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MEDICAL DOCTRINE—ARE WE REALLY JOINT?

by

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Abstract

Using the Air War College Model for doctrine and strategy as a conceptual framework, Joint Publication 4.02, *Doctrine for Health Service Support in Joint Operations*, is analyzed to determine if it provides adequate guidance for seamless health service support in joint operations for war and contingencies other than war. An advocacy view is presented for service medical doctrine, primarily highlighting reasons for Air Force medical doctrine. Insights gained from this analysis lead to recommendations for further doctrinal guidance on medical evacuation, focused medical logistics, and communication. The need for medical force participation in joint readiness exercises is critical for the services to function as a cohesive team in providing health care and force support during actual combat or operations other than war.

Chapter 1

The Need For Joint Medical Doctrine

Doctrine provides a military organization with a common philosophy, a common language, a common purpose, and a unity of effort.

—General George H. Decker, USA

Clearly much progress has been made...in improving the joint warfighting posture of our military forces. But much remains to be done...we must give joint doctrine the attention it deserves and we must get it right.

—General John M. Shalikashvili

A corps of Medical officers was not established solely for the purpose of attending the wounded and sick...the labors of Medical officers cover a more extended field. The leading idea, which should be constantly kept in view, is to strengthen the hands of the Commanding General by keeping his army in the most vigorous health, thus rendering it, in the highest degree, efficient for enduring fatigue and privation, and for fighting. In this view, the duties of such a corps are of vital importance to the success of an army, and commanders seldom appreciate the full effect of their proper fulfillment.

—Major Jonathan Letterman
Medical Director of the Civil War Army of the Potomac

Introduction

Joint doctrine is the key to providing the Services with the overarching guidelines to enable them to train, equip, and employ forces as a cohesive team in the joint environment. From the Beirut bombing to Desert Storm, numerous deficiencies were found in medical readiness caused by lack of joint training and planning, shortages in

personnel, material, and evacuation.¹ In reference to current DOD medical operations, one may ask, “Are we really joint?” This study critically examines this question.

This study begins by first defining doctrine. Numerous definitions of doctrine are studied to build a foundation for analyzing current joint medical doctrine. To create a deeper understanding of the doctrinal process, a look at the historical development of Air Force doctrine and joint doctrine is taken. A conceptual model is a useful tool to analytically examine doctrine. The Air War College’s Model for doctrine and strategy is selected as the conceptual tool for this study. Chapters 2 and 3 lay the foundation for the study, Chapter 4 begins the analysis.

An analytical look at Joint Pub 4-02, *Doctrine for Health Service Support in Joint Operations*, is taken in Chapter 4. A description, along with a critical review, of the publication’s contents is presented. Does joint medical doctrine reflect a synergistic flow from service medical doctrine? Does joint medical doctrine provide the services with realistic guidelines enabling them to organize, train, and employ jointly to provide seamless health service support in war or operations other than war? These are a few of the questions this study attempts to address.

A major gap identified in analyzing joint medical doctrine in respect to Service doctrine is the lack of Air Force medical doctrine. The need for Air Force medical doctrine is identified by senior leadership in the medical corps; however this identification is relatively recent. To emphasize the importance of this doctrinal endeavor, a “Pro” or advocacy view is presented in Chapter 5. Conclusions and future recommendations follow.

Thesis Statement

The thesis of this paper is to examine current joint medical doctrine and determine if it flows from service medical doctrine in a synergistic way, providing the guidelines for seamless health service support in joint operations for war and missions other than war. The theoretical framework for the study is the Air War College Model for doctrinal and strategy analysis.

Specific Purposes

1. To provide a brief review of the literature on doctrinal definitions and history.
2. To critically examine Joint Pub 4-02 using the Air War College Model for analyzing the doctrine and strategy development process.
3. To determine if joint medical doctrine clearly flows from service doctrine in a synergistic way.
4. To determine if joint medical doctrine provides a template for the most efficient and effective way for the Services to organize, train, equip, and employ medical forces for war and military operations other than war in the joint environment.
5. To present the “Pro” view of developing and publishing sound Air Force medical doctrine.
6. To offer future recommendations based on insight gained from this study.

Delimitation's

This study is limited to:

1. The analysis of joint medical doctrine in light of Service medical doctrine. Critical analysis of Army and Navy doctrine is not within the design of this study.
2. The use of published doctrine manuals only (including the second draft of Air Force Doctrine Document 1, 21 May 1996).

Assumptions

The underlying assumptions of this study are as follows:

1. Joint Pub 4-02 is the only published joint medical doctrine at the time of this study.
2. Joint Pub 4-02.1 “JTTP for Health Service Support Logistics in Joint Operations” is in development.
3. Joint Pub 4-02.2 “JTTP for Patient Evacuation in Joint Operations” is in development.
4. Air Force medical doctrine has not been published at the time of this study.

Significance

In today's post cold war environment, with diminishing resources, joint employment of forces is of the utmost importance. America can no longer afford the redundant capabilities and inefficient allocation of resources often resulting from interservice rivalry and lack of jointness.² According to Snider, "such rivalry is responsible for forces that are often grossly ineffective and almost always very expensive."³ The Department of Defense's Commission on Roles and Missions in its 1995 report, *Directions for Defense*, claimed "that it is time to 'set aside outdated arguments' about 'who should do what' among the US military services and instead, given the joint structure in which America now fights wars, focus on 'who needs what' from the perspective of the unified commander."⁴ General Shalikashvili states in Joint Vision 2010, "The nature of modern warfare demands that we fight as a joint team. This was important yesterday, it is essential today, and it will be even more imperative tomorrow."⁵ Joint Vision 2010 emphasizes the importance of joint doctrine and the influence it has on future military capabilities.⁶ With increasing emphasis being placed on jointness, a thorough understanding of joint doctrine is essential.

Joint doctrine is the key to providing the services with guidelines to function as a cohesive team. Effective joint doctrine may determine the difference between ensuring the safety of those military members sent into combat or risking their loss as a result of the employment of procedures and tactics which lack the coordinated capabilities of all services.⁷ Unsynchronized Service doctrines are viewed as having impeded successful joint operations in Desert One, Grenada, and Lebanon.⁸ Dr. Snider states in his study on joint doctrine, "When US military forces are jointly employed Service doctrines clash."⁹

Several authors feel that it is the collision or rivalry of Service doctrines that inhibit the development and implementation of sound joint doctrine.¹⁰ According to Joint Pub 1-01.1, *Compendium of Joint Publications*, “a strong and viable joint doctrine is an essential piece of the nation’s defense tapestry.”¹¹

The newest mission area to join the joint doctrine publications is the medical service. The first joint publication specifically dedicated to addressing medical support in joint operations is Joint Pub 4-02, *Doctrine for Health Service Support in Joint Operations*. This publication establishes doctrine for planning and employing health service support in joint operations. Prior to the publication of Joint Pub 4-02 in April 1995, health service related issues were briefly addressed in the Joint Logistics Publication, Joint Pub 4-0. Given the emphasis placed on joint doctrine, a clear understanding and examination of the joint medical doctrine as it applies to all services is critical.

The importance of studying joint medical doctrine is to determine if it provides the guidelines for optimizing the way joint health service support is provided in the future. Medical personnel deploy to provide medical force protection for our military forces, tasked for missions involving regional conflicts or operations other than war. In the post cold war era, as military missions shift from war to regional conflicts or humanitarian missions, the DOD medical structure is also adopting a different posture in its support role as well as adopting jointness.¹² Joint medical planning expertise was critical in meeting health requirements for joint medical operations during Provide Relief, Restore Hope, and Operation Desert Shield/Desert Storm.¹³ Lessons learned from these missions show that joint planning and utilization of triservice medical assets is essential for effective operations. Therefore, insuring that joint doctrine is sound and represents the best way of

conducting future missions based on lessons learned from the past is imperative. Even more important is insuring that joint doctrine provides guidance that can be understood and implemented by all members of the health care team.

Maj Gen I.B. Holley, USAFR, Retired, identifies two problems that must be addressed on the subject of doctrine. The first, is to “perfect the means for devising sound doctrine.”¹⁴ The second, is to perfect the means for insuring that the doctrine developed can be communicated effectively and internalized by the men and women who must apply it.¹⁵ Doctrine should guide the way our medical services organize, train, equip, and employ for joint medical operations. If the doctrine is not understood and internalized by all service members actively involved in implementing it, then it becomes as Holley states, “a lot of unread pamphlets and a mass of wastepaper.”¹⁶

In today’s changing health care environment, with much of the military’s peacetime health care being outsourced, the plans to provide joint health service support globally requires much attention. The most effective and efficient means for delivering health care and support during joint operations for war or operations other than war must be clearly outlined in doctrine. This study examines current joint health service support doctrine and offers insights gained from this analysis.

Notes

¹ Captain Arthur M. Smith, USNR, “Joint Medical Support: Are We Asleep At The Switch?” *Joint Forces Quarterly*, (Summer 1995): 103.

² Dr. Don M. Snider, “The US Military in Transition to Jointness Surmounting Old Notions of Interservice Rivalry,” *Airpower Journal* Volume X, no.3 (Fall 1996): 16.

³ Ibid.

⁴ Ibid. In his article, Dr. Snider cites the DOD report, *Directions for Defense: Report of the Commission on Roles and Missions of the Armed Forces* (Washington, D.C.: Department of Defense, 24 May 1995).

Notes

⁵ Chairman of the Joint Chiefs of Staff, *Joint Vision 2010*, Washington, DC.: Pentagon.

⁶ Joint Vision 2010, and see also article by Rebecca Grant, "Closing the Doctrine Gap," *Air Force Magazine*, 80, no.1 (January 1997): 48.

⁷ Joint Pub 1-01.1, *Compendium of Joint Publications*, (25 April 1995): A-5.

⁸ Snider, "The US Military in Transition to Jointness," 16.

⁹ Ibid.

¹⁰ Carl H. Builder, *The Masks of War, American Military Styles in Strategy and Analysis*, (Baltimore: The Johns Hopkins University Press, 1989), 61. Rebecca Grant, "Closing the Doctrine Gap," *Air Force Magazine*, (January 1997): 51. Snider, "The US Military in Transition to Jointness," 16. Dr. William E. Turcotte, "Service Rivalry Overshadowed," *Airpower Journal* X, no. 3 (Fall 1996): 28.

¹¹ Joint Pub 1-01.1, A-5.

¹² Leonard M. Randolph, Jr. and Matthew W. Cogdell, "Medical Dimensions of Joint Humanitarian Relief Operations," *Joint Forces Quarterly*, (Spring 1996): 90.

¹³ Ibid., and Capt Frederick E. Ludwig II, MC, USNR, LTC Bernard J. Horak, MSC USA, CDR Mark R. Wallace, MC USNR, and CDR Martin K. Deafenbaugh, MC USN, "Rapid Host Nation Medical Deployment," *Military Medicine*, 157, no. 11 (November 1992): 598.

¹⁴ Maj Gen I.B. Holley, Jr., USAFR, Retired, "A Modest Proposal Making Doctrine More Memorable," *Airpower Journal* (Winter 1995): 14; and I.B. Holley, Jr., "The Doctrinal Process: Some Suggested Steps," *Military Review*, LIX, no. 4 (April 1979): 2.

¹⁵ Ibid.

¹⁶ Holley, "A Modest Proposal," 15.

Chapter 2

A Quest For Doctrine

Those who are possessed of a definitive body of doctrine and of deeply rooted convictions upon it will be in a much better position to deal with shifts and surprises of daily affairs than those who are merely taking short views, and indulging their natural impulses as they are evoked by what they read from day to day.

—Winston Churchill

Introduction

The first step to understanding doctrine is to define it. This chapter looks at various definitions of doctrine found in the literature, each Service's definition, and then at the joint chiefs' definition. To deepen the level of doctrinal understanding, beyond definitions, a snapshot of each Service's history of doctrine is presented.

Defining Doctrine

Doctrine is of the mind, a network of faith and knowledge reinforced by experience which lays the pattern for the utilization of men, equipment, and tactics. It is the building material for strategy. It is fundamental to sound judgment.

—General Curtis Emerson LeMay, 1968

Numerous definitions for doctrine can be found throughout the literature. These definitions vary from Service to Service and from author to author. According to General (Retired) I. B. Holley, who has a scholarly career of studying doctrine, “one major

problem is that we fail to use the word “doctrine” with precision.”¹ He states, “we need to define it more clearly, then set about the serious task of developing it.”² Drew and Snow found in their doctrinal studies, that although doctrine should impact the way we conduct military affairs, it remains an “ill-defined, poorly understood, and often confusing subject in spite of its considerable importance.”³ Hence, the key to understanding doctrine is to start with defining what it actually means.

In a 1974 Harmon Memorial Lecture at the U.S. Air Force Academy, General Holley quoted an early definition of doctrine from the Joint Chiefs: “A compilation of principles...developed through experience or by theory, that represent the best available thought.”⁴ He sees doctrine as what is officially taught. He further defines it as “an authoritative rule, a precept, giving the approved way to do a job. Doctrine represents the tried and true, the one best way to do the job which has been hammered out by trial and error, officially recognized as such, and then taught as the best way to achieve optimum results.”⁵ Holley describes doctrine like a compass bearing, “it gives us the general direction of our course...it is the point of departure for virtually every activity in the air arm.”⁶ Retired General Holley wrote classic pieces on doctrine. Other authors present different views and definitions, but overall, have a theme consistent with those offered by Holley.

Early theorists, such as Clausewitz, define doctrine as the “real nature of war.”⁷ Airpower theorist, Giulio Douhet, described doctrine as a “product of a particular milieu existing at a certain point in time.”⁸ Schroeder defines doctrine as a “set of universal principles.”⁹ Taylor defines doctrine as “policies and generalizations applicable to a subject which have been developed through experience or theory. They represent the

best available thought on the subject and indicate and guide but do not bind in practice. Doctrine is fundamental and general in nature...there must be different doctrine for different situations.”¹⁰ Consistent with these definitions are the definition of doctrine offered by Drew and Snow, “military doctrine is what we believe about the best way to conduct military affairs” or “what we believe about the best way to do things.”¹¹

Dr. Robert Frank Futrell, a leading Air Force doctrine historian, cites the work of two Air Force officers involved in the doctrine development process at the Air University in 1977-78 as noteworthy.¹² These officers, majors Ehrhart and Hutchinson, agreed on a simplified definition of doctrine, as “what we believe and teach.”¹³ Their definition mirrors the one offered by Holley. They further expounded their definition of doctrine as a “body of enduring principles, the general truths and accepted assumptions, which provide guidance and a sense of direction on the most effective way to develop, deploy, and employ air power.”¹⁴ A consistent theme throughout all these definitions is that doctrine is the fundamental beliefs about the best way to do a job, the tried and the true, and what should be taught.

Service Definitions

The Services vary significantly in their approach to doctrinal development. However, several similarities are found in their definitions of doctrine. All Services agree that doctrine represents fundamental beliefs about warfare and that it should be based on historical experience gained from combat or training. They all agree that doctrine should guide training and preparing forces for war or operations other than war. These similarities are reinforced by General Fogleman: “Each service’s doctrine, then, springs

from its respective fundamental beliefs about warfare formed through experience and expertise in certain technologies and mediums of warfare.”¹⁵

Army

Of all the Services, the Army sets the best example for doctrinal development and for insuring that their doctrine is effectively communicated and internalized throughout the entire organizational structure. Field Manual (FM) 100-5 is the Army’s keystone doctrine manual. This manual serves as an authoritative guide for how the Army fights wars and conducts operations other than war.¹⁶ The following is the definition of doctrine offered in FM 100-5 (June 1993).

Doctrine is the statement of how America’s Army, as part of a joint team, intends to conduct war and operations other than war. It is the condensed expression of the Army’s fundamental approach to fighting, influencing events in operations other than war, and deterring actions detrimental to national interests. As an authoritative statement, doctrine must be definitive enough to guide specific operations, yet remain adaptable enough to address diverse and varied situations worldwide. (Page 1-1)

The Army derives doctrine from a variety of sources. Examples of these sources are: “strategy, history, technology, the nature of the threats the nation and its armed forces face, interservice relationships, and political decisions that allocate resources and designate roles and missions.”¹⁷ Using these sources as inputs into doctrinal development is consistent with the Air War College’s model for doctrinal development.

Army doctrine serves as the basis for organization, modernization, leadership development and soldier training. According to FM 100-5, “Doctrine touches all aspects of the Army. It facilitates communications between Army personnel no matter where they serve, establishes a shared professional culture and approach to operations, and serves as the basis for curriculum in the Army school system.”¹⁸ Army doctrine clearly

reflects lessons learned from recent experiences as well as historical ones. It is strongly rooted in history and provides direction for the future.

Navy

The Navy has a series of six capstone documents on doctrine. These documents translate the vision and strategy of the White Paper, *Forward From The Sea* (1992), into doctrinal reality.¹⁹ Naval Doctrine Publication 1, *Naval Warfare*, (March 1994), addresses doctrine as follows:

Naval doctrine is the foundation upon which our tactics, techniques, and procedures are built. It articulates operational concepts that govern the employment of naval forces at all levels. A product of more than 218 years of U.S. Navy and Marine Corps experience in warfighting, it incorporates the lessons of history, learned in both the flush of success and the bitterness of failure.” (page i)

Navy doctrine is linked to past historical experiences and is forward focused. It outlines the principles for how the Navy organizes, trains, equips, and employs naval forces.²⁰ According to NDP 1, the Navy’s training and education are based on doctrine.

Air Force

Air Force doctrine is found in a two volume series titled Air Force Manual 1-1, *Basic Aerospace Doctrine of the United States Air Force*, (March 1992). Volume I is analogous to reading Cliff Notes of a novel; Volume II is the novel. Volume I contains the doctrinal statements and Volume II provides the historical examples and theoretical support for the statements. Volume II offers eight definitions of doctrine as defined by various scholars and senior military officers. In addition, definitions by various authors are also provided for the following types of doctrine: aerospace doctrine, basic doctrine, environmental doctrine, functional doctrine, military doctrine, operational doctrine,

organizational doctrine , and tactical doctrine. In the May 1996, second draft version of Air Force Document 1-1, *Air Force Basic Doctrine*, definitions of doctrine are streamlined.

Air Force Manual 1-1, Volume I, offers the following definition of aerospace doctrine: “Aerospace doctrine is, simply defined, what we hold true about aerospace power and the best way to do the job in the Air Force. It is based on experience, our own and that of others. Doctrine is what we have learned about aerospace power and its application since the dawn of powered flight.”²¹ This definition is modified in the May 1996 draft version of Air Force Document 1-1 and reads as follows:

Aerospace doctrine is a statement of officially sanctioned beliefs and warfighting principles which describe and guide the proper use of air and space forces in military operations. The Air Force promulgates and teaches this doctrine as a common frame of reference on the best way to prepare and employ air and space forces. Accordingly, aerospace doctrine drives how the Air Force organizes, trains, equips, and sustains its forces.

Aerospace doctrine is an accumulation of knowledge which is gained primarily from the study and analysis of experience. As such, doctrine reflects what has usually worked best. These experiences may include actual combat operations as well as tests, exercises, or military operations other than war. In those less frequent instances where experience is lacking or difficult to acquire (theater nuclear operations), doctrine may be developed through analysis of postulated actions. (Page 36)

Air Force doctrine primarily uses history as a conceptual basis for understanding war, human nature, and aerospace power.²² Doctrine is described in Air Force Manual 1-1 (1992), Volume I, as growing, evolving, and maturing, and as a standard against which to measure efforts.²³ As with the other Services, the Air Force sees doctrine as the foundation for organizing, training, equipping, and employing forces.

Joint Definition

Joint Doctrine Capstone and Keystone Primer (July 1994) offers the following definition of doctrine:

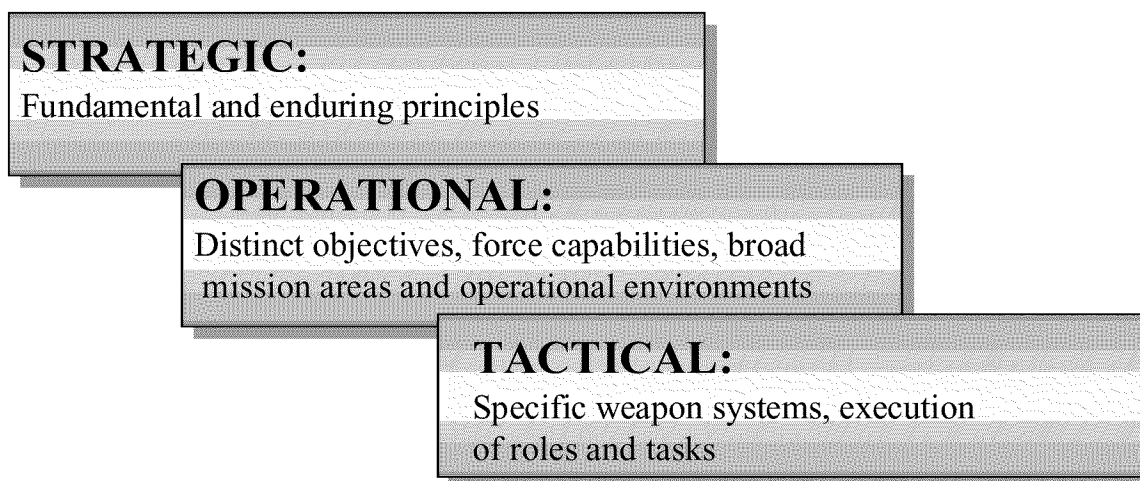
Military doctrine presents fundamental principles that guide the employment of forces. Doctrine is authoritative. It provides the distilled insights and wisdom gained from our collective experience with warfare. Doctrine facilitates clear thinking and assists a commander in determining the proper course of action under the circumstances prevailing at the time of decision. Though neither policy nor strategy, joint doctrine deals with the fundamental issue of how best to employ the national military power to achieve strategic ends. (Page 2)

Following the UH-60 Black Hawk shootdown in 1994, General Shalikashvili changed the status of joint doctrine from “recommended” to “authoritative.”²⁴ To emphasize the new focus of joint doctrine, General Shalikashvili states, “This doctrine will be followed except when, in the judgment of the commander, exceptional circumstances dictate otherwise.”²⁵ This new focus on the authoritativeness of joint doctrine places increased emphasis on its importance and influence on military power.²⁶

The chairman’s views on joint doctrine are reflected in Joint Vision 2010. In this document, joint doctrine is described as providing a common perspective, a focus for systems application and technology, and authoritative guidance for military forces. It also describes joint doctrine as fundamentally shaping “the way we plan, think, and train for military operations.”²⁷ Joint Vision 2010 reflects the importance joint doctrine has on the success of future joint operations.

Levels of Doctrine

Various levels of doctrine are addressed throughout the literature. The levels most frequently presented are strategic, operational, and tactical. The Royal Air Force's *Air Power Doctrine* graphically depicts these levels.



Source: From the Royal Air Force, *Air Power Doctrine*, AP 3000, 2nd Edition, 1993: 8.

Figure 1: The Levels of Environmental Doctrine

In this model, environmental doctrine is defined as “the nature of the three environments in which man fights—the sea, the land, and the air...”²⁸ This definition is consistent with that offered by Drew and Snow.²⁹ Strategic doctrine is considered the foundation or framework of all air power doctrine.³⁰ Operational doctrine, as defined by the Royal Air Force’s model, applies “the principles of strategic doctrine to military actions by describing the proper use of air forces in the context of distinct objectives, force capabilities, broad mission areas and operational environments.”³¹ Tactical doctrine in this model “applies strategic and operational doctrine to military actions” and deals with the execution of roles and tasks.³² The levels of doctrine as defined in the second draft of Air Force Doctrine Document 1 (May 1996) closely align with this model. Environmental doctrine for the Air Force is aerospace doctrine.

The Air Force currently views aerospace doctrine as an overarching doctrine. From aerospace doctrine, three levels flow according to depths of detail and are defined as basic, operational, and tactical doctrine.³³ Basic doctrine aligns with strategic doctrine in the Royal Air Force model. Although the terms differ, the definition is the same. According to Futrell, the term basic doctrine first appeared in 1940 when the Army Air Forces applied it to Field Manual 1-5, *Employment of the Aviation of the Army*.³⁴ Air Force Manual 1-1, *Basic Aerospace Doctrine of the United States Air Force*, 1992, states, “Basic doctrine, the foundation of all aerospace doctrine, provides broad, enduring guidance which should be used when deciding how Air Forces should be organized, trained, equipped, employed, and sustained. Basic doctrine is the cornerstone and provides the framework from which the Air Force develops operational and tactical doctrine.”³⁵ That definition has since been updated in the May 1996 Draft of Air Force Doctrine Document 1, *Air Force Basic Doctrine*. It reads, “Basic Doctrine states the most fundamental and enduring beliefs which describe and guide the proper use of air and space forces in military action. Basic doctrine is the foundation of all aerospace doctrine. Because of its fundamental and enduring character, basic doctrine provides broad and continuing guidance on how Air Force forces are prepared and employed.”³⁶ The terms operational and tactical doctrine and their perspective definitions are the same as those presented in the Royal Air Force model. Each level is essential in organizing, training, equipping, and employing air and space forces.³⁷

A Historical Perspective

Service Doctrine

The Army has a long standing history of sound historically rooted doctrine. According to Dr. Rebecca Grant, “the Army has the oldest, most developed doctrine infrastructure in DOD.”³⁸ The antecedent of the Army’s Keystone doctrine, *Field Manual 100-5*, is Baron von Steuben’s 1779 *Regulations for the Order and Discipline of the Troops of the United States*.³⁹ For generations the Army kept doctrine at the forefront of its profession.

Numerous doctrinal changes occurred throughout the Army’s history. Reformulation of doctrine took place after the Vietnam decade.⁴⁰ Doctrine evolved in the post Vietnam era into what became known as “Airland Battle Doctrine.”⁴¹ Following the Goldwater-Nichols Act of 1986, Army doctrine reflected a shift to stronger joint operations.⁴² The 1993 doctrine recognized the end of the Cold War and reflected Army thinking in a new, strategic era. Army doctrine retains the best of all previous doctrine, but strives to provide direction for the future.⁴³ Dr. Grant in her analysis of Service doctrine, views Army doctrine as visionary in nature. She notes that “the Army looks out about ten years ahead of the basic doctrine cycle.”⁴⁴ This approach keeps Army doctrine alive and evolving.

The Army’s Training and Doctrine Command (TRADOC) located at Fort Monroe, Virginia, oversees all Army training and doctrine. TRADOC revitalized Army doctrine following the Vietnam War.⁴⁵ Today, TRADOC continues to revise and update doctrine according to new technological advances and mission requirements. Although TRADOC supervises and integrates new doctrinal concepts, more than 600 of the Army’s

operational and tactical doctrine publications are written in the field.⁴⁶ The Army has mastered the art of integrating their doctrine with education and training programs and ensuring doctrine is well communicated and internalized by all soldiers.

Naval doctrine dates back to the Spanish American War. The Battle of Santiago in July 1898, stirred public debate and resulted the term doctrine being virtually banished from the naval lexicon.⁴⁷ Doctrine reappeared in the Navy in 1915 and took root in the unwritten form.⁴⁸ By World War II, the Navy had a mature, formal, and centralized system for developing and evaluating doctrine.⁴⁹ Since World War II, naval doctrine has existed in various written and unwritten forms. The Navy was not too eager to embrace doctrine for fear that it might restrict the initiative and independence of the captain at sea.⁵⁰ In 1990, the focus on doctrine changed in the Navy and it announced the establishment of the Naval Doctrine Command.⁵¹ The Command opened in March 1993 at Norfolk, Virginia and was charged with developing doctrine to sustain the strategic concepts outlined in the 1992 white paper...*From The Sea*.⁵²

Of all the Services, the Air Force has the most turbulent history of doctrinal development. As noted in *The Development of Air Doctrine in the Army Air Arm 1917-1941*, fighting on land and water dates back to the dawn of human society, but fighting in the air came with dramatic suddenness.⁵³ The history of air doctrine then only dates back to 1917.⁵⁴ In the aftermath of World War I, the Air Corps issued its first doctrinal publication in 1926.⁵⁵ Revised in 1935, this remained the doctrine of Army Aviation until 1940.⁵⁶

The organization credited with the development of air doctrine is the Air Corps Tactical School (ACTS). The ACTS was founded on 25 February 1920 at Langley Field,

Virginia and later moved in 1931 to Maxwell Field, Alabama.⁵⁷ As early as 1921, the ACTS began developing and teaching Air Service doctrine in an effort to bring a better understanding and closer cooperation between the Air Service and other arms.⁵⁸ Lt Col John F. Curry, Commandant of the ACTS, wrote: “Much of this doctrine is founded on the particular ideas of an individual man and not based on the research and study from which should grow such doctrine. There should be in the Air Corps some clearing house into which tactical ideas can flow where they can be tried and where the doctrine can go out to the service to be put into practice and be evaluated.”⁵⁹

The ACTS continued its pursuit of doctrinal development through the late 50’s. An Air Doctrine Branch was then established within Air Staff.⁶⁰ Doctrinal manuals were prepared by Air Staff until 1984.⁶¹ Throughout these years, doctrine development was viewed as purely an “ad hoc” process and this process continues to plague Air Force doctrine writing ever since.⁶² In 1989, the responsibility for doctrine writing was once again placed at the Air University. The Air University’s Center for Aerospace Doctrine, Research, and Education (CADRE) was established.⁶³ In March 1992, AFM 1-1, *Basic Aerospace Doctrine of the United States Air Force*, was published. The current Air Force Doctrine Center is located at Langley Air Force Base, Virginia, however, plans are in place to move the doctrine center back to the Air University. Air Force doctrine received much criticism over the years.⁶⁴ With increased emphasis placed on Service doctrine by General Fogleman, new changes are on the horizon for Air Force doctrine.

Joint Doctrine

The history of joint doctrine is not a long and illustrious one. American history of joint warfighting dates back to the Revolutionary War, but the development of sound

joint doctrine is relatively new.⁶⁵ Following World War II, interservice rivalry impeded the formulation of joint doctrine. A Joint Operations Review Board of approximately fifty Army and Navy officers convened at the Army and Navy Staff College (later to become National War College) in 1946 to analyze joint operations during World War II and revise joint doctrine.⁶⁶ Attempts to develop this revised doctrine failed. In 1948, the Joint Chiefs of Staff established a Committee for Joint Policies and Procedures and assigned them the task of revising the 1935 doctrine of *Joint Action of the Army and Navy*.⁶⁷ The result was three separate service identifications which violated the principle of a joint doctrine.⁶⁸ Each Service's doctrine diametrically opposed one another.⁶⁹ According to Futrell, "instead of resulting in the production of harmonious interservice doctrine, the joint board negotiations appeared to have widened the doctrinal divergencies of the Army, Navy and Air Force."⁷⁰ In 1955 the joint boards dissolved.⁷¹ History shows that since World War II, a great need was identified for perfecting the means to develop joint doctrine, but due to the lack of consensus among the Services, no formal process resulted.

Prior to the Goldwater-Nichols Department of Defense Reorganization Act of 1986, an established process for the development of joint doctrine did not exist. A single agency or individual had not been tasked with the responsibility of ensuring continuity between joint, Service, or combined doctrine.⁷² Following the Goldwater-Nichols Act, the Chairman of the Joint Chiefs of Staff became responsible for developing joint doctrine. Major changes soon resulted in the joint doctrinal development process.⁷³ A separate Joint Doctrine Division was formed within the J7 Directorate to specifically manage the joint doctrine development process.⁷⁴

According to Joint Doctrine, *Capstone and Keystone Primer* (July 1994), the current joint doctrine system evolved from a J7 initiative known as the Joint Doctrine Master Plan, often referred to as the most comprehensive assessment of joint doctrine ever taken.⁷⁵ When the Joint Chiefs of Staff approved the Joint Master Plan in February 1988, they approved an entirely new joint doctrine development process along with a joint publication hierarchy and a joint doctrine terms of reference.⁷⁶ Results from the Goldwater-Nichols Act of 1986 revitalized joint doctrine.

Summary

The starting point for a study of doctrine is to begin by defining it. A review of the literature shows various definitions and interpretations of doctrine. However, a common theme is found throughout. This theme is that doctrine is viewed as the fundamental beliefs about the best way to do a job or perform a mission either for war or military operations other than war. It is what one generation teaches the next.

The literature addresses three levels of doctrine; strategic, operational, and tactical. The Royal Air Force's, *Air Power Doctrine*, provides clear and concise definitions of these three levels. The definitions the Royal Air Force offers are consistent with Air Force Doctrine Document 1, May 1996, second draft.

Service doctrine provides the best way to organize, train, equip, and employ forces for war or operations other than war. Service doctrine provides the foundation for joint doctrine. Joint doctrine flows from service doctrine and provides the overarching guidelines for the Services to function seamlessly in the joint environment. Another key theme is doctrine must be strongly rooted in history.

A brief look at the history of each Service doctrine revealed that the Air Force experienced the most turbulent history of doctrinal development. The Army is the model for the most institutionalized doctrine process. The Navy shows historical gaps in their doctrine journey, but is making great progress in current doctrine development. Finally, a look at joint doctrine shows that it actually took hold following the Goldwater-Nichols Act in 1986.

This chapter provides the foundation for defining doctrine along with a historical perspective of Service and joint doctrinal journeys. Next, the model for analyzing the doctrinal development process is presented in Chapter 3.

Notes

¹ Maj Gen I.B. Holley, Jr., USAF Reserve, Retired, “The Doctrinal Process: Some Suggested Steps,” *Military Review*, LIX, no. 4, (April 1979): 2.

² Ibid.

³ Col Dennis M. Drew and Dr. Donald M. Snow, *Making Strategy, An Introduction to National Security Processes and Problems* (Maxwell Air Force Base, Ala.: Air University Press, August 1988), 163.

⁴ Irving B. Holley. *The United States Air Force Special Studies: Ideas and Weapons*, (Office of Air Force History, Washington, D.C.: U.S. Government Printing Office, 1983). In this book, Richard H. Kohn, then Chief, Office of Air Force History, noted in the Foreword that few individuals have contributed more to the study of Air Force history than Professor Holley. Holley joined the Air Force Reserve in 1947, rising to the rank of Major General in 1976. Holley’s work on doctrine has become classic pieces.

⁵ Holley, “The Doctrinal Process: Some Suggested Steps,” 4.

⁶ Holley, *The United States Air Force Special Studies: Ideas and Weapons*, 2.

⁷ Major Ted Schroeder, USAF, “Doctrine and Strategy-The Misunderstood Basics,” *Military Review*, LIX, no. 1 (January 1979): 14. Major Schroeder served as an associate professor at the US Air Force Academy. He received his Ph.D. from Colorado State University and completed a postdoctoral fellowship at the National Aeronautics and Space Administration’s Flight Research Center.

⁸ Ibid., 12.

⁹ Ibid.

¹⁰ Major John W. Taylor, US Army, “A Method for Developing Doctrine,” *Military Review*, LIX, no. 3 (March 1979): 71. Major Taylor served with the Office of the

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Deputy Chief of Staff for Operations and Plans, Washington, D.C. at the time he wrote this article on Doctrine.

¹¹Drew and Snow, *Making Strategy, An Introduction to National Security Processes and Problems*, 163.

¹² Robert Frank Futrell, *Ideas, Concepts, Doctrine: Basic Thinking in the United States Air Force 1961-1984*. Volume II (Maxwell Air Force Base, Ala.: Air University Press, December 1989), 731.

¹³ Ibid. Futrell notes that in 1977 the Directorate of Plans ordered an initiative to review and study the current Air Force doctrine program. The study would be a collaborative effort between the Air University and the Air Force Academy. Major Ehrhart from the Academy's Department of History served on this project. Major Hutchinson was special assistant to the ACSC commandant for doctrinal and conceptual matters.

¹⁴ Ibid.

¹⁵ Gen Ronald R. Fogleman, Chief of Staff, USAF, "Aerospace Doctrine More than Just a Theory," *AirPower Journal*, X, no. 2 (Summer 1996): 43.

¹⁶ Army Field Manual (FM) 100-5, *Operations*, June 1993, v.

¹⁷ Ibid.

¹⁸ Ibid., 1-1.

¹⁹ Naval Doctrine Publication 1, *Naval Warfare*, March 1994,

²⁰ Ibid.

²¹ Air Force Manual 1-1, *Basic Aerospace Doctrine of the United States Air Force*, Volume I, March, 1992, vii.

²² Ibid.

²³ Ibid.

²⁴ Rebecca Grant, "Closing The Doctrine Gap," *Air Force Magazine*, 80, no. 1 (January 1997): 51.

²⁵ Ibid.

²⁶ Ibid.

²⁷ Chairman of the Joint Chiefs of Staff, *Joint Vision 2010*, Washington, D.C.: Pentagon, 30.

²⁸ Royal Air Force, *Air Power Doctrine*, AP 3000-2nd edition 1993, in the UK for HMSO, 8.

²⁹Drew and Snow, *Making Strategy, An Introduction to National Security Processes and Problems*, 170. Col Drew and Dr. Snow's definition of environmental doctrine is also used in Air Force Manual 1-1 Volume II, *Basic Aerospace Doctrine of the United States Air Force*, March 1992, 283.

³⁰ Royal Air Force, *Air Power Doctrine*, 8.

³¹ Ibid., 9.

³² Ibid.

³³ Air Force Document 1, *Air Force Basic Doctrine*, Second Draft, May 1996, 36.

³⁴ James A. Mowbray, "Air Force Doctrine Problems 1926-Present," *AirPower Journal*, (Winter 1995): 22.

Notes

³⁵ Air Force Manual 1-1 Volume II, *Basic Aerospace Doctrine of the United States Air Force*, March 1992, 274.

³⁶ Air Force Document 1, *Air Force Basic Doctrine*, 36-37.

³⁷ Ibid.

³⁸ Grant, "Closing the Doctrine Gap," 49.

³⁹ FM 100-5, vi.

⁴⁰ John L. Romjue, *From Active Defense to Airland Battle: The Development of Army Doctrine, 1973-1982* (Historical Office, United States Army Training and Doctrine Command, Fort Monroe, Virginia, Washington D.C.: U.S. Government Printing Office, 1984), 3.

⁴¹ Ibid., 1.

⁴² FM 100-5, vi.

⁴³ Ibid.

⁴⁴ Grant, "Closing the Doctrine Gap," 49.

⁴⁵ Ibid.

⁴⁶ Ibid., 48.

⁴⁷ James J. Tritten, "Developing Naval Doctrine...From the Sea," *Joint Forces Quarterly*, no.9 (Autumn 95): 110.

⁴⁸ Ibid.

⁴⁹ Ibid.

⁵⁰ Grant, "Closing the Doctrine Gap," 49.

⁵¹ Tritten, 111.

⁵² Ibid.

⁵³ Thomas H. Greer, *The Development of Air Doctrine in the Army Air Arm 1917-1941*, (Office of Air Force History, United States Air Force, Washington, D.C.: U.S. Government Printing Office, 1985), vii.

⁵⁴ Ibid.

⁵⁵ Mowbray, "Air Force Doctrine Problems 1926-Present," 23.

⁵⁶ Ibid.

⁵⁷ Ibid.

⁵⁸ Robert T. Finney, *History of the Air Corps Tactical School 1920-1940*, (Center for Air Force History, Washington, D.C.: U.S. Government Printing Office, 1992), 19.

⁵⁹ Ibid., 83.

⁶⁰ Mowbray, "Air Force Doctrine Problems 1926-Present," 34.

⁶¹ Ibid.

⁶² Ibid., 23.

⁶³ Ibid., 34.

⁶⁴ Futrell, *Ideas, Concepts, Doctrine: Basic Thinking in the United States Air Force 1907-1960*, Volume 1; Futrell, *Ideas, Concepts, Doctrine: Basic Thinking in the United States Air Force 1961-1984*, Volume II; Dr. Rebecca Grant, "Joint Doctrine: Dangers and Opportunities," lecture, Air War College, Maxwell Air Force Base, Ala.: August 1996.

⁶⁵ Joint Pub 1-01.1, *Compendium of Joint Publications*, (25 March 1995): A-2.

Notes

⁶⁶ Robert Frank Futrell, *Ideas, Concepts, Doctrine: Basic Thinking in the United States Air Force 1907-1960*, Volume I, (Maxwell Air Force Base, Ala.: Air University Press, 1989), 373.

⁶⁷ Ibid., 375.

⁶⁸ Ibid., 379.

⁶⁹ Ibid., 407

⁷⁰ Ibid., 408

⁷¹ Ibid.

⁷² Joint Pub 1-01.1, *Compendium of Joint Publication*, (25 March 1995): A-2.

⁷³ Joint Doctrine, *Capstone and Keystone Primer*, (15 July 1994): 53.

⁷⁴ Ibid.

⁷⁵ Ibid., 54.

⁷⁶ Ibid.

Chapter 3

Theoretical Framework

Doctrine should be alive—growing, evolving, and maturing. New experiences, reinterpretations of former experiences, advances in technology, changes in threats, and cultural changes can all require alterations to parts of our doctrine even as other parts remain constant. If we allow our thinking about aerospace power to stagnate, our doctrine can become dogma.

—Air Force Manual 1-1 (March 1992)

Introduction

A model or framework provides a useful tool for developing doctrine and also for evaluating or analyzing existing doctrine. Several conceptual models are found in the literature.¹ These models are used primarily to study warfighting or airpower doctrine. The literature does not show the use of a conceptual model in the medical realm of doctrine. Therefore, the model developed at the Air War College for “Doctrine and Strategy Development Process” serves as the conceptual framework for this study. Although the model is used to study airpower doctrine, Colonel Bean, Chief of Doctrinal Development at the Air War College, acknowledges this model as a relevant tool for this study’s analysis of medical doctrine.²

Air War College Model

The doctrine and strategy development process is an evolving, ever changing cycle.

The Air War College model provides a useful framework for understanding this cycle.

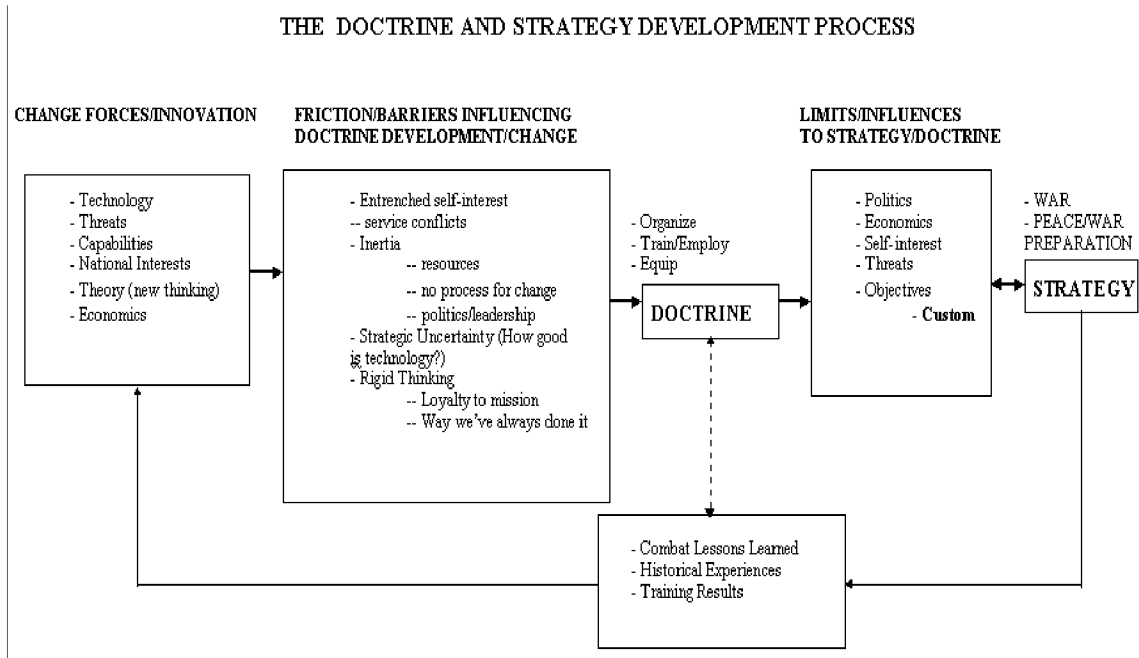


Figure 2. Air War College Model

The cycle begins by taking into account various change forces or innovations influencing doctrine development or alterations in existing doctrine. These forces are considered inputs that change existing doctrine or spark the formation of new doctrine.³ Examples of change forces are new technological advances in medical capabilities, current or future threats, changes in force capabilities such as resources or manpower, changes in national interests or policy, and economic factors (see figure 2). These forces or innovations can be enabling or limiting factors to the doctrinal cycle. Strategic thinking regarding these change forces is imperative in order to establish sound, progressive doctrine. Once change forces are systematically analyzed, and their effect on doctrine is

logically thought out, the next step in the cycle is to recognize barriers affecting their input into the doctrinal development cycle.

The model depicts several factors which may be considered as friction or barriers influencing doctrine development or change. This step in the model can be considered the “reality check.” Even though new technological advances may occur or new emerging theories may develop, barriers at this stage of the cycle may require that doctrine be adjusted accordingly. Examples of such barriers are service parochialism, rigid thinking such as “we’ve always done it this way,” strategic uncertainty, and inertia or resistance to new changes (see Figure 2). These barriers may critically alter, limit, or prolong the doctrinal development cycle. Awareness of such barriers may help facilitate this process.

Once doctrine is formulated, it provides a plan or strategy for how best to organize, train, equip, and employ our forces. Some models refer to this step as outputs from doctrine. For example, the Royal Air Force uses a model which closely resembles the Air War College model.⁴ In this model they define this step in the cycle as doctrine outputs.⁵ In describing outputs, they state that “once formulated, doctrine is translated into actual military capabilities through plans, organization, force structuring, and training requirements.”⁶ The Air War College and the Royal Air Force models show that doctrine shapes military strategy. However, just as there are barriers influencing doctrine formation, there are factors influencing the output of doctrine which is strategy (see Figure 2). Examples of these factors are political and economic changes, interservice conflicts and self interests, changes in threats or in national or military objectives (Figure 2). All of these factors may influence strategy and may result in doctrinal changes. The

Royal Air Force model eloquently describes this stage of the cycle, “Doctrine sets out the best way to do things, and military strategy is formulated within the guidelines provided by doctrine, taking into account the existing realities.”⁷ The next step in the doctrinal cycle is to validate the doctrine and its outputs.

Validation ensures that the resulting doctrine is sound and represents the best way to accomplish the mission. Validation is provided by relevant experience.⁸ Experience may result from actual combat, training exercises, or history (see Figure 2). This step in the cycle may directly result in modifications to doctrine or may indirectly alter doctrine by initiating review of the entire process starting at the beginning of the cycle. Most doctrinal theorists agree that experience is a key element to the doctrinal cycle.⁹ According to Dr. Rebecca Grant, doctrine condenses experience into wisdom by capturing successes or failures and carries timeless lessons of war from one generation to the next.¹⁰ Lessons learned from previous wars or conflicts, training, history, or theorists, add wisdom to the development of sound doctrine. Holley states, “Historical experience provides the proof of what has worked and what has not worked. Experience carries us beyond the visions and speculations of theorists.”¹¹ Doctrine based on these experiences is able to propel the military into the future while being strongly rooted in the past.

Summary

Doctrine should provide a template for the best way to organize, train, equip, and employ our military forces for war and operations other than war. It should reflect those change forces, innovations, and beliefs upon which plans or strategy are built. It also provides a standard against which to measure the outputs. According to Drew and Snow,

“Many factors prevent the military from doing things in the best manner, but doctrine can still provide a yardstick—an indicator of success and a tool for analyzing both success and failure. Doctrine can measure not only its own impact on the decision making process but also its own relevance.”¹² The Air War College model provides an organized approach to understanding and analyzing the doctrinal process. It enables one to strategically think through the steps of the cycle which encompass a broad range of change forces, friction or barriers, and experiences resulting from history, combat, or training and understand how they influence doctrine. This model is used in this study to systematically analyze current joint medical doctrine.

Notes

¹ The following references address conceptual models that apply to the doctrinal process. Col Dennis M. Drew, USAF, Retired, “Inventing A Doctrine Process,” *Airpower Journal*, (Winter 1995): 42-52; Dr. Rebecca Grant, “Joint Doctrine: Dangers and Opportunities,” lecture, Air War College, Maxwell Air Force Base, Ala., August 1996; Maj Gen I.B. Holley, Jr., USAFR, Retired, “A Modest Proposal Making Doctrine More Memorable,” *Airpower Journal*, (Winter 1995): 14-20; I.B. Holley, Jr., “The Doctrinal Process: Some Suggested Steps,” *Military Review*, LIX, no. 4, (April 1979): 2-13; Royal Air Force, *Air Power Doctrine*, AP 3000-2nd edition 1993, in the UK for HMSO, 129-131; Royal Australian Air Force, *Air Power Manual*, AAP 1000, 1st ed. Compiled and Edited by the Airpower Study Center, Royal Australian Air Force, RAAF Base Fairbairn, Australia, August 1990, 253-263.

² Col William R. Bean, Chief, Doctrinal Development, Department of Military Studies, Air War College, Maxwell Air Force Base, Ala., interviewed by author, 17 January 1997.

³ Ibid.

⁴ Royal Air Force, *Air Power Doctrine*, 129.

⁵ Ibid., 131.

⁶ Ibid., 130.

⁷ Ibid., 131.

⁸ Ibid., 131.

⁹ Col Dennis M. Drew, USAF, Retired, “Inventing A Doctrine Process,” 43; Col Dennis M. Drew and Dr. Donald M. Snow, *Making Strategy, An Introduction to National Security Processes and Problems* (Maxwell AFB, Ala.: Air University Press, August 1988), 33; Dr. Rebecca Grant, “Joint Doctrine: Dangers and Opportunities,”

Notes

lecture, Air War College, Maxwell Air Force Base, Ala., August 1997. Maj Gen I.B. Holley, Jr., USAFR, Retired, “A Modest Proposal,” 19.

¹⁰ Dr. Rebecca Grant, “Joint Doctrine: Dangers and Opportunities,” lecture, Air War College, Maxwell Air Force Base, Ala., August 1997.

¹¹ Maj Gen I.B. Holley, Jr., USAFR, Retired, “A Modest Proposal,” 19.

¹² Col Drew and Dr. Snow, *Making Strategy, An Introduction to National Security Processes and Problems*, 174.

Chapter 4

Analysis of Joint Pub 4-02 Doctrine For Health Service Support In Joint Operations

Joint Doctrine will remain the foundation that fundamentally shapes the way we think about and train for joint military operations.

—Joint Vision 2010

We must be ready to support combat arms and operations. If we can't be ready, there's no reason to be in uniform. It's as simple as that.

—Lt.Gen. Charles Roadman II
Air Force Surgeon General

Introduction

This chapter focuses on examining Joint Pub 4-02. The publication contains four chapters. Each chapter is discussed separately. This doctrine is studied to determine if it flows from Service medical doctrine in a synergistic way. The Air War College model for doctrine and strategy development process is used as the conceptual framework to analyze this doctrine. Consistent with this framework, innovations or change forces which serve as inputs to the doctrinal development process are studied. Next, doctrinal outputs are studied to determine if it provides a plan for the best way to organize, train, equip, and employ Services medical forces jointly for war or military operations other than war. Finally, the study examines the doctrine to determine if it is historical rooted;

based on experiences gained from previous combat, operations other than war, or training.

Doctrinal Analysis

Chapter 1: The Health Service Support System

Chapter 1 provides definitions of and information regarding various components of the HSS. The health service support (HSS) mission and objectives in joint operations are defined as follows:

The health service support (HSS) mission in joint operations is to minimize the effects of wounds, injuries, and disease on unit effectiveness, readiness, and morale. This mission is accomplished by a proactive preventive medicine program and a phased health care system (echelons of care) that extends from actions taken at the point of wounding, injury, or illness to evacuation from a theater for treatment at a hospital in the continental United States (CONUS). The primary objective of HSS is to conserve the commander's fighting strength of land, sea, air, and special operations forces. HSS in joint operations requires continuous planning, coordination, and training to ensure a prompt, effective, and unified health care effort. (Page v)

The definitions of the HSS mission and objectives are very similar to those found in FM 8-55, *Planning for Health Service Support* (September 1994); FM 8-10, *Health Service Support In A Theater of Operation* (March 1991); and NWP 4-02, *Operational Health Service Support* (August 1995).¹ Joint HSS mission and objectives flow from the Service HSS doctrine manuals noted above.

Following the definition of the HSS mission, a new dimension of measurement is added. The publication states that "One measure of this system's effectiveness is its ability to save life and limb, to reduce the disease and nonbattle injury rate, and to return patients to duty quickly and as far forward in the theater as possible. Another measure is

the system's ability to evacuate patients to the Communications Zone or out of the theater as appropriate, within the operational evacuation policy, with a minimum delay."² According to Air Force Manual 1-1 (1992), Volume 1, doctrine should provide a standard against which to measure efforts.³ This meets that criteria.

The five echelons of care that make up the HSS system are discussed next. The joint doctrine provides a general overview of the five echelons of care and discusses each echelon's clinical capabilities and provider mix. Joint Pub 4-02 notes that joint or multinational operations were not addressed at the inception of echelons of care. However, Joint Pub 4-02, other than reiterating what is already defined in service medical doctrine, does not offer new directions for joint or multinational operations regarding echelons of care. A new look at the organization of theater health care and how the services can increase their capabilities for providing care jointly throughout this system would be valuable information to consider for future doctrinal revisions.

Patient evacuation is presented in terms of responsibility. The component commands are responsible for patient evacuation in the combat zone or within the first three echelons of care and they must coordinate evacuations with the Theater Patient Movements Requirements Center. Army air ambulance assets provides patient evacuation for Navy hospital ships. Aeromedical evacuation from Echelon III to Echelon IV is a responsibility of the supporting Air Force component. The US Commander in Chief, Transportation Command is responsible for patient evacuation from the theater. Those operations which have a joint force air component commander (JFACC) designated are not addressed. If the JFACC is involved in the coordination process of patient evacuation missions should be addressed in the doctrinal guidance. Other than

defining areas of responsibility, no other guidelines for patient evacuation in joint operations are addressed in this chapter, however, reference is made to a future joint publication (in development) which will address patient evacuation in joint operations.⁴

This paper cites several doctrine scholars who suggest that sound doctrine is based on experiences learned from combat or training exercises. Retired Maj Gen I.B. Holley suggests that doctrinal statements be directly supported with historical examples.⁵ Joint Pub 4-02 references field evacuation and hospitalization of wounded in Vietnam to support patient movement and treatment principles presented in Chapter 1.⁶ This is an excellent example to validate these doctrinal principles. However, recent lessons from the Gulf War and other joint contingency operations would add further credence to current doctrine and provide valuable support for doctrinal changes regarding evacuation. This is a major gap identified in this doctrine.

Numerous lessons can be learned from Desert Shield/Storm and other joint contingency operations pertaining to echelons of care and patient evacuation. For example, medical lessons learned from the Beirut bombing show deficiencies existed in readiness capabilities caused by shortages in personnel, materiel, evacuation assets, and lack of joint planning for wartime use.⁷ During Desert Shield, air transportable hospitals and fleet hospitals were arriving equipped with technology from the 1970s and were supplied with older generations of equipment.⁸ Incompatibilities and deficiencies between Naval, Army, and Air Force medical capabilities were identified in areas such as equipment, bed capacity, provider mix, clinical capabilities, and communication capabilities at various echelons of care.⁹ This significantly slowed medical personnel's readiness response.¹⁰ According to Holley, "historical experience provides the proof of

what has worked and what has not worked.”¹¹ Lessons learned from these operations could enhance joint doctrinal principles used as the basis for planning HSS for future joint operations.

Six health care principles comprising the HSS system are presented in Chapter 1: conformity, proximity, flexibility, mobility, continuity, and coordination. These HSS principles and their definitions flow from Army medical doctrine, FM 8-10, *Health Service Support in a Theater of Operations*, (March 1991).¹² Navy medical doctrine, NWP 4-02, *Operational Health Service Support*, (August 1995), identifies eight principles of health service support: responsiveness, flexibility, continuity, economy, attainability, sustainability, simplicity, and survivability.¹³ The basic principles comprising the joint HSS flow from Service doctrine, primarily Army HSS doctrine.

The next area addressed in Chapter 1 is the roles and responsibilities for joint HSS; specifically for the joint force surgeon. The doctrine clearly outlines the joint force surgeon’s responsibilities for coordinating all HSS matters for the joint force commander. This section reflects Army doctrine on joint health service support planning and the roles and responsibilities of the joint task force surgeon.¹⁴

Medical regulating of patients is the next area addressed. Joint doctrine specifies that the movement of patients to or between medical treatment facilities within the combat zone or forward of corps level is a Service component responsibility.¹⁵ Army doctrine FM 8-10 and Navy doctrine NWP 4-02 clearly outline their service specific plans for patient movement within the combat zone.¹⁶ Patient movements to destinations within the theater, to another theater, or to CONUS are accomplished through the

TRANSCOM's Regulating and Command and Control Evacuation System. Chapter I provides an overview of the three basic collaborative parts of this multi-nodal system.

A recommendation is that medical regulating be addressed in conjunction with evacuation, since evacuation to another theater or to CONUS is the endstate of medical regulating. Also, joint doctrine should place increased emphasis on integrating communications and equipment between the services because this is critical to efficient and safe patient movement. Joint readiness exercises to test the efficiency of how the services actually work as a team in regulating patients would validate current doctrinal guidance or provide useful recommendations for improvement. Although each service may have their own plan for the medical regulating of patients, joint doctrine should provide direction for how service capabilities can be wisely integrated to provide safe and efficient patient movement.

Single integrated medical logistics management (SIMLM) is briefly introduced in Chapter I and expounded upon in Chapter II. Reference is made to a new Joint Pub (4-02.1, *Joint Tactics, Techniques, and Procedures for Health Service Support Logistics in Joint Operations*, which is under development. This is a positive development because Joint Pub 4.02 does not provide thorough enough guidance for focused medical logistics.

Blood sustainment is a component of SIMLM and is addressed in detail. Joint doctrinal guidance pertaining to the Armed Forces Blood Distribution System is clearly outlined in Chapter I. Army and Navy doctrinal guidance for blood distribution is consistent with the joint guidance.

Chapter II: Joint Health Service Support Planning

The focus of Chapter II is on joint HSS planning. The chapter begins with a discussion of the joint operation planning process (JOPES) and its two time-dependent planning methods; deliberate planning and crisis action planning. The publication states that “timely, effective planning and coordination are essential to ensure adequate and sustainable HSS in a theater.”¹⁷ This approach to planning allows for a systematic examination of all factors in a projected operation and ensures interoperability with the campaign or operation plan. The guidelines provided in Chapter II for joint HSS planning flow from service medical doctrine, primarily the Army’s FM 8-55, *Planning for Health Service Support* (September 1994) and FM 8-10, *Health Service Support in a Theater of Operations* (March 1991).

The major areas involved in HSS planning are patient evacuation, logistical support, and supply of medical equipment designated as patient movement items. These are key areas that can make a difference in the quality and efficiency of providing health care. Chapter II addresses these areas and emphasizes the need for joint force commanders to establish procedures ensuring critical patient movement items (PMI) are replaced in a timely manner to prevent their losses from becoming a detriment to the air evacuation and the patient care mission.¹⁸

Deliberate planning to ensure smooth operations of the PMI support system is critical. Detailed discussion of the PMI system and guidance for seamless operations of this system would enhance this doctrine. However, Joint Pub 4-02.2, *Joint Tactics, Techniques, and Procedures for Patient Evacuation in Joint Operations*, is currently in development and should provide this information.

Medical logistics is broadly addressed in this chapter. Doctrinal guidance for medical logistics consists largely of generalizations that are not validated or substantiated by real-life examples. This is one of the more critical areas impacting patient care capabilities and handling of mass casualties. Reports from the Gulf War show that the Single Integrated Medical Logistics Manager (SIMLM) system impeded contingency medical logistics.¹⁹ The basic logistics structure for the SIMLM mission did not have adequate personnel or material handling equipment and mobility to support the medical requirements.²⁰ Incompatibilities between Navy and Army supply systems left the Army SIMLM system insufficient for Naval medical needs.²¹ According to Smith, poor planning, misunderstood requirements, and an inadequate support structure contributed to the SIMLM failure.²² He quotes a CENTCOM report, “Without a clearly defined task organization that is concurred with by all components, and a concept of standard operational doctrine, the MEDSOM (used as the quasi-SIMLM) will remain a haphazard organization requiring coordination and compromise with the components each and every time deployed. In a rapidly developing theater, the valuable time and effort to do this cannot be afforded.”²³ Current joint medical doctrine does not provide sound guidance for establishing seamless joint medical logistics. This gap may be resolved in a new joint publication, specifically addressing medical logistics, which is in development.²⁴ This will be a welcomed doctrinal manual.

Another area critical to successful HSS in joint operations is C4; command, control, communications, and computer systems. Chapter II emphasizes the vital importance of C4 to HSS. The following doctrinal notion is provided.

At a minimum, HSS communications must support reliable, constant communications within a theater, from the theater to CONUS, and link the

most forward HSS elements in the theater through each echelon in the phased HSS system to the final destination MTF. The success of HSS operations depends upon reliable communications over dedicated and parallel systems. HSS communications planners working with the joint force communications section must identify frequencies that are common between Service component support forces assigned to HSS missions. If no commonality exists, then planners should consider assigning a component to develop a theater plan that ensures adequate communications support to all components. (Page 11-10)

More emphasis should be placed on the authoritativeness of joint doctrine regarding effective C4 requirements for HSS. Effective communication is critical to the success of HSS operations. According to Smith, “shortfalls in communications during the Gulf War degraded the casualty receiving mission, compromised personnel and patient safety, and hampered contact between treatment facilities and control elements.”²⁵ Incompatibility and lack of communication systems resulted in field hospitals having no forewarning of the number or type of casualties arriving; medical units unable to communicate with field ambulances, control elements, supported combat units, or supporting logistics units; and patients being transported to the wrong medical treatment facilities.²⁶ Smith cites a report by Air Mobility Command stating that “communications problems resulted in 43 percent of patients landing at the wrong airport which required their rerouting.”²⁷ Incompatibility of individual service communication systems limited effective interservice communication, thus hampering efficient and effective joint health service support. Similar communication problems were identified during Urgent Fury and Just Cause.²⁸ An analysis of joint medical operations during Provide Relief and Restore Hope recommends that medical communications planning be closely integrated with the total contingency communications planning process to ensure that suitable communication

assets are allocated to the medical mission.²⁹ Lessons learned from these joint operations are not addressed in doctrinal guidelines for C4.

Doctrine on health service support planning factors for analysis of medical threats, handling mass casualties, and theater evacuation policies, provide direction for the joint force surgeon to coordinate plans that can best be adapted to the needs of the joint operation. One area receiving minimal joint doctrinal guidance is joint HSS in an NBC environment. During the Gulf War, although hospital ships and fleet hospitals were told to expect 15 percent of casualties to be contaminated, they were not equipped with decontamination stations.³⁰ In actual combat, extensive joint planning would be required to seamlessly manage the movement and treatment of contaminated casualties. Current joint doctrine does not provide the guidance for services to jointly train and prepare for this type of operation.

Chapter II provides doctrinal guidelines for special health service support planning considerations such as combat search and rescue, returning US prisoners of war, and medical care for enemy prisoners of war. Chapter II also briefly outlines the levels of dental care required throughout a joint HSS operation. Joint operational planning for dental services is dependent on the size and anticipated duration of the contingency operation.

Overall, the doctrinal guidance in Chapter II provides direction for joint HSS planning, yet remains broad enough to allow the joint force surgeon the flexibility to organize service specific medical assets as needed to meet the needs of the joint force commander's campaign or operational plan. Much of the guidance flows from service doctrine, but overall is primarily reflective of Army medical doctrine.

Chapter III: Health Service Support in Special Operations

Chapter III specifically addresses health service support in special operations. The special operations forces' surgeons and medical personnel provide medical support to the teams in the area of operations. Each Service's special operations forces (SOF) organic HSS capabilities are presented in this chapter. Army doctrine regarding Army special operations forces (ARSOF) is very detailed. Navy medical doctrine does not specifically address special operations HSS support. Chapter III is mostly reflective of the Army's doctrine on ARSOF HSS and yet retains a distinct joint focus.

Challenges of special operations forces medical support are covered in detail. Overall the chapter provides overarching guidelines for HSS in special operations. Historical examples of SOF HSS would enhance this doctrinal guidance.

Chapter IV: Health Service Support in Military Operations Other Than War

Chapter IV has certain strengths and weaknesses as a joint medical doctrine for military operations other than war. Military operations other than war (MOOTW) is clearly defined at the beginning of the chapter as follows:

Military operations other than war (MOOTW) encompass a wide range of activities where the military instrument of national power is used for purposes other than the large-scale combat operations usually associated with war. They can involve operations in support of foreign governments or US civil authorities. They are usually joint operations, often performed in concert with other government agencies, nongovernmental organizations, and private volunteer organizations. (Page IV-1)

A major strength of joint medical doctrine for MOOTW is its direct link to US National Military Strategy. This chapter provides the first connection of joint medical doctrine with the national military strategy. Military operations other than war are referred to as the basic building blocks for two of the foundations of the National Military

Strategy: forward presence and crisis response.³¹ According to the joint doctrine, “the provision of HSS becomes a primary means of assistance in these operations.”³² The chapter emphasizes that HSS operations conducted to enhance the stability of a host nation government must be integrated into the respective US Embassy plan and well coordinated with all concerned agencies.

General areas pertaining to HSS in MOOTW are covered in very broad terms. Humanitarian and civic assistance programs, assessment factors in assistance programs, disaster relief assistance, combating terrorism, and casualty evacuation are all defined and addressed, but in broad generalities. One historical example of a disaster relief operation in 1962, Operation IDA, is presented. Although the example reflects some of the challenges associated with disaster relief operations, specific doctrinal notions addressing these lessons learned are not provided. Examples of more recent joint operations other than war could be cited. Lessons learned from these experiences could improve doctrinal guidance enabling the services to provide more seamless HSS for future MOOTW.

Medical Threat / Medical Intelligence

Medical threats occurring in war or military operations other than war are presented in Appendix A. This appendix is basically a reiteration of Army Field Manual 8-10, Chapter 1, Section II (1-4) *The Medical Threat*.³³ Appendix B provides guidance on medical intelligence. For the Defense Intelligence Agency (DIA), medical intelligence is produced by the Armed Forces Medical Intelligence Center located at Ft. Detrick, Maryland. The DIA accepted definition of medical intelligence is provided.

Analysis of Joint Medical Doctrine Using The Conceptual Model

Change Forces/Innovations Influencing Doctrine

The Air War College Model for Doctrine and Strategy Development provides useful insight into the analysis of joint medical doctrine. The model suggests that various change forces/innovations such as vital economic, technological, political, and military factors be considered in the doctrinal process. With the end of the Cold War, came the end of a bipolar threat. This revolutionary change started a cascade of political, economic and military changes globally. As a result, national interest in the role of the military gained increased attention in the post cold war period. The National Security Strategy of “Engagement and Enlargement” addresses political, economic, and military transitions since the Cold War. The National Military Strategy of flexible, selective engagement, cascades from the national strategy. In the midst of this revolutionary change, military medicine must also show its unique role in supporting national military strategy. Doctrine, according to the Air War College model, should be linked to overall national and military strategy.

Joint doctrine for health service support could be more interconnected with national military strategy. Only one section of Joint Pub 4-02, HSS in military operations other than war, shows a direct connection with the national military strategy. The military medical system plays an integral role across the full spectrum of conflict. Doctrine should reflect joint health service support and its relationship with the nation’s military strategy. In addition to national strategy, economic and technological change forces must be considered in joint medical doctrine.

The need for maintaining a large military force structure is under scrutiny. National interests focus on domestic economic issues. As the military restructures into a smaller force, more and more forces will return to stateside bases.³⁴ This places increased emphasis on critical mobility assets for regional conflicts and on having organized, trained forces ready for rapid deployment.³⁵ Joint doctrine becomes the vehicle with which to shape forces into a single fighting team.³⁶ Current joint medical doctrine provides a start to shaping a single HSS team. New, dynamic doctrine could further propel the services into providing seamless joint health service support in the areas of medical logistics, communications, and medical evacuation. New emerging technologies should yield improvements in joint medical capabilities for providing casualty care and evacuation. Current joint medical doctrine needs to incorporate emerging technologies to launch joint health care into the 21st century.

Another change force affecting doctrine according to the model are new theories or concepts. A new concept implemented in Desert Storm was the host nation medical care concept.³⁷ A innovative method of providing health care support was achieved by integrating Navy mobile medical teams in Bahrain and an Army hospital unit in Riyadh at host nation hospitals.³⁸ This is an example of new concepts in military medical care which may influence joint medical doctrine.

Friction/Barriers Influencing Doctrine

Friction or barriers influencing doctrine is the next area the model presents. The barrier influencing joint medical doctrine the most is sound Service medical doctrine. Joint medical doctrine should flow from Service medical doctrine in a synergistic way. Current joint medical doctrine predominately reflects Army medical doctrine. Possible

explanations for this phenomena may be that the Air Force has no published medical doctrine and the Navy's new medical doctrine was published after Joint Pub 4-02. Army medical doctrine flows from Field Manual 100-5, the Army's keystone doctrinal manual. Of the services, Army medical doctrine provides the most in-depth guidance for organizing, training, equipping, and employing Army medical forces for war and operations other than war. Each medical service should have doctrine that clearly reflects the unique capabilities they bring to the joint arena. Then joint medical doctrine could build on service doctrine producing a streamlined synergism of each service's capabilities. The result would be sound joint medical doctrine which provides the most efficient and effective way to deliver joint health service support in war or operations other than war.

Lessons Learned: Combat, History, Training

Another area the model presents to evaluate joint medical doctrine pertains to lessons learned from combat, training exercises, or historical experiences. Joint Pub 4-02 is not historically rooted. Doctrinal generalizations made are not validated or supported with real-life experiences. Lessons learned from recent joint operations are not addressed. One example which validates current joint medical doctrine, is the success of establishing a joint task force surgeon element during the initial days of Restore Hope.³⁹ This expedited coordination of joint medical support and medical requirements.⁴⁰ Medical lessons drawn from humanitarian relief operations in Somalia may prove valuable in developing joint doctrinal guidance. Numerous lessons from Desert Shield/Storm could be incorporated in joint medical doctrine, especially pertaining to medical logistics, communications, casualty evacuation, and overall joint medical planning. Sound doctrine

strongly rooted in history and experience helps validate the doctrinal notion and prevents relearning the same lessons over again.

Organize, Train, Equip, and Employ

Lastly, the model suggests that doctrine provide the best thoughts on how to organize, train, equip, and employ forces. Although Service doctrine is directed more toward the operational level than joint doctrine, and is responsible for providing direct guidance on organizing, training, and equipping forces, joint doctrine should also provide a common base for organizing, training, and employing joint medical forces. Two lessons learned from the Gulf War are: (a) joint planning and contingency utilization of triservice medical assets takes practice; and (b) joint training is essential in order for medical teams to function as cohesive units in joint operations.⁴¹ According to Captain Smith, USNR, “Although medical units have periodic in-house training, large-scale interservice exercises do not exist. Limited participation leaves commanders without independent validation of medical unit capabilities, readiness, or risks. Unless the medical community is more active in joint exercises, planners will remain unable to assess readiness and training requirements.”⁴² Medical services must train jointly in order to provide seamless joint HSS in actual contingency operations. Joint medical doctrine should provide the overarching guidelines for Services to organize and train jointly in order to provide HSS as a joint team.

Summary

Joint Pub 4-02, *Doctrine For Health Service Support in Joint Operations*, provides broad, overarching guidance for joint HSS during war or military operations other than

war. The guidance established in this manual focuses on the command level. Much of the information is directed to the joint force surgeon and joint force commander.

Examining joint medical doctrine to determine if it flows from service doctrine in a synergistic way shows it primarily reflects Army medical doctrine. Reasons for this may be that the Air Force has no published doctrine and the Navy's new medical doctrine was published after Joint Pub 4-02. Army medical doctrine provides the most in depth guidance for organizing, training, equipping, and employing Army medical forces for war and operations other than war.

The Air War College model provides an organized approach to analyzing joint medical doctrine. By using the model several change forces and barriers influencing joint doctrine are identified. Current joint medical doctrine is not directly linked with national military strategy. However, it does emphasize the important role joint medical teams provide in supporting military operations other than war and links this to overall national strategy. A major gap in joint medical doctrine is the limited use of lessons learned from history, combat, or training exercises to support joint HSS doctrinal notions. For the Services to provide seamless HSS in joint operations, joint training is essential. Current doctrine does not provide the foundation for joint HSS training.

Overall analysis of Joint Pub 4-02 reveals three main areas requiring more dynamic doctrinal guidance: medical logistics, medical evacuation, and joint communications. Joint doctrines addressing logistics and evacuation are currently in development.

Notes

¹ Army Field Manual (FM) 8-55, *Planning for Health Service Support*, 9 September 1994, 1-1 through 1-3; Army Field Manual (FM) 8-10, *Health Service Support in a Theater of Operations*, 1 March 1991, 1-1; Naval Warfare Publication (NWP 4-02),

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Operational Health Service Support, August 1995, 1-1. These publications are the Army and Navy Medical Doctrine Manuals.

² Joint Pub 4-02, *Doctrine for Health Service Support in Joint Operations*, (26 April 1995): 1-1.

³ Air Force Manual 1-1, *Basic Aerospace Doctrine of the United States Air Force*, Volume I, March 1992, vii.

⁴ Major Cliens, T.C., USA, Joint Staff (J-4), telephone interview by author, 22 January 1997. Major Cliens is the point of contact for medical doctrine at J-4. According to Major Cliens, Joint Pub 4-02.2, *JTTP for Patient Evacuation in Joint Operations*, is currently in development.

⁵ Maj Gen I.B. Holley, Jr., USAF, Retired, "A Modest Proposal: Making Doctrine More Memorable," *Airpower Journal*, (Winter 1995): 15-17.

⁶ Joint Pub 4-02, 1-4 to 1-5.

⁷ Smith, "Joint Medical Support: Are We Asleep at the Switch," 103.

⁸ Ibid.

⁹ Arthur M. Smith, "Joint Medical Support: Are We Asleep at the Switch?" *Joint Forces Quarterly*, no.8 (Summer 1995): 103-108. This article provides excellent examples of lessons learned regarding joint medical operations in the Gulf War and other joint operations. Captain Smith, USNR, is a clinical professor of military and emergency medicine at the Uniformed Services University of the Health Sciences and a professor of surgery at the Medical College of Georgia.

¹⁰ Ibid.

¹¹ Holley, "A Modest Proposal: Making Doctrine More Memorable," 15.

¹² Field Manual (FM) 8-10, *Health Service Support in a Theater of Operations*, 1 March 1991, 1-8, 1-9.

¹³ Naval Warfare Publication (NWP) 4-02, *Operational Health Service Support*, August 1995, 1-1, 1-4.

¹⁴ Field Manual (FM) 8-55, *Planning for Health Service Support*, September 1994, 2-29 to 2-32.

¹⁵ Joint Pub 4-02, I-8.

¹⁶ FM 8-10, Chapter 4, 4-1 and NWP 4-02, 1-10.

¹⁷ Ibid., II-1.

¹⁸ Ibid., II-3.

¹⁹ Smith, "Joint Medical Support: Are We Asleep at the Switch?" 107-108.

²⁰ Ibid.

²¹ Ibid.

²² Ibid., 108.

²³ Ibid. Quoted from DOD IG report 93-Ins-13, 130.

²⁴ Major Cliens, T.C., USA, Joint Staff (J-4), telephone interview by author, 22 January 1997.

²⁵ Smith, 105.

²⁶ Ibid., 105-106.

²⁷ Ibid., 106.

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²⁸ Ibid., 105.

²⁹ Leonard M. Randolph, Jr., and Matthew W. Cogdell, “Medical Dimensions of Joint Humanitarian Relief Operations,” *Joint Forces Quarterly*, (Spring 1996): 97.

³⁰ Smith, 103.

³¹ Joint Pub 4-02, IV-1.

³² Ibid.

³³ FM 8-10, 1-2 to 1-7.

³⁴ Edward C. Ferriter, “Which Way Joint Doctrine?” *Joint Forces Quarterly*, no.8 (Summer 1995): 118.

³⁵ Ibid.

³⁶ Ibid.

³⁷ Capt Frederick E. Ludwig II, MC USNR, CDR Mark R. Wallace, MC USNR, LTC Bernard J. Horak, MSC USA, and CDR Martin K. Deafenbaugh, MC USN, “Rapid Host Ntion Medical Deployment,” *Military Medicine*, 157, no. 11 (November 1992): 598.

³⁸ Ibid.

³⁹ Ibid., 96.

⁴⁰ Ibid.

⁴¹ Smith, 109.

⁴² Smith, 108-109.

Chapter 5

Advocacy For Air Force Medical Doctrine

Doctrine is everybody's business in the Air Force.

—Major General I.B. Holley, Jr.
USAFR, Retired

Introduction

This study examines joint medical doctrine as an overarching document flowing from Service doctrine. A major gap identified in this endeavor is the lack of Air Force medical doctrine. This chapter advocates the need for Air Force health service specific doctrine and provides reasons supporting this espousal.

Development of a sound and dynamic doctrine process that encompasses all mission areas is a pressing issue in the Air Force today. Over the years, the Air Force has tried to perfect its means of developing sound doctrine. General Holley studied doctrine for nearly 50 years.¹ Based on his observations, he points out that the Air Force never really sold the idea that doctrine is important to all its service members.² Although Air Force doctrine centers around the war fighters, other members of the Air Force team play a vital role in integrating all elements of Air Force doctrine as well. According to General Fogleman, the Air Force is a “team within a team” and all team members work together to provide a basis for integrating airpower in joint operations.³ A critical part of this team

are medical support personnel. They play a vital role in contributing to core competencies by preparing forces to deploy, then sustaining them during conflict.

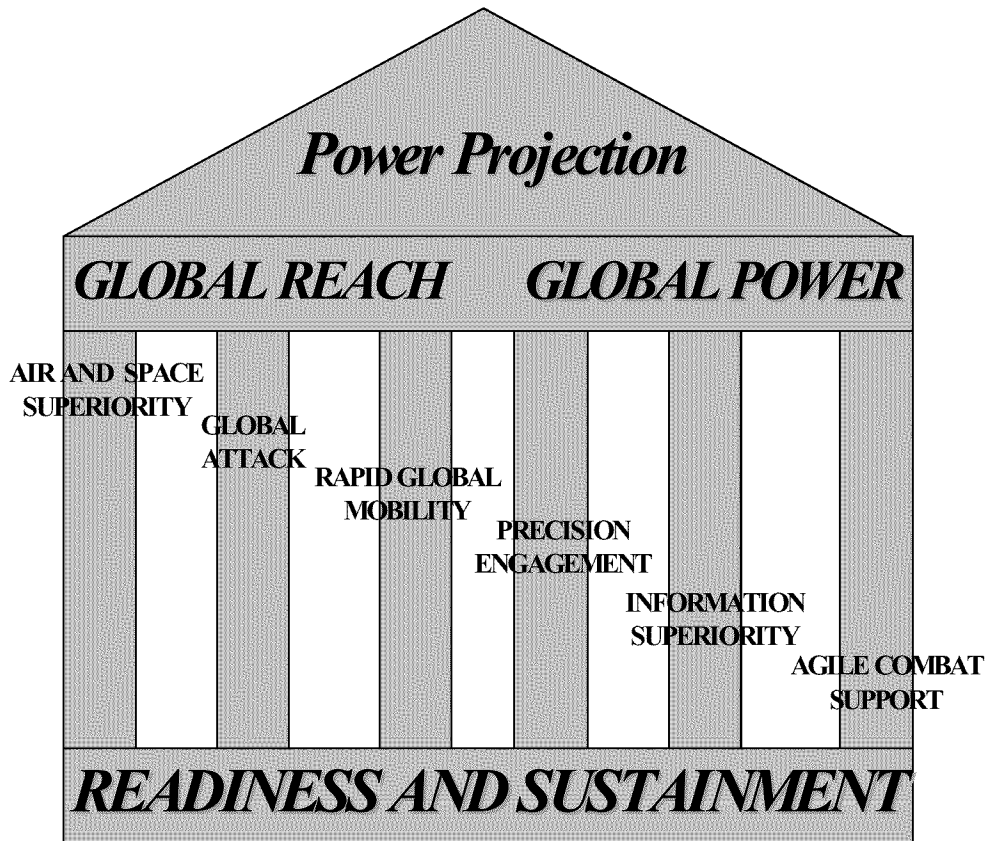
One area that received little attention in the Air Force's doctrine development process is medical doctrine. To date, the Air Force has yet to publish doctrine specific to how the medical field organizes, trains, equips, and employs its medical forces to support war or military operations other than war. The Army and the Navy are far ahead of the Air Force in this specific area of doctrine development.

In today's changing healthcare environment, the need for sound medical doctrine is gaining attention. Joint medical doctrine is published and is rapidly undergoing review for future revisions. For the Air Force to equally contribute to joint medical doctrine, it must develop Service specific medical doctrine to equally add to the foundation of joint doctrine already provided by the Army and the Navy.

Reasons Supporting Advocacy For Air Force Medical Doctrine

There are three reasons supporting the "pro" view as to why the Air Force needs medical doctrine. First, the medical service as an integral part of the Air Force team, uniquely contributes to the core competencies of agile combat support and rapid global mobility both during war and military operations other than war. Secondly, medical doctrine will better prepare Air Force leaders to organize, train, equip, and employ its medical forces in the joint medical arena. Thirdly, sound Air Force medical doctrine will provide a vital link to joint medical doctrine.

Air Force Core Competencies



Source: From the Air Force Doctrine Document 1, Air Force Basic Doctrine, Second Draft, 21 May 1996: 11

Figure 3: Strategic Vision of Global Reach-Global Power (modified to reflect new core competencies)

All members of the Air Force team work together to support the Air Force core competencies providing synergistic effects (Figure 3). These core competencies “represent the combination of professional knowledge, airpower expertise, and technological know-how that, when applied, produces superior military capabilities.”⁴ The core competencies impacted most by the medical profession are agile combat support and rapid global mobility. Health care providers ensure troops are medically prepared for deployment. Once in theater, their mission is to minimize the adverse effects of injury and disease on the readiness, health, and morale of the troops.⁵ This is accomplished by

rapid medical treatment and the patient's return to duty or evacuation out of theater as medically required.⁶ Global mobility enables the medical team to rapidly evacuate injured personnel so that prompt, appropriate medical care can be administered. In military operations other than war, global mobility enables the medical team to be a primary part of missions involving humanitarian and civic assistance.

As our peacetime healthcare is being outsourced, medical support of our deployed troops and global patient mobility are the only unique roles of military healthcare not considered for outsourcing under TriCare. It is critical in this changing healthcare environment, that senior leaders in the medical corps develop doctrine which clearly and unmistakably show how Air Force medical personnel uniquely contribute to agile combat support and rapid global mobility, as an integral part of the Air Force team in maximizing and improving operational effectiveness and efficiency.

Organize, Train, and Equip

The second reason supporting the need for Air Force medical doctrine is that doctrine should provide a template for the most efficient and effective ways to organize, train and equip in order to employ and sustain our troops. The term basic doctrine first appeared in 1940 when it was applied by the Army Air Forces to Field Manual 1-5, "Basic doctrine, the foundation of all aerospace doctrine, provides broad, enduring guidance which should be used when deciding how Air Force forces should be organized, trained, equipped, employed, and sustained."⁷ This enduring definition holds true today. Lessons learned from previous conflicts show that the medical field is not organizing and training effectively to deliver health care in a joint environment for either war or military operations other than war. As a result, health care in the joint arena has not been a model

of efficiency. From the Beirut bombing to Desert Storm, numerous deficiencies were identified in medical readiness caused by lack of joint training and planning, shortages in personnel, materiel, and evacuation assets.⁸ Medical doctrine needs to provide the framework for realistic combat readiness training for all medical personnel. This will facilitate joint planning and contingency utilization of tri-service medical assets by the joint force surgeon and the joint force commander.

Service Contributions to Joint Doctrine

Lastly, service doctrine is the vital link to ensuring that the full spectrum of Air Force medical service contributions are known in the joint arena. Joint doctrine must flow from service doctrine.⁹ According to General Fogleman, “Air Force doctrine forms the basis for our participation in developing joint doctrine.”¹⁰ If the Air Force is going to take a proactive role in the development of joint doctrine, then perfecting the means for developing sound service specific doctrine becomes crucial. This is a major gap identified with the medical field. Previous Air Force health care leaders have not taken a proactive approach to developing sound service specific medical doctrine. With increasing emphasis on joint doctrine, Joint Pub 4-02 was published providing a template for health service support in joint operations. How could the unique services that the Air Force medical service brings to the joint arena be adequately reflected in this joint doctrine when it is not even reflected in our own service doctrine?

Joint Pub 4-02 states that the primary objective of the joint health service support system is to “conserve the commander’s fighting strength of land, sea, air, and special operations forces.”¹¹ In joint operations, this objective is most effectively achieved through optimum use and integration of available component command health service

support assets. In Desert Storm, numerous inconsistencies were identified among the three services regarding their deployed capability for providing prompt, consistent medical care and well planned casualty evacuation.¹² Individual service medical plans were characterized as “stove pipe documents” providing no mechanism for cross-service sharing.¹³ The Air Force must develop sound medical doctrine if it is going to be an integral part of the joint health service support in future operations.

Summary

As General Fogleman states, the Air Force is a team within a team and all members of that team play vital roles in contributing to overall success of how the Air Force guides the proper use of aerospace forces in war or military operations other than war.¹⁴ According to Air Force Doctrine Document 1 Second Draft, “Air Force doctrine must draw together the best of our experience, both past and present, and our insights about the future.”¹⁵ In our changing military health care environment, this becomes a vital task. As TriCare emerges and encompasses more of our peace time health care, a thorough self evaluation of past experiences and future expectations will help propel the medical corps into developing doctrine that is visionary in nature and will realistically show how the medical team uniquely contributes to Air Force basic doctrine and joint doctrine, thus charting our course into the 21st century.

Notes

¹ Maj Gen I.B. Holley, Jr., USAF, Retired, “A Modest Proposal Making Doctrine More Memorable,” *AirPower Journal*, (Winter 1995): 20.

² *Ibid.*, 15.

³ Gen Ronald R. Fogleman, Chief of Staff, USAF, “Aerospace Doctrine More than Just a Theory,” *AirPower Journal*, X, no. 2 (Summer 1996): 41.

Notes

⁴ “Global Engagement: A Vision For The 21st Century Air Force,” The Air Force Long Range Planning Division Briefing, November 1996.

⁵ Joint Pub 4-02, *Doctrine For Health Service Support in Joint Operations*, 26 April 1995, I-1.

⁶ Ibid.

⁷ James A. Mowbray, “Air Force Doctrine Problems,” *AirPower Journal*, (Winter 1995): 22.

⁸ Captain Arthur M. Smith, USNR, “Joint Medical Support: Are We Asleep At The Switch?” *Joint Forces Quarterly*, (Summer 1995): 103.

⁹ General Fogleman, “Aerospace Doctrine More Than Just a Theory,” 40.

¹⁰ Ibid., 42.

¹¹ Joint Pub 4-02, V.

¹² Smith, “Joint Medical Support,” 106.

¹³ Ibid., 108.

¹⁴ Fogleman, “Aerospace Doctrine More Than Just a Theory,” 41.

¹⁵ Air Force Doctrine Document 1, *Air Force Basic Doctrine*, Second Draft, 21 May 1996, iii.

Chapter 6

Conclusions and Recommendations

In the changing environment, following the end of the Cold War, the need for a large military is drawing much attention. One guarantee is that neither the budget or the size of the nation's military force will increase. With the operational force structure becoming smaller, force reductions on the support side should also be expected. This reduction will probably include military medical forces. As a result, the Services must collectively search for new and more efficient ways to provide health care. Peacetime health care is already being outsourced. The Services are forced to look jointly into the future of medical readiness. Doctrine provides the framework needed to effectively and efficiently plan joint health service support for future contingencies. Based on this backdrop and the insights gained from this study the following recommendations are suggested.

The first recommendation is to establish a closer link between joint medical doctrine goals and overall national military strategy objectives. The future of joint health service support should evolve concurrent with future joint warfighting doctrine. Changing missions, new enabling technologies, and evolving military strategies must influence medical doctrine development as it does for other warfighting missions. It is not clear that medical doctrine development is considered as a factor in the overall doctrine evolution or technology advances. Certainly the changing nature of war will impact the nature and

numbers of casualties as well as the technological structures in place to support these operations. Therefore, a link must be established to insure joint health service support serves the changing needs of the overall military strategy and capabilities.

A second recommendation is each service's doctrine must reflect their unique competencies in the joint medical mission. The services need to show what they uniquely bring to the joint table in order to minimize redundancies and reinforce inherent strengths. For example, Navy medicine is unique as it provides for the Marines and for force protection at sea. Air Force medicine uniquely contributes to the core competencies of rapid global mobility and agile combat support. Army medicine provides unique support to ground forces along with helicopter evacuations. Each service offers unique capabilities in providing force protection and health service support. A proper allocation of effort will synergistically combine service capabilities to build an effective medical complement to the warfighting mission. From this view flows the advocacy and individual focus for Service medical doctrine. Senior Air Force leaders in the medical field are acknowledging the need to build doctrine; however, the process must start with an objective recognition of individual service medical competencies in order to capitalize on individual service strengths, offset recognized shortfalls, and take advantage of efficiencies in capabilities. If this assessment is ignored, joint medical doctrine will continue to propagate an ineffective and inefficient medical support process.

One of the most pressing issues apparent in joint doctrine is the need to establish a seamless health service operation. Service-specific organization and training personalities disrupt any attempt to merge medical practices. The significance of this obstacle is not known because, as a result of the perceived difficulties, combined service medical

support is not practiced. An obvious answer to this challenge is the concept of a single military medical service. This innovation has been addressed over the years. Eisenhower in 1946, argued for a single medical service for these identical reasons.¹ Although this may be an effective answer; the significance of the re-organization and service parochialism will argue against this initiative for the immediate future. There may be contingencies when employing one service's medical assets are sufficient. However, the best approach is to be prepared to select those capabilities best suited to meet the requirements of the joint task force commander. This may require employing medical assets from one service or tri-service assets. It is obvious that much work remains to make this operational concept a reality.

A third recommendation is that Joint Staff take the lead in developing joint training exercises that provide opportunities to exercise and evaluate joint health service support. Opportunities for joint medical readiness training are not abundant as medical personnel are rarely included in large joint training operations. In spite of this obstacle, medical readiness training is critical to real-life performance and must be exercised. If medical personnel are expected to function seamlessly in providing joint health service support during war or operations other than war, they must train jointly and in accordance with established doctrinal guidelines. Expecting individual service medical units to deploy to the joint environment and function seamlessly without previous training and structured procedural guidelines is a sure path to failure—we have already proved it. Solid doctrinal foundations matched with challenging exercise training is the key to effective medical support for future operations.

A fourth recommendation is that each service should match organization, training, equipping, and employment functions to accepted doctrinal procedures. Joint doctrine can build from service doctrines, combining these unique capabilities synergistically only if the service doctrine is executable and the services organize, train, and equip as conceived by the established doctrine. For the Army, Navy, and Air Force to provide health care as a cohesive team will require specific doctrinal guidance. Training and exercises should be developed from the doctrinal guidance. Lessons learned from joint medical readiness training could then be incorporated into doctrine as an evolving process. Doctrinal revisions would then be based on results from actual joint exercises as opposed to opinions of those individuals directly involved in doctrinal development. Joint readiness training exercises designed from joint doctrinal guidelines would also lessen the influence of service parochialism on joint doctrine. Supporting doctrinal notions with lessons learned from training exercises adds credibility and enforces compliance.

Pro and con views to joint medical readiness training are expected. The immediacy of peacetime healthcare challenges and the daily demands on dwindling resources can overshadow the preparations for wartime operations. In striving to meet these peacetime healthcare requirements, many military treatment facilities find it difficult to have full participation from all healthcare providers and other staff for readiness training exercises.

Requirements for participation in joint training exercises may be met with opposition. It is easy to forgo perceived “nonproductive” efforts for medical readiness considering the highly visible and vocal daily healthcare demands of our active duty, dependent, and retired military communities. However, the Gulf War and other joint operations addressed in this study show that during times of actual deployment, the

medical services had difficulty functioning as an effective joint team. Dedicated training, at the expense of military healthcare services to our military communities, is essential to achieve wartime proficiencies of our medical “warriors.” This is a significant shift in emphasis that will demand a major change in the attitudes and managerial focus of our medical team.

A fifth recommendation is that further doctrinal guidance be provided for provision of en route care during evacuation. More efficient methods for patient evacuation are on the horizon. With peace time health care being outsourced, many of the military emergency departments and critical care units are closing and the focus is shifting to outpatient care. Providing nurses and technicians with current emergency, critical care, or trauma experience, who are skilled in providing quality en route care becomes more challenging. In order to provide a ready force, peacetime clinical experience is vital. Can current changes in military peacetime health care support future plans for the provision of health care across the full spectrum of conflict?

The last two areas recommended for further doctrinal guidance are medical logistics and communications. These two areas are the life line to seamless joint health service support. Past operations validate that communication and logistics problems will significantly hamper the delivery of health care. Joint direction is needed to ensure that suitable communication assets are allocated to the medical mission and that they are integrated with the total contingency communication planning process. Further, current doctrinal guidance for medical logistics does not provide enough direction to enforce logistics commonality among Service medical forces. This critical area is receiving recent attention by the senior leaders of the medical community. The development of new

doctrine specific to medical logistics must continue to receive senior level emphasis to ensure this issue comes to closure and the “lessons learned” from recent deployments are assimilated by our military medical forces.

Doctrine represents the tried and the true, the best way to accomplish a mission, what one generation teaches the next. Doctrine is based on lessons learned from the past, either from training, history, or actual combat experience. All the above are characteristics of doctrine presented throughout the literature. However defined or described, the one common denominator is that sound doctrine is vital to future military operations. Medical operations are no different. The development of a robust, objective medical doctrine is key to the success of medical support in future military operations. The current doctrinal efforts provide a needed first step in this evolution. However, these efforts must continue in order to overcome the challenges inherent to combining diverse service medical organizations and forge individual service capabilities into a seamless, effective joint medical team.

Notes

¹ John E. Jessup and Louise B. Ketz, eds., “Military Medicine by Dale C. Smith,” from *Encyclopedia of The American Military Studies of the History, Traditions, Policies, Institutions, and Roles of the Armed Forces in War and Peace*, Volume III (New York, NY.: Charles Scribner’s Sons), 1994, 1617-1619.

Glossary

- aerospace doctrine.** A statement of officially sanctioned beliefs and warfighting principles which describe and guide the proper use of air and space forces in military operations. The Air Force promulgates and teaches this doctrine as a common frame of reference on the best way to prepare and employ air and space forces. Aerospace doctrine drives how the Air Force organizes, trains, and equips, and sustains its forces.
- basic doctrine.** States the most fundamental and enduring beliefs which describe and guide the proper use of air and space forces in military action. Basic Doctrine is the foundation of all aerospace doctrine. Because of its fundamental and enduring character, basic doctrine provides broad and continuing guidance on how Air Force forces are prepared and employed.
- health service support (HSS).** All services performed, provided, or arranged by the Services to promote, improve, conserve, or restore the mental or physical well-being of personnel. These services include, but are not limited to, the management of health services resources, such as manpower, monies, and facilities; preventive and curative health measures; evacuation of the wounded, injured, or sick; selection of the medical fit and disposition of the medically unfit; blood management; medical supply, equipment, and maintenance thereof; combat stress control; and medical, dental, veterinary, laboratory, optometric, medical food, and medical intelligence services. (Approved for inclusion in the next edition of Joint Pub 1-02).
- joint doctrine, relating to air and space forces.** Applies aerospace doctrine to joint operations and describes the best way to integrate and employ air and space forces with land and naval forces in military action. Joint doctrine is published in the joint publication system.
- joint force surgeon.** A general term applied to an individual appointed by the joint force commander to serve as the theater or joint task force special staff officer responsible for establishing, monitoring, or evaluating joint force health service support. (Approved for inclusion in the next edition of Joint Pub 1-02)
- multinational doctrine, relating to air and space forces.** Applies aerospace doctrine to multinational operations and describes the best way to integrate and employ air and space forces with the forces of our allies in coalition warfare. It establishes the principles, organization, and fundamental procedures agreed upon between or among allied forces.
- operational doctrine.** Applies the principles of basic doctrine to military actions by describing the proper use of air and space forces in the context of distinct objectives, force capabilities, broad mission areas, and operational environments. Operational doctrine describes the organization of air and space forces, and it anticipates changes and influences which may affect military operations, such as technological advances.

Basic and operational doctrine provide the framework from which the Air Force develops tactical doctrine.

tactical doctrine. Applies basic and operational doctrine to military actions by describing the proper use of specific weapon systems to accomplish detailed objectives. Tactical doctrine considers particular tactical objectives (blockading a harbor with aerial mines) and tactical conditions (threats, weather, and terrain) and describes how a specific weapon system is employed to accomplish the tactical objective (B-1s laying mines at low altitude).

Bibliography

Books

- Builder, Carl H. *The Masks of War, American Military Styles in Strategy and Analysis*. Baltimore: The John Hopkins University Press, 1989.
- Drew, Col Dennis M. and Snow, Dr. Donald M. *Making Strategy, An Introduction to National Security Processes and Problems*. Maxwell Air Force Base, Ala.: Air University Press, August 1988.
- Finney, Robert T. *History of the Air Corps Tactical School 1920-1940*. Center for Air Force History, Washington, D.C.: U.S. Government Printing Office, 1992.
- Futrell, Robert Frank. *Ideas, Concepts, Doctrine: Basic Thinking in the United States Air Force 1907-1960*, Volume I, Maxwell Air Force Base, Ala.: Air University Press, 1989.
- Futrell, Robert Frank. *Ideas, Concepts, Doctrine: Basic Thinking in the United States Air Force 1961-1984*, Volume II, Maxwell Air Force Base, Ala.: Air University Press, December 1989.
- Greer, Thomas H. *The Development of Air Doctrine in the Army Air Arm 1917-1941*. Office of Air Force History, United States Air Force, Washington, D.C.: U.S. Government Printing Office, 1985.
- Holley, Irving B. *The United States Air Force Special Studies: Ideas and Weapons*. Office of Air Force History, Washington, D.C.: U.S. Government Printing Office, 1983.
- John E. Jessup and Louise B. Ketz, eds. "Military Medicine by Dale C. Smith," from *Encyclopedia of The American Military Studies of the History, Traditions, Policies, Institutions, and Roles of the Armed Forces in War and Peace*, Volume III New York, NY.: Charles Scribner's Sons. 1994.
- Romjue, John L. *From Active Defense to Airland Battle: The Development of Army Doctrine, 1973-1982*. Historical Office, United States Army Training and Doctrine Command, Fort Monroe, Virginia, Washington, D.C.: U.S. Government Printing Office, 1984.

Periodicals

- Drew, Col Dennis M., USAF, Retired. "Inventing A Doctrine Process." *AirPower Journal*, (Winter 1995): 42-52.
- Ferriter, Edward C. "Which Way Joint Doctrine?" *Joint Forces Quarterly*, no. 8 (Summer 1995): 118-119.

- Fogleman, Gen Ronald R., Chief of Staff, USAF. "Aerospace Doctrine More than Just a Theory," *AirPower Journal* X, no. 2 (Summer 1996): 40-47.
- Grant, Rebecca. "Closing The Doctrine Gap." *Air Force Magazine* 80, no. 1 (January 1997): 48-52.
- Holley, Maj Gen I.B., Jr., USAF Reserve, Retired. "A Modest Proposal Making Doctrine More Memorable." *AirPower Journal*, (Winter 1995): 14-20.
- Holley, Maj Gen I.B., Jr., USAF Reserve, Retired. "The Doctrinal Process: Some Suggested Steps." *Military Review* LIX, no. 4 (April 1972): 2-13.
- Ludwig, Capt Frederick E., II, MC, USNR, et al. "Rapid Host Nation Medical Deployment." *Military Medicine* 157, no. 11 (November 1992): 598-601.
- Mowbray, James A. "Air Force Doctrine Problems 1926-Present." *AirPower Journal* (Winter 1995): 21-41.
- Randolph, Leonard M., Jr. and Cogdell, Matthew W. "Medical Dimensions of Joint Humanitarian Relief Operations." *Joint Forces Quarterly* (Spring 1996): 90-97.
- Schroeder, Major Ted, USAF. "Doctrine and Strategy-The Misunderstood Basics." *Military Review* LIX, no. 1 (January 1979): 11-16.
- Smith, Captain Arthur M., USNR. "Joint Medical Support: Are We Asleep At The Switch?" *Joint Forces Quarterly* (Summer 1995): 102-109.
- Snider, Dr. Don M. "The US Military in Transition to Jointness Surmounting Old Notions of Interservice Rivalry." *Airpower Journal* X, no. 3 (Fall 1996): 16-27.
- Taylor, Major John W., US Army. "A Method for Developing Doctrine." *Military Review* LIX, no. 3 (March 1979): 70-75.
- Tritten, James J. "Developing Naval Doctrine...From The Sea." *Joint Forces Quarterly* no. 9 (Autumn 1995): 110-114.
- Turcotte, Dr. William E. "Service Rivalry Overshadowed." *Airpower Journal* X, no. 3 (Fall 1996): 28-33.

Reports

"Global Engagement: A Vision For The 21st Century Air Force." The Air Force Long Range Planning Division Briefing, November 1996.

Manuals, Instructions, Directives, and Other Publications

- Air Force Document 1. *Air Force Basic Doctrine*, Second Draft, 21 May 1996.
- Air Force Manual (AFM) 1-1. *Basic Aerospace Doctrine of the United States Air Force*. 2 vols., March 1992.
- Army Field Manual (FM) 8-10. *Health Service Support in a Theater of Operations*, 1 March 1991.
- Army Field Manual (FM) 8-55. *Planning for Health Service Support*, 9 September 1994.
- Army Field Manual (FM) 100-5. *Operations*, June 1993.
- Chairman of the Joint Chiefs of Staff, *Joint Vision 2010*. Washington, D.C.: Pentagon.
- Joint Doctrine. *Capstone and Keystone Primer*, 15 July 1994.
- Joint Publication (Joint Pub) 1-01.1. *Compendium of Joint Publications*, 25 March 1995.
- Joint Publication (Joint Pub) 4-02. *Doctrine For Health Service Support in Joint Operation*, 26 April 1995.

Naval Doctrine Publication (NDP) 1. *Naval Warfare*, March 1994.

Naval Warfare Publication (NWP) 4-02. *Operational Health Service Support*, August 1995.

Royal Air Force. *Air Power Doctrine*. AP 3000-2nd editions 1993, in the UK for HMSO.

Royal Australian Air Force. *Air Power Manual*. AAP 1000, 1st edition. Compiled and edited by the Airpower Study Center, Royal Australian Air Force, RAAF Base Fairbairn, Australia, August 1990.

Lectures and Addresses

Grant, Dr. Rebecca. "Joint Doctrine: Dangers and Opportunities." Lecture. Air War College, Maxwell Air Force Base, Ala., August 1997.

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