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**U.S. Naval War College
Newport, RI**

Admiral Raymond A. Spruance: Lessons in Adaptation from the Pacific

by

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A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Joint Military Operations.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

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30 April 2010

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Abstract

The combination of fiscal constraints, expanding technology and globalization is causing the nature of warfare to rapidly evolve. The wars of tomorrow will not look like today's war. The ability to adapt to changing warfare environments hinges on a leader's ability to think broadly and view the operation through the lens of the entire conflict. This paper analyzes how Admiral Raymond A. Spruance prepared for the challenge of conducting amphibious assaults in the Central Pacific during World War II. Further, the paper uses Admiral Spruance's development as an operational thinker as a case study for today's leaders to prepare for the challenge of adapting to future operational environments. Admiral Spruance's operational education, operational training and experiential base is discussed and recommendations are provided to help today's leaders prepare for tomorrow's battles.

INTRODUCTION

In today's fast-paced, complex, and globalized environment, the one constant to which every leader must adapt is change. Decreasing decision cycle times, overlapping and dynamic spheres of diverse political influences, and instantaneous information access will make the job of future leaders increasingly difficult. Adaptation to this ever-changing environment will be critical to future tactical, operational, and strategic success. The challenge of adapting to changing environments is not new and by studying how historic leaders adapted to change, today's leaders can draw many lessons. A naval leader who faced tremendous challenges and skillfully adapted to a changing warfare environment was Admiral Raymond A. Spruance during World War II in the Pacific.

Confronted with a different style of warfare from which he had trained his entire career, how was Spruance ready for the battles his forces would fight in the Gilberts, the Marshalls, the Marianas, and on the islands of Okinawa, and Iwo Jima? A broad thinker, Spruance's operational education and training, combined with a strong foundation of diverse experiences, gave him the ability to view his operations through the lens of the entire Pacific theater, to adapt to changing environments, and prepared him for the challenge of the island hopping campaign. In order to prepare to adapt to the challenges of future operating environments, today's leaders should study how Spruance, through his operational education, his operational training, and his broad history of diverse duty assignments, was prepared to adapt to change in the Pacific.

The United States Joint Forces Command study, *Joint Operating Environment 2010*, succinctly explains the importance of adaptation. "The true test of military effectiveness in the past has been the ability of a force to diagnose the conditions it actually confronts and then

quickly adapt.” The ability to adapt to change “has been the key component in military effectiveness in the past and will continue to be so in the future.”¹ Through the study of past leaders, today’s leaders can prepare for their future.²

Military leaders faced the challenge of adaptation at the beginning of World War II. The virtual destruction of the United States’ battleship fleet in Pearl Harbor forced a fundamental shift in the way the United States would fight World War II in the Pacific. To successfully overcome this challenge, operational leaders had to be willing to shift their frame of reference and view operations through a larger lens—they had to become operational thinkers. Untested by war, how was Spruance prepared?

WHAT IS OPERATIONAL THINKING?

According to Bernard Brodie, “The admiral must have the ability to see things whole, to appraise the present in terms of the future, and to see the problems of both the present and the future in all their numerous ramifications.”³ A critical component to a commander’s success at the operational and strategic levels, Naval War College Professor Milan Vego defines operational thinking as the ability of a commander to “think broadly and have a broad vision...” and that one acquires this through a variety of indirect and direct influences.⁴

Operational education indirectly influences one’s ability to think broadly by exposure to a wide-range of ideas, including: professional education, personal education through

¹ U.S. Joint Forces Command (USJFCOM), *The Joint Operating Environment 2010* (Suffolk, VA: USJFCOM, 18 February 2010), 5.

² Vego, Milan N. “Military History and the Study of Operational Art,” *Joint Forces Quarterly* 57 (2nd Quarter 2010), 124-129.

³ Brodie, Bernard, *A Guide to Naval Strategy* (Princeton, NJ: Princeton University Press, 1958), 264.

⁴ Vego, Milan N. *Joint Operational Warfare: Theory and Practice* (Newport, RI: U.S. Naval War College, 2009), XI-3.

lifelong learning,⁵ and graduate-level civilian education. Direct influences include operational training and the practice of operational command. While actual operational command is rare, war games and exercises can also directly influence thought processes through operational training.⁶ While not stressed by Vego, the author suggests that the accumulation of diverse experiences also influences one's ability to think broadly. The greater the inventory of one's experiences through an *mélange* of duty assignments and travel, the broader and more holistic their point of view. Leveraging operational education and training through broad and diverse experiential influences enables one to more clearly analyze the world, reach unbiased conclusions and make better-informed decisions. Spruance's development as an operational thinker is a direct result of his operational education, his operational training, and his broad foundation of diverse experiences.

SPRUANCE: THE MAN

Like the vast majority of his peers, Spruance had no wartime or operational command experience before World War II, yet is considered the best operational thinker of the Pacific war.⁷ In the introduction to Vice Admiral E.P. Forrestel's Spruance biography, Rear Admiral E. M. Eller writes that Spruance was "Farseeing, cool and unruffled, with a precise mind that encompassed great and small alike...."⁸ Samuel Eliot Morison said that Spruance "had the level head and cool judgment that would be required to deal with new contingencies and a

⁵ Vego, *Joint Operational Warfare: Theory and Practice*, XI: 7-9.

⁶ *Ibid.*, XI-7.

⁷ Hough, Richard. *The Great Admirals* (New York, NY: William Morrow and Company, Inc., 1977), 237.

⁸ Eller, E.M., introduction to *Admiral Raymond A. Spruance, USN: A Study in Command*, by E.P. Forrestel (Washington, DC: Government Printing Office, 1966).

fluid situation.”⁹ Due to Spruance’s ability to view situations through a holistic lens, Vego calls Spruance a “great operational thinker and [practitioner].”¹⁰ With no direct exposure to operational command to influence his operational thinking, how did Spruance acquire the “broad vision” that enabled him to deal effectively with “new contingencies” and “fluid situations”? What made him a great operational thinker and how did his operational thinking enable him to adapt to the changing environment in the Pacific?

Raymond A. Spruance was born on July 3, 1886, in Baltimore, Maryland.¹¹ Intelligent and hard working, Spruance earned two separate Naval Academy nominations—one through his mother’s efforts to influence an Indiana congressman and a second through his own hard work and merit from a New Jersey congressman. Shy, quiet, and not particularly athletic,¹² Spruance entered the Naval Academy in the summer of 1903 as a member of the class of 1907.¹³

Spruance disliked the parochial and educationally backward academic environment at the Naval Academy.¹⁴ Thomas Buell, author of the definitive Spruance biography, *The Quiet Warrior*, explains that Spruance “was a keen student with an inquisitive mind eager for new knowledge. His concept of education was to seek an understanding of principles which applied to a broad range of problems, encouraging the student to exercise sound reasoning

⁹ Morison, Samuel Eliot, *History of United States Naval Operations in World War II*, vol IV, *Coral Sea, Midway and Submarine Actions: May 1942-August 1942* (Boston, MA: Little, Brown and Company, 1950), 82.

¹⁰ Vego, *Joint Operational Warfare: Theory and Practice*, XI-27

¹¹ Hough, 237.

¹² Buell, Thomas B. *The Quiet Warrior: A Biography of Admiral Raymond A. Spruance* (Annapolis, MD: Naval Institute Press, 2009), 8-11.

¹³ The Association of the Class of 1907, *Class of 1907: The United States Naval Academy 1903-1924* (Baltimore, MD: The Lord Baltimore Press, n.d.), 342.

¹⁴ Buell, *The Quiet Warrior: A Biography of Admiral Raymond A. Spruance*, 11-13; and Spector, Ronald H. *Eagle Against the Sun: The American War with Japan* (New York: NY, Vintage Books, 1985), 18.

and independent thinking. The Academy simply trained the memory.”¹⁵ Despite his lack of enthusiasm, he earned excellent grades and graduated a year early, ranked 25 out of 209.¹⁶

Following graduation, Spruance served in a variety of battleships and cruisers including the battleship MINNESOTA (BB 22) during her cruise around the world as part of the Great White Fleet. Spruance would eventually command six ships, including the destroyer BAINBRIDGE (DD 1), of the Asiatic Fleet in the Philippines, as a lieutenant. Ashore, Spruance held a wide range of assignments which included three pre-war tours at the Naval War College, multiple engineering assignments, billets at the Office of Naval Intelligence and overseas as the Assistant Chief of Staff for Naval Forces Europe and as Commander of Tenth Fleet in the Caribbean. Spruance’s last assignment before the war was as Commander of the Pacific Fleet’s Cruiser Division Five, part of then-Vice Admiral Halsey’s Task Force EIGHT.¹⁷

Captain Wayne Hughes, USN (Ret.), in his essay on Spruance’s leadership writes, “As operational commander of hundreds of ships and aircraft . . . Spruance had the capacity to distill what he observed—and sometimes felt—into its essence and to focus on the important details by a mental synthesis.”¹⁸ How did Spruance’s operational education, operational training, and experiential background influence his ability of “mental synthesis” and prepare him for the challenges of the Pacific?

¹⁵ Buell, *The Quiet Warrior: A Biography of Admiral Raymond A. Spruance*, 11-17.

¹⁶ The Association of the Class of 1907, 342.

¹⁷ Forrestel, E.P. *Admiral Raymond A. Spruance, USN: A Study in Command* (Washington, DC: Government Printing Office, 1966), 4-19.

¹⁸ Hughes, Wayne P. “Clear Purpose, Comprehensive Execution: Raymond A. Spruance (1886-1969).” in *Nineteen-Gun Salute: Case Studies of Operational, Strategic, and Diplomatic Naval Leadership during the 20th and Early 21st Centuries*, ed. John B. Hattendorf and Bruce A. Ellerman (Newport, RI: Naval War College Press, n.d.), 51.

SPRUANCE'S OPERATIONAL EDUCATION

In peacetime, operational education is one of the prime influences on one's ability to think operationally. Spruance's operational education through three tours at the Naval War College and a habit of lifelong learning developed a foundation through which he could "distill what he observed" and clearly view the challenges he would face.

Spruance at the Naval War College

In 1926, Spruance began the first of four tours at the Naval War College—once as a student (1926-27), twice as staff (1931-33 and 1935-38), and as President (1946-48).¹⁹

As a student, Spruance was fortunate to be in Newport during the tenure of then-Rear Admiral William V. Pratt, one of the most innovative and far-thinking presidents of the Naval War College.²⁰ Pratt's curriculum exposed students to a variety of areas not normally included in the school's syllabus, such as logistics and amphibious warfare.²¹ Lectures, research problems, and war games introduced Spruance to the logistical and amphibious assault problems associated with war against Japan. Buell writes that Spruance was made keenly aware of the problems the U.S. could face during war by demonstrating the "long, exposed exterior lines of communication, need for protection for supply trains and expeditionary forces, huge logistic problems, lack of intelligence, lack of bases, and Japanese use of islands to concentrate air strength."²² Spruance's early contact with these challenges became critical to his ability to successfully wage war in the 1940s.

¹⁹ Forrestel, 231-35.

²⁰ Forrestel, 8.

²¹ John B. Hattendorf, Mitchell Simpson, III, and John R. Wadleigh. *Sailors and Scholars: The Centennial History of the U.S. Naval War College* (Newport, RI: Naval War College Press, 1984), 130-134.

²² Buell, Thomas B. "Admiral Raymond A. Spruance and the Naval War College: From Student to Warrior," *Naval War College Review*, April 1971, 36.

Spruance enjoyed the War College's academic atmosphere and it motivated him to further study military history, strategy, tactics, and policy. According to Buell, "the 11 months that he spent as a student . . . was the greatest influence. It shaped his way of thinking; taught him the basic principles of strategy, tactics, and command; focused his attention on Japan as his future enemy; and it exposed him to the prophecy and philosophy of . . . Pratt."²³ Earning a reputation as a student of naval warfare, Spruance was marked as a potential staff member.

During his first staff tour, another innovative and imaginative president, Rear Admiral Harris Laning, would influence Spruance. Laning, a strong naval aviation proponent, shaped the way Spruance saw the utilization of carrier aviation in amphibious assaults.²⁴ The lessons Spruance acquired would influence his planning of operational and tactical fires and force protection during amphibious operations. Spruance left the War College in 1933, only to return two years later upon the request of then-President, Rear Admiral Kalbfus.²⁵

Spruance's reunion with former shipmates Carl Moore and Kelly Turner, and the coalescing of his thoughts on naval planning, highlighted his third tour at the War College.²⁶ It was while analyzing and rewriting Kalbfus' *Sound Military Decision*, a planning guide that Spruance felt was inadequate, that he synthesized his thoughts on planning.²⁷

Spruance's tours at the War College honed his problem solving and decision making abilities, but was only a piece of his operational education. Self-education through his habit of lifelong learning comprised a substantial portion of his operational thinking ability.

²³ Ibid., 42.

²⁴ Ibid., 38-39.

²⁵ Forrestel, 12.

²⁶ Buell, "Admiral Raymond A. Spruance and the Naval War College: From Student to Warrior," 39-42

²⁷ Hattendorf, Simpson, and Wadleigh, 158-59.

Spruance the Lifelong Learner

An avid reader and lifelong learner, Buell writes that Spruance was “insatiably curious about the world and loved to explore things and places...or to pursue abstract ideas in men’s minds—and in books.”²⁸ Spruance read widely on a variety of subjects²⁹ and was considered the most intelligent flag officer in Navy.³⁰ Devoting his free time to whatever books he could acquire, he digested them through reading, contemplation and discussion.³¹ Spruance “shaped his thinking” in this way.³² Showing his proclivity to discuss what he had read as a lieutenant in command of BAINBRIDGE, Spruance often enlightened his officers through lectures on world affairs, economics and other subjects upon which he had recently read.³³ Reading and thinking on a wide variety of subjects helped Spruance to gain insight into the world around him—lifelong learning, not simply lifelong reading, was a key component to his development.

Spruance’s operational education shaped his intellect and framed how he viewed his world. Spruance’s education in Newport, combined with lifelong learning, gave him a breadth and depth of knowledge that facilitated his broad vision. However, the lens through which he viewed the world required shaping by operational training and experience.

SPRUANCE’S OPERATIONAL TRAINING

Vego explains the significance of operational training as a means of “preserving and improving the skills necessary for the sound application of operational art. . .” and the

²⁸ Buell, *The Quiet Warrior: A Biography of Admiral Raymond A. Spruance*, 37.

²⁹ Ibid.

³⁰ King, Ernest J and Walter Muir Whitehill, *Fleet Admiral King: A Naval Record*. (New York, NY: W. W. Norton & Company, Inc., 1952), 491.

³¹ Buell, *The Quiet Warrior: A Biography of Admiral Raymond A. Spruance*, 123.

³² Hughes, 57.

³³ Buell, *The Quiet Warrior: A Biography of Admiral Raymond A. Spruance*, 29-32.

development “of self-reliance and initiative.”³⁴ Hughes credits Spruance’s training as a fundamental source of his success as a leader.³⁵ Participation in war games at the Naval War College and on-the-job training as Nimitz’s Chief of Staff gave Spruance the skills needed for his future role.

Spruance and War Plan ORANGE

The best training for combat leaders is combat itself.³⁶ However, most Navy leaders of World War II were unseasoned in combat operations and, with the exception of a handful Navy and Marine Corps officers, completely inexperienced in amphibious assaults.³⁷ Before World War II, Newport would be many officers’ only exposure to the type of amphibious operations required in the Pacific. Other than a few isolated occurrences, the Navy did not consider opposed landings a priority.³⁸

At the Naval War College, war games were an essential aspect of a student’s education. The two fleets that were most frequently opponents were the U.S. and Japan. Generally, the war games nurtured the time-honored notion of decisive action through fleets of battleships and generally ignored advances in technology and tactics.³⁹ It was only during Pratt’s isolated tenure as president that logistics and amphibious warfare became important aspects of the war games.⁴⁰ Buell summarizes the importance of the experience on Spruance by saying:

His ability to plan and command the operations of an entire fleet evolved from his participation in war games. He was accustomed to deploying and maneuvering fleets on a game board and successfully translated this skill to

³⁴ Vego, *Joint Operational Warfare: Theory and Practice*, XI-12.

³⁵ Hughes, 56.

³⁶ Vego, *Joint Operational Warfare: Theory and Practice*, XI: 12-13; and Forrestel, 1.

³⁷ Spector, 19.

³⁸ Smith, Holland M. “The Development of Amphibious Tactics,” *Marine Corps Gazette*, July 1946, 27-30 and 43-48.

³⁹ Buell, *The Quiet Warrior: A Biography of Admiral Raymond A. Spruance*, 58-59.

⁴⁰ Buell, “Admiral Raymond A. Spruance and the Naval War College: From Student to Warrior,” 43.

realities of commanding a fleet at war. For reasons sparked by intraservice rivalry, there were many people who wanted Spruance to be relieved by an aviation flag officer. Yet the author wonders if there was any aviator who had the breath of understanding of the total effort needed to win a naval campaign. What aviator admiral would have had the patience and wisdom to pursue such vexatious yet vital considerations as logistics and the peculiar needs of an amphibious landing force?⁴¹

While the war games developed an important foundation, Spruance's most influential training would come through his apprenticeship as Admiral Nimitz's Chief of Staff.

Nimitz's Chief of Staff

Following the Battle of Midway, Spruance reported to Pearl Harbor as Admiral Nimitz's Chief of Staff.⁴² Hughes explains that as Chief of Staff, Spruance became "conversant with Nimitz's campaign plan and [watched] the way he dealt with [King] and the Joint Chiefs of Staff in Washington, and with [MacArthur]. . ." ⁴³ On a steep amphibious assault learning curve, Spruance also assimilated the operational lessons from Attu Island, New Georgia and Guadalcanal.⁴⁴ Spruance learned the importance of throughput, pre-landing intelligence, reconnaissance, and coordinated fires.⁴⁵ Nimitz fine-tuned Spruance's thinking and prepared him for the Central Pacific drive. E.B. Potter, in his book *Nimitz*, relays the anecdote of a CINCPAC Staff Officer's comments about Spruance's selection, "[Nimitz] thinks it's all right to send Raymond out now. . . he's got him to the point where they think and talk just alike."⁴⁶

Operational command during war is rare. For many, operational training is their only exposure to the broad thinking required at the operational command level. With extensive

⁴¹ Ibid.

⁴² Hough, 284.

⁴³ Hughes, 54.

⁴⁴ Potter, E.B. *Nimitz* (Annapolis, MD: Naval Institute Press, 2008), 239-40; and Forrestel, 64-67.

⁴⁵ Hughes, 54; and Forrestel, 63-79.

⁴⁶ Potter, *Nimitz*, 247.

exposure through war games and 13-months of apprenticeship under Nimitz, Spruance was luckier than most. However, training and education alone would not make Spruance a great operational thinker; his thinking required context, earned through diverse experiences.

SPRUANCE’S EXPERIENCE FACTOR

Edgar Puryear explains the importance of experience in his book, *American Admirals: The Art of Naval Command*. Experience, Puryear writes, leads to a “feel” or “sixth sense” that helps the leader when making difficult decisions. “Feel, sixth sense, intuition, whatever you want to call it, comes from years of experience. Those who have it can make decisions quickly, seemingly without thinking.”⁴⁷ In her book, *Learning to Think Strategically*, author Julia Sloan explains the importance of experience in the learning process:

Successful strategists learn to think strategically through informal learning, primarily from their own experience. . . . By accessing our current experience of prior successful experiences we engage semiconsciously in a form of action-reflection. An appropriate recent or prior experience is recalled either intentionally or intuitively and serves as a pattern for transferring the learning to a new situation.⁴⁸

We are able to apply past experiences to new situations because these past experiences bring a wealth of “technical expertise, understanding of people, and knowledge of processes.” By developing the ability to ask the “right questions” and assess the answers through a larger lens, experience also enables one to understand unfamiliar situations more quickly.⁴⁹ What experiences gave Spruance the “expertise, understanding, and knowledge”?

⁴⁷ Puryear, Edgar F., *American Admirals: The Art of Naval Command* (Minneapolis, MN: Zenith Press, 2008), 85.

⁴⁸ Sloan, Julia, *Learning to Think Strategically* (Burlington, MA: Butterworth-Heinemann, 2006), 59-60.

⁴⁹ Sloan, 65.

Spruance's Expertise

Spruance built up a wealth of technical and tactical expertise through 12 sea tours, a year of graduate education at General Electric (GE), and three engineering assignments ashore.⁵⁰ An experienced naval officer, Spruance possessed a wealth of professional knowledge gained from years at sea, the most important of which were in command. Admiral James Stavridis writes in *Command at Sea* that “The experience of command of a ship at sea is unforgettable; it is without parallel or equal. The responsibility is heavy, but the rewards...are priceless.”⁵¹ Spruance’s reward as a superb Commanding Officer⁵² was a solid foundation as an operational thinker. Six commands at sea provided Spruance with a well-rounded set of experiences. Command in the Philippines and in Europe made him aware of cultural diversity. Command of battleship MISSISSIPPI exposed Spruance to multiple fleet exercises that involved carrier and amphibious operations.

Ashore, Spruance’s technical experiences included a year of advanced study in electrical engineering with GE,⁵³ two shipyard billets and a tour at the Bureau of Engineering.⁵⁴ At GE, Spruance studied both theory and practical application under the tutelage of another brilliant innovator and future War College president, then-Lieutenant Commander Luke McNamee.⁵⁵ Spruance broadened his technical acumen during three more ashore engineering billets.⁵⁶ Hughes calls Spruance’s technical expertise “vital ingredients of his future success.”⁵⁷

⁵⁰ Hough, 237; and The Association of the Class of 1907, 342.

⁵¹ Stavridis, James and William P. Mack, *Command at Sea* (Annapolis, MD: Naval Institute Press, 1999), 1.

⁵² *Ibid.*, 20.

⁵³ The Association of the Class of 1907, 342.

⁵⁴ Hough, 237.

⁵⁵ Vlahos, Michael. *The Blue Sword: The Naval War College and the American Mission, 1919-1941* (Newport, RI: Naval War College Press, 1980), 93.

⁵⁶ Forrestel, 8.

⁵⁷ Hughes, 56.

Spruance's Understanding of People

Spruance gained cultural insight at many points in his career. As a midshipman in the Great White Fleet, Spruance circled the globe and found himself in Japan where, Buell tells us that “the foundations for [his] life-long respect and admiration for the Japanese nation . . .” sprouted.⁵⁸ Spruance continued to develop an understanding of cultures and people through extensive overseas travel in command of ships and on naval staffs.⁵⁹ Spruance’s exposure to the world gave him an appreciation for other cultures upon which he was determine to build.

While stationed at the Office of Naval Intelligence (ONI) Spruance went out of his way to get to know many of the Japanese naval officers working in Washington, DC. Developing a close friendship with Captain Tsueno Sakano, the Japanese naval attaché in Washington, DC, Spruance gained insight into the Japanese culture.⁶⁰ This understanding would influence his thinking during while planning future operations during the war.

Experience is the key enabler to a leader’s development of a “sixth sense” or “feel” for a situation. Spruance’s technical expertise and cultural understanding was a catalyst for his broad vision. According to Morison, Spruance could keep “in his mind the picture of widely disparate forces yet boldly [seize] every opening.”⁶¹ However, experience alone is not enough to make one a great operational thinker. Sloan tells us that different people interpret the same experiences differently. The subjectivity of the experience results from that person’s knowledge base.⁶² Therefore, in order to arrive at operational thinking one must view those experiences through operational education and training.

⁵⁸ Buell, *The Quiet Warrior: A Biography of Admiral Raymond A. Spruance*, 21-23.

⁵⁹ The Association of the Class of 1907, 342; and Buell, *The Quiet Warrior: A Biography of Admiral Raymond A. Spruance*, 53-54.

⁶⁰ Buell, *The Quiet Warrior: A Biography of Admiral Raymond A. Spruance*, 64-65.

⁶¹ Morison, Samuel Eliot, *History of United States Naval Operations in World War II*, vol IV, *Coral Sea, Midway and Submarine Actions: May 1942-August 1942*, 158.

⁶² Sloan, 67.

A COUNTER-ARGUMENT

One may argue that Spruance's broad vision had little to do with Fifth Fleet's ability to adapt in the Pacific—the talents of Spruance's subordinate commanders forced operational adaptation. Critics could assert that Spruance's forces successfully adapted in the Pacific because of Admiral R. Kelly Turner, USN, and General Holland M. Smith, USMC.

One of the Navy's most brilliant planners, author Eric Larrabee called Turner, “amphibious warfare's unchallenged master.”⁶³ Before assignment to Fifth Fleet, Turner had commanded the invasions of Guadalcanal and New Georgia under Halsey.⁶⁴ Turner's expertise and talent in the generally unfamiliar field of amphibious warfare was a critical component to Fifth Fleet's ability to adapt during the Central Pacific campaign.

The second key factor in Spruance's success was his selection of General Holland Smith to lead his landing forces. Spruance first met Smith in the Caribbean while Commandant of the Tenth Naval District.⁶⁵ Smith was the commander of the Amphibious Training Staff, responsible for training the Army, Navy, and Marine Corps in the tactics and doctrine of amphibious assault.⁶⁶ Spruance was immediately impressed with Smith's knowledge of amphibious operations and, after meeting with him again in 1943 as Nimitz's Chief of Staff, was convinced that Smith's expertise was required.⁶⁷ Thus, it could be concluded that because of Smith and Turner, the recognized amphibious assault experts, Fifth Fleet was prepared to adapt to the challenges of amphibious assaults in the Central Pacific.

⁶³ Larrabee, Eric. *Commander in Chief: Franklin Delano Roosevelt, His Lieutenants, and Their War* (Annapolis, MD: Naval Institute Press, 2004), 201

⁶⁴ Potter, *Nimitz*, 239.

⁶⁵ Forrestel, 15.

⁶⁶ Isely, Jeter A. and Philip A. Crowl. *The U.S. Marines and Amphibious War: Its Theory, and its Practice in the Pacific* (Princeton, NJ: Princeton University Press, 1951), 59-61.

⁶⁷ Potter, *Nimitz*, 238-242.

Therefore, one may postulate that an operational leader need only surround himself with subject matter experts in order to prepare for, and adapt to, changing warfare environments.

While Turner and Smith were the subject matter experts on amphibious assault, their presence alone was not enough to diminish the challenge of adaptation to the new warfare environment. Both were “tough-minded, blunt, [and] vociferous warriors. . .” with distinct ideas of how amphibious assaults should be executed and who should command.⁶⁸ Both were products of their services parochial cultures and the result was tremendous friction in the planning process. Because of Spruance’s broad vision in this new joint operational environment, he was able to arbitrate between his pugnacious commanders.

Turner and Smith’s individual talents and expertise significantly contributed to Fifth Fleet’s ability to adapt during the Central Pacific drive. However, without Spruance’s steady leadership and broad vision, integration of theater-operational objectives and operational plans may have failed at the tactical level because of institutional infighting. By utilizing his experience, education, and training, Spruance leveraged the strengths of others to successfully adapt to a changing warfare environment. Turner and Smith may have been the architects of the amphibious assaults in the Central Pacific, but Spruance’s broad vision was critical to operational success.

RECOMMENDATIONS

In discussing the necessary qualities for future admirals, Brodie writes, “Open-mindedness and insistence upon vigorous thinking ought to reach down to the very beginning of the officer’s career.”⁶⁹ Only through the combination of education, training, and experience, can future leaders develop the skills necessary to think operationally. According

⁶⁸ Ibid., 250.

⁶⁹ Brodie, 269.

to Hughes, Spruance had the right mix between education and training through which he could view his experiences, giving him the ability to completely visualize any situation, making him Clausewitz' 'military genius' personified.⁷⁰

According to the Joint Operating Environment, 2010:

The ability to innovate in peacetime and adapt during wars requires institutional and individual agility. This agility is the product of rigorous education, appropriate application of technology, and a rich understanding of the social and political context in which military operations are conducted. But above all, innovation and adaptation require imagination and the ability to ask the right questions and represent two of the most important aspects of military effectiveness.⁷¹

In other words, the ability to adapt requires operational thinking. To develop operational thinking, the author proposes the following recommendations:

- Officers and community managers must understand the critical role that an in-residence war college education plays in the development of operational thinking. Distance learning and computer-based training cannot be a substitute to in-resident education. Interaction with students and faculty is an important aspect to the development of critical thinking skills. In an effort to insure that each upwardly mobile officer has the opportunity of in-residence professional education, in-resident attendance must be a requirement for promotion to O-6.
- Officers should make every effort to participate in graduate level education at civilian institutions. Non-military academic environments expand an officer's scope of reference and provide valuable experience that distance learning and military graduate programs cannot achieve. To facilitate this, more diverse civilian graduate education opportunities

⁷⁰ Hughes, 58.

⁷¹ U.S. Joint Forces Command, 72.

must be available to our officer corps. The return on investment will be stronger operational and strategic thinkers.

- Early development of a habit of self-education is the responsibility of every officer. New officers must be educated on the importance of lifelong learning and Commanding Officers should take every opportunity to develop this amongst their junior officers.
- Community managers and warfare enterprise stakeholders must open the doors of opportunity for the evolution of diverse career experiences. Experiential learning through the periodic detailing of officers to diverse duty assignments must be encouraged. To facilitate these opportunities, additional flexibility is required in officer development timeline. The benefits will far outweigh the perceived risks to tactical proficiency.
- Officers should travel as much as possible. Experiencing foreign cultures builds the awareness and develops understanding. Increased opportunities for travel and study abroad should be encouraged for upwardly mobile officers.

CONCLUSION

Fiscally constrained environments and globalization are changing the character of war. The threats we face today will continue to evolve. Creative thought, innovation, and adaptation are the key components to successfully meeting the challenges of the future. The ability to understand and adapt to the changing environment will be critical to the operational leaders of the future. To prepare for that role, leaders must study the lessons of history. Vego tells us that, “A proper study of military history helps to derive general principles of leadership through a critical reading of the biographies and memoirs of the great captains of the past. It also helps in understanding the reasons for their successes and failures.”⁷²

⁷² Vego, “Military History and the Study of Operational Art,” 126.

Admiral Nimitz writes, “It is given to few Americans to serve their country so effectively and at such high levels as did [Admiral Spruance]. His career will serve as an example and a challenge to service personnel...His story will be read avidly by those who suffered his blows in war and by those who are hostile to our country. I hope it will be read with equal interest by all Americans and by those friends of other countries who benefitted by his skill and courage.”⁷³ By analyzing how Admiral Spruance became a great operational thinker through his operational education, training and experience, we can prepare ourselves for tomorrow’s battles.

⁷³ Nimitz, Chester A., forward to *Admiral Raymond A. Spruance, USN: A Study in Command* by E.P. Forrestel.

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