant General Bruce R. Palmer.

General Palmer also experienced joint communications difficulties. For nearly one week after his arrival, he did not have the capability to communicate with the myriad agencies at all levels requiring daily contact - he simply lacked the means.[74] The communications provided the General by both his headquarters and the 82nd Airborne were tactical rather than strategic and had serious range limitations. It was not until 3 May, when the Defense Communications Agency provided the General with long range communications at the Embassy, that the situation was resolved.[75]

The Joint Communications Support Element (JCSE) problem which arose during the Congo operation also made a repeat appearance, albeit a curious one.[76] General Adams (Commander in Chief, Strike Command), had two JCSEs on hand which were precisely made for such operations. The JCSEs would give the General Palmer the long range secure capability he needed. However, when General Palmer asked to borrow one of the terminals, General Adams turned him down without comment, although the evidence suggests he could have spared the JCSE without ill-effect. Adams apparently denied the request due to a previous disagreement with CINCLANT. By retaining the JCSE, Adams was indirectly hurting CINCLANT. This example is cited as a reminder of the

power of personalities to influence interoperability issues. Even within effective systems, personalities can exert overwhelming influence. This reality should not be ignored.

General Palmer also experienced the frustration of subordinating sound military requirements to political considerations. US Army forces were deployed on the east side of Santo Domingo, and USMC forces were in the west. A dangerous gap existed between these forces that the rebels were exploiting at will.[77] The gap had been included as part of a cease-fire agreement negotiated by President Johnson's personal emissary, Ambassador Martin.[78] Because General Palmer judged the gap as militarily unacceptable, he chose not to recognize the cease-fire and directed the establishment of a corridor between the separated forces. Although Palmer reported the proposed link-up between the Army and Marine forces to the Joint Staff and the JTF Commander, the evidence suggests that he did not inform the ambassador of the country.[79] Through persistent efforts, the link-up at last occurred in the early morning hours of 4 May, but not without providing the troops of both services with another lesson in the value of prior coordination.[80] As the forces closed at the designated link-up point, the lead 82nd element with General York accompanying signaled the marines and were met with rebel sniper fires. The 82nd soldiers fired back, and received fires from the marines in return. The 82nd soldiers signalled again, and the marines fired at them

again. Finally, in a fit of anger and some apparent loss of sense, General York stood up, proceeded down the middle of the street, and yelled at them to identify himself. The forces linked up, but the humorous incident might have had a far graver ending. Force link ups from the major conflicts to the contingencies repeatedly surface as problematic. As late as the US intervention in Grenada, these difficult coordination problems resulting when forces of different services meet on the battlefield remained unresolved.

The link up was eventually expanded into a corridor, termed a Line of Communication (LOC) between the Army paratroopers and the marines. This made communication, resupply, evacuation, and humanitarian actions feasible.[81] The Army and Marine forces were to remain basically separated. This led to additional instances when rebels firing from behind Army positions drew return marine fires which often landed in the 82nd's positions.[82]

By almost any measure the intervention was a success. However, successful does not imply perfect. Even in the best of circumstances, problems arise which present opportunities to learn, or not to learn as the case may be. Unfortunately, and all too often, the latter appears to be the case. Lessons learned in one operation are simply forgotten by the time the next operation arises. Perhaps they were simply never learned in the first place. When this occurs, the troops on the ground, in the air, and on the sea

are forced to learn them again the hard way. Sometimes, they pay with their lives.

In his conclusion to the study of this operation, Dr. Yates remarked:

> ...the Dominican crisis provides us with useful insights and reveals recurrent patterns that arise in such contingency operations. Problems that developed in Power Pack have occurred all too frequently in other joint and combined operations....Flexibility and adaptability were critical to the successful execution of missions to which the marines and paratroopers probably gave little or no thought prior to deployment.[83]

That little or no thought was given to some of these requirements by the soldiers involved in the operation is understandable - at the time there was no Joint Lessons Learned System to channel or direct such activities. It is harder to accept the leadership's failure to establish such a system to prevent the costly repetition of the same problems in operation after operation. Vigorous, concerted action after Lebanon and the Congo operations could have reversed the trend. Without key leader interest and support, however, the necessary priority and resources for such a system would not be provided. Unless recurring issues were followed through to resolution, interoperability problems were bound to resurface, and they did. That they did not result in complete military disaster perhaps says more about the threat than anything else. As Dr. Yates concluded, "Fortune was kind."[84]

The Mayaguez Incident - 1975

COMMUNICATION FROM THE PRESIDENT OF THE UNITED STATES

MAY 15, 1975 - Referred to the Committee on International Relations and ordered to be posted

THE SPEAKER OF THE HOUSE OF REPRESENTATIVES.

SIR: ON 12 MAY 1975, I WAS ADVISED THAT THE SS MAYAGUEZ, A MERCHANT VESSEL OF U.S. REGISTRY ENROUTE FROM HONG KONG TO THAILAND WITH A U.S. CITIZEN CREW, WAS FIRED UPON, STOPPED, BOARDED, AND SEIZED BY CAMBODIAN NAVAL PATROL BOATS OF THE ARMED FORCES OF CAMBODIA IN INTERNATIONAL WATERS....IN VIEW OF THIS ILLEGAL AND DANGEROUS ACT, I ORDERED, AS YOU HAVE BEEN PREVIOUSLY ADVISED, U.S. MILITARY FORCES TO CONDUCT THE NECESSARY RECONNAISSANCE AND TO BE READY TO RESPOND IF DIPLOMATIC EFFORTS TO SECURE THE RETURN OF THE VESSEL AND ITS PERSONNEL WERE NOT SUCCESSFUL....I ORDERED LATE THIS AFTERNOON AN ASSAULT BY U.S. MARINES ON THE ISLAND OF KOH TANG TO SEARCH OUT AND RESCUE SUCH AMERICANS AS MIGHT STILL BE HELD THERE, AND I ORDERED RETAKING THE MAYAGUEZ....

SINCERELY, GERALD R. FORD

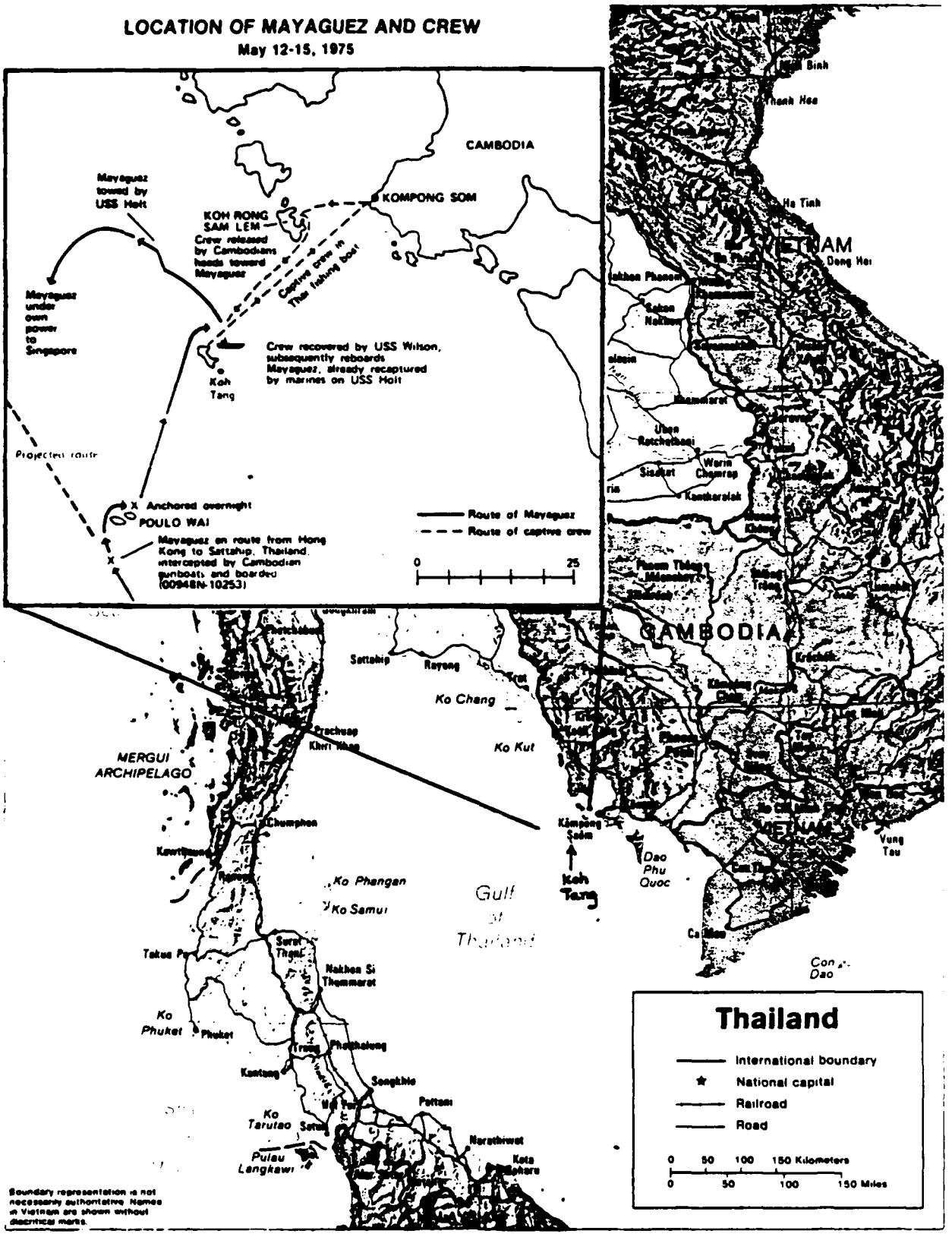
(94TH CONGRESS, 1ST SESSION, HOUSE OF REPRESENTATIVES, DOCUMENT 94-151)[85]

The initial plan to rescue the Mayaguez envisioned using a USAF helicopter combat assault of about 450 marines in two landing zones on island of Koh Tang (See Map 4).[86] Air strikes by US naval aircraft from the aircraft carrier Coral Sea were to be made concurrently on two target areas on the mainland of Cambodia - the Ream Airfield and naval base complex, and port installations at Kompong Som - to prevent

MAP 4

LOCATION OF MAYAGUEZ AND CREW

May 12-15, 1975



reinforcement or support of the Cambodians holding the Mayaguez. USAF fighters were to provide close air support for the marines as required. Intelligence estimates about the Cambodian forces on the island varied from 18-20 irregulars to 200 Khmer Rouge soldiers armed with automatic weapons, mortars, and recoilless rifles. These varying estimates were not reconciled, nor were the factors that caused the wide variations considered by intelligence analysts.

Throughout 14 May, USAF and Navy aircraft from Thailand and the Philippines, the aircraft carriers Coral Sea and Hancock, and US Marine units from Okinawa and the Philippines, and other naval combat ships from the South China Sea and the Philippines were gathering into position for the operation.[87] The most critical determinant to the JCS of the feasibility of the operation was whether or not these diverse, separated forces could come together in a timely manner to form an effective combined arms team.

The initial USAF/USMC assault force of five helicopters approached Koh Tang 6:09 a.m. on 15 May 1975.[88] As the helicopters landed they received a heavy volume of fire from the Cambodians. Two helicopters were immediately lost on the eastern beach, one was destroyed on the western beach, and two others were severely damaged. One of the helicopters destroyed on the first wave carried all of the radios of the marine command and fire support group. By the end of the first hour only 54 marines were on the island, and 14 others

were dead. The helicopters repeatedly attempted to land, but each time received withering fire from heavy automatic weapons.

In Military Incompetence: Why the American Military Doesn't Win, Richard A. Gabriel criticizes several aspects of the operation.[89] He states that command and control lines were confused and unclear. Rather than a normal channel from the field units on Koh Tang to a headquarters staff on the island, then to a command post on a nearby ship, the line ran instead from the ground to the mission commander orbiting in an aircraft 90 miles away. If that link was disrupted, the marines on the island would be isolated. Furthermore, there were no tactical maps of the area despite former use of the island as a rescue point for downed aviators. As a consequence, the Marines went in almost blind, understrength, with tenuous command and control links, and with almost no air and naval preparation. This last limiting factor was due in part to poor intelligence estimates, and in part to the triple canopy jungle which prevented observation of enemy strongpoints.

Once ashore, the marines had serious difficulty directing fires to the targets.[90] Without the tactical air control radios lost in the first helicopter, the ground commanders were unable to communicate with the supporting aircraft or with the ships providing fire support.

At end of this first assault, 131 USMC and 5 USAF personnel had finally been placed ashore, but the force had sustained 15 KIAs.[91] Of the nine USAF helicopters involved in this first phase, eight had been shot down, ditched, or severely damaged.

A second USMC force had arrived at the Mayaguez at approximately 7:25 a.m. only to discover that the ship had been abandoned.[92] Between 7:05 and 10:30 a.m., three waves of aircraft departed from the USS Coral Sea to strike their mainland targets.[93] Unknown to US officials, the Mayaguez crew had been released by its captors at Kompong Som Harbor around 6:20 a.m. and was enroute to the Mayaguez in a Thai fishing boat. At 9:45 a.m. the crew was recovered by the destroyer USS Wilson.[94]

Meanwhile the US had to extract a deployed military contingent under hostile fire. By noon on May 15th, a total of 222 marine and air force personnel were on the island of Koh Tang.[95] They continued to receive heavy enemy fire over the next five hours as USAF helicopters desperately tried to reach the two landing zones for the extraction. After repeated attempts, 25 marines and airmen who had been stranded on the eastern beach were picked up. The remaining contingent was not evacuated until well after sunset. Coordinated efforts by the three remaining helicopters supported by small craft from the USS Holt and Wilson, USAF fighters, and a gunship finally completed the extraction by 8:15 p.m.

The results of the operation were mixed. The ship and crew had been recovered in no small part due to Cambodian rather than US actions. One is left to consider the crew's fate had they not been released before naval aircraft attacked the mainland targets. More important to this study is the heavy cost of the operation. A major reason for the large number of casualties in the initial assault was the presence of an enemy force much larger than predicted in the initial intelligence estimate.[96] A more accurate report was later sent but never received due to a communications failure, another costly, recurring problem area to affect each joint operation studied.

In their analysis of the operation, Richard G. Head, Frisco W. Short, and Robert McFarlane assess some of the factors which affected mission success.[97] These included the remoteness of the target, the distance of the target area from friendly forces, and the large distances separating the elements of the force package:

> U.S. forces were converging on the scene from Okinawa, the Philippines, and Thailand, and the Coral Sea task force was enroute to Australia when it turned around. These dispersed units were temporarily assigned to an ad hoc organization which required unorthodox interservice arrangements. Thus the marines were transported to the beach by air force helicopters, supported by air force tactical aircraft, while the navy - the traditional supporting arm of the Marine Corps - was used to strike interdiction targets on the mainland.[98]

The political assumptions which drove these ad hoc arrangements were tenuous, and carried a high price. The

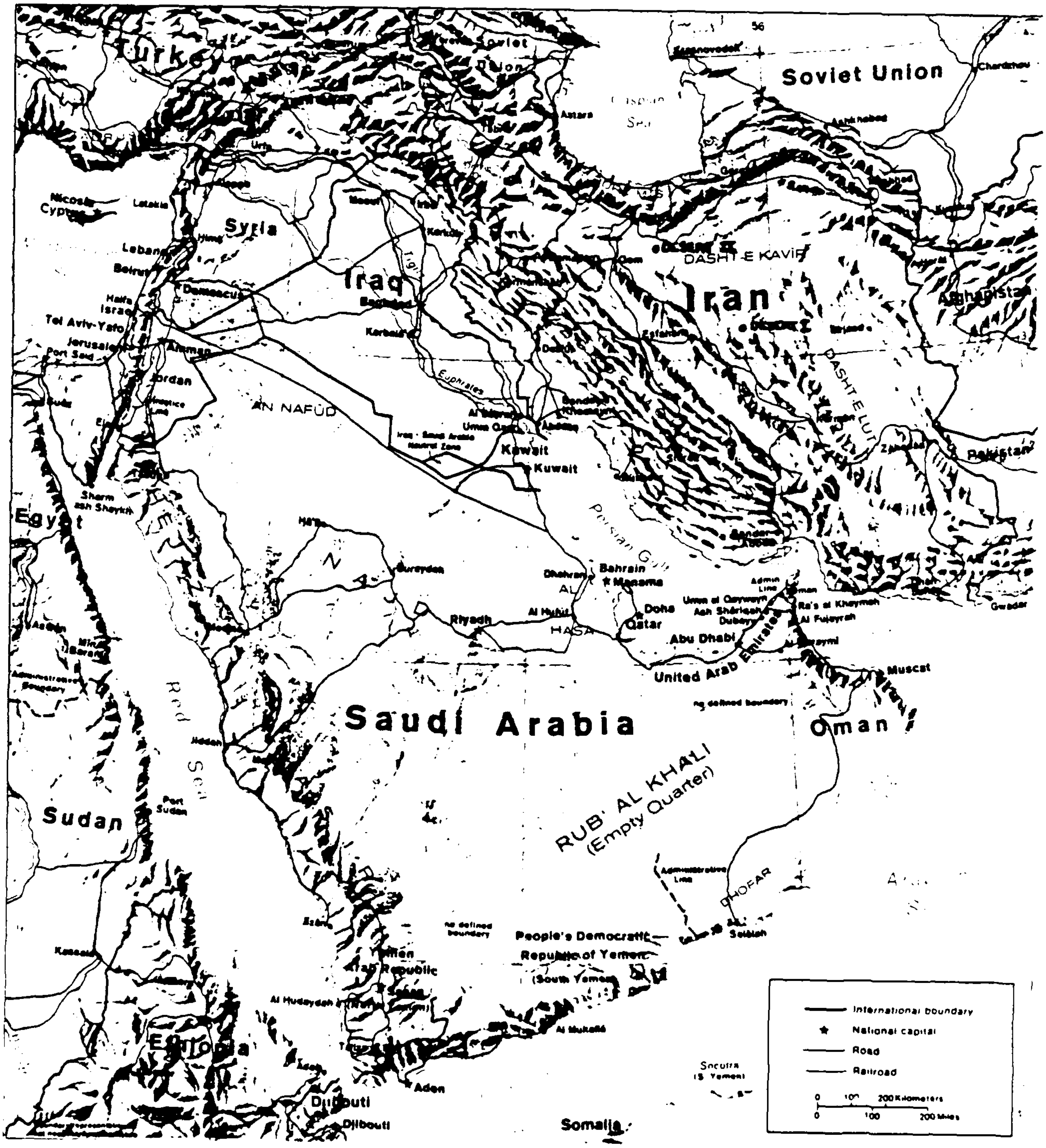
lessons of this crisis demonstrate the value of packaging military forces with common bonds of equipment, training, and employment doctrine rather than the ad hoc arrangements used for this operation. Such arrangements were becoming the modus operandi for joint contingency operations, a preference that arguably exists to the present day as will be seen in later sections of this study.

The Mayaguez Crisis cost the lives of fifteen US military men. Another three were missing in action, and fifty more were wounded by hostile fires.[99] Although the force had spent 14 hours on the island of Koh Tang, all the deaths were incurred in the first 90 minutes of the operation. Additionally, ten of the eleven USAF helicopters involved in the operation had sustained battle damage. As a final note, twenty-three servicemen lost their lives when a USAF CH-53 crashed during the deployment phase of the operation. In relative terms the operation succeeded but unfortunate precedents were established which would haunt a joint operation five years in the future.

The Iranian Hostage Rescue Operation - EAGLE CLAW

On 12 November 1979 Major General James B. Vaught received orders to conduct a covert operation to rescue 53 American citizens held hostage at the US Embassy in Tehran, Iran (See Map 5).[100] In the first phase of the operation,

MAP 5


Soviet Union
Caspian Sea
Astara
Ashkhabad
Syria
Nicosia
Cyprus
Latakia
Lebanon
Beirut
Haifa
Israel
Tel Aviv-Yafo
Jerusalem
Port Said
Damascus
Amman
Jordan
Iraq
Baghdad
Karbala
Mosul
Kirkuk
Euphrates
AN NAFUD
Iran
DASHT-E KAVIR
DASHT-E LUT
Qom
Esfahan
Kuwait
Umm Qasr
Iraq - Saudi Arabia Neutral Zone
Afghanistan
Pakistan
Gwadar
Persian Gulf
Bahrain
Manama
Dhahran
Doha
Qatar
Al Hufuf
Riyadh
HASA
Umm al Qaywayn
Ash Shariqah
Dubayy
Ra's al Khaymah
Al Fujayrah
Abu Dhabi
United Arab Emirates
Muscat
Oman
Saudi Arabia
RUB' AL KHALI
(Empty Quarter)
Egypt
Sharm ash Shaykh
Red Sea
Jiddah
Port Sudan
Sudan
DHOFAR
People's Democratic Republic of Yemen
(South Yemen)
Yemen Arab Republic
Al Hudaydah
Al Mukalla
Aden
Djibouti
Somalia
Socotra
(S. Yemen)
Ethiopia
Kassala
International boundary
National capital
Road
Railroad
0 100 200 Kilometers
0 100 200 Miles

6 USAF Hercules C-130 aircraft were to depart from a secret base in Egypt and transport a US Army assault force of Green Berets and Army Rangers to an isolated site in Iran called Desert One. Eight RH 53-D helicopters piloted by US Marine/US Navy pilots were then to fly from the carrier Nimitz steaming off the Arabian Sea to the same site. From there, the helicopters were to refuel and depart to a second staging area to prepare for a night rescue of the hostages at the embassy. During the rescue attempt, special C-130 gunships were to provide air cover and supporting fires. General Vaught was to command the operation from a command post at Qena, Egypt, linked by satellite communications to the JTF in Iran, to naval support ships in the Indian Ocean, and to the Pentagon.

The first phase of the operation began at 7:30 pm on 24 April as eight helicopters launched from the Nimitz on their 600 mile low level night flight to Desert One.[101] About two hours into the flight, one of the helicopters suffered a mechanical failure and was forced to land.[102] That crew aborted its aircraft and was recovered by another helicopter.[103] Despite predictions for visual conditions along the flight path, about one hour after the first incident the flight encountered a severe, giant dust cloud which hid the navigation points on the ground and forced the pilots to fly by their instruments (IFR).[104] The

helicopters cleared the first dust cloud but within an hour found themselves in an even larger and denser cloud.[105]

The pilots had not been trained to conduct this type of low-level night mission under the extended IFR conditions demanded by the changing weather conditions.[106] After the failure of several critical navigation and flight instruments, a second helicopter was forced to abort and return to the Nimitz.[107] The six remaining helicopters finally cleared the dust clouds about 100 miles from Desert One, and arrived on station between 50-85 minutes late.[108]

On the ground at Desert One, a third helicopter which had received hydraulic failure indications enroute was determined to be irrepairable, dropping the number of operational helicopters to five.[109] The determination had previously been made that a minimum of six operational helicopters was required to continue the mission.[110] Consequently, the on-scene commander contacted the COMJTF (General Vaught), advised him of the situation, and recommended aborting the rescue attempt.[111] The President concurred in the decision, and extraction of the force began.

During this period, a helicopter attempting to refuel from one of the C-130s collided with the plane engulfing both aircraft in flames, killing five crew members and injuring another eight.[112] Shortly after the collision, ammunition aboard both aircraft exploded rendering at least one nearby aircraft inoperable and damaging others. The decision was

made to transfer remaining helicopter crews to the C-130s and to abandon the helicopters on the ground. The mission not only failed to rescue the 53 hostages, but also claimed the lives of eight U.S. servicemen.[113]

This operation is important to the study for several reasons. It was a small, but highly visible joint operation. Unlike other contingencies, there was time to train for the rescue and to prevent the errors of the past. The operation also anticipated the role of Special Operations Forces in future operations, and hinted at some of the reasons why critical lessons learned would be removed to the world of compartmented programs and classified reports. Perhaps most significant to this study, lessons to be learned from this operation were aired in a public forum with an official, albeit an abbreviated version, of a high-level review. As such, it provides a unique opportunity to witness not only the evolution of joint operations but also the official critical admission of shortfalls. It is a critical node in the audit trail of joint lessons learned. To the student of history, none of the public lessons were new.

Shortly after the attempt, a Special Operations Review Group was established by the Chairman, Joint Chiefs of Staff, at the initiative of the Joint Chiefs of Staff (JCS), to conduct an independent review of the operation. This review was to consider the operation in its broadest context, with the overall objectives of developing recommendations in

planning, organization, coordination, direction, and control to be used by the Services in future special operations.[114] In their investigation, the group (chaired by Admiral James L. Holloway III) identified the following major issues contributing to the failure of the operation:[115]

(1) OPSEC: The Review Group concluded that greater selectivity and flexibility in implementing OPSEC, especially within the JTF, would have benefited the operation without compromising security.[116] In his analysis of the operation and the Holloway Report in The Iranian Rescue Mission: Why It Failed, Paul B. Ryan contends that the JCS intentionally chose not to implement existing contingency plans because they feared that security would be jeopardized.[117] The same logic led to their decision not to use the existing JCS-developed framework for a Joint Task Force; consequently, General Vaught had to build an ad hoc organization and use ad hoc methods to organize, plan, and execute his mission. Just as in 1975, ad hoc organizations and methods contributed to joint operational failures.

In the opinion of the Holloway Group, security considerations led to the omission of many actions that could have, and should have, been performed for mission success. Overemphasis or misapplication of security measures seriously hindered communications between task force units, especially during emergencies. Concern over security led to orders for radio silence during the operation.[118] This prevented the

lead C-130 pilot from communicating current weather conditions to the helicopters to notify them of the dust cloud's dimensions and perhaps prevent at least one of the helicopter aborts. Weather officers who supported the mission and were aware of the possibility of such dust clouds were prohibited from talking directly to the helicopter pilots.[119] Similarly, the commander of the helicopter detachment would remain unaware of the second helicopter's abort until after the late arrival at Desert One.[120] The technical means to allow the various elements of the Task Force to remain in secure contact with one another existed - they were simply not used.[121]

The Holloway Group also concluded that rigid compartmentalization was a deterrent to training and readiness progress, implying that as late as the final stages of preparation, it prevented task force leaders from becoming familiar with the overall plan.[122] Such familiarity, they added, could have significantly enhanced integration of all the elements of the Joint Task Force.

(2) Independent review of plans: the Review Group once again indicated that overriding concerns for OPSEC led to a conscious decision not to form a small group of special operations experts to review the planning and execution for the mission.[123] The consequences of this decision were significant. The officers who developed the plan were the only ones to critically review it. On the three occasions

when the plan was briefed to the JCS, there had been no prior "scrub down" of the plan, and the Chiefs were left to serve as their own action officers to assess the plan's adequacy. The plan to rescue the hostages was never subjected to rigorous assessment and testing by qualified, independent observers who could provide a more objective view. No final plan for the operation was ever published, consequently those few officials who were briefed on the operation were denied the normal opportunity to review, reflect, and consider alternatives. An independent review group could have prevented this serious omission with negligible risk of security compromise and considerable operational enhancement.

(3) Organization, command and control: The Review Group faulted the JTF decision to rely on ad hoc organizations and measures:[124]

> The requirements for stringent OPSEC are clearly recognized. Nevertheless, it is considered essential that there be a balance between rigid compartmentalization, to include secrecy through informal or ad hoc arrangements, on the one hand and sound organization, planning, and preparation efforts on the other.[125]

They recommended that the existing, stable framework of relevant JCS CONPLANs be used as the basis for organization, planning, training, OPSEC, and execution of future operations. In their assessment, ad hoc arrangements result in confusion at the operating level, hinder preparation, and adversely affect cohesion. A similar problem had

been encountered during the Mayaguez incident 5 years before, but without an organizational element to institutionalize lessons learned, it was apparently lost in the interim.

(4) Comprehensive readiness evaluation: The Review Group found that training for the mission was planned and conducted in a decentralized manner with an unclear chain of command.[126] Individual and unit training occurred at widely separated locations. There was no integrated training exercise in which all the elements of the JTF were tested on the final plan. Thus, assessment of training readiness was achieved through observation of pieces of the whole rather than of the entire JTF.

Again, the primacy of OPSEC over all other considerations was the root problem. Combined training rehearsals by integrated air, ground, and naval forces throughout the preparation phase could have developed the speed and precision required for the mission. It would also have increased inter-unit coordination and cohesion, and perhaps surfaced interface problems for timely resolution. Had these proposals been implemented, a more critical review of the concept of operations and scheme of maneuver could have occurred. Furthermore, the readiness of the JTF to execute the operation could have been more accurately assessed.

(5) Alterations in JTF composition: Through interviews with key JTF personnel and details of after action reports the Review Group concluded that substantive training

and planning problems resulted from the frequently changing political situation surrounding the hostages.[127] Specifically, it influenced the shift of the effort from an emergency rescue operation to a deliberate operation to be conducted when political conditions were appropriate. As the initial number of personnel required for the operation grew to meet these changing demands, so too did the number of helicopters needed to transport them. This grew from an original estimate of four, to six, to seven, and finally to eight. As these helicopters had to be prepositioned on the Nimitz, the failure to fix the size of the rescue force resulted in late "juggling" in the number of helicopters. As with the Dominican Republic intervention in 1965, the airlift requirement should have been established well in advance of the launch date and held until reversed by significant intelligence findings. By establishing a troop ceiling, greater precision in rehearsals would have been possible and the final plan could have been more finely tuned.

In a related issue, Ryan discusses the controversy surrounding the selection of the helicopter force.[128] At issue is whether personnel from an existing CH-53 squadron should have been selected to fly the mission aircraft rather than the ad hoc organization actually assembled by scouring the country for the best qualified pilots. The argument is that an existing unit would have provided the inherent benefits of an established organization, whereas an ad hoc

organization must develop these characteristics over time. Had a specific squadron been selected for this mission, the JTF would have had at its disposal a force that was already integrated and trained to established standards. They would not have required the extensive shakedown that marred the selection of pilots for this mission. Additionally, the JTF would have benefited from the existing cohesion, enhanced morale, increased cooperation, and greater efficiency of such an organization.

(6) Overall coordination of joint training: The Group faulted the retention of supervisory responsibility for joint training at the JTF commander's level.[129] Force participants related that C-130 and helicopter crews did not brief or critique performance jointly either prior to or after each training exercise. Thus, there was insufficient opportunity for the different elements of the force to meet and exchange views on problem areas. Such exchange could have enhanced accomplishment of training objectives and assured effective force integration. The Holloway Group recommended that in future operations where joint training takes place geographically separated from the joint headquarters, an on-scene officer (they recommend the Deputy JTF Commander) with a small staff should be given responsibility for joint training.

The Group also noted deficiencies in logistics, administrative, tactical, and intelligence support reported

by participants during training.[130] While the Group acknowledged service doctrinal responsibilities for these functions, it argued that because forces were so interdependent for this operation complete force integration was essential. Despite these recommendations, the services would retain control over joint doctrine for another 6 years.

(7) Command and control at Desert One: This issue concerns the difficulties JTF members encountered when they arrived at Desert One.[131] Several elements contributed to the confusion on the ground: the unexpected presence of a bus loaded with 43 Iranian civilians, a fuel truck, and a pick-up truck at the selected landing site; the presence of far more C-130s on the ground than the soldiers had been trained for; the late arrival of the helicopters and the inability to determine their condition due to radio silence; the deafening noise generated by 16 C-130s and 12 RH-53D engines; the near invisibility of individuals caused by night and the blackout conditions; then the tragic explosion of the colliding helicopter and C-130. In the fog of this war, TF leaders had failed to establish an identifiable command post for the commander. The plan had not been fully rehearsed. No one had anticipated the need for a staff and runners. Backup rescue radios needed on the ground were not available until the 3rd C-130 arrived. Key personnel with critical functions were not specially identified so that recognition at night would be possible. The result was certain confusion and

chaos. Some of the helicopter pilots reported that they did not even recognize the name of the on-scene commander (another fallout from compartmentation). Thus, when evacuation became essential, the instructions to abandon the helicopters and board the C-130s were questioned to establish the identity and authority of those giving the orders. This wasted precious time. Given the escalating seriousness of the situation, the potential for further loss of life was great. In some of the harshest language of the report, the members concluded that in the uncertainties inherent in clandestine operations in a hostile territory, strictest doctrinal command and control procedures should have been followed. All key personnel and their alternates should have worn readily identifiable markings visible in either artificial or natural light. This would have enabled timely identification of leaders when emergencies arose, and rapid response to their orders. Additionally, the Group concluded that the on-scene commander's position should have been fixed and easily identifiable; back-up communications should have been on hand to provide continuous, reliable, secure contact with Desert One elements; and a complete full-scale rehearsal of the operation should have been conducted at a comparable desert site to surface some of these problems before, rather than during, the operation.

(8) Centralized and integrated intelligence support external to the Joint Task Force: The Review Group recognized that all key players in the operation were aware of the operation's dependence on precise and timely intelligence.[132] Despite the pivotal role of intelligence, the JTF established an ad hoc organization to provide required support, again due to concerns for OPSEC. Vaught named his own J2 (Intelligence Officer) for the operation and assigned a small staff which soon proved inadequate to the task.[133] The ad hoc system had to work around the massive bureaucracy of the existing Intelligence Community whose members were largely unaware of the plan. Some of the officers from outside agencies tasked to provide intelligence support felt that they could have been more responsive had they been aware of the true nature of the operation from the beginning.[134]

The Holloway Group determined that existing Intelligence Community assets could have been pulled together more quickly had the Director of the DIA been charged with forming a small interagency intelligence task force in direct support of the JTF from the plan's conception.[135] This would have tied the disparate elements of the Intelligence Community to the plan more effectively than the ad hoc arrangements allowed. It would have also spared the JTF commander from having to act as his own intelligence manager, freeing time for other activities such as training.[136]

(9) Alternatives to the Desert One site: The Group concluded that the presence of the Iranians on the road near Desert One significantly increased the potential that the Iranians would determine the intent and timing of the rescue mission.[137] The selection of the site near the road had endangered the security of the mission. However, the Group acknowledged that the location might well have represented the best alternative available under existing circumstances.

While not a major item, this issue does reinforce the criticality of timely, accurate intelligence, and the value of early ground reconnaissance. Failure to secure the area of operations before exposing the force could have proved catastrophic had the bus had been filled with armed Iranians rather than harmless civilians. As with the previous contingencies studied, this problem reflected a long-standing attitude of force invulnerability that would stand until shaken in the years to come in places such as Beirut.

(10) Handling the dust phenomenon: The Review Group report noted that the JTF was justifiably concerned with predicting the weather along the planned low-level routes into Desert One.[138] Because of this, the JTF weather team researched and catalogued hazardous conditions the crews might encounter. This included identification of the phenomenon of suspended dust clouds along a 200 nautical mile stretch of the expected route. The information was extracted

from a 1970 National Intelligence Survey (NIS 33,34 - Iran and Afghanistan) and included in the OPLAN weather annex. However, neither the helicopter pilots nor the C-130 pilots were made aware of the possibility of encountering such clouds. The normal information flow between pilots and weather forecasters had been severed to enhance OPSEC - both were exclusively compartmented. The Holloway Group concluded that in the uncertain conditions of the mission area, any and all means which would have improved the helicopter crew's ability to penetrate adverse weather would have enhanced their chance for successful ingress. The pilots and the forecasters should have been allowed to talk.

(11) C-130 Pathfinder aircraft: The Group also concluded that weather reconnaissance along the flight path would have clearly established weather conditions for the COMJTF and permitted a timely decision to abort before launch.[139] They further considered that under the circumstances of this specific operation, provisions for handling weather contingencies should have been made. The option of using the C-130 Pathfinder was a cost-effective means to obtain extremely valuable information with only minor impact on OPSEC considerations.

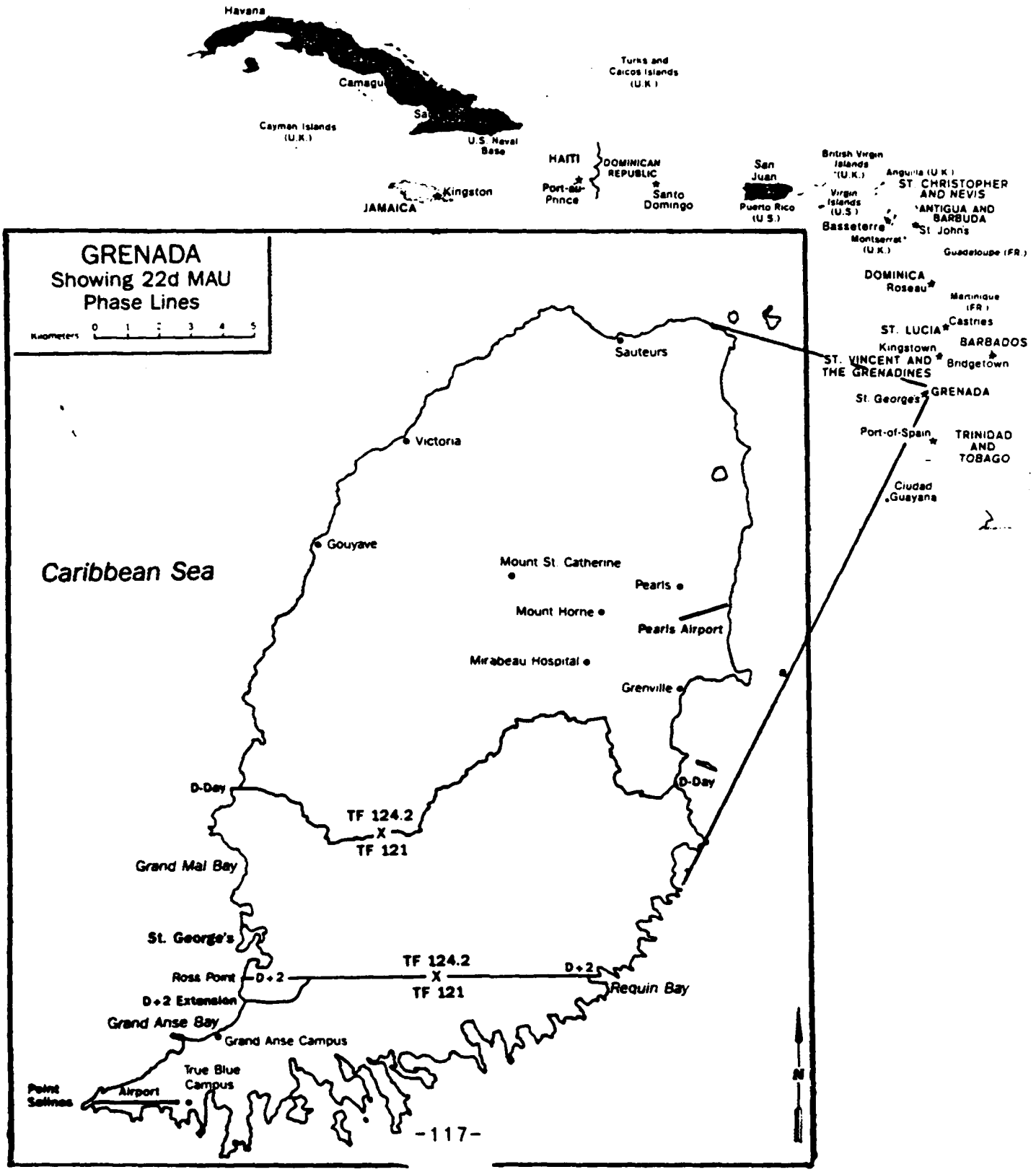
Although couched in extraordinarily non-accusatory language, the Holloway Group's findings on each of these issues are important signposts in the evolving history of interoperability and joint operations. These officially

acknowledged lessons are significant not only for their value in confirming many of the recurring interoperability problems observed in the previous operations examined in this study, but also for their anticipation of those to follow. As with the operation it was formed to evaluate, the Holloway Review Group was an ad hoc organization created to fill a need that was recognized (at least publicly) but not met by the existing organizational structure. There was no institutionalized Joint Lessons Learned System to obviate the need for such a group, nor would there be one to build on the Group's efforts. Consequently, many of the Holloway Group's important, if not entirely original insights, were condemned to the same fate as the "lessons learned" for all other joint military ventures. Over time, they lost visibility, and thus, lost priority. They failed to become true lessons learned. It is not surprising that many of these same concerns would resurface in 1983.

Grenada: URGENT FURY 1983

No discussion of interoperability problems would be complete without discussing Grenada. On 25 October 1983, US forces were again deployed to secure national interests, this time on the Caribbean island of Grenada (see MAP 6).[140]

MAP 6


GRENADA
Showing 22d MAU
Phase Lines
Kilometers 0 1 2 3 4 5
Caribbean Sea
Sauteurs
Victoria
Gouyave
Mount St. Catherine
Pearls
Mount Horne
Pearls Airport
Mirabeau Hospital
Grenville
D-Day
D-Day
TF 124.2
X
TF 121
Grand Mal Bay
St. George's
Ross Point
D+2
TF 124.2
X
TF 121
D+2
Requin Bay
D+2 Extension
Grand Anse Bay
Grand Anse Campus
True Blue Campus
Point Salines
Airport
N
Havana
Camagu
Sa
Cayman Islands (U.K.)
U.S. Naval Base
Turks and Caicos Islands (U.K.)
HAITI
Port-au-Prince
DOMINICAN REPUBLIC
Santo Domingo
Kingston
JAMAICA
San Juan
Puerto Rico (U.S.)
British Virgin Islands (U.K.)
Anguilla (U.K.)
ST. CHRISTOPHER AND NEVIS
Virgin Islands (U.S.)
ANTIGUA AND BARBUDA
Basseterre
St. John's
Montserrat (U.K.)
Guadeloupe (FR.)
DOMINICA
Roseau
Martinique (FR.)
Castries
ST. LUCIA
Kingstown
BARBADOS
ST. VINCENT AND THE GRENADINES
Bridgetown
GRENADA
St. Georges
Port-of-Spain
TRINIDAD AND TOBAGO
Ciudad Guayana

This operation was a joint (and later combined) undertaking, employing elements of the US Army, Navy, Air Force, and Marine Corps. The principal tasks of the force were to rescue American medical students on the island, restore democracy, and oust Cuban forces. These principal tasks were executed rapidly and with relatively little loss of US life. Although certain aspects of the operation are still highly classified, unclassified reports generally put the number of US casualties at 18 servicemen killed in action and 116 wounded.

Perhaps more than any other operation discussed in this study, Grenada is surrounded with controversy. Shortly after the operation, the JCS were forced to respond publicly to detailed allegations by William S. Lind (on behalf of the Congressional Military Reform Caucus) that the operation and post-invasion reports provided to the Congress by the Pentagon were flawed.[141] In a detailed rebuttal to Lind's charges, the JCS countered charges of: joint planning deficiencies, excessive troop deployment, misuse of Army Rangers (allegedly to justify purchase of an additional battalion), politically motivated deployment of Special Forces (to prove their worth after the Iran disaster), subsequent poor performance by those Special Operations Forces, late inclusion of the 82nd Airborne Division in the planning, undue tactical and operational caution, poor intelligence, and breakdown of discipline among some units.[142]

Although these sensational and extensive charges reflected the not-too-subtle agenda of the Military Reform Caucus, and were answered in detail by the CJCS, it is nonetheless interesting to note their similarity to the findings of the Holloway Review Group. The Chairman's public rebuttals did not signal the end of public scepticism, the continuing search for the facts, or the growing Congressional interest in the lessons learned by the military in Grenada.

In January 1984, the military principals involved in the operation appeared before the House Armed Services Full Committee Hearing on Lessons Learned As A Result Of The Military Operations In Grenada.[143] Admiral Wesley McDonald, Commander in Chief, US Atlantic Command, and overall responsible for the operation, stated at that hearing:

> In summary, history should reflect that the operation was a complete success. All phases of the assigned mission were accomplished. US citizens were protected and evacuated. The opposing forces were neutralized. The situation stabilized with no additional Cuban intervention, and a lawful democratic government is being restored....As in any armed conflict, the greatest cost was in human lives, but we did meet the objective of keeping casualties on both sides to a very low minimum.[144]

The testimony from all military witnesses similarly accentuated the positive aspects of the operation. In the afternoon session (following enough self-congratulatory testimony to require 32 pages in the official record) the Committee members pressed Admiral McDonald on his previous assertion that there were a number of significant lessons

learned during the Grenada operation. In response, Admiral McDonald admitted the following:[145]

> (1) The effectiveness of the fly-away staff could have been bolstered with the additional of a few more representatives of the Services, had time been available to include them.
>
> (2) Admiral Metcalf's use of SITREPs and daily meetings to keep everyone informed about the operation was especially effective.
>
> (3) The simple rules of engagement were very effective.

The Committee was less than satisfied with the detail provided. After prompting by Congresswoman Holt and Congressman Dyson, the adequacy of intelligence support surfaced.[146] Congressman Dyson had already concluded on the basis of his personal investigations into the matter that poor intelligence was a major problem and that US troops were deployed to the island with sorely inadequate information. He reviewed reports that soldiers were forced to use tourist maps for lack of an alternative as one example of the significant intelligence shortfalls not mentioned by the witnesses.

Admiral McDonald responded to these allegations:

> ....As the overall commander, had I not felt comfortable with the intelligence we had to accomplish the mission that was assigned.[sic] Then I certainly had the flexibility to say we need more; that we have to have more before I can assure you we are going to be successful...And there was adequate intelligence to plan the mission.[147]

This prompted a heated charge from Congressman Courter that the Admiral was being less than forthcoming in his own self criticism - that serious shortfalls occurred

which should have been discussed.[148] Admiral McDonald assured the Committee that the operation was being analyzed in detail, and that detailed lessons which were being prepared at that time would be submitted to the JCS. In his words:

> ...we are looking to see how we can improve, because we are at the pointed edge of the sword, and it is our troops that are going to be faced with this in the future. So it behooves every one of us to go back and see what was done there.[149]

Over five years have passed since those words were spoken, yet the troops the Admiral acknowledges a debt to still do not have access to an unclassified after action report on the Grenada Operation. After action reports on the operation do exist, but they are classified at the SECRET or higher level. Thus, unless a soldier has a proper clearance and a specific need to know, or otherwise takes the time to sift through reams of Congressional Testimony, the lessons of Grenada will largely remain hidden, and unlearned.

Because of the substantial discrepancies between what the Congress was told by Department of Defense officials and what they heard from the critics of the military's performance on Grenada, URGENT FURY attained increasing importance and visibility in the growing military reform debate. In April 1984, Representative Courter (R.-N.J.) released the Mil tary Reform Institute report which prompted the formal JCS response mentioned above.[150] These and other allegations

were extensively covered in the literature surrounding that debate with varying degrees of accuracy and completeness, in part because of the inhibiting, if essential, role of classification (e.g., see Gabriel, Hadley, Halloran, Hendrickson). It is beyond the scope of this study to explore that debate in detail. However, it did illuminate the Congress' concern about the military's apparently limited efforts to learn from its mistakes.

Despite the lack of an official unclassified lessons learned report on the operations in Grenada, there are a number of credible sources which provide important insights that are relevant in light of the Congressional testimony. In a 1985 study entitled "Operation URGENT FURY: A Battalion Commander's Perspective," LTC Jack L. Hamilton, former commander of TF 2-325, 82nd Airborne Division, discusses many of the problems which affected his unit's performance with somewhat greater precision than his superiors.[151] He reviews lessons learned in the categories of OPSEC, intelligence, planning, logistics, airlift operations, airfield operations, communications, ground combat, EPWs, tactical operations, importance of sleep management, map requirements, fire support planning and operations, vulnerability of flak jackets to small arms fire, civilian/refugee control, importance of coordinating boundaries between converging forces, and military operations in urban terrain.

Specific interoperability issues are addressed in detail. For example, LTC Hamilton reports that at the departure airfield, his unit arrived only to discover that the 12 C-141s for the airlift were locked up with no one around to unlock them or provide assistance.[152] At the time an important airlift planning meeting was taking place which he was not aware of and consequently did not attend. There was no interface with the airlift commander prior to deployment. His unit wasted 35 minutes attempting to find an Air Force contact. After the aircraft were finally unlocked, the commander discovered that the craft were not rigged for parachute assault. This caused an additional 1 hour delay.

Reminiscent of the Dominican operation 20 years previous, a decision was made enroute to air land the unit rather than air drop it.[153] This is significant because the unit had been crossloaded for air drop. Rather than the few minutes normally required to assemble an air dropped unit, it took LTC Hamilton 3 hours to assemble his unit on the ground. Such piecemealed commitment of a tactical unit in an active combat zone is fraught with risk, yet in 20 years the lesson had not been learned.

Other specters of past operations were apparent to this commander. He reported that his unit did not have the frequencies or call signs of the Navy close air support aircraft, or of the supporting naval gunfire ships.[154] Moreover, if the frequencies had been available, support

would still have been impossible because the unit lacked authentication tables. It had not been issued a joint Communications and Electronics Operating Instruction (CEOI) which is absolutely vital to such joint operations.[155]

Hamilton also reported the difficulties associated with conducting military operations using tourist maps, especially regarding the coordination of fire support without a common reference system.[156] This same difficulty affected the coordination of close air support, requiring the use of visual signals by both air and ground elements to compensate for lack of common reference points.[157]

Another interesting problem repeated from previous operations was the difficulty posed by unit boundaries between different services. When the Army unit encountered marines at Ross Point, it surprised the commander. He anticipated the link up would occur on the following day north of St. Georges.[158] Furthermore, after the link up occurred, the Army commander was continually disturbed by the variety of units crossing his boundaries without effecting basic coordination in spite of his use of standard military graphic control measures. This problem remained unresolved from the 4th day of the operation until its end.

Similarly, LTC George A. Crocker, former commander of the 1st Battalion, 505th Airborne Infantry, 82nd Infantry Division, published an essay in 1987 entitled, "Grenada Remembered."[159] In that essay, he openly discusses many of

these same issues: the disadvantages of air landing forces rather than air dropping them, the failure to provide enroute communications for ground commanders of airlift sorties, the need to secure sufficient terrain at the airhead site, and the critical requirement to coordinate joint fire support.[160] This last problem area resulted in tragedy. LTC Crocker observed US fighters make several passes dropping ordnance in the vicinity of his command post. Because he did not know who was directing the airstrikes or whether that individual knew his location, LTC Crocker feared for his soldiers, and at each pass contacted his units to determine whether or not they had been hit.[161] During one of those strikes, the 2nd Brigade Tactical Operations Center was accidentally strafed by A-7 aircraft with loss of life.[162]

To these two commanders, important lessons were there for the learning. None of those lessons was really new, but details were easily lost in the passing years without any formal system to keep issues active until resolution. The Congress would also have something to say about these matters in the years following Grenada.

In an exhaustive analysis of the Department of Defense begun in 1983, the US Senate Armed Services Committee (SASC) conducted 12 special hearings with testimony provided by 31 expert witnesses.[163] The SASC appointed a Task Force on Defense Organization and directed it to prepare a study to document its findings. This study incorporated a 40-year

record of testimony before the SASC and its counterpart, the House Armed Services Committee (HASC), interviews of key Department of Defense civilian and military officials, reports conducted for and by the Executive Branch, and special studies prepared by research institutions.[164] The final product was published in 1986 as Defense Organization: The Need For Change (Senate Print 99-86).

In its discussion of URGENT FURY, the SASC Task Force repeated many of the same concerns discussed by the two battalion commanders. Discrepancies were noted in the following areas:

(1) Concept of the Operation: The SASC Task Force reviewed the allegations that the original CINCLANT plan to use only marines and naval forces was rejected by the JCS for political rather than military reasons and concluded that there was no direct proof of that charge.[165] However, they did agree that the lack of Army officers on Admiral Metcalf's normal staff resulted in problems when he was appointed JTF commander. They also stated that lack of a unified ground commander on the island created problems that could have been avoided. They acknowledged that the hasty manner with which the contingency was planned and executed forced commanders on the ground to improvise and make on-the-spot adjustments. That has been a fact of joint operations from the first joint operation. However, the group concluded that better organizational arrangements could obviate much of this improv-

isation. In that oft-repeated charge, the SASC TF assessed that against a more determined and capable enemy, organizational failures might have proven disastrous.[166] In making this assessment, they share much in common with the long line of tactical commanders who were forced to learn lessons in the heat of battle that should have been solved in the relative luxury of peacetime.

(2) Communications: The inability of the services to communicate effectively with one another was reportedly the largest single problem in the operation.[167] Army units could not communicate with Navy units. Consequently, they could not coordinate naval gunfire with the support ships. Army and Marine units also had difficulty communicating with each other. One Army officer was reported to have used a civilian credit card and commercial telephone to contact Ft. Bragg to coordinate fire support. As with operations in the Dominican Republic, these deployed forces were also forced to rely on ham radio operators for early communications - the problem had not been resolved in the 20 years since General Palmer first encountered it.

The coordination problems were not resolved even after officers from the Army's 82nd Airborne Division flew by helicopter several times to the USS Guam to coordinate fire support.[168] One Army officer partially solved the problem on the ground by borrowing a USMC UHF radio, but his efforts ultimately failed because he lacked the ability to authen-

ticate his requests with the proper Navy codes. The problem reported by LTC Hamilton was not an isolated incident. Ironically, as will be discussed in the following chapter, the problem of a joint tactical CEOI still exists in 1989.

Another communications problem cited was the near disastrous failure of the Army to receive a message disclosing the existence of a second campus on Grenada where additional American students were present.[169] It was not until the students at that campus telephoned the assault force on the 25th of October to report that they were surrounded by threat forces that their existence became known to the Army forces. In fact, 224 American students were at that campus, and were successfully rescued the following day.

The SASC TF also noted US CINCLANT's eventual admission of several communications difficulties centering around equipment compatability and procedural differences among the services.[170] Similarly, US Army Major General Jack Farris (Commander of US Forces, Grenada, from 29 October through 15 December) reported that the Army and the Navy components of the JTF had difficulty working together and were unable to talk together. General Farris concluded that such problems affected the efficiency of all his operations, but singled out the impact on intelligence operations as the greatest.[171]

(3) Fire Support: During URGENT FURY, as with most other operations, fire support to the Marines was adequate

but that from the Navy to the Army was a serious problem.[172] Operational after action reports judged the coordination between the two Services to range from poor to non-existent. During the initial US Army Ranger assault on the south side of Grenada, for example, US Navy aviators:

> ....went into combat the first day with absolutely no knowledge or coordination with the Ranger operation...due to this reason all [USS Independence-based] aircraft were initially prohibited from flying south of the northern sector without [special] permission until midday of day one.[173]

At the planning session for the operation, the Navy was not present at the Army Ranger meetings and the Rangers were not present at the Navy's planning meetings. Serious problems in fire support also resulted because the 82nd Airborne Division was not included in the CINCLANT planning sessions held 24 October. Consequently, critical information regarding fire support was not obtained prior to deployment, forcing commanders to develop ad hoc procedures on the ground.[174] Specific procedures for requesting naval gunfire communication channels, methods for coordinating the 82nd Division Fire Support Element and the Supporting Arms Coordination Center (SACC), and availability/types of ordnance of USAF and USN units supporting the operation should have been resolved at that session.[175]

Because of the ineffective coordination, Air Naval Gunfire Liaison Company (ANGLICO) members reported to the 82nd without the codes, frequencies, and call signs essential for communicating with supporting ships.[176]

Interservice coordination was so poor that the Commander of the Joint Task Force who retained approval authority over all naval fires personally refused permission for the ships to fire "because of his lack of confidence in ANGLICO destroyer communications."[177] Yet neither the 82nd nor the Rangers had been informed of this decision prior to the start of the preparation.

(4) Lack of a Unified Ground Commander: The SASC TF identified this as a root cause for a number of other problems which hampered the operation.[178] Because three ground force commands were conducting independent operations on the island (22 MAU for the Marines in the north; JTF 123 for the Army Rangers and supporting USAF aircraft; and JTF 121 for the 82nd Airborne Division), a single commander should have been designated as the unified ground force commander. Instead, each of these commanders reported to Admiral Metcalf, JTF Commander, aboard the USS Guam. Similar command and control problems afflicted early operations in the Dominican Republic until General Palmer was assigned as overall commander for US Forces but the lesson learned was not applied in Grenada. Had there been a single ground commander, the SASC TF contended that some of the organizational problems could have been prevented.[179]

(5) Logistics: Serious logistics problems occurred during the Grenada operation because initial elements deployed so rapidly that they arrived with serious shortages

in supplies and equipment.[180] The 82nd, for example, deployed with no vehicles. There was no room in any of the aircraft for the 150 organic vehicles a battalion would normally deploy with. Thus the unit had none of the transportation capability sorely needed once the units arrived.[181]

More importantly, without those vehicles the units had no long-range communications capability.[182] The 82nd also deployed without any heavy anti-armor weapons. They did not receive TOW missiles until 3 days after deployment. In similar fashion, because of low standing on the airlift priority list for the 82nd's radio-teletype, the organization had no way to communicate certain types of sophisticated intelligence information.[183]

These shortfalls, like so many others in this and previous operations, were partially resolved by commanders and soldiers on the ground. One example cited in the report was the commandeering of local trucks and gasoline to provide basic transportation.[184] LTC Hamilton stated that his soldiers solved the unanticipated problem of large numbers of frightened students, US citizens, and others desiring evacuation by commandeering 20 dump trucks for transport.[185] LTC Crocker also reported the confiscation of People's Revolutionary Army's light trucks to resolve the transportation problems his soldiers encountered.[186]

Familiar problems in joint airlift operations were also discussed.[187] After the Point Salines Airstrip was

secured, substantial delays and backups in the airlift began almost at once. The single landing strip was only large enough for one aircraft to land, unload, and take off at a time. These problems were remarkably similar to those faced by the ATF in Adana and Lebanon in 1958, but the experiences had apparently been lost from operational memory. As in that operation, some of the deploying units actually spent more time circling the Point Salines airfield than in transiting to Grenada. Reports, reminiscent of previous operations in Lebanon and the Dominican Republic, of aircraft stacked one on top of the other in the airspace above the island concerned at least one commander who stated that lift operations might have been aborted had the enemy possessed longer range antiaircraft weapons.[188]

In terms of logistics procedures, the JTF also learned important lessons. All supply requests and requests for access to Grenada were supposedly channeled through the Military Airlift Command's Liaison Element operating with the JTF Commander. However, a number of units, both in Grenada and in the US, attempted to bypass that system and in so doing jeopardized the larger needs of the operation. The results were unneeded confusion, unnecessary congestion of airspace, and delays in the arrival of mission-essential equipment.[189]

In some of its strongest language, the report criticized the conscious decision of the JCS to exclude the Joint Deployment Agency (JDA) from the operation.[190] While that decision was reportedly based on the inability of the JDA to process sensitive information due to lack of adequate communications equipment, the JDA was specifically established to support such operations as Grenada. The report questioned what the JDA had been doing in the 4 years since its formation, and concluded that it had obviously not solved the fundamental problems relating to the inability of the services to work jointly together.[191]

Other logistical problems encountered in the operation were the unanticipated requirement to divert much of the deployed US units' rations to feed the more than 800 Enemy Prisoners of War (EPWs), and the need for the 82nd to create an ad hoc supply system because existing supply channels proved too cumbersome.[192] These problems had not been anticipated before the deployment despite the fact that they essentially mirrored those of the deployment to the Dominican Republic, and to some degree, Lebanon before that. Again, actions by units on the ground were required to address previously identified shortfalls not resolved, or remembered, between operations.

SUMMARY

From Lebanon in 1958 to Grenada in 1983, joint operations became the clear rule rather than the exception in US military responses to secure national interests. In each operation there were notable successes. There were also notable failures, far too many representing repeat problems. In every operation the soldiers on the ground were required to use their initiative and ingenuity to devise local, short term solutions to compensate for the lack of long term planning, training, doctrinal, and/or equipment solutions. In most cases, individuals involved in the operation correctly identified major problem areas in short order. The legacy of these operations is that in spite of that awareness, many (if not all) of those lessons remained unlearned from one operation to the next. In some cases, the military had published after action reports and pledged action to correct deficiencies. Too often, the resources and priorities dedicated to their resolution were less robust than the problems themselves. In all cases, resolution was far from assured because there was no institutionalized system to identify, analyze, and resolve such problems.

Increasingly, military operations have come under the scrutiny of outside critics. At least some of this external oversight appears to be related to the perception that the military has lost its ability to admit and learn from the

failures within its overall successful operations. The military has further limited its ability to benefit from its experiences by enshrouding much of that experience behind the veils of classification.

While acknowledging the sound reasons for continued classification of certain aspects of these operations, this study contends that far too little effort has been exerted in separating the secret from the politically embarrassing, and the sensitive from the general, so that serious lessons may be truly identified and learned. Were the same priority given to establishing an effective Joint Lessons Learned System as to OPSEC, perhaps some of the repetition would cease. The trend is not encouraging however. Today, the individual services and joint community not only have to contend with the tremendous historical resistance of these issues to resolution, they must also exert considerable effort to simply make them visible.

The historical evidence suggests that over the past 20 years the services have given little priority to identifying interoperability problems and have been less than successful in resolving them. Major problems in communications, command and control, airlift operations, intelligence support, fire control, and joint planning represent a few of the more resistant of these problems. Resolution demands an institutionalized Joint Lessons Learned System more robust, of higher priority, and more fully resourced

than has been provided in the past. How such a system has evolved over recent years, and how it appears today, are the concerns of the next chapter.

CHAPTER 3 ENDNOTES

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CHAPTER FOUR

THE JOINT LESSONS LEARNED SYSTEM

A HISTORY AND AN ASSESSMENT

Introduction

This chapter examines and analyzes the evolution of the current joint lessons learned "system". As previously stated, there is no existing joint organizational element or activity bearing that title. The term joint lessons learned system (JLLS) is used as a convention to describe the set of officially-sanctioned joint activities which identify, analyze, and resolve issues arising from military exercises and operations. It does not imply that these activities fit the traditional sense of a system defined as: a group of interacting, interrelated, or interdependent elements forming or regarded as forming a collective entity.[1]

This analysis considers both the historical need for a JLLS and the organizational ability of the joint community to meet that need. On the one hand, a review of joint military operations exposes a long-term, historically validated need for such a system. The absence of joint systems capable of effecting basic change has long been a theme of defense reform.[2] On the other hand, condemning the

absence of an effective JLLS without acknowledging the relative impotence of the entire joint organization (including the JCS; the Chairman of the Joint Chiefs of Staff, the Joint Staff, and the Unified & Specified Commands) vis-a-vis the services until 1986, is unjust.[3] No matter how pressing the need, the simple fact of the matter is that the joint system lacked the organizational ability to respond until passage of the Goldwater-Nichols Department of Defense Reorganization Act of 1986 (Public Law 99-433) and the resultant strengthening of the CJCS, the Joint Staff (now responsive only to the CJCS rather than the JCS), and the commands.[4]

The law provided further impetus to the future JLLS by directing, for the first time, that the CJCS develop doctrine for the joint employment of the armed forces, formulate policies for the joint training of the armed forces, and formulate policies for coordinating the military education and training of members of the armed forces.[5] Previously, these critical responsibilities were either unassigned or assigned to the JCS as a corporate body, an arrangement that seemed to inhibit, rather than promote, effective execution.[6] This fundamental change, then, not only provided the CJCS with responsibility for the interoperability function in its multiple manifestations, but gave him the necessary authority to carry it out as well.[7] Each of these newly directed and previously unrealized joint

activities provided necessary underpinning for an effective JLLS, and for resolving interoperability issues in general.[8]

To allow the CJCS to carry out these new responsibilities, the Joint Staff was reorganized in 1986. In addition to the position of Vice Chairman, two new OJCS directorates were established: the OJCS/J7, Operational Plans and Interoperability Directorate; and the OJCS/J8, Force Structure, Resource and Assessment Directorate.[9] The J7 Directorate is responsible for numerous functions which include development of joint doctrine; joint tactics, techniques, and procedures; joint training and education; joint exercises; joint materiel requirements; and war planning - all activities directly or indirectly related to a JLLS.[10] These comprise some of the military's most difficult issues/tasks - almost all of them representing responsibilities new to the OJCS in 1986 and almost all having resisted implementation in the past.[11] Most significantly, this new directorate is charged with responsibility for establishing a Joint Center for Lessons Learned (JCLL), the first of its kind.[12] The JCLL is but one of many evolving OJCS/J7 initiatives designed to improve the interoperability of the services.[13]

Because the OJCS/J7 is a new directorate evolving in an environment far different from the pre-1986 period, it is not possible to prove that it will solve these long-term interoperability issues. For these same reasons is it not

valid to evaluate the current JLLS solely on the basis of prior organizational failures to effect change - the new environment is far more conducive to resolving perplexing joint issues.[14] It is possible, however, to gain insights about the current system by considering previous efforts and identifying shortfalls that contributed to their ineffectiveness. These insights provide a sound basis from which to consider the potential of the current system to resolve the numerous open interoperability issues identified in previous chapters.

The Audit Trail

The first difficulty encountered in researching previous efforts to establish a JLLS was the complete absence of readily available documentation of those efforts. This dearth of published material on joint lessons learned activities was indicative of the treatment afforded lessons learned in general. Dennis J. Vetock, in Lessons Learned: A History of US Army Lesson Learning, the Army's first comprehensive treatment of lessons learned activities, remarked:

> We need to know when and how armies - including our own - have made effective use of operational experiences... Unfortunately, no comparative or historical studies on the subject are available to offer insights and understanding....[15]

Significantly, that document was not published until 1988.

While interoperability issues received frequent mention in Congressional Testimony, reports by the Congress, and the various works of the defense reformers, joint lessons

learned activities and their relationship to interoperability had largely been ignored by all. In response to a request for background information on the Joint Lessons Learned System, OJCS/J7 action officers working on the new JCLL generously provided the only existing documents which describe the current system and its genesis.[16] These documents consist of two GAO Reports on the Joint Exercise Program (1979 and 1985); extracts from the draft, October 1988, JCS Admin Pub 1.1 which describe the functions of the new J7 directorate; SM-368-88, 9 May 1988, which updates the Joint After-Action Reporting System; and MJCS 83-88, 6 June 1988, which provides direction for the JCS Remedial Action Projects Program. When examined in light of previous JCS documents such as the 1980 revision of JCS Pub. 4, Organizations and Functions of the Joint Chiefs of Staff, and the 1986 edition of The Joint Staff Officer's Guide they provide an audit trail for assessing former joint lessons learned efforts and furnish the only currently available guidance on the existing JLLS.[17]

From review of these documents, a history of organizational neglect emerges. There is no evidence of a coordinated, institutionalized, Joint Lessons Learned System before the creation of the OJCS/J7 in 1986.[18] Before then, joint lessons learned activities were generally confined to exercise and operation after action reports prepared by the individual services and commands and submitted to the Joint

Staff.[19] Within the Joint Staff, the J3 exercised proponency for the functions related to lessons learned, with responsibilities fragmented between the various divisions.

The magnitude of fragmentation is best illustrated by the following extracts from the 1980 JCS PUB. 4, Organization and Functions of the Joint Chiefs of Staff. Based on annotated changes to that document, pertinent extracts provided below were in effect at least from 1978 until the reorganization in 1986.[20] The Exercise Programs Branch, Exercise Plans and Analysis Division, was responsible for preparing, maintaining and monitoring the 5-year JCS-directed and coordinated exercise schedule, and for "maintain[ing] liaison and cognizance of information systems and computer applications relevant to scheduling and budgeting, lessons learned input and analysis, after action exercise reporting, and information storage and retrieval pertaining to significant military exercises."[21] The Forces and Western Hemisphere Branch, Joint Operations Division, was responsible for providing situation reports and reviewing final reports on such exercises.[22] The Employments and PACOM Branch, Joint Operations Division, was responsible for providing the CJCS, SECDEF, and President "reports, analyses, and lessons learned during crises."[23] The Readiness, Operations, and Planning Systems Division was responsible for the OJCS remedial action program.[24] The term "lessons learned" only appears twice in the entire document - both instances are cited above

The review of repeated interoperability failures in major conflicts and contingency operations infers the ineffectiveness of previous joint lessons learned activities. This argument is supported in the two reports issued by the Comptroller General of the United States in 1979 and 1985, which evaluated the Joint Exercise Program.[25] Because of the early containment of peacetime lessons learned activities within the Joint Exercise Program, these GAO reports not only provide a critical assessment of that evolving Joint Exercise Program, but they also furnish a start point for understanding the evolution of the Joint Lessons Learned System.

The 1979 General Accounting Office Report

In its first report, "Improving The Effectiveness Of Joint Military Exercises -- An Important Tool For Military Readiness," the GAO concluded that under then-current practices, the Department of Defense could not be assured that joint exercises were realizing their full potential, or were being conducted in a cost-effective manner.[26] The GAO initiated this report after internal research indicated that improvements were needed in the management of JCS-directed and coordinated exercises.[27] During the investigation, they found serious weaknesses in the procedures for developing and executing this program.[28] They noted that the current involvement of the JCS was limited to coordinating the commands' proposed exercises, scaling the exercises to

expected levels of funding, and approving the program. Because of this limited involvement and the lack of systemic procedures at the JCS level, the GAO assessed that lessons learned from the program were not being realized.[29] They determined that systems for identifying, analyzing, and following up on exercise lessons learned and putting the results to use were not effective.[30]

In visits to the commands, the GAO found that each had initiated different systems for handling lessons learned, and that although there was no lack of lessons learned data at the commands, the effectiveness of the independent systems in dealing with the data varied. The greatest reported difficulties were in resolving identified problems and applying the results to future operations.

Among its many critical observations, the report identified the following deficiencies:[31]

> (1) Difficulties of the commands in implementing and following up on lessons learned, and applying the results to future operations.
>
> (2) Lack of a systematic analysis of after-action reports.
>
> (3) Lack of an adequate formal system for analyzing exercise results and precluding recurrence of noted problems.
>
> (4) Recurring problems from one exercise to subsequent exercises.
>
> (5) Staffing shortages at the commands restricting the effectiveness of post-exercise activities.

On the positive side, the GAO recognized the potential benefits of on-going efforts at USREDCOM to

implement a comprehensive system for exercise planning and evaluation, specifically noting the formation of a Joint Exercise Enhancement Group in April 1978. However, the reviewers recognized the then-incomplete implementation of that system at USREDCOM, and further, noted the greater weaknesses of the USEUCOM procedures in comparison.[32]

They concluded that none of the systems offered fully effective handling of exercise lessons learned.[33] To correct these deficiencies, the GAO called for greater centralized management over such exercises by the JCS, and greater emphasis on realism and applying the lessons learned from past exercises.[34]

To this end, the report recommended that the Secretary of Defense direct the Joint Chiefs of Staff to take a greater role in developing and managing the JCS Exercise Program to include the following:[35]

> (1) expanding JCS procedural guidance on the program to the commands.
>
> (2) critically evaluating the command 5-year program submissions.
>
> (3) assuring greater coordination with the services in budgeting JCS exercises.
>
> (4) placing greater emphasis on exercise realism.
>
> (5) assuring the establishment of adequate systems for dealing with exercise lessons learned.

The GAO Report, complete with recommendations, was submitted to the Secretary of Defense on 14 August 1979.

After a 27 August 1979 review of the findings, DOD provided general concurrence with the GAO recommendations.[36]

These findings are consistent with the fragmented approach to joint lessons learning prevalent throughout the joint community. In 1979, had there been a centralized system for joint lessons learned activities, identification of issues could have been made and perhaps limited analysis performed. However, given the inability of the joint community to influence interservice actions at the time, it is doubtful that detailed analysis and problem resolution would have been possible.

The 1985 General Accounting Office Report

After giving all concerned agencies nearly six years to correct noted deficiencies, the GAO revisited the issue. On 5 March 1985 they published a follow-on Report To The Secretary Of Defense: Management Of The Joint Chiefs Of Staff Exercise Program Has Been Strengthened, But More Needs To Be Done.[37] The findings of this report are particularly important because they illuminate the manner in which the JCS, the OJCS, and the U&S Commands complied with the recommendations issued by the GAO and approved by the Secretary of Defense. Additionally, overlaying this six year gap with the timeline of contingency operations imparts important historical context to the GAO's findings; the period includes two of the most visible and controversial

military operations conducted since the Viet Nam conflict - the failed Iranian Hostage Rescue attempt in 1980 and the intervention in Grenada in 1983. Given the clamor surrounding the military's performance during those operations, and the heightening public and private awareness of serious unresolved joint interoperability issues,[38] the GAO conclusions appear all the more remarkable.

The report begins with a reminder of the pivotal role played by JCS Exercises as a primary means to achieve interservice operational training and interaction.[39] After reviewing the 1979 findings, it notes the previous JCS agreement to take corrective action on each major issue.[40]

Chapter 4 of the report, "A Worldwide Exercise Lessons Learned System Is Still Needed," confirms the core deficiencies.[41] Although the JCS, the Army, and the USAF had each developed distinct Remedial Action Projects (RAP) Programs to resolve lessons learned issues after the 1979 report, the important goal of a comprehensive worldwide system had resisted implementation. The report traces the evolution of these independent RAPs from the 1979 initial agreement of the Director, Joint Staff, to design a universal lessons learned system, to an April 1981 JCS announcement that a centrally developed worldwide automated lessons learned system was no longer planned.[42] At that time, according to the report, the JCS instead encouraged each command to develop its own system and to furnish copies of

exercise after action reports to the other commands and to the JCS.[43] The rationale underlying this development is not certain; however, it is clear that lessons learned activities and developments from this point on deviated from the spirit, if not the intent, of the 1979 GAO Report and led to the deficiencies noted in 1985.

Based on these 1981 JCS instructions which "encouraged" rather than directed action, the JCS, the Army, the Air Force, and some of the commands independently developed lessons learned systems.[44] The JCS modified its formerly-designated Exercise Critique System into a Remedial Action Program (RAP) to identify, monitor, and solve those specific joint exercise problems requiring joint action.[45]

The GAO found this RAP deficient in several aspects. The program required the Joint Staff to evaluate and assign each identified exercise deficiency into one of the following categories:[46]

> (1) RAP: a problem requiring action by the JCS, the services, the U&S Commands, OSD, or other federal agencies.
>
> (2) Single Agency Action: a problem that can be resolved by a single agency.
>
> (3) Lesson Learned: a problem for which adequate procedures exist but are not followed.
>
> (4) Noted Item: other valid reported problems classified as not requiring corrective action.

These categories seem innocuous at face value. However, categorization affected every aspect of the lessons learned process, from problem identification to final resolution.

Items not classified as RAPs were not to be acted on or even monitored further. Only those few actions defined by the OJCS as RAPs were actively worked by the joint system.[47] Thus, the Joint Staff categorization of JCS, service, and command issues restrictively filtered those inputs, leaving many previously noted problems not only unanswered, but essentially unacknowledged.

As an example of the harmful potential of such top-down filtering in a lessons learned system, the report states that during the 1983 Exercise PROUD SABER, the Army found that various agencies were using drastically different assumptions in mobilization planning (M-day) times.[48] The lack of a common M-day reference at the start of the exercise caused serious repercussions in subsequent actions among the various agencies involved in the exercise. To ensure future action would be taken to resolve the problem and prevent its recurrence, the Army submitted the item for inclusion in the OJCS RAP. The OJCS, however, classified the deficiency as a "lesson learned" rather than a RAP; accordingly, no further action on the item was required, or taken. Meanwhile, the Army assumed that submission to the JCS for action eliminated any need to list the deficiency as an Army RAP, and the issue ceased to exist.[49] The Joint Lessons Learned System, consisting as it did at the time of the RAP only, had excluded the deficiency from identification, analysis, and resolution.

In similar fashion the GAO reviewed the results of PROUD SABER 1983 and found 442 of 567 deficiencies identified by participants excluded from the RAP system.[50] This is not to imply that all 567 problems should have been included. In its defense, DOD commented that had the GAO suggestion been followed for all the JCS exercises between 1978-1983, the RAP program would contain over 100,000 RAPS, "thereby effectively masking the major problems."[51] The argument ignores the more critical point that excessive filtration not only serves the same end as inadequate filtration, but it does so at a faster rate and with generally irreversible consequences. At the very least an issue active in the system was identified. If priorities changed, resources could be shifted without having to reenergize the system through the problem identification and analysis stages.

DOD stated that it had intentionally limited the number of RAPS to afford proper visibility to the most pressing problems.[52] Were this approach effective, one might expect that Grenada 1983 would have benefited from the lessons of Iran 1980. The large number of repeat issues in critical areas argues more that the 1985 DOD approach obscured more problems than it solved.

There is no evidence that any of the interoperability problems discussed in this study were the result of a saturated lessons learned system. To the contrary, the historical evidence is that repeat deficiencies have resulted

from lack of attention, lack of critical analysis, and lack of prioritization in the resourcing process to resolve the truly tough issues. In short, the existing JLLS was inadequate to the tasks.

Further support of this contention is provided by the GAO's identification of other "issues" reported to, and dropped by the JRAP system: lack of standardized logistics procedures; shortfalls in computer software; problems in joint communications; and inadequate all-weather capabilities.[53] An effective Joint Lessons Learned System would, at a minimum, have been able to keep these issues active in the system until effective resources could be applied to their resolution. It is therefore not possible to view the 1985 JCS Lesson Learned System (OJCS RAP) as anything more than a limited attempt to respond to these important issues. Whatever the motivation for establishing such a limited, ineffective system, the JCS were to derive certain undeniable benefits from this attempt. The OJCS RAP system responded to the external criticism (GAO/Congress) without using too many resources, and it avoided stirring the pot of the "too hard to handle" interservice issues which had proven so resistant to resolution in the past. The crack had been papered over.

A further limitation of the independent lessons learned systems was the inability of these systems to share information, thereby preventing recurrence of problems among

the various commands.[54] The GAO drew a direct relationship between the sharing of lessons learned information and the resolution of recurring problems.[55] It referred to its 1979 finding that the same deficiencies were being reported in some exercises year after year, and observed that these newly established independent systems had yet failed to solve the problem. Because the current systems could not interface, problems resolved in one command could not be shared in general, and were more susceptible to being repeated.

In several Joint exercises conducted from 1978 to 1983, including two REFORGERs, NIFTY NUGGET, and PROUD SABER, the GAO noted that recurring problems were indeed reported, yet remained uncorrected. As an example, the report identified the problem of bridge security over critical waterways as repeatedly identified without corrective action taken.[56] Similarly, the GAO cited a report by a JCS official that three major problems identified in after-action reports concerning the 1983 operation in Grenada (including one issue relating to communications), had been reported as major problems twenty years earlier during the US intervention in the Dominican Republic.[57] Again, the DOD argument for high-level filtering of lessons learned inputs seems flawed when considered in the context of historical evidence.

The report continues with the observation that by 1985, the Army had a parallel RAP program for its major commands and staff agencies which sought to accomplish the

same basic purposes as the JRAP.[58] The Air Force was expected to have its RAP program implemented by mid-1985. The Marines were reported to have a RAP system in May 1984 after completion of the GAO fieldwork.[59] The Navy had no lessons learned system, and apparently had no plans to establish one. Meanwhile, some of the U&S Commands (such as USREDCOM) had developed comprehensive computerized lessons learned data bases while other commands (USLANTCOM for one) had no system beyond standard after action reports.[60] The USREDCOM system represented, to the GAO, the best of the command lessons learned systems with capabilities to build, maintain, and retrieve a history of exercise deficiencies.[61] Known as the Joint Exercise Observation File, it would become the kernal of the Joint Universal Lessons Learned System (JULLS) in the years to follow.[62]

While acknowledging the significance of these various corrective actions, the GAO concluded that the fragmented systems tracked only a small fraction of identified deficiencies, could not cross-feed information, and did not represent the type of interactive world-wide lessons learned system recommended in 1979.[63] The general intent of the 1979 GAO call for change had resisted full implementation; there was, in fact, no comprehensive worldwide lessons learned system.[64] Thus, they concluded that additional actions were needed to "ensure adherence to [established] procedures, improve development of the program and its budgets, and

establish an automated and interactive worldwide lessons learned system."[65] With regard to this last finding, the GAO report repeated its 1979 call for a uniform lesson-learned system to evaluate exercise problems, to initiate and follow up on corrective actions, and to disseminate results to exercise participants.[66]

The Department of Defense, as in 1979, generally agreed with the GAO findings, conclusions, and recommendations.[67] For its part, the OJCS acknowledged the need for such a comprehensive exercise results system and reported that actions were already underway to establish it; it would investigate the feasibility of a fully integrated lessons learned data base; and as an interim measure, would provide after action reports to all CINCs and services.[68]

Since the Reports: 1985-1987

It is clear from the historical review of conflicts and contingency operations in this study that the issues encountered by the GAO in 1979 and 1985 were not new. Nor were the problems the GAO identified with the OJCS "system" for handling them. Given the numerous voices urging DOD/OJCS organizational change at the time,[69] it is rather remarkable that the GAO report failed to inquire deeper into the organizational problems which lay at the heart of the findings. The OJCS could not effectively establish the type of joint lessons learned system the GAO recommended since it

had no ability to force the changes that would be required to respond to the open interservice issues.[70]

The years from 1985 to 1988 were years of transition that would not witness resolution of the problems identified in the 1985 GAO report, although certain progress would be made. The same concerns over excessive high-level filtering of reported deficiencies, and recurring interoperability problems were to continue to limit the effectiveness of lessons learned activities in general.

In 1985, the Army took a significant step toward an institutionalized lessons learned system when it established the Center For Army Lessons Learned under the Combined Arms Training Activity at Ft. Leavenworth, Kansas.[71] Since its establishment, CALL has attempted to produce and manage change within the Army by collecting, analyzing, disseminating, and following up on combat relevant observations.[72] In executing these functions, CALL has identified many of the recurring interoperability issues that have plagued previous joint exercises and operations. To date, attempts to reach closure on these most serious issues have not succeeded.[73]

Although it lies outside this study to provide a detailed analysis of the effectiveness of the Army staff channel for lessons learned activities, reviewing that channel illustrates the multi-layered bureaucracies involved in the process and hints at some of the organizational problems afflicting the JLLS.

CALL is one of six directorates within the Combined Arms Training Activity (CATA).[74] Among its other responsibilities, CATA is tasked to "operate the Army Lessons Learned System."[75] In turn, CATA is one of the three major activities under the command authority of the Commanding General (CG), Combined Arms Center (CAC), the other two being the Combined Arms Combat Developments Activity (CACDA) and the United States Disciplinary Barracks (USDB).[76] The CG, CAC, is responsible to the CG, US Army Training and Doctrine Command (TRADOC), who in turn reports to the Chief of Staff, Army (CSA).[77] Army inputs are staffed from CALL through CATA to TRADOC, then to HQDA, where the Deputy Chief of Staff for Operations and Plans (DCSOPS) exercises staff responsibility for all operations and training matters.[78] Within ODCSOPS, the office of primary responsibility (OPR) for lessons learned activities is the Doctrine, Force Design, and Systems Integration Division (DAMO-FDQ) of the Office of the Assistant Deputy Chief of Staff for Operations and Plans for Force Development.[79]

It is revealing to note that the agency which manages the Army RAP Program is not DAMO-FDQ, but DAMO-OD (Director of Operations, Readiness, and Mobilization).[80] In like fashion, DAMO-TR (Director of Training) is the HQDA point of contact for Army participation in exercises, to include the JCS Exercise Program.[81] This fragmentation of responsibility for activities which directly impact the JLLS parallels the

previously discussed OJCS organization for these activities. It contrasts markedly with assertions that the establishment of the Training Directorate (DAMO-TR) in 1978 resolved fragmentation in training activities and provided the Army with a single point of contact for all issues which have a training impact.[82]

Thus, to resolve interoperability issues, CALL must contend with potent organizational pressures derived from bureaucratic fragmentation. At each staffing level, the issue must gain willing command sponsorship if it is to be resolved. The reviewing agency, often removed from the events leading to the submission of the issue, may not accept CALL's contention, its recommendations, or its priorities. It is unlikely that the working agenda of any of the agencies mentioned will match CALL's; for want of a sponsor, the action may be held, shelved, or returned without action. Thus, internal organization priorities, limited resources to work issues, differing perceptions about the root causes and seriousness of issues, disagreements over recommendations for resolution, and command interest and influence represent but a few of the potent forces which must be overcome if an issue is even to be surfaced at the joint level.

The interplay of several of these inhibiting factors may be observed in attempts by CALL to resolve long-standing joint communications issues with the OJCS in 1987, over two years after the GAO report. According to interviews with

CALL personnel, some of these issues had been known at least since the Grenada Operation, and repeated attempts to work them through the numerous staff layers which exist between CALL and the Joint Staff had failed.[83] In the words of LTC Oberlin, Chief, Lessons Analysis Division (EABAD), the problems simply "went into a black hole."[84] That is an apt, if figurative, expression for the tendency of issues identified as important by CALL to become "non-issues" as they are evaluated at each successive layer of the lessons learned bureaucracy. This seems to be an off-shoot of the GAO charge of excessive filtering of important issues, except that the filtering appears not to be limited to the OJCS.[85]

In a 29 September 1987 Memorandum to HQDA, CALL identified the seriousness of the recurring problems with joint tactical communications and listed the following as major unresolved deficiencies:[86]

(1) Lack of joint CEOIs.

(2) Differing communication doctrine among the services.

(3) Differing authentication procedures.

(4) Equipment incompatibilities (to include secure equipment).

By late 1988, these issues remained unresolved; moreover, even tracking the action through the Army and Joint channels had proven to be a difficult task as the various agencies involved in the process struggled to find ownership for the issues.[87] To those at CALL working the issues over

the course of several years without success, restrictive filtering at upper staff levels and fragmented lessons learned bureaucracies were familiar, powerful, and effective forces against change.[88] The lack of a dedicated high-level staff agency with proponency for all lessons learned activities at both Army and Joint Staff levels seriously limited the ability of lessons learned systems to resolve interoperability issues in 1988 just as it had in 1985.

This assessment is supported by the historical evidence provided in Chapters Two and Three of this thesis. The joint communications issue is but one of several major interoperability issues (command and control, airlift operations, fire control, joint contingency planning, intelligence, and combat service support to name a few others) which reverberate without resolution through the history of recent US military operations in spite of the military establishment's best efforts. Clearly, the fragmented organizational approach to lessons learned activities was proving itself to be as ineffective against contentious issues as the earlier ad hoc approaches had been. In spite of noted progress toward institutionalization from 1985-1987, lessons learned activities continued to represent less a system than a group of related activities handled by disparate staff elements without benefit of controlling regulations, organizational cohesion, or oversight.

The magnitude of these problems, as well as the frustration felt by CALL in attempting to fulfill its responsibilities, is clearly evidenced by the following extract from a CALL briefing prepared for the CSA in 1987. CALL listed the following as deficiencies in the current Army lessons learned system and its interfaces with the existing JULLS:[89]

> 1. There is no JCS directive on the overall joint lessons learned system.
>
> 2. There is no Army policy that addresses how the Army resolves Joint issues.
>
> 3. The Army Remedial Action Projects (ARAP) Program must be revitalized and the role of HQDA must be clarified.
>
> 4. There is no standard Army after action reporting system.
>
> 5. Ensuring that all automated systems are linked is a prerequisite for the system. Until the JULLS and Army lessons learned automated information system data bases are compatible we are still in the stubby pencil business.

In 1985, the same year CALL was established, the comprehensive lessons learned data base established by USREDCOM and commended by the GAO became known as the Joint Universal Lessons Learned System (JULLS). In 1986, as the OJCS J7 was forming, USREDCOM was disbanded, and the REDCOM JULLS files were taken over by that OJCS directorate.[90] That automated database was to be combined with the OJCS RAP system to form the core of the future Joint Center for Lessons Learned.[91]

The Joint Center For Lessons Learned: 1988-1989

As mentioned in the introduction to this chapter, the Organization of the Joint Chiefs of Staff (OJCS) underwent significant transformation in 1987-1988 which enhanced its capability to serve a pivotal role in joint lessons learned activities to the extent demanded by the GAO recommendations. The most important changes to follow in the wake of the Goldwater-Nichols Defense Reorganization Act of 1986 were the addition of the J7 and J8 Directorates, the strengthening of the roles and the Chairman of the JCS and the CINCs of the combatant commands, and the stipulation that the Joint Staff would now serve the CJCS rather than the JCS.[92]

The document which describes the functions of these new directorates was published as a draft in October 1988, and the term Joint Center for Lessons Learned (JCLL) appeared for the first time.[93] According to that document, the OJCS J7 is to:

> Establish and maintain a JCLL that collects, analyzes, and shares lessons learned from exercises and operations.[94]

This requirement has been tasked to a single branch. The Policy and Analysis Branch within the J7's Evaluation and Analysis Division (EAD):[95]

> ...Establishes and maintains the JCLL that includes:
>
> (a) Establishing and managing the Joint After-Action Reporting System (JAARS).
>
> (b) Managing the JCS JULLS, including computer hardware and software support.

(c) Managing the JCS RAP Program including:

1. Reviewing of CINC after-action reports from actual operations and exercises to identify new RAPs.

2. Reviewing CINC exercise program analysis reports to identify new RAPs.

3. Periodically publishing a report containing the status of the individual RAPs.

Thus, the JCLL is to consist of three basic elements: JAARS, JULLS and RAP. RAP and JULLS represent automated data bases containing, respectively: (1) the high-level unresolved OJCS RAP issues, and (2) the more inclusive JULLS inputs incorporating information from exercise and operational after action reports controlled under the JAARS. More importantly, all the JCLL requirements are consolidated within a single organizational entity with institutional legitimacy.

The J-7 is also responsible for:

(1) Serving as the Joint Staff point of contact for the CINC's interoperability issues and requirements. In this capacity, the J-7 is required to develop and maintain a Master Interoperability Agenda that identifies major deficiencies in force interoperability and serves as a foundation for joint and combined training, doctrine, education, materiel, planning, and exercise design.[96]

(2) Providing for the collection and analysis of warfighting deficiencies identified during joint and combined exercises and operations and ensuring that these deficiencies are corrected through the joint planning, doctrine, education, training, and materiel acquisition systems.[97]

Even at face value it is clear that these changes are profound - they represent a sharp departure from the ad hoc, fragmented nature of previous attempts to establish a JLLS. Responsibility for the system had been fixed in an institutional element, RAP is no longer the only element of the system, and the JCLL has an organizational general officer advocate - the Director, J7 - to fight for resources and protect JCLL interests. The JCLL also benefits from the CJCS's dominant role in interoperability. In a joint system that has resisted major change since 1947 these changes are indeed significant and touch the core of jointness.

But JCS decisions are not implemented by Joint Administrative Publications. And unfortunately, JCS publications of previous years have often written eloquently on the subjects of jointness and interoperability, writings that fell flat in the execution. Witness the following extract about the Command, Control, and Communications (C3) Directorate:

> INTEROPERABILITY DIVISION
>
> Mission: The Chief, Interoperability Division is charged by the Director C3 Systems with the responsibilities for assuring the achievement of C3 systems compatibility and interoperability for joint/interservice projects and activities....Develops the appropriate guidance to achieve and maintain joint and combined C3 system compatibility and interoperability and assures compliance by monitoring C3 system development by the Services and Defense agencies.... maintains cognizance of these matters to assure the compatibility and interoperability needs of the unified and specified commands, and allied nations as appropriate...Collaborates/coordinates within the OJCS and DOD...to assure the early addressal and resolution of compatibility/interoperability issues.

It would be easy to believe that those words followed the Goldwater-Nichols Act of 1986. In fact, the extract is from the 1978 version of JCS PUB 4, Organization and Functions of the Joint Chiefs of Staff.[98] Both the Iranian Hostage Rescue Mission and the Grenada Intervention occurred after its publication, operations where the interoperability in tactical communications was problematic. This is not presented to cast aspersions toward that specific OJCS Directorate - the language is representative of many of the internal JCS documents, and indicates far more about the ideal state than about the capability to achieve that state. This same observation can be made about the National Security Act of 1947 where the concept of jointness found clear expression but muddied execution over the years.[99] Directing a function does not always result in the allocation of appropriate resources to perform the mission, nor does it assure execution of the mission. It is the vital first step, nothing more or less, and its effectiveness must ultimately be judged on the actions that follow.

JCS decisions are implemented by several types of memoranda which vary depending on the nature of the decision and the intended audience. The Secretary's Memorandum (SM) is used to transmit directives of the Joint Chiefs of Staff to subordinate agencies or individuals, services, or unified and specified commands.[100] With SM-368-88, 9 May 1988, "Joint After-Action Reporting System," the JCS revised

requirements for the service staffs and the U&S Commands to provide after-action reports (AARs) on joint operations and exercises, and standardized procedures and formats for these reports.[101] The memorandum requires submission of AARs by supported CINCs "...on all operations for which the Joint Chiefs of Staff transmit a warning, alert, planning, deployment or execute order" if Joint After-Action Reporting System (JAARS) reporting is required by that order.[102] The clear implication is that certain operations need not adhere to these requirements; the caveat is likely intended to protect compartmented activities. JAARs mandates a two-part after action report - Part 1: First Impressions Report (FIR); and Part 2: Final Report (FR).[103] The document further requires the electronic submission of each FR as a Joint Universal Lessons Learned System (JULLS) data base within 90 days of the operation.[104] The JULLS data base format includes the official description of the operation and significant lessons learned.[105] As defined by the format the lesson learned is a statement of how to work around the problem, which other commanders can use while a permanent solution is being accomplished.[106] The report is also to include recommended actions on how to permanently correct the problem(s) specifying who should make the correction and whether it should take the form of new or modified publications, procuring new equipment, changing force structure, revising command relationships, improving training, etc.[107]

Similarly, on 6 June 1988, Major General Frederick M. Franks, Director for Operational Plans and Interoperability, OJCS/J7, signed a memorandum for the Chairman of the Joint Chiefs of Staff, MJCS 83-88, "The JCS Remedial Action Projects (RAP) Program." This document revised MJCS 129-83, 20 June 1983, to align the RAP program with the organizational changes to the Joint Staff resulting from the Goldwater-Nichols DOD Reorganization Act of 1986.

As with its predecessor, the revised RAP program involves the identification of major problems with joint implications that require the Joint Staff, services, unified and specified commands, OSD, or other federal agency to initiate, coordinate, or monitor corrective action.[108] The revised RAP program intends to identify problems from operation and exercise after action reports, assign responsibility for problem resolution, review and track progress of these actions, evaluate the effectiveness of the corrective actions, and provide feedback for future JCS exercises.[109] More importantly, the severity of the categorization process has been softened, and the critical review process strengthened and systematized. Extensive multi-agency review procedures have also been established which offer the promise that pressing interservice issues will not be dropped by the system.[110] Even for an item designated as a Procedural Item (PI) - an item for which procedures existed but were not followed (replaces previous

term, Lessons Learned) - MJCS 83-88 requires that at the very least a point of contact will be identified to allow intercommand and interservice sharing.[111] It also directs establishment of a JCS RAP Steering Group with service and OSD participation, provides for quarterly meetings of the group, and directs preparation of an annual RAP Program Status Report for distribution to the services, commands, OSD, other federal agencies, and OJCS directorates.[112]

This revised procedural guidance significantly overhauls the RAP component of the JCLL. If executed successfully, it will represent major progress toward establishing a RAP which can systematically identify, analyze, and resolve serious interservice issues. However, if the resources, priority, or command attention are redirected, it is likely that the revised RAP will be no different than its predecessors in all their manifestations.

Thus, by issuing controlling directives for the RAP and the supporting JAARS, the JCS have taken the first major steps toward making the JCLL viable, and implementing a true Joint Lessons Learned System. These embryonic programs offer much hope for future progress. But it is important to recognize that today they represent more promise than benefit; they are unrealized and they face many of the same serious organizational obstacles that have limited the development of joint activities since 1947. The actions that the CINCs and the services take to establish supporting

efforts and to comply with these directives will, in large measure, determine whether the JCLL will grow to maturity to fulfill the promise it currently represents, or fade into the past as but another failed attempt to achieve joint progress.

CHAPTER FOUR ENDNOTES

[1]William Morris, ed., The American Heritage Dictionary of the English Language (1970): 1306.

[2]See especially Frederick H. Hartmann and Robert L. Wendzel's Defending America's Security (1988): 175-180; John M. Oseth "An Overview of the Reform Debate," in The Defense Reform Debate: Issues and Analysis, ed. Asa A. Clark et al. (1984): 57-58; Committee on Armed Services, Staff Report - Senate Print 99-86, Defense Organization: The Need for Change (October 16, 1985): see all of Chapter 4, especially pages 157-179 for excellent overview.

[3]U.S. House of Representatives, Report 99-375: Joint Chiefs of Staff Reorganization Act of 1985, Report together with Dissenting Views [To Accompany H.R. 3622] (November 14, 1985) LATER PASSED AS The 1986 Goldwater-Nichols Defense Reorganization Act (Public Law 99-433): 2-3.

[4]U.S. Congress, Public Law 99-433 (October 1986): Chapter 5, Section 151-155.

[5]Public Law 99-433: 153.

[6]See JCS PUB 4 (2 September 1980): I-2-1 through 3, II-1-1,-3; HR 99-375: 5-12; Report by the Chairman's Special Study Group on the Organization and Functions of the JCS (1982): 54, as quoted in Senate Print 99-86: 616.

[7]HR 99-375: 2-17; Joint Chiefs of Staff, JCS PUB. 2, Unified Action Armed Forces (UAAF) (December 1986): 1-3.

[8]HR 99-375: 9-11.

[9]U.S. Armed Forces Staff College, The Joint Staff Officer's Guide (1988): 37-38.

[10]OJCS, JCS Admin Pub. 1.1 (Draft Extract) (1 October 1988): III-8-27.

[11]HR 99-375: 9; see also Senate Print 99-86: 157-179 for excellent discussion.

[12]JCS Admin Pub 1.1: III-8-30.

[13]JCS Admin Pub 1.1: III-8-27.

[14]Hartman, et al.: 181-184.

[15]Dennis J. Vetock, Lessons Learned: A History of US Army Lesson Learning (1988): iii.

[16]Telephone conversations with CDR PARRISH, OJCS J7 Action Officer (25 October 1988); CDR COMMONS, OJCS J7 Action Officer (26 October 1988).

[17]MAJ Martin A. Simonson, OJCS J7, Handwritten response to author's questionnaire (17 February 1989).

[18]JCS PUB 4: III-3-1,2;III-3-8 through -60.

[19]JCS PUB 4: III-3-27,34,I-1-1 through -9.

[20]Base document date is 1978; Change Page for Change 1 (1 November 1980) provides list of changes, none referenced were included; author is aware of internal OJCS J3 shuffling in 1984-1985 which changed some of the division and branch titles- of no impact to the study - not recorded in document.

[21]JCS PUB 4: III-3-25, -27.

[22]JCS PUB 4: III-3-33.

[23]JCS PUB 4: III-3-34.

[24]JCS PUB 4: III-3-30.

[25]US Comptroller General of the United States (GAO), Report To The Congress: "Improving The Effectiveness Of Joint Military Exercises -- An Important Tool For Military Readiness" (December 11, 1979); Report to the Secretary of Defense: "Management of the Joint Chiefs of Staff Exercise Program Has Been Strengthened, But More Need To Be Done" (March 5, 1985).

[26]GAO Report 1979: 1.

[27]GAO Report 1979: Cover letter of the report to the President of the Senate and the Speaker of the House of Representatives.

[28]GAO Report 1979: Digest; i.

[29]GAO Report 1979: ii.

[30]GAO Report 1979: 29.

[31]GAO Report 1979: iii, 37-39.

[32] GAO Report 1979: 44.

[33] Ibid.

[34] GAO Report 1979: 44, cover sheet.

[35] GAO Report 1979: iii.

[36] GAO Report 1979: iv.

[37] 1985 GAO Report.

[38] Senate Print 99-86: 359-370.

[39] 1985 GAO Report: 2.

[40] 1985 GAO Report: 3.

[41] 1985 GAO Report: 17.

[42] 1985 GAO Report: 17-18 - note DOD rebuttal.

[43] 1985 GAO Report: 18.

[44] Ibid.

[45] Ibid.

[46] 1985 GAO Report: 19.

[47] Ibid.

[48] 1985 GAO Report: 20.

[49] Ibid.

[50] 1985 GAO Report: 19.

[51] 1985 GAO Report: 38.

[52] Ibid.

[53] 1985 GAO Report: 20.

[54] 1985 GAO Report: 23.

[55] Ibid.

[56] Ibid.

[57] Ibid.

[58] 1985 GAC Report: 18.

[59] 1985 GAO Report: 4.

[60] 1985 GAO Report: 21.

[61] 1985 GAO Report: 21-22.

[62] HQ USREDCOM, Fact Sheet (Undated - circa 1985) Joint Exercise Observation File; JULLS User Conference Briefing Packet: "JULLS" (15-16 November 1988): JLL Conference Hosted by OJCS J7 at Orlando, Florida.

[63] 1985 GAO Report: 24.

[64] 1985 GAO Report: iii.

[65] 1985 GAO Report: i.

[66] 1985 GAO Report: iii.

[67] 1985 GAO Report: iv.

[68] 1985 GAO Report: DOD Position to Recommendation 3, no page number.

[69] See Senate Print 99-86 in its entirety.

[70] Senate Print 99-86: 161-165.

[71] Vetock: 125; Dr. Richard W. Stewart, "Lesson Learning: The Past Through Tommorrow," (August 1988): 6.

[72] Stewart, 6.

[73] Interview with LTC Oberlin, Chief, Lesson Analysis Division, EAB, CALL, 21 October 1988; Interview Maj Anderson, CALL Action Officer for Joint Actions, 2 Nov 1988.

[74] CAC & FT. Leavenworth, Regulation 10-1, Combined Arms Center and Ft. Leavenworth Organization and Functions (1 November 1987): 5-8.

[75] CAC & FL Reg 10-1: 5-3.

[76] CAC & FL Reg 10-1: 2-3.

[77] CAC & FL Reg 10-1, 2-3; HQDA, AR 10-41, Organization and Functions: US Army Training and Doctrine Command (1 February 1982): 6.

[78] HQDA, Office of the Deputy Chief of Staff for Operations and Plans, ODCSOPS Organization and Functions Manual (OOAFM) (June 1984): A-1.

[79] OOAFM: D-8.

[80] OOAFM: E-1.

[81] OOAFM: F-1.

[82] U.S. Army War College, Army Command and Management: Theory and Practice (1987-1988): 21-22.

[83] Oberlin; Anderson.

[84] Oberlin.

[85] Anderson.

[86] Center for Army Lessons Learned, Memorandum to HQDA ODCSOPS, "Joint Communications," (29 Sept 1987).

[87] Anderson, Oberlin.

[88] Ibid.

[89] CALL briefing packet for CSA dated 30 Oct 1987.

[90] Oberlin.

[91] JULLS User Conference Briefing Packet: "JULLS" (15-16 November 1988): JLL Conference Hosted by OJCS J7 at Orlando, Florida; CALL briefing packet for CSA dated 30 Oct 87.

[92] AFSC Pub 1, 38-39.

[93] JCS Admin Pub. 1.1: III-8-30.

[94] Ibid.

[95] JCS Admin Pub. 1.1: III-8-44.

[96] JCS Admin Pub. 1.1: III-8-30.

[97] Ibid.

[98] JCS PUB 4: III-6-40.

[99] See especially Senate Print 99-86: 158-179.

[100] AFSC Pub 1: pg 85.

[101] Joint Chiefs of Staff, SM-368-88: Joint After Action Reporting System (9 May 1988).

[102] Ibid.

[103] SM-368-88, Appendix, pg 1.

[104] SM-386-88, Appendix, pg 2.

[105] Ibid.

[106] SM-368-88, Appendix, pg 8.

[107] SM-368-88, Appendix, pg 8.

[108] Joint Chiefs of Staff, MJCS 83-88: The JCS Remedial Action Projects Program (6 June 1988).

[109] MJCS 83-88: 2.

[110] MJCS 83-88, Enclosure: Procedural Guidance For The JCS Remedial Action Projects Program.

[111] MJCS 83-88, Enclosure: Procedural Guidance For The JCS Remedial Action Projects Program: 4.

[112] MJCS 83-88, Enclosure: Procedural Guidance For The JCS Remedial Action Projects Program: 1-7.

CHAPTER 5

RECOMMENDATIONS AND CONCLUSIONS

Introduction

The United States possesses the most potent military capability in the world. Its forces are the best equipped. Its soldiers, sailors and airmen are the most dedicated. Yet its true potential remains unrealized. One of its most valuable and important means of sustaining the life of its members and achieving growth, learning from the successes and failures of its own operations, has been ignored more often than acknowledged.

As the preceding chapters illustrate, joint US military forces have frequently deployed to accomplish national objectives. These forces have generally achieved their larger objectives. In terms of friendly lives lost, they have done so without severe penalty. However, in each operation there were successes and failures which offered the lifeblood of learning to save lives in the next operation. All too often, the opportunity was not, or simply could not, be taken advantage of. Thus, in each next operation, the same mistakes were forced to be repeated at the cost of the blood, sweat, and tears of the troops on the ground, at sea,

or in the air, because the military lacked a system to learn. More to the point, it lacked a joint system strong enough to identify, analyze, and resolve the contentious, but costly issues which generally crossed service lines and sensitivities.

It is equally clear that a major element underlying most, if not all, of these military successes has been the threat forces' inability to capitalize on US mistakes. Participants in previous operations, as well as those reporting on them after-the-fact (not all virulent military reformers), have consistently reflected on the potentially grave consequences to their force had the opposing force proven more capable. Thus, the small price for US success has likely been deceptively low. A remarkably long-lived seam of US vulnerability from joint interoperability problems currently exists. It represents perhaps the greatest threat opportunity for success in, and the gravest US danger for, future operations.

This troubling theme permeates previous US joint military operations. With the increasing sophistication of forces and capabilities at even the lowest conflict levels of terrorism and narcotics trafficking, successful joint operations are not likely to be conducted so cheaply in the future.

Change must come either at the hands of a more capable opponent in battle or in the halls of the Pentagon

where the seeds of change identified in the last chapter have already been planted. Although the new spirit of joint cooperation has created a true window of opportunity for growth of the JCLL and its supporting systems, those initiatives will not succeed of their own accord. The historical inertia to resist jointness has deep roots and they will have to be moved if the most pressing problems involving roles and missions and joint resources are to find resolution.

This chapter presents recommendations for establishing and maintaining an effective Joint Lessons Learned System. It focuses on deficiencies of previous systems which inhibited accomplishment of the three functions assessed as vital to such a system: (1) problem identification within a broad, universal audience; (2) objective problem analysis on the basis of military necessity rather than service sensitivity; and (3) problem resolution capable of tapping core service resources to achieve necessary doctrinal, organizational, training, leader, and materiel solutions to such problems. It also adds to the model of an ideal lessons learned system by presenting several characteristics deemed essential for such a system to compete in the current and projected military arena.

Together, these criticisms and recommendations describe a model for a Joint Lessons Learned System able to respond to the historical need, capitalize on the improved

climate for joint activities, and survive in the austere resource environment of the 1990s and beyond.

Modeling from the Past

The most serious deficiency of previous joint lessons learned systems was the lack of organizational legitimacy; the functions and the elements assigned to execute them were not accepted as legitimate by the OJCS or the services. The power given to an organization is an indicator of its legitimacy. Power is revealed in several ways: functional integrity and its corollary prioritization of effort, command sponsorship, the existence of controlling directives, robust allocation of resources, and effective mission completion.

In pre-1985 JLLS, although lessons learned activities were functionally related, they were divided among several OJCS staff divisions. Within the divisions, the functions were further assigned to separate branches. There was no functional integrity within the lessons learned "system." The net results were a clear diffusion of function, and more importantly, a dissipation of the organizational power capable of producing change. It would have been absurd to expect a branch chief within an OJCS division to muster sufficient organizational power to oversee the process of analysis and resolution of contentious issues. Issue identification was certainly possible, but the GAO reports clearly indicate that even that activity was not pursued with rigor.

That is not because those assigned the various functions were culpable or negligent. When a function is fragmented within an organization, dilution of power is the unavoidable consequence. The overlay of a fragmented lessons learned system on the existing OJCS institution and power structure was an inevitably flawed, impotent design.

The fragmentation of power and function also leads to low prioritization of the effort within the organization. With a fragmented power base, the lessons learned system was forced to compete with the more accepted OJCS functions from a position of clear disadvantage. Thus, lessons learned activities were not afforded internal priority except for those brief periods when outside forces intervened, such as the GAO in 1979 and in 1985. Even then, the OJCS responses seemed more focused on accommodation rather than true compliance, and the JLLS remained a low priority. Without organizational reform, as occurred in 1986, nothing more could have resulted. Organizational reform provided an institutionalized "home" for lessons learned activities which allows it to compete within the existing organizational structure rather than around it or outside of it.

Although these positive moves indicate greater priority for lessons learned activities in the 1988 OJCS, it is instructive to note that the Director, J7, is handicapped by a rank disadvantage. He is a Major General while all the major OJCS Directors are Lieutenant Generals/Vice Admirals.

That is not to say that the J7 lacks legitimacy - it is to say that the J7 is less powerful.

The next element of legitimacy is command sponsorship. In military organizations, it is a well-established fact that no activity succeeds without command sponsorship which includes command support, command emphasis, and command attention. Any activity that permeates the life of an organization requires support from the top of that organization. The Joint Lessons Learned System (JLLS) is just such an activity. One of the major distinctions between the JLLS of 1988 and that of 1985 is the degree of command support at the highest levels. Unlike before, the CJCS is now armed with both the responsibility and the authority to make his support meaningful. But that support should not be taken for granted. All military positions change, and succeeding Chairmen may not lend the same support to the program as the resource situation worsens.

Command sponsorship is not simply limited to the CJCS either. Although he is the focal point for all such activities by law, the support of the JCS, the service Secretaries, and the Secretary of Defense are essential to a program which involves each of these organizations. These powerful officers pursue their own agendas, and not unexpectedly their attention is most often focused on those issues and programs where large sums of money are involved. The JLLS presently involves a small office within the J7. In relative terms, it

is insignificant compared to such programs as the Strategic Defense Initiative. This is not to place value judgments on either program, but simply to indicate the difficulty of gaining and holding strong leader support for a JLLS, given the inevitable high-level focus on high dollar, big ticket items.

Organizational legitimacy is also indicated by the presence of controlling directives. This has been, and unfortunately remains, a major problem area for both Joint and Army Lessons Learned Systems. There is no controlling directive today for either system. Although the CJCS effort has attained a degree of legitimacy by the 1988 publication of the two JCS directives (SM-368-88, JAARS; SM-83-88, JCS RAP), there is no JCS or DOD directive concerning the JLLS as a whole.[1]

Although the Army was quicker to see the need for a LLS, and faster to act than any of the other agencies by establishing CALL in 1985, it has incomprehensibly been the slowest to legitimize its efforts. The Army has no regulation on Lessons Learned in spite of the fact that CALL prepared, and submitted to HQDA, a comprehensive draft regulation, AR 11-XX, Army Lessons Learned Program: System Development and Application, dated 25 April 1988.[2] The Army's lethargy in responding is difficult to understand, and harder still to justify. The draft regulation is the first attempt by any DOD agency to establish a comprehensive

lessons learned effort applicable to both peacetime and conflict. As long as CALL is denied the basic organizational legitimacy afforded by official regulation, it will remain vulnerable to other accepted Army organizations and will fulfill a mere fraction of its true potential. Moreover, given the recent JCS efforts to legitimize their lessons learned system, if the Army fails to seize the initiative, it may find itself instead responding to external forces for change. Once forfeited, initiative is difficult to regain.

Legitimacy is also indicated by the amount of resources allocated to the organization charged with mission execution. One of the evident problems with the 1985 JCS system was the lack of resources dedicated to lessons learned activities. The assignment of lessons learned activities as extra, or additional duties, was representative of the lack of legitimacy of such activities at the time. The establishment of organizational entities within the Army and the Joint Staff whose primary duties are the maintenance of the Lessons Learned System is a profoundly positive change. However, as these elements lack the institutional credibility of the older, more established staff elements, they are more vulnerable to dissolution, particularly in times of resource constraints. Great care will have to be exercised to insulate these fledgling agencies from "equal share" budget cuts that have disproportionately unequal consequences. A J7

or a CALL can ill-afford to sustain such cuts as it grows toward the maturity enjoyed by the more-established agencies.

The final measure of organizational legitimacy is effectiveness. A legitimate organization is inherently successful in the long term. This implies that it contains a feedback mechanism - playing the role of honest broker - that allows it to adjust to internal and external forces to achieve success. In the case of the 1985 JCLL, the organization lacked such an internal mechanism, and did not change except in response to the external pressures of the GAO. The current JCLL has reversed this with the articulation of robust procedural and organizational controls that, if executed, will provide the feedback essential to the JCLL's growth into a comprehensive JLLS. The most important of these controls are the appointment of the JCS RAP Steering Group and the JCS RAP Working Groups; the requirement for an Annual RAP Program Status Report; and the designation of service, command, Federal Agency, and Joint Staff RAP coordinators.[3]

The Army presently lacks this organizational structure. Characteristic of the pre-1985 JLLS, the functional activities of the Army lessons learned system (and the power base) are fragmented among disparate ODCSOPS Directorates. There is no one, except for the ODCSOPS himself, to tie the pieces together into a cohesive package. As lessons learned activities are not his only concern, this is an

impossible expectation. The Army needs a single staff point of contact at the HQDA level for its lessons learned system. The nature of the activity demands it, the changes in the JCLL make it advisable, the existence of CALL makes it possible. CALL needs a dedicated HQDA sponsor to serve as its honest broker.

In addition to organizational legitimacy, the lessons learned system requires internal system integrity. It must approach the tasks of identification, analysis, and resolution of issues with objectivity and rigor that transcends service or OJCS parochial boundaries. And it must be capable of performing those tasks to completion. Specific system characteristics derived from this requirement were not successfully met by the earlier JLLS. These requirements are judicious filtering of issues, detailed yet timely analysis, and powerful resolution capabilities.

The GAO determined that earlier versions of the JLLS were excessively restrictive. Valid issues submitted at lower levels were repeatedly filtered from the process, for whatever reasons, at higher levels. Resources were not made available for basic, much less detailed, analysis. Perhaps this reflects the fact that there was no dedicated agency capable of such analysis. Even had such an agency existed at the time, it is unlikely that it could have succeeded in this task; no agency of the Joint Staff had the power to adjudicate and resolve pressing issues - not even the Chairman.

There are other criticisms of the previous JLLS which are important to consider. Most significantly, previous systems clearly focused attention and resources on the identification component to the exclusion of the analysis and resolution components. This charge may prove relevant today as well. The JCLL is essentially nothing more than two related databases regulated by the OJCS. The functioning of the RAP Steering and Working Groups is actually of far greater consequence to the lessons learned process as it moves from the realm of problem identification to that of problem resolution. Overestimation of the value of the databases at the expense of the analysis and resolution components of the process is a potentially serious problem for the lessons learned system. If commanders begin to perceive of the JLLS or the ALLS as nothing more than restricted databases, the systems will quickly lose support.

Another issue relating to the databases is the charge that they are not now, and have not previously, been useful in the heat of a crisis. The contention is that no one involved in responding to a real world situation is likely to find the time to review lessons learned from past operations. Moreover, by that time it is thought to be too late to effect change in any involved units. Furthermore, many of the databases in existence today are classified, and deny general access. There is also concern that such databases are just too cumbersome to be capable of providing the timely support

required by commanders and staffs at all levels to respond to current crises.

Lessons learned systems do not have the luxury of rejecting such considerations. Their focus must always be on providing useful, timely support to the commanders in the field; without that focus, there is no rationale for their existence. There is an urgent need for both the JLLS and the Army LLS to prove themselves of value to the field. Disseminating lessons learned, as CALL presently does, is a useful first step. Resolution of even one of the more serious interoperability issues would prove of even greater value.

Toward an Effective System

Thus, the current JLLS and its service counterparts require organizational legitimacy and internal system integrity if they are to respond to the demanding tasks of identifying, analyzing, and resolving serious interservice issues. Lessons learned activities must be consolidated in institutionalized, vice ad hoc, organizational elements. These elements rely on command sponsorship at the highest levels of the military for their very existence. They require the personal attention and support of the CJCS and the service chiefs if they are to help the commanders of the U&S commands in any meaningful fashion.

The entire lessons learned system desperately needs a JCS, if not a DOD, controlling directive to legitimize

lessons learned activities as a system rather than as disconnected activities. The Army should move quickly to approve and implement AR 11-XX, establishing the comprehensive Army Lessons Learned System proposed by CALL to the Army leadership in early 1988.

CALL and the JCLL should be insulated as much as possible from the emasculating effects of budget cuts. At a minimum, they should not be subjected to "across the board" cuts which cause patently inequitable effects to the fledgling organizations. Both the J7 and the CALL require careful attention to determining the minimum resources demanded by lessons learned activities. At the same time, commanders and staffs at all levels need to exercise great restraint in ordering these agencies to perform additional activities that drain precious resources from their primary functions. It does no good to legitimize lessons learned activities in regulations, then overtask or under-resource these organizations to the point that nothing is done well. This is most critical for the analysis and problem resolution tasks which are undeniably resource intensive.

Another essential characteristic of the ideal lessons learned system is that its components have effective interfaces. Both the Joint and Army systems require work in this area. Failure to achieve interoperability in lessons learned systems is an inexcusable waste of precious resources. The best Joint and Army minds need to work harder to insure

system compatibility at every interface. For its part, the Army needs to consolidate its lessons learned activities into a single agency and streamline the staff channels for working lessons learned issues so that the Joint Staff has a reasonable chance of successfully interfacing with that primary element. The two systems should be mutually supporting.

Together, these requirements and recommendations will create a robust lessons learned system that is capable of competing in the current military arena. They represent an evolutionary approach rather than a revolutionary approach. Many of the recommendations do not require more people or more money, but simply more time and attention from the nation's military leaders. In the case of the recommendation for the approval of AR 11-XX, the hard work has already been accomplished by CALL. It simply awaits a decision (albeit an apparently complex one). The fact of the matter is that the time for change is here. The window of opportunity created by the 1986 Goldwater-Nichols Act may not continue, and future changes may be directed from outside forces rather than from within. In short, it is matter of acting on the issues before the vacuum of action is filled by others.

Final Thoughts:

Areas For Further Research

This is an immensely important area for continued study and analysis. It has been frustrating that so little interest has been shown toward the subject of lessons learned activities over the years. Much more than increasingly dwindling resources are involved - lives are at stake. As with any subject of importance, education about the subject is one of the most important ways to provoke change and growth. Numerous important issues remain to be explored. The Army's approach to lessons learned activities has only recently been explored in any detail, and awaits further study. The emerging implementation of the JCS RAP and its multiple review mechanisms would frame an excellent analysis. The so-called "Defense Reformers" and the important role they played in producing the most profound of changes toward jointness with the 1986 changes to Title 10, USC, would also provide interesting insights on the close relationship between external influence and internal change. An excellent study could be made of the increasing tendency of Congress to involve itself in subjects the military has traditionally dominated. Other valuable work remains to be performed on assessing the value of the various combat training centers (NTC, JRTC, CMTC, and the BCTP) and their contributions to the lessons learned process. For the ambitious study, an exploration of the relationship between the PPBES and the

resolution of interoperability problems would prove interesting, if frustrating. The role of individual leaders in establishing viable lessons learned systems would also prove insightful. The opportunities for new scholarship are virtually unlimited in this field.

CHAPTER 5 ENDNOTES

[1]Major Martin A. Simonson, 17 February 1989 Response to Questionnaire submitted to OJCS/J7 by author, 1 January 1989.

[2]HQDA, AR 11-XX, Army Lessons Learned Program: System Development and Application (25 Apr 1988).

[3]Joint Chiefs of Staff, MJCS 83-88, The JCS Remedial Action Program (6 June 1988): Enclosure pages 1-3.

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INITIAL DISTRIBUTION LIST

1. LTC Gilbert Bernabe, Ph.D.
   8918 Lake Braddock Dr.
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2. Dr. Philip J. Brookes, Ph.D.
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3. Center For Army Lessons Learned
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   OJCS
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    DJACO, USACGSC
    Ft. Leavenworth, Kansas 66027-6900

12. Dr. Richard W. Stewart
    Chief Historian, Center for Army Lessons Learned
    Combined Arms Training Activity (CATA)
    Ft. Leavenworth, Kansas 66027