

NAVAL RESERVE OFFICERS TRAINING CORPS

AMPHIBIOUS WARFARE



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NAVAL SERVICE TRAINING COMMAND

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**NAVAL RESERVE OFFICERS TRAINING CORPS
AMPHIBIOUS WARFARE
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Module I: Fundamental Concepts, Theories, Themes, and Terms

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* Focal Lessons

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LETTER OF PROMULGATION

This curriculum guide builds upon the work of many contributors. Intellectual rigor and academic standards demand that the full scope of amphibious warfare be encompassed rather than the tracing of Marine Corps History emphasizing the landings of the Great Pacific War which had forged our modern Corps. The present course structure and content reflect the determination that (1) the history of amphibious warfare remains a valid intellectual endeavor; (2) its scope greatly exceeds the study of the U.S. Marine Corps; and (3) a historical survey of amphibious warfare is best approached from a "Maneuver Warfare" perspective, exploring the various levels of war and their impact on each battle. The levels of war would include the political, strategic, operational, and tactical/technical. This construct of classes will also prepare students to become critical thinkers of warfare, and thus better prepare them for future commissioned service to the Marine Corps.

Instructors are cautioned to observe that this manual contains lesson guides, not lesson plans. Instructors must devote time for serious background reading in recommended literature, course texts, and contemplation of a conceptual approach that will capture the imagination of their students. Another important objective of this course must be to stimulate original thought and persistent interest on the part of the student.

The course may be modified with approval of Professors of Naval Science provided all professional competency objectives stated in this guide are mastered by the midshipmen.

This Course is approved for implementation upon receipt. CNET P1550/10 (11-93) is cancelled and superseded by this course.



E. J. STEIN
NROTC Program Manager
31 Mar 06
Date

DEFINITION OF MEASUREMENT TERMS

- I. Know - recall facts, bring to mind and recognize appropriate material.

Examples: Know the objectives of damage control aboard ship.

Know the safety procedures used to provide the fullest measure of safe small boat operations.

- II. Comprehend - interpret principles and concepts and relate them to new situations.

Examples: Comprehend the mission of the U.S. Navy and the U.S. Marine Corps.

Comprehend the concept of internal forces (e.g., stress, strain, shear, etc.).

- III. Apply - utilize knowledge and comprehension of specific facts in new relationships with other facts, theories, and principles.

Examples: Apply correct plotting procedures when navigating in piloting waters.

Apply correct procedures to determine times of sunrise and sunset.

- IV. Demonstrate - show evidence of ability in performing a task.

Examples: Demonstrate third class swimming skills and fundamental water survival skills.

Demonstrate the correct procedures used in radio-telephone communications.

PROFESSIONAL CORE COMPETENCY OBJECTIVES

The following professional competency objective statements for this course are taken from the Professional Core Competency Manual for Officer Accession Programs promulgated in April 2001.

- IV.F. Comprehend the evolution of amphibious warfare to include the operations listed in this text. Comprehend their impact on the evolution of amphibious warfare doctrine.
1. Know the significant events of history relating to amphibious operations. Comprehend their impact on the evolution of amphibious warfare doctrine.
 2. Comprehend the problems and advantages relative to employment of amphibious forces in the modern era, including the impact of nuclear warfare on amphibious tactics and amphibious operations.

LESSON TOPICS

Module I: Fundamental Concepts, Theories, Themes, and Terms

	<u>MOD</u>	<u>Lesson #</u>	<u>Title</u>	<u>Hours</u>
*	I	1	Introduction and Syllabus	1
*	I	2	Warfighting and the POW	3-4
*	I	3	Offense and Defense in Amphibious Ops	1
*	I	4	Themes and Types of Amphibious Ops	1
	I	5	Tactical Decision Games (TDG) (Optional)	1-2
			Focal Lesson Hours	7-9

Module II: Historical Amphibious Operations, Case Studies

	<u>MOD</u>	<u>Lesson #</u>	<u>Title</u>	<u>Hours</u>
*	II	1	Marathon, 490 B.C.	1-2
	II	2	Caesar's Invasion of Britain, 55-54 B.C.	1
	II	3	Hastings, 1066	1
*	II	4	Vera Cruz, 1847	1
	II	5	Invasion of the Crimea, 1854	1
	II	6	Roanoke Island, 1862	1
	II	7	Fort Fisher Campaigns, 1864-65	1
	II	8	Tanga, 1914	1
*	II	9	Gallipoli, 1915	2-4
	II	10	Zeebrugge, 1918	1
			The Interwar Years: Developing a	
*	II	11	Doctrine	2
	II	12	European Strategy and North Africa, 1942	1
	II	13	Sicily, 1943	1
	II	14	Salerno, 1943	1
	II	15	Anzio, 1944	1
*	II	16	Normandy, 1944	2
	II	17	Pacific Strategy and Guadalcanal, 1942	1
*	II	18	Tarawa, 1943	1
	II	19	The Marianas, 1944	1
*	II	20	Iwo Jima, 1945	1
*	II	21	Okinawa, 1945	1
	II	22	Lessons of World War II	1
*	II	23	Inchon, 1950	2
*	II	24	Vietnam, 1965	1
	II	25	The Falklands, 1982	1

II	26	Grenada, 1983	1
II	27	Mogadishu, Somalia, 1991	1
		Focal Lesson Hours	14-17

Module III: Amphibious Operations, Today and Tomorrow

	<u>MOD</u>	<u>Lesson #</u>	<u>Title</u>	<u>Hours</u>
*	III	1	Marine Air-Ground Task Force (MAGTF)	2
*	III	2	Expeditionary Operations	1
*	III	3	Maritime Prepositioned Forces (MPF)	1
*	III	4	Expeditionary Maneuver Warfare	3-4
	III	5	Expeditionary Strike Group (ESG) (Optional)	1
			Focal Lesson Hours	7-8

* Focal Lessons

ANNOTATED BIBLIOGRAPHY

A. Texts (1 per student, 1 per instructor).

1. Bartlett, Merrill L., ed. Assault from the Sea. Annapolis, MD: Naval Institute Press, 1983. This collection of essays on amphibious warfare from antiquity to the present is the principal overall text for the course.

2. Department of the Navy, Headquarters United States Marine Corps, Warfighting, Marine Corps Doctrinal Publication (MCDP) 1. Washington, D.C., Government Printing Office, 1997.

3. Department of the Navy, Headquarters United States Marine Corps, Expeditionary Operations, Marine Corps Doctrinal Publication (MCDP) 3. Washington, D.C., Government Printing Office, 1998.

4. Moorehead, Alan. Gallipoli. New York, NY: Harper Perennial Modern Classics, 2002. A detailed account of one of the key case studies in the course.

5. Potter, E.B., ed. Sea Power: A Naval History, 2nd edition. Annapolis, MD: Naval Institute Press, 1981. Main text for "Seapower and Maritime Affairs." Provides excellent background for numerous case studies, especially Gallipoli and World War II.

B. References (1 per instructor)

1. Clancy, Tom. Marine: A Guided Tour of a Marine Expeditionary Unit. New York: Berkley Publishing Group, 1996.

2. Department of the Navy, Headquarters United States Marine Corps, Campaigning, Marine Corps Doctrinal Publication (MCDP) 1-2. Washington, D.C., Government Printing Office, 1997.

3. Clifford, Kenneth J. Progress and Purpose: A Developmental History of the United States Marine Corps 1900-1970. Most valuable in describing Marine Corps development of amphibious doctrine in the years leading to the Second World War.

4. Dupuy, R.E. and Dupuy, T.N. The Harper Encyclopedia of Military History, 4th edition. New York, NY: Harper Collins Publishers, Inc., 1993. Invaluable background reference for instructor and students alike. Contains numerous useful maps.

5. Dyer, VAdm. George C. The Amphibians Came to Conquer: The Story of Admiral Richmond Kelly Turner, 2 vols. Reprinted as FMFRP 12-109, Washington: Headquarters, U.S. Marine Corps, 1991. Biography of the premier CATF of World War II.

6. Eisenhower, Dwight D. Crusade in Europe. New York: Doubleday, 1948. A classic memoir. The principal text for the landings in the European theater in World War II. Excellent description of the planning and decision-making process during those operations.
7. Expeditionary Maneuver Warfare, Concepts Overview 2004 (CD-ROM). Marine Corps Combat Development Command, Quantico, 2003. Contains numerous useful documents, presentations, and videos.
8. Fuller, J.F.C. A Military History of the Western World, Vol. I-III. New York, NY: Da Capo Press, 1954-1956
9. Hastings, Max and Jenkins, Simon. The Battle for the Falklands. New York, NY: W.W. Norton & Company, 1983. A very good reference to all of the details of the Falklands campaign with excellent maps.
10. Heinl, Robert D. Victory at High Tide: The Inchon-Seoul Campaign. Annapolis, MD: Nautical and Aviation Publishing Co., 1979. Detailed account of a classic case study.
11. Isely, Jeter A. and Crowl, Philip A. The U.S. Marines and Amphibious War. Princeton, NJ: Princeton University Press, 1951. The principal text for studying World War II in the Pacific. A classic which all Marine officers should read. Provided by CNET as a student resource (3-5 textbooks per unit).
12. Mill, Mark and Mamikonian, Alex. Strategy and Tactics. Annapolis, MD: Naval Institute Press. Provides up to date information about the U.S. Navy and Marine Corps's ability to conduct warfare. Includes information about the ESG, Expeditionary Warfare, and the concepts involved in Sea Power 21 and Expeditionary Maneuver Warfare.
13. Millett, Allan R. Semper Fidelis: The History of the United States Marine Corps. New York, NY: Simon & Schuster, Inc., 1991. The standard institutional history of the Marine Corps, very valuable for studying the interwar years. Provided by CNET as a student resource (3-5 textbooks per unit).
14. Morison, Samuel E. The Two-Ocean War. New York, NY: Ballantine Books, 1963. A succinct yet thorough account of the naval aspects of the various campaigns of World War II.
15. Office of the CNO, Expeditionary Warfare Division (N75). Naval Amphibious Warfare Plan, Seabasing, Speed, Access, Persistence, 2005. On-line copy at: <http://www.exwar.org/htm/7000popb.htm>
16. Spector, Ronald H. U.S. Marines in Grenada 1983.

Washington, D.C.: Headquarters, U.S. Marine Corps, 1987.
Concise description of the background and Marine participation
in Operation Urgent Fury.

17. Speller, Ian and Tuck, Christopher. Amphibious Warfare: The Theory and Practice of Amphibious Operations in the 20th Century. London: Spellmount Publishers Ltd., 2001.
Specific information about conducting amphibious operations and amphibious equipment.

18. U.S. Marine Corps. History of U.S. Marine Corps Operations in World War II, 5 vols. Reprinted as FMFRP 12-34, Washington, D.C.: Headquarters, U.S. Marine Corps. Thoroughly detailed, valuable companion to Isely and Crowl.

19. Vagts, Alfred. Landing Operations: Strategy, Psychology, Tactics and Politics From Antiquity to 1945. Harrisburg, PA: Military Service Publishing Co., 1952.
Currently out of print, but soon to be published as an FMFRP by the U.S. Marine Corps. Introductory chapters on theory and concepts are especially important. Hard to find, but worth the search. Not provided by CNET.

20. Weigley, Russell. The American Way of War: A History of United States Military Strategy and Policy. Bloomington, IN: Indiana University Press, 1973.

C. Additional references not provided by NSTC are listed in individual lessons guides. Each Marine Officer Instructor should consult the university library for more references on each topic, if necessary.

LIST OF INSTRUCTIONAL AIDS

Amphibious Warfare CD-ROM or DVD contains instructional aids to assist with each lesson. The instructor is not limited to these instructional aids, as new and more modern material is constantly being produced, and the access to information has increased exponentially due to the internet. The instructional aids below have been scanned or saved in electronic format for easier use and distribution (CD-ROM).

MODULE I - LIST OF INSTRUCTIONAL AIDS

MOD I, Lesson 1 - Course Introduction

- A. Instructional Aid I-1-A. Sample Syllabus. This sample syllabus will aid the instructor in developing a syllabus for his/her course. The syllabus is only a guide and must be adapted to the instructors teaching style and university/college requirements.
- B. Instructional Aid I-1-B. Student Handout - Study Guide. This study guide provides a list of the key terms and theories for Part I of the course. The students may use this to organize their notes.
- C. Instructional Aid I-1-B-1. Student Handout - Study Guide (answer key). This is the answer key for Instructional Aid I-1-B.
- D. Instructional Aid I-1-C. Reading: Naval Strategy, Land-Sea Operations. This reading provides an overview of the unique aspects of land to sea warfare. This will provide the student with an introduction to the course.
- E. Instructional Aid I-1-D. Reading: Luuvas Article. This reading provides the student an opportunity to understand why we study military history.

MOD I, Lesson 2 - Warfighting and Principles of War

- A. Instructional Aid I-2-A - Student Handout: Levels of War. This handout provides an explanation of the Levels of War. This can be used to augment the information on Levels of War provided in the instructor/student text, MCDP-1.
- B. Instructional Aid I-2-B - Student Handout: Levels of War in power point format. This presentation provides an additional resource and explanation of the Levels of War.

MOD I, Lesson 3 - Offense and Defense in Amphibious Operations

- A. Instructional Aid I-3-A. Student Handout: Excerpts - TBS Lesson Plan B03324 Tactical Planning I (METT-T). This will provide a basic understanding of tactical planning, which can be translated to the offense and defense of amphibious operations.
- B. Instructional Aid I-3-B. Student Handout: Excerpts - TBS Lesson Plan B0354 Offensive Fundamentals I. A basic understanding of offensive fundamentals will allow a student to consider the offensive fundamentals associated with an amphibious operation.
- C. Instructional Aid I-3-C. Student Handout: Excerpts - TBS Lesson Plan B0337 Defensive Fundamentals I. A basic understanding of defensive fundamentals will allow a student to consider the defensive fundamentals associated with an amphibious operation.

MOD I, Lesson 4 - Themes and Types of Amphibious Operations

- A. Instructional Aid I-4-A. Student Handout - Themes and Types of Amphibious Operations. This handout provides a summary of the 8 themes and 5 types of amphibious operations.
- B. Instructional Aid I-4-B. Reading - *Joint Doctrine for Amphibious Operations (Chapt 1)*. This is a very informative quick read that will provide the student with an overview of amphibious operations.
- C. Instructional Aid I-4-C. Reading - *Some Aspects of the Historiography of British and U.S. Doctrines of Amphibious Operations in the 20th Century*. Additional reading regarding amphibious operations.

MOD I, Lesson 5 - Introduction to Tactical Decision Games (TDG)

- A. Instructional Aids I-5-A. Instructor Reference: *Designing TDG's and The Staff Ride Handbook*. This will assist the instructor with the development and conduct of TDG.

MODULE II - LIST OF INSTRUCTIONAL AIDS

MOD II, Lesson 1 - Marathon, 490 B.C.

- A. "Persian Empire About 500 B.C." from Dupuy & Dupuy, Encyclopedia of Military History, 2nd rev. ed., p. 21
- B. "Battle of Marathon," from Bartlett, Assault From the Sea, p. 4

MOD II, Lesson 2 - Caesar's Invasion of Britain

- A. Instructional Aid II-2-A. Map: "Caesar's Campaign of 54 B.C.," from Burne, The Art of War on Land, p. 70
- B. Instructional Aid II-2-B. Reading: Burne, A.H., The Art of War on Land (Harrisburg, PA: Military Service Publishing Co., 1947), pp. 67-80

MOD II, Lesson 3 - Hastings, 1066

None

MOD II, Lesson 4 - Vera Cruz

- A. Instructional Aid II-4-A. Map: "The Mexican War," from Dupuy and Dupuy, Encyclopedia, p. 806
- B. Instructional Aid II-4-B. Map: "Vera Cruz and the Anchorages," from Bauer, Surfboats and Horse Marines, p. 19
- C. Instructional Aid II-4-C. Map: "Vera Cruz and its Environs," ibid., p. 84

MOD II, Lesson 5 - Invasion of Crimea, 1854

- A. Instructional Aid II-5-A. Map: "Part of the Western and Southern Coasts of the Crimea," from Edward B. Hamley, The War in the Crimea (New York: Scribner & Welford, 1890), p. 34
- B. Instructional Aid II-5-B. Map: "Main Theater of the Crimean War," from Potter, Sea Power: A Naval History, p. 116

MOD II, Lesson 6 - Roanoke Island, Civil War, 1862

- A. Instructional Aid II-6-A. Map: "The American Civil War," from Dupuy and Dupuy, Encyclopedia of Military History, p. 871
- B. Instructional Aid II-6-B. Map: "Battle of Roanoke

Island 7-8 Feb. 1862," from Robert W. Daly, "Burnside's Amphibious Division," Marine Corps Gazette, December 1951, p. 31.

- C. Instructional Aid II-6-C. Map: "First Wave of the Federal Landing at Ashby's Harbor," from Robert W. Daly, "Burnside's Amphibious Division," Marine Corps Gazette, December 1951, p. 32.
- D. Instructional Aid II-6-D. Map: "Battle of Roanoke Island, 8 February 1862," from Robert W. Daly, "Burnside's Amphibious Division," Marine Corps Gazette, December 1951, p. 33

MOD II, Lesson 7, Fort Fisher Campaigns, 1864-65

- A. Instructional Aid II-7-A. Map: "The Fort Fisher Campaign, 1864-1865" from Bartlett, Assault from the Sea, p. 97

MOD II, Lesson 8, Tanga, 1914

- A. Instructor references - Lettow-Vorbeck, Paul von, My Reminiscences of East Africa (Nashville, TN: Battery Classics, 1990), pp. 35-49

MOD II, Lesson 9, Gallipoli, 1915

- A. Instructional Aid II-9-A. Map: In "The Western Front," from Dupuy and Dupuy, Encyclopedia of Military History, p. 948
- B. Instructional Aid II-9-B. Map: "Dardenelles-Gallipoli Campaign," from Potter, Sea Power, A Naval History, p. 215
- C. Instructional Aid II-9-C. Map: "Gallipoli and the Dardenelles," from J.F.C. Fuller, A Military History of the Western World, vol. III (New York: Da Capo Press, 1956), p. 243
- D. Instructional Aid II-9-D. Map: "Battle of Sari Bair," ibid., p. 250
- E. Instructional Aid II-9-E. Map: "Battle of Suvla Bay," ibid., p. 254
- F. Instructional Aid II-9-F. Map: "Gallipoli: Final Situation," from E.B. Potter, ed., Sea Power, 1st edition (Inglewood Cliffs, NJ: Prentiss-Hall, 1960), p. 427
- G. Instructional Aid II-9-G. Student Reference Sheet.

MOD II, Lesson 10 - Zeebrugge

- A. Instructional Aid II-10-A. Map: "The Western Front, 1914-1918," from Dupuy and Dupuy, p. 948
- B. Instructional Aid II-10-B. Map : "Harbor of Zeebrugge, Showing German Defenses and British Blockships," from E.B. Potter, ed., Sea Power, 1st ed. (Inglewood Cliffs, NJ: Prentiss-Hall, 1960), p. 471
- C. Instructional Aid II-10-C. Map: "North Sea," Source Unknown.

MOD II, Lesson 11 - The Interwar Years

- A. Instructional Aid II-11-A. Reading: Moore, R. Scott, "Ideas and Direction: Building Amphibious Doctrine," Marine Corps Gazette, November 1982, pp. 49-58
- B. Instructional Aid II-11-B. Sample Discussion Questions.

MOD II, Lesson 12 - European Strategy and North Africa, 1942

- A. Instructional Aid II-12-A. Map: "Allied Operations Against the Axis, 1942-45," from Potter, Sea Power: A Naval History, 2nd ed., p. 272
- B. Instructional Aid II-12-B. Map: "Landings in North Africa," from Dupuy and Dupuy, Encyclopedia of Military History, p. 1085
- C. Instructional Aid II-12-C. Map: "American Landings in French Morocco," from E.B. Potter, ed., Sea Power, 1st ed. (Inglewood Cliffs, NJ: Prentiss-Hall, 1960), p. 572
- D. Instructional Aid II-12-D. Map: "Initial Landing Plan for Fedala," ibid., p. 573
- E. Instructional Aid II-12-E. Map: "The Assault on the Casablanca Area," ibid., p. 574

MOD II, Lesson 13 - Sicily, 1943

- A. Instructional Aid II-13-A. Map: "Invasion of Sicily," from Dupuy and Dupuy, Encyclopedia of Military History, p. 1095
- B. Instructional Aid II-13-B. Map: "The Conquest of Sicily," from Churchill, Closing the Ring, p. 25
- C. Instructional Aid II-13-C. Map: "Allied Operations

Against Sicily and Italy," from E.B. Potter, ed., Sea Power, 1st edition (Ingle-wood Cliffs, NJ: Prentiss-Hall, 1960), p. 586

- D. Instructional Aid II-13-D. Map: "Sicily 1943," from Morison, The Two-Ocean War, pp. 210-211
- E. Instructional Aid II-13-E. Map: "Gela (Dime) Force Landings," ibid., pp. 214-15
- F. Instructional Aid II-13-F. Diagram: Command relationships, ibid., p. 206

MOD II, Lesson 14 - Salerno, 1943

- A. Instructional Aid II-14-A. Map: "Invasion of Italy," from Dupuy and Dupuy, Encyclopedia of Military History, p. 1097
- B. Instructional Aid II-14-B. Map: "The Invasion of Italy," from Historical Division, War Department, Salerno: American Operations from the Beaches to the Volturno (Washington: Government Printing Office, 1944), facing p. 1
- C. Instructional Aid II-14-C. Map: "The Salerno Plain: D-Day Plans," ibid., facing p. 5
- D. Instructional Aid II-14-D. Map: "D-Day Progress," ibid., p. 32
- E. Instructional Aid II-14-E. Map: "Bay of Naples and Gulf of Salerno," from Morison, The Two-Ocean War, pp. 294-295
- F. Instructional Aid II-14-F. Diagram: "Organization of the Fifth Army at Salerno," ibid., p. 5

MOD II, Lesson 15 - Anzio, 1944

- A. Instructional Aid II-15-A. Map: "Allied Operations Against the Axis", from Potter, Sea Power, 1st ed., p. 272
- B. Instructional Aid II-15-B. Map: "Anzio Situation Map," from Morison, The Two-Ocean War, p. 303

MOD II, Lesson 16 - Normandy 1944

- A. Instructional Aid II-16-A. Map: "American and British Strategies in the Mediterranean, Summer 1944," from Potter, Sea Power, 1st ed., p. 607

- B. Instructional Aid II-16-B. Map: "Distribution of German Divisions, June 6, 1944," ibid., p. 609
- C. Instructional Aid II-16-C. Map: "Routes of the Invasion Convoys, Operation Overlord, June 6, 1944," ibid., p. 613
- D. Instructional Aid II-16-D. Map: "'Mulberry A,' Omaha Beach," ibid., p. 617
- E. Instructional Aid II-16-E. Map: "Invasion and Battle of Normandy," ibid., p. 619
- F. Instructional Aid II-16-F. Map: "Invasion of Southern France, August 15, 1944," ibid., p. 621
- G. Instructional Aid II-16-G. Map: "The Drive Into Germany," ibid., p. 624
- H. Instructional Aid II-16-H. Map: "Operation Overlord," from Dupuy and Dupuy, Encyclopedia of Military History, p. 1105
- I. Instructional Aid II-16-I. Map: "Breakout and Pursuit," ibid., p. 1107
- J. Instructional Aid II-16-J. Map: "The Normandy Invasion and Campaign" from Potter, Sea Power: A Naval History, 2nd ed., p. 280
- K. Instructional Aid II-16-K. Map: "Isolation by Air," from Eisenhower, Crusade in Europe, p. 233
- L. Instructional Aid II-16-L. Map: "General Strategy of Overlord," ibid., p. 227
- M. Instructional Aid II-16-M. Map: "D-Day Assault," ibid., p. 255

MOD II, Lesson 17 - Pacific Strategy and Guadalcanal, 1942

- A. Instructional Aid II-17-A. Map: "The Pacific Areas," from Potter, Sea Power: A Naval History, p. 291
- B. Instructional Aid II-17-B. Map: "Scene of Early Operations in the South and Southwest Pacific Areas," ibid., p. 303
- C. Instructional Aid II-17-C. Map: "South Pacific Theater," from Millett, Semper Fidelis, p. 358
- D. Instructional Aid II-17-D. Map: "Guadalcanal and Florida Islands," from Hough, et al., History of U.S. Marine Corps Operations in World War II, Vol I, Map

13, end pages

- E. Instructional Aid II-17-E. Map: "October Attacks on the Perimeter," ibid., Map 23
- F. Instructional Aid II-17-F. Map: "Approach of Task Forces 61 and 62 to Guadalcanal," from John L. Zimmerman, The Guadalcanal Campaign (Washington: Headquarters, U.S. Marine Corps, 1949), p. 24
- G. Instructional Aid II-17-G. Map: "Landings in the Tulagi Area," from Hough et al., Pearl Harbor to Guadalcanal, Map 15, end pages
- H. Instructional Aid II-17-H. Map: "Transport Area, Guadalcanal," from VADM George Carroll Dyer, The Amphibians Came to Conquer: The Story of Admiral Richmond Kelly Turner, vol. I, reprint (Washington: Headquarters, U.S. Marine Corps, 1991), p. 335
- I. Instructional Aid II-17-I. Map: "Initial Dispositions," from Zimmerman, Guadalcanal Campaign, p. 44
- J. Instructional Aid II-17-J. Map: "Battle of Guadalcanal," from Dupuy and Dupuy, Encyclopedia of Military History, p. 1142
- K. Instructional Aid II-17-K. Video: The World at War: Pacific--The Island to Island War (New York: Thames Video Collection, HBO Video, 1982), 52 min. Available at most video stores for students to view at home
- L. Instructional Aid II-17-L. Video: "V" for Victory: Guadalcanal (New York: Atlas Video, 1991), ISBN 0-945716-14-1, 45 min. For students to view at home

MOD II, Lesson 18 - Tarawa, 1943

- A. Instructional Aid II-18-A. Map: "Scene of Battle 1943-1944," from Henry I. Shaw, et al., Central Pacific Drive: History of U.S. Marine Corps Operations in World War II, vol. III (Washington: Headquarters, U.S. Marine Corps, 1966), end pages
- B. Instructional Aid II-18-B. Map: "Gilbert Islands; Central Pacific Distance Chart," from VADM George Carroll Dyer, The Amphibians Came to Conquer: The Story of Admiral Richmond Kelly Turner, vol. II, reprint (Washington: Headquarters, U.S. Marine Corps, 1991), p. 615
- C. Instructional Aid II-18-C. Map: "Betio Island: Showing Main Japanese Defenses," from Shaw, et al.,

Central Pacific Drive, Map II, end pages

- D. Instructional Aid II-18-D. Map: "Landing Plan Red Beaches, Betio Island," from Dyer, The Amphibians Came to Conquer, p. 698
- E. Instructional Aid II-18-E. Map: "Betio Island: Landings and Situation 1800, 20 November," from Shaw, et al., Central Pacific Drive, Map III, end pages
- F. Instructional Aid II-18-F. Table: "Time Schedule," from Dyer, The Amphibians Came to Conquer, pp. 690-691
- G. Instructional Aid II-18-G. Video: "V for Victory: Tarawa and the Island War (New York: Atlas Video, 1991), ISBN 0-945716-18-4, 45 min. Available at many video stores for students to view at home

MOD II, Lesson 19 - The Marianas, 1944

- A. Instructional Aid II-19-A. Map: "Saipan Island," from Hoffman, Saipan: The Beginning of the End, p. 5
- B. Instructional Aid II-19-B. Map: "Japanese Defense Sectors," ibid., p. 12
- C. Instructional Aid II-19-C. Map: "Plans for Landing," ibid., p. 31
- D. Instructional Aid II-19-D. Map: "Positions at Close of D-Day," ibid., p. 70
- E. Instructional Aid II-19-E. Map: "Japanese Counterattack Plan," ibid., p. 14
- F. Instructional Aid II-19-F. Map: "Saipan: Showing Division Boundaries and Phase Lines," from James R. Stockman, "The Battle for Saipan," Campaign for the Marianas (Washington: Headquarters, U.S. Marine Corps), p. 32
- G. Instructional Aid II-19-G. Map: "Tinian Operation," from Hoffman, The Seizure of Tinian, inside front cover
- H. Instructional Aid II-19-H. Map: "Plans for Landing," ibid., p. 24
- I. Instructional Aid II-19-I. Map: "Tinian: Progress of the Attack, Division Boundaries and Phase Lines," from James R. Stockman, "The Tinian Fight," Campaign for the Marianas, p. 6
- J. Instructional Aid II-19-J. Map: "Guam: Daily

Progress Lines," from Phillips D. Carleton, "The Guam Operation," Campaign for the Marianas, p. 48

- K. Instructional Aid II-19-K - Presentation - Tinian. Additional presentation about the Battle of Tinian.

MOD II, Lesson 20 - Iwo Jima, 1945

- A. Instructional Aid II-20-A. Map: "Iwo Jima: Progress of Battle," from Morison, The Two-Ocean War, p. 439
- B. Instructional Aid II-20-B. Map: "Nanpo Shoto Group," from Dyer, The Amphibians Came to Conquer, vol. II, p. 988
- C. Instructional Aid II-20-C. Map: "Iwo Jima (Sulphur) Island," from Bartley, Iwo Jima: Amphibious Epic, Map II, end pages
- D. Instructional Aid II-20-D. Map: "Japanese Defense Sectors," ibid., p. 10
- E. Instructional Aid II-20-E. Map: "Naval Gunfire Areas of Responsibility: D-1," ibid., p.46
- F. Instructional Aid II-20-F. Map: "Landing Plan: Iwo Jima," from Garand and Strobridge, Western Pacific Operations: History of U.S. Marine Corps Operations in World War II, vol. IV, p. 470
- G. Instructional Aid II-20-G. Map: "Strategic Situation, Central and Western Pacific," ibid., p. 53
- H. Instructional Aid II-20-H. Map: "VAC Front Lines: D-Day," from Bartley, Iwo Jima: Amphibious Epic, p. 66
- I. Instructional Aid II-20-I. Map: "Hill 362A," ibid., p. 130
- J. Instructional Aid II-20-J. Presentation. Additional presentation about the battle exclusively.

MOD II, Lesson 21 - Okinawa, 1945

- A. Instructional Aid II-21-A. Map: "Okinawa Landings," from Morison, The Two-Ocean War, p. 451
- B. Instructional Aid II-21-B. Map: "Okinawa Shima," from Nichols and Shaw, Okinawa: Victory in the Pacific, p. 5
- C. Instructional Aid II-21-C. Map: "Seizure of Kerama Retto," ibid., p. 39

- D. Instructional Aid II-21-D. Map: "Sketch Map of Japanese Defensive Dispositions," ibid., p. 61
- E. Instructional Aid II-21-E. Map: "Schematic Sketch of Preferred Troop Tactical Plan: Phase I - Iceberg," ibid., p. 22
- F. Instructional Aid II-21-F. Map: "Schematic Sketch of Alternate Troop Tactical Plan: Phase I - Iceberg," ibid., p. 24
- G. Instructional Aid II-21-G. Map: "Landing Plan - 1 April 1945: Hagushi Beaches," ibid., p. 65
- H. Instructional Aid II-21-H. Map: "Severing the Island: Tenth Army Progress," ibid., p. 75
- I. Instructional Aid II-21-I. Diagram: "Typical hill-cave defense position as set up by subordinate Japanese unit on Okinawa," from Williams, Marine Corps Gazette, Oct 1945, p. 45.
- J. Instructional Aid II-21-J. Reading: "Jap Tactics on Okinawa," from Williams, Marine Corps Gazette, Oct 1945, p. 43-46.

MOD II, Lesson 22 - Lessons of World War II

None

MOD II, Lesson 23 - Inchon, 1950

- A. Instructional Aid II-23-A. Reading: Cagle, Malcolm W., "Inchon--The Analysis of a Gamble," U.S. Naval Institute Proceedings, Jan. 1954, pp. 47-51
- B. Instructional Aid II-23-B. Handout: "Korean War, 1-Page Summary," Source unknown.
- C. Instructional Aid II-23-C. Map: "Korea," from Potter, Sea Power, 2nd ed., p. 364
- D. Instructional Aid II-23-D. Map: "The Approaches to Inchon," ibid., p. 366
- E. Instructional Aid II-23-E. Map: "United Nations Defensive," from Dupuy and Dupuy, Encyclopedia, p. 1241
- F. Instructional Aid II-23-F. Map: Instructional Aid II-23-A. Map: "United Nations Offensive," ibid., p. 1243
- G. Instructional Aid II-23-G. Map: "Korea: August,

1950," from Heinl, Victory At High Tide, inside front cover

- H. Instructional Aid II-23-H. Map: "The Inchon Approaches," ibid.
- I. Instructional Aid II-23-I. Map: "The Inchon Assault," ibid., inside back cover
- J. Instructional Aid II-23-J. Map: "Seizure of Wolmi Do," ibid., p. 91
- K. Instructional Aid II-23-K. Map: "Red Beach Assault," ibid., p. 101
- L. Instructional Aid II-23-L. Map: "Blue Beach Assault," ibid., p. 111
- M. Instructional Aid II-23-M. Map: "X Corps Scheme of Maneuver," ibid., p. 152
- N. Instructional Aid II-23-N. Diagram: "Tidal Diagram," ibid., p. 26
- O. Instructional Aid II-23-O. Diagram: "Major Forces and Command Relations," ibid., p. 53

MOD II, Lesson 24 - Operation Starlight, Vietnam 1965

- A. Instructional Aid II-24-A. Reading: Hilgartner, LtCol. P.L., "Amphibious Doctrine in Vietnam," Marine Corps Gazette, January 1969, pp. 28-31
- B. Instructional Aid II-24-B. Reading: Peatross, O.F., "Application of Doctrine: Victory at Van Tuong Village," Naval Review 1967 (Annapolis, MD: Naval Institute Press, 1966), pp. 2-13
- C. Instructional Aid II-24-C. Reading: Shulimson, Jack and Maj Charles M. Johnson, USMC, "Starlite: The First Big Battle," U.S. Marines in Vietnam: The Landing and the Buildup, 1965 (Washington: History and Museums Division, Headquarters, U.S. Marine Corps, 1978), pp. 69-83
- D. Instructional Aid II-24-D. Map: "Operation Starlite," from Naval Review 1967 (Annapolis, MD: Naval Institute Press, 1966), facing p. 3
- E. Instructional Aid II-24-E. Map: "Operation Starlite, 18-19 August 1965", from Shulimson and Johnson, U.S. Marines in Vietnam: The Landing and the Buildup, 1965, p. 74

- F. Instructional Aid II-24-F. Map: "Operation Starlite, H-Hour on D-Day," from Naval Review 1967 (Annapolis, MD: Naval Institute Press, 1966), facing p. 3
- G. Instructional Aid II-24-G. Map: "Operation Starlite, Noon on D-Day," ibid., p. 11

MOD II, Lesson 25 - The Falkland Islands, 1982

- A. Instructional Aid II-25-A. Map: "Falkland Islands," from Dupuy & Dupuy, Encyclopedia of Military History, p. 1354
- B. Instructional Aid II-25-B. Map "The Task Force Sails," Hastings & Jenkins, The Battle for the Falklands, p. 95
- C. Instructional Aid II-25-C. Map "The Landing at Port San Carlos," ibid., p. 201
- D. Instructional Aid II-25-D. Map "The Battle for Stanley," ibid., p. 302

MOD II, Lesson 26 - Grenada, 1983

- A. Instructional Aid II-26-A. Reading: Byron, M.J., "Fury from the Sea: Marines in Grenada," Naval Institute Proceedings, May 1984, pp. 119-131
- B. Instructional Aid II-26-B. Map: "U.S. D-Day Plan," from Adkin, Urgent Fury, p. 142
- C. Instructional Aid II-26-C. Map: "U.S. Strategic Plan," ibid., p. 144
- D. Instructional Aid II-26-D. Map: "Change of Plan at 1:00 P.M., October 25," ibid., p. 247

MOD II, Lesson 27 - Mogadishu, Somalia, 1991

- A. Instructional Aid II-27-A. Reading: Siegel, Adam B., Eastern Exit: The Noncombatant Evacuation Operation (NEO) From Mogadishu, Somalia, in January 1991 (Alexandria, VA: Center for Naval Analyses, 1991)
- B. Instructional Aid II-27-B. Reading: Siegel, Adam B. "Lessons Learned From Operation Eastern Exit," Marine Corps Gazette, June 1992, pp. 75-81
- C. Instructional Aid II-27-C. Map: Theater map from Siegel, "Lessons From Operation Eastern Exit," Marine Corps Gazette, June 1992, p. 77
- D. Instructional Aid II-27-D. Map: Embassy compound

map, ibid.

- E. Instructional Aid II-27-E. Diagram: "Operation Eastern Exit Command Relationships," from Siegel, Eastern Exit, p. 21

MODULE III - LIST OF INSTRUCTIONAL AIDS

MOD III, Lesson 1 - Marine Air-Ground Task Force (MAGTF)

- A. Instructional Aid III-1-A. Reading - Marines and Strategy by Capt B. H. Liddell Hart, USMC. This provides insight into the modern day Marine amphibious force based on historical lessons.
- B. Instructional Aid III-1-B. Handout - MAGTF Organizational Chart from the School of MAGTF Logistics. A quick reference for the structure, manpower, and equipment of a MEU, MEB, and MEF.
- C. Instructional Aid III-1-C. Handout - MAGTF chapter from MCDP 1-0. An 11 page overview of the MAGTF from the Marine Corps Operation Doctrinal Publication.

MOD III, Lesson 2 - Expeditionary Operations

- A. Instructional Aid III-2-A. "MCDP 3 - Expeditionary Operations." The Marine Corps doctrinal publication on Expeditionary Operations

MOD III, Lesson 3 - Maritime Prepositioned Forces (MPF)

- A. Instructional Aid III-3-A. Reading: *MCWP 3-32 Maritime Prepositioning Forces Operations*. An 8-page overview of MPF Operations.
- B. Instructional Aid III-3-B. Video: MPF Overview. This video provides the instructor and student with a visual overview of MPF operations.

MOD III, Lesson 4 - Expeditionary Maneuver Warfare (EMW)

- A. Instructional Aids from the Expeditionary Maneuver Warfare, Concepts Overview 2004 (CD-ROM):
 - 1. Readings:
 - a. Instructional Aid III-4-A. "Expeditionary Maneuver Warfare"
 - b. Instructional Aid III-4-B. "Ship to Objective Maneuver (STOM)"
 - c. Instructional Aid III-4-C. "Operational Maneuver From the Sea"
 - d. Instructional Aid III-4-D. "Marine Strategy 21"

- e. Instructional Aid III-4-E. "MPF 2010"
 - f. Instructional Aid III-4-F. "MCDP 3 - Expeditionary Operations"
2. Presentation:
- f. Instructional Aid III-4-G. "Expeditionary Maneuver Warfare"
 - g. Instructional Aid III-4-H. Sea Basing Case Study on Somalia.
3. Videos:
- h. Instructional Aid III-4-I. "Introduction to Sea Basing"
 - i. Instructional Aid III-4-J. "Ship to Objective Maneuver (STOM)"
 - j. Instructional Aid III-4-K. "Sea Basing Case Study"

MOD III, Lesson 5 - Expeditionary Strike Group (ESG) (Optional)

- A. Instructional Aid III-5-A. Diagram: Expeditionary Strike Group
- B. Instructional Aid III-5-B. Reading: Mullen, Mike. *Proceedings* (2003). Sea Power 21 Series-Part VI, Global Concept of Operations. Electronic copy at <http://www.usni.org/proceedings/Articles03/PROmullen04.htm>

COURSE MATERIALS AND ADDITIONAL RESOURCES

Curriculum Guides. The primary format for this course is the Amphibious Warfare Curriculum Guide published by NROTC, Pensacola, Florida. Hard copies are typically provided to new Marine Officer Instructors at the New Instructor Seminar held each summer in Pensacola. The curriculum is also available at the following website:

<https://www.cnet.navy.mil/cnet/nrotc/cig.html>

CD-ROMs .

NROTC Officer Development (OD) by way of the Course Coordinator provides CD-ROMs containing electronic copies of the following:

- **Amphibious Warfare Disc I:** Curriculum Guide; Course Introduction/Front Matter; Lesson Guides and Supporting materials for Module I; Resources; Electronic Publications; and Tactical Decision Games (TDG).
- **Amphibious Warfare Disc II:** Lesson Guides and supporting materials for Module II.
- **Amphibious Warfare Disk III:** Lesson Guides and supporting materials for Module III.
- **Amphibious Warfare Disk IV:** Materials related to Marine Corps Combat Development Center's Expeditionary Marine Warfare. Includes videos, presentations, publications, and other resources.
- **Text** - Certain text books and resources may be provided in electronic format for cost savings and the ability to disseminate portions of text electronically to students (within copyright laws).

* Contact the Course Coordinator for additional or updated copies of CD-ROMs.

Recommended Websites .

Expeditionary Warfare Division (N75), Chief of Naval Operations
<http://www.exwar.org/htm/7000popb.htm> - Provides documents and texts regarding present day and future amphibious and expeditionary concepts.

Marine Corps Doctrine, Marine Corps Combat Development Center (MCCDC)
<https://www.doctrine.usmc.mil/aspweb/mcdp.asp> - Provides electronic copies of Marine Corps Doctrinal Publications (MCDP) and a variety of other electronic resources.

Federation of American Scientists (FAS)

<http://www.fas.org/man/> - Provides technical data and photos about most U.S. military equipment.

Map Library, University of Texas

http://www.lib.utexas.edu/maps/map_sites/map_sites.html - Provides a comprehensive on-line library of maps, including historical maps.

RECOMMENDATIONS FOR THE INSTRUCTOR

The purpose of this section is to describe the purpose, theme, and structure of Amphibious Warfare and to provide practical guidance for teaching the course. The curriculum contained herein is intended as a guide only; the instructor should in no way feel constrained by the lessons and structure presented. It is intended that as long as the instructor meets the Professional Core Competency requirements for the course, he/she should enjoy academic freedom.

1. Course Purpose. The purpose of this course is to introduce the student to the foundational concepts and history of amphibious warfare. This is not a history class. It is a history based class. The goal is to educate the student to read military history analytically not to memorize facts. The foundation for the course occurs in Module One - Doctrine, Themes and Theory. All of the second and third modules are based on the principles learned in Module One. So while it is important for the students to read and understand the historical case studies, it is only important that they comprehend the case study enough to assess the foundational principles against them. For example, it is not necessarily important that the student understands specifically how many or how Longbow Men were employed; instead the student should understand how the Longbow Men were used to employ the combined arms effect. That is the more salient point to be learned for their professional development - creating officers that can think in a dynamic, rapidly deteriorating situation; not to produce officers who can memorize and regurgitate facts.

2. Format. The course is designed in a discussion seminar format, which works well for this subject matter and provides better learning opportunities for an upper-level class. However, the course can easily be converted to a lecture format. The need for thorough preparation is doubly important in a discussion seminar, since the discussion will invariably bring up unexpected points and lead in unexpected directions. The teacher must be prepared to react knowledgeably and have a plan to keep the class and the learning objectives for that class on track. Most importantly, this course is designed to provide the instructor with the utmost flexibility and can be adapted to the teaching style, student population, and classroom environment.

3. Structure. The course has been redesigned into three distinct parts listed below, in an effort to migrate away from a straight historical approach to the analytical study of Amphibious Warfare and to an understanding of Expeditionary Maneuver Warfare. Again, Modules Two and Three are based on Module One.

a. Doctrine, Themes, and Theory (Module One). This first

part introduces the student to the concept, definition, and need for amphibious and expeditionary operations. The instructor will establish the foundation and themes to which the other parts of the class will refer. The themes of amphibious warfare, the key terms from MCDP-1 Warfighting, the four types of amphibious operations, the themes of amphibious operations, the principles of war, the fundamentals of the offense and defense and the levels of war are good places to begin. Discussion and incorporation of the leadership traits and principles is a method to analytically assess the leadership involved in the case studies as well as enhance the leadership development in the student.

b. Historical Case Studies (Module Two). For the second part of the class, the instructor (and students) presents battlefield studies of significant amphibious operations. The class should conduct an analysis of the battlefield study based on the foundational principles of Module One. A number of lesson plans in the curriculum will assist the instructor. It is not expected that each battlefield study be discussed, rather, only the portion the instructor believes will provide the best examples. The focal lessons of this module are:

1) Marathon. An ancient amphibious landing that intended to use amphibious operations to add surprise, deception and maneuverability to the battlefield.

2) Vera Cruz. An example of the amphibious landing as a form of envelopment. A good example of the relationship between the political and strategic objectives and the delineation of politician and military general responsibilities for each.

3) Gallipoli. A terrific battle study that should be a focal point for this course, as it has many lessons learned. The study of Gallipoli was crucial in the Marine Corps' development of an amphibious landing doctrine in the 1920s and the Marine Corps' execution of amphibious operations in the Pacific Theater of WWII.

4) Interwar Years. A great opportunity to discuss the predictions made by LtCol Pete Ellis, the Marine Corps development of an Amphibious Doctrine, the Marine Corps development of amphibious equipment and technology, and the development of extensive amphibious operations training. This is an opportunity to review the lessons of Gallipoli and lay the foundation for amphibious operations in World War II.

5) Normandy. The hallmark amphibious operation of World War II. The landing at Normandy, in addition to being the largest amphibious operation, shows the benefits of deception (Pas de Calais).

6) Tarawa. The first opposed amphibious landing of

World War Two where the Marine Corps truly tested its amphibious doctrine in its infancy and garnered lessons that it would build upon throughout the rest of the campaign.

7) Iwo Jima. Enough said.

8) Okinawa. The final amphibious landing of the Pacific Campaign. A great comparative study to the landings at Guadalcanal and Tarawa.

9) Korean War (Pusan withdrawal, Inchon Landing, Hungnam Landing and Evacuation). The Korean Conflict has examples of both amphibious landings and withdrawals. Classic example of an amphibious operation used as a form of operational envelopment.

10) Vietnam. Operation Starlight in Vietnam showcases the technological development of helicopters as they are used in conjunction with landing craft as forms of maneuver from ship to shore.

c. Expeditionary Maneuver Warfare (Module Three). The third part of the class focuses on the Marine Corps' development of Expeditionary Maneuver Warfare. This provides the instructor with an opportunity to focus on Marine Corps specific topics, such as the structure, operation, and capabilities of a MAGTF, MEU and Expeditionary Strike Group (ESG). Since the amphibious operation in Somalia in 1991 (the last lesson plan in Part II), there have been and will continue to be numerous examples of the Marine Corps employing amphibious operations, the MAGTF, and Expeditionary Maneuver Warfare, which provide the instructor with resources for relevant discussion and current events. But most importantly is to study the development and implementation of Expeditionary Maneuver Warfare as a product of the foundational principles and the lessons learned from the past (i.e. Modules One and Two). This will help the student see the next step in the evolution of amphibious warfare.

4. Preparation.

a. This curriculum guide is based on one fundamental assumption - *that the instructor is familiar with the subject matter*. One cannot effectively teach a subject unless one is knowledgeable in that subject. It is imperative that the instructor do the research necessary to be conversant in the material. The instructor references listed in each lesson plan should be sufficient in that regard; they are not an insignificant amount of reading to be done the last night. You can not adequately teach this class by staying one week ahead of the students. As a rule of thumb, experience shows that every hour of classroom instruction requires at least three to five hours of platform and presentation preparation, *after the reading is done*, depending on the instructor's prior level of knowledge.

b. The material contained herein does not constitute detailed lesson plans from which an instructor can simply recite with little or no preparation. Rather, the lesson guides provide a bare skeleton of the lesson and point the instructor toward the material with which he/she can "flesh out" the lesson. *The bottom line: There is no substitute for adequate preparation.*

c. It is highly encouraged to read MCDP 1-0, Marine Corps Operations located in your resources folder prior to delivering your class.

5. Course Materials (also see Course Materials and Additional Resources). This curriculum guide comprises one volume and four CD-ROMs with supplemental materials (may be one DVD vice four CD-ROMs), as well as student texts and references.

a. Amphibious Warfare Disk I. Disk I contains: Course Curriculum Guide; Introduction/Front Matter; Professional Core Competencies (PCC); bibliography; lesson guides for Lessons 1 through 5 of Module I; Power Point presentations for Module I; Instructional Aids for Module I; sample quizzes and examinations for Module I; resources; electronic publications; and Tactical Decision Games (TDG). The lesson guides present the learning objectives, texts, references, and an outline for teaching the specific topic. The curriculum guide will be available in Microsoft Word so that instructors may modify the lesson guides to create detailed lesson plans.

b. Amphibious Warfare Disk II. Disk II contains: Lesson guides for Lessons 1 through 27 of Module II; Power Point presentations for Module II; Instructional Aids for Module II; sample quizzes and examinations for Module II. Module II contains case studies of historical amphibious operations. The lesson guides present the learning objectives, texts, references, and an outline for teaching the specific topic. The lesson guides will be available in Microsoft Word so that instructors may modify the lesson guides to create detailed lesson plans.

c. Amphibious Warfare Disk III. Disk III contains: Lesson guides for Lessons 1 through 5 of Module III; Power Point presentations for Module III; Instructional Aids for Module III; sample quizzes and examinations for Module III. The lesson guides will be available in Microsoft Word so that instructors may modify the lesson guides to create detailed lesson plans.

d. Amphibious Warfare Disk IV. Disk IV was created by Marine Corps Combat Development Center (MCCDC) and contains Expeditionary Maneuver Warfare, MCCDC 2003. It provides presentations, short video clips, and a wealth of resources, documents, training aids, presentations, and publications related to Expeditionary Maneuver Warfare. This is a great tool

for the instructor to use while putting together the classes on Expeditionary Maneuver Warfare.

6. Teaching Strategies. As mentioned earlier, there are numerous ways to teach this material. Seminar discussion and lecture are the most likely methods to teach Amphibious Warfare. The following ideas are presented to vary the classroom environment and stimulate learning with the enclosed curriculum:

a. Battle study presentations. The instructor can allow his/her students to teach their peers by researching and presenting a case study to the class and the instructor. This provides an opportunity to evaluate the student's ability to analyze a battle and articulate the important points to classmates. It also allows the instructor to evaluate each student's ability to communicate. The instructor must thoroughly research the material prior to class and allow class time to critique the student's presentation. Ensure the students adhere to the foundational principles construct which will help focus their efforts.

b. Guest speakers. There are a number of retired and, in some cases, active duty Marine officers available in most college communities who can speak from personal experience about some of the battles covered in this course of instruction. Guest speakers can be brought in to supplement the instructor's lecture, teach the class themselves, or be invited for a special evening lecture outside the classroom environment. They provide a most valuable perspective, and this type of exposure contributes to the "brotherhood" of the Corps.

c. Tactical Decision Games (TDGs) and Sand Table Exercises (STX). TDGs provide the student with an opportunity to develop decision-making skills based on the lessons they learned in the classroom. TDGs can use sand tables, topographical maps, or basic drawings. The instructor must keep in mind that many of the students may not possess the skills necessary to participate in such exercises. Therefore, it is imperative that the instructor understand his/her students' capabilities and make time to teach the fundamentals of TDG and STX, which may include unit formation, weapons capabilities, symbology, map reading, etc. The TDG and STX may need to start out very basic and become more complex throughout the course. The TDG and STX can be single decisions or force on force, where two or more sides compete against each other. Obviously, TDGs that involve amphibious operations/missions will likely be more complex. The Marine Corps Gazette and the Marine Corps Association have resources to assist with TDG. Another option is to take battlefield studies you discussed in class, along with maps, and ask the students what they would do (both the offense and the defense).

d. Five-minute summaries. Teaching midshipmen to write effectively is one objective of our instruction. One tool to

teach brevity and succinct writing is the five-minute summary. At the end of a class lecture or guided discussion, allow the students five minutes to write a summary of the most salient points covered in class. The summary must be written in narrative format (not bullet) with complete sentences. The instructor should critique their written work. Students will make little effort unless the summary is graded or can be used to assist in the final exam.

7. Finally, enjoy teaching the class. This supporting material provided is a way - not the way. Be creative and develop your course into one that engages the students in critical thinking about amphibious and expeditionary operations and enhances their development as a Marine Corps officer. Use your various experiences as a Marine officer to enhance your program. Your motivation, enthusiasm, experiences, and professionalism, along with adequate preparation, will tremendously enhance your class. The more ownership you take of the curriculum, the more you will enjoy delivering it. If you have unbounded enthusiasm about the subject matter, it will be contagious among your students. By the end of the semester, you will see that "they get it." And, finally, you do not have to be an expert in amphibious operations nor a master historian to be the duty expert in your class and facilitate an enjoyable, educational learning experience for your students. Semper Fidelis.

**NAVAL RESERVE OFFICERS TRAINING CORPS
AMPHIBIOUS WARFARE**

MODULE I, LESSON 1:

HOURS: 1

TITLE: Introduction to Amphibious Warfare

I. Learning Objectives

- A. The student will comprehend the syllabus, format, teaching style, evaluation methods, assignments, grading, and schedule for the class.
- B. The student will be introduced to the professional core competencies (PCC).

II. References and Texts

- A. Instructor references
 - 1. Presentation - Welcome.
- B. Student texts
 - 1. None

III. Instructional Aids

- A. Instructional Aid I-1-A. Sample Syllabus. This sample syllabus will aid the instructor in developing a syllabus for his/her course. The syllabus is only a guide and must be adapted to the instructors teaching style and university/college requirements.
- B. Instructional Aid I-1-B. Student Handout - Study Guide. This study guide provides a list of the key terms and theories for Part I of the course. The students may use this to organize their notes.
- C. Instructional Aid I-1-B-1. Student Handout - Answer Key. This is the answer key for Instructional Aid I-1-B.
- D. Instructional Aid I-1-C. Reading: Naval Strategy, Land-Sea Operations. This reading provides an overview of the unique aspects of land to sea warfare. This will provide the student with an introduction to the course.

- E. Instructional Aid I-1-D. Reading: Luuvas Article. This reading provides the student an opportunity to understand why we study military history.
- IV. Suggested Methods and Procedures (and/or "Instructor Notes")
- A. Method options:
 - 1. Lecture/Discussion: Review the course syllabus and ensure all students understand the format of the course and the expectations of the instructor. Next, provide the students with an overview of amphibious operations.
 - 2. Video: Recommend showing a video clip of an amphibious landing.
 - B. Procedural and student activity options:
 - 1. None
- V. Presentation
- A. Introduce the instructor.
 - B. Hand out and review the course syllabus.
 - 1. Course title, time, and location.
 - 2. Instructor name, office hours, and contact information.
 - 3. Required texts (review and issue).
 - 4. Grading scale and graded activities and assignments.
 - 5. Overview of evaluations and major assignments.
 - 6. Specific school/course policies (absences, academic integrity, disability access, etc.).
 - 7. General schedule of the course.
 - 8. Review Course Concept.
 - C. Review Professional Core Competencies:
 - 1. Know the Significant events of history relating to amphibious operations. Comprehend their impact on the evolution of amphibious warfare doctrine.

2. Comprehend the problems and advantages relative to employment of amphibious forces in the modern era, and how the U.S. Marine Corps employs amphibious doctrine today.
3. Other learning objectives not established by NETC.
 - a. This is not a rote memorization history course. We will study the foundation concepts, doctrine and leadership in order to analyze historical case studies and apply them to today's warfighting philosophy.
 - b. Comprehend the nature and evolution of amphibious operations in order to comprehend Expeditionary Maneuver Warfare.

D. Show a movie clip (optional).

E. Summary: The course syllabus and topic were introduced during this period of instruction.

VI. Discussion Questions

- A. What is amphibious warfare?
- B. Why do military's use amphibious operations?

VII. In-Class Exercises

- A. None

VIII. Supplemental Learning Activities

- A. None

IX. Follow-on Assignments

- A. Read MCDP-1, *Warfighting*
- B. Handout A, Part I Study Guide
- C. Luuvas Article

**NAVAL RESERVE OFFICERS TRAINING CORPS
AMPHIBIOUS WARFARE**

MODULE I, LESSON: 2

HOURS: 3-4

TITLE: Warfighting and the Principles of War

- I. Learning Objectives
 - A. The student will understand the fundamental concepts discussed in *MCDP-1 Warfighting*.
 - B. The student will understand the nine Principles of War.
- II. References and Texts
 - A. Instructor references
 - 1. *MCDP-1, Warfighting* (1997). Headquarters, U.S. Marine Corps.
 - B. Student texts
 - 1. *MCDP-1, Warfighting* (1997). Headquarters, U.S. Marine Corps.
 - 2. Presentation - I-2-B - Take Home - Principles of War.
 - 3. Instructional Aid I-2-A - Take Home - Levels of War.
- III. Instructional Aids
 - A. Instructional Aid I-2-A - Student Handout: Levels of War. This handout provides an explanation of the Levels of War. This can be used to augment the information on Levels of War provided in the instructor/student text, MCDP-1.
 - B. Instructional Aid I-2-B - Student Handout: Levels of War in power point format. This presentation provides an additional resource and explanation of the Levels of War.
- IV. Suggested Methods and Procedures (*and/or "Instructor Notes"*)
 - A. Method options:

1. Lecture/Discussion: This lesson plan can be taught by use of lecture, or by a small group discussion.
2. Recommend examples or analogies be used to paint a picture or relate this material to something the students understand and are familiar with.
3. This may be a review from the Evolution of Warfare for many of the students. Recommend that the instructor put an emphasis on these terms as related to amphibious operations. (Not all terms and theories need to be reviewed.)
4. Recommend the instructor provide the students with the Part 1 - Study Guide and use the terms and theories outlined in Part 1 as the foundation for the remainder course, all case studies, and all exams.
5. Recommend that the Principles of War be assigned as a mandatory reading, supported by the presentation.

B. Procedural and student activity options:

1. Complete assigned reading.
2. Have students fill out the Part I Study Guide.

V. Presentation

- A. The terms and theories in *MCDP-1, Warfighting* and the Principles of War pertain to all warfare including amphibious operations and will be reoccurring throughout this course.
- B. Chapter 1: Nature of War
 1. **War Defined** - "The essence of war is a violent struggle between two hostile, independent, and irreconcilable wills, each trying to impose itself on the other (*MCDP-1*, p. 3)."
 2. **Friction** - The mental, physical, external, and internal "forces that make the apparently easy so difficult (Clausewitz)."
 3. **Uncertainty** - The "fog of war." War consists of many unknown and unpredictable variables too include the enemy and friendly situation, and the environment. "All actions in war will be based on incomplete, inaccurate, or even contradictory information (*MCDP-1*, p. 7)."

4. Fluidity
5. Disorder
6. **Complexity** - War is inherently complex. Friction, uncertainty, fluidity, disorder, the human dimension, and the number of moving and changing parts, situations, and variables add to the complexity.
7. The Human Dimension
8. Violence and Danger
9. Physical, Moral, Mental Forces
10. The Evolution of War
11. The Science, Art and Dynamic of War

C. Chapter 2: The Theory of War

1. **War as an Act of Policy** - War is an extension, and often last resort, of a nation's politics, policy, and diplomacy. "War must serve policy (MCDP-1, p. 23)."
2. Means in War
3. The Spectrum of Conflict
4. **Levels of War** (see Student Handout A for a summary of the levels of war)
 - a. **Strategic**
 - (1) Highest level of war.
 - (2) The application of military force to secure the policy objectives.
 - (3) Establishing goals, assigning forces, providing assets and imposing conditions on the use of force in theaters, in order to win wars.
 - b. **Operational**
 - (1) The operational level links the strategic and tactical levels of war.
 - (2) "Deciding when, where, and under what

conditions to engage (or refuse/avoid the enemy in battle (MCDP-1, p. 30)."

- (3) "The art and science of winning campaigns (MCDP-1, p. 30)."

c. **Tactical**

- (1) The lowest level of war.
- (2) The use of maneuver and firepower to defeat the enemy at a particular time and place. Winning battles.
- (3) Establishing goals, assigning forces, providing assets and imposing conditions on the use of force in theaters of war.

5. Initiative and Response

6. **Styles of Warfare** - A spectrum from attrition to maneuver. Warfare typically lies somewhere in between the two extremes.

- a. Attrition: Pursing victory through the total destruction of the enemy's personnel and materials (i.e. trench warfare in WWI).
- b. Maneuver: Pursing victory through circumventing the strength of the enemy to attack it from a more advantageous position (i.e. surfaces and gaps).

7. **Combat Power** - The total destructive force a military can bring to the enemy at a given time.

8. **Speed and Focus** - Using speed over distance, time, and space as a form of combat power, which is focused in the decisive place.

9. **Surprise and Boldness** -

- a. Surprise - "disorienting the enemy through unexpected events (MCDP-1, p. 43)," to increase combat power.
- b. Boldness - unhesitatingly exploiting the natural uncertainty of war to pursue major results rather than marginal ones (MCDP-1, p. 44)."

10. **Centers of Gravity and Critical Vulnerabilities-**

- a. Centers of Gravity - Critical factors that the enemy cannot do without, and if eliminated, will cause the enemy to submit to your will.
- b. Critical Vulnerabilities - "A vulnerability that, if exploited, will do the most significant damage to the enemy's ability to resist us (MCDP-1, p. 47)."
- c. These two terms are complimentary. Center of gravity seeks to attack an enemy strength, while critical vulnerabilities focus on a weakness. "A critical vulnerability is a pathway to attacking a center of gravity (MCDP-1, p.47)."

- 11. **Creating and Exploiting Opportunity** - Opportunities will evolve through the actions of both sides on the battlefield. As opportunities present themselves, commanders that can identify and take advantage of these opportunities through speed, flexibility, boldness, and initiative, will be able to generate decisive results.

D. Chapter 3: Preparing for War

- 1. Force Planning
- 2. Organization
- 3. **Doctrine** - fundamental beliefs and particular ways of thinking that provide the basis for mutual understanding.
- 4. Professionalism
- 5. **Training** - training personnel for challenges of combat, to include specific tasks such as amphibious operations.
- 6. Professional Military Education
- 7. Personnel Management
- 8. **Equipping** - Equipping your unit with the tools necessary to be successful in combat. For amphibious operations, this means developing and equipping the unit for conducting amphibious operations (i.e. the development of the LVT during WWII).

E. Chapter 4: The Conduct of War

1. The Challenge
2. **Maneuver Warfare** - Maneuvering in space and time using rapid and focused actions to generate tempo and create opportunities, in order to gain a position of advantage over the enemy.
3. **Orienting on the Enemy** - Essential to maneuver warfare is: 1) Focus on the enemy, 2) understand the enemy's capabilities and view of the battlefield, and 3) get inside the enemy's thought process.
4. Philosophy of Command
5. Shaping the Action
6. Decision-making
7. Mission Tactics
8. Commander's Intent
9. Main Effort
10. **Surfaces and Gaps** - Strengths and weaknesses, respectively, in an enemy. The surfaces and gaps can be physical or deal with time, space, or capability.
11. **Combined Arms** - The tactics and techniques of employing "the full integration of arms in such a way that to counteract one, the enemy must become more vulnerable to another (MCDP-1, p 94)."

F. The Principles of Warfare (POW). Commonly used acronym: MOOSEMUSS. These nine principles pertain to all warfare to include amphibious operations. Many are related and were directly or indirectly discussed in *MCDP-1 Warfighting*.

1. **Mass** - Use overwhelming combat power at a particular space and time on the battlefield.
2. **Objective** - All efforts are either directed toward or supporting one particular objective. Smaller objectives can be used to support larger objectives.
3. **Offense** - Striking power. Taking the initiative to determine the time and place of battle. Going on the attack to force the enemy to react to you.

4. **Security** -
5. **Economy of Force** - The right amount of force, at the right place, at the right time.
6. **Maneuver** - Moving against the enemy in order to gain a position of advantage.
7. **Unity of Command** - Chain of command is in place and understood. Loyalty exists and orders are carried followed.
8. **Surprise** - Gaining the advantage on the enemy through unexpected actions or events.
9. **Simplicity** - Keep it simple. "Everything in war is simple, but the simplest thing is difficult (Clausewitz)."

VI. Discussion Questions

- A. What is doctrine?
- B. Why is doctrine important in the military?
- C. In-Class Exercises
- D. None

VII. Supplemental Learning Activities

In a discussion format, use analogies to discuss the key terms in *MCDP-1 Warfighting* and *Principles of War*. For example, explain the terms "surface and gaps" as it pertains to football.

VIII. Follow-on Assignments

- A. Continue to fill out the Part I Study Guide
- B. Read Presentation - Principles of War

**NAVAL RESERVE OFFICERS TRAINING CORPS
AMPHIBIOUS WARFARE**

PART I, LESSON: 3

HOURS: 1

TITLE: Offense and Defense in Amphibious Operations

I. Learning Objectives

- A. The student will understand the relationship between offense and defense in Amphibious Operations.
- B. The student will understand the opportunities and challenges that exist for the offense and defense.
- C. The student will comprehend the basic employment of offense and defense as it relates to amphibious operations.

II. References and Texts

- A. Instructor references: None
- B. Student texts: None

III. Instructional Aids:

- A. Instructional Aid I-3-A. Student Handout, Excerpts - TBS Lesson Plan B03324 Tactical Planning I (METT-T). This will provide a basic understanding of tactical planning, which can be translated to the offense and defense of amphibious operations.
- B. Instructional Aid I-3-B. Student Handout, Excerpts - TBS Lesson Plan B0354 Offensive Fundamentals I. A basic understanding of offensive fundamentals will allow a student to consider the offensive fundamentals associated with an amphibious operation.
- C. Instructional Aid I-3-C. Student Handout, Excerpts - TBS Lesson Plan B0337 Defensive Fundamentals I. A basic understanding of defensive fundamentals will allow a student to consider the defensive fundamentals associated with an amphibious operation.
- D. Instructional Aid I-3-D. Highlights from three previous instructional aids.

IV. Suggested Methods and Procedures (*and/or "Instructor Notes"*)

- A. Method options:

1. Lecture/Discussion: This lesson is well suited for lecture or small group discussion.

2. Video: None.

B. Procedural and student activity options:

1. Complete assigned reading.

2. Continue working on Part I Study Guide.

V. Presentation

A. METT-T - Planning factors for amphibious offenses and defenses.

1. **Mission** - What is the unit's mission (who, what where, and when)? What is the objective? What is the commander's intent (why)?

2. **Enemy** - Who is the enemy (SALUTE)? What are their capabilities (DRAW-D)? What are their strengths and weaknesses? How do they fight? Look at the battlefield through the enemy's eyes? What do you believe they will do (enemy's probable course of action)?

3. **Terrain** - What is the terrain/vegetation like (KOCOA-W)? Where are possible landing sites/landing zones. What are sea conditions? What are weather conditions? How much coastline must be/can be defended?

4. **Troops** - How many troops do you have? How many troops do you estimate the enemy has? Morale, Experience, Equipment, Logistics, Fire Support, etc. By the book, for two equally matched armies, offensive should outnumber the defense 3 to 1.

5. **Time** - How much time do you have? Time for planning, rehearsals, movement? From an amphibious perspective, modify this to include: How much time is it from ship to shore? What time do you want to attack or what time do you believe the enemy will attack?

B. Overview of Offense and Defense:

1. Offense:

a. Purpose

(1) Destroy enemy forces and equipment

- (2) Deceive and divert the enemy
 - (3) Deprive the enemy of resources
 - (4) Gain information
 - (5) Fix the enemy in place
 - (6) Disrupt enemy actions or preparations
- b. Considerations for the Offense
- (1) The 9 Principles of War (MOOSEMUSS) apply to the offense
 - (2) Maintain the momentum. Generate a high tempo and force the enemy to react to you.
 - (3) Use combined arms
 - (4) Fire and Maneuver
- c. Types of Attacks
- (1) Frontal Attack -
 - (a) Directed against the front of an enemy.
 - (b) Goal is penetration of the enemy lines
 - (c) Least preferred form of maneuver because it strikes the enemy strength.
 - (d) May be appropriate with supporting fire, combined arms, or a weak/disorganized enemy.
 - (2) Flanking Attack
 - (a) Attack the enemy from an unexpected direction (the side of their defenses).
 - (b) Avoid the enemy's principle orientation.
 - (3) Envelopment

- (a) The attacking force passes around or over the enemy's principle defense to attack those positions in the rear, or secure other high value objectives in the enemy's rear.
- (b) Bypass a strength and attack a weakness (critical vulnerability).

2. Defense:

a. Purpose

- (1) **To defeat an enemy attack** (defense against amphibious operation)
- (2) To develop more favorable conditions for offensive operations
- (3) To gain time to prepare for other operations
- (4) To allow a higher command to concentrate forces elsewhere
- (5) To control key enemy forces as a prelude to offensive operations
- (6) **To retain key or decisive terrain or to prevent the enemy's capture of terrain** (defense against amphibious operation)

b. Types of Defenses

- (1) Linear Defense
- (2) Defense in Depth

c. Defensive considerations

- (1) Preparation - Fortification, obstacles, orientation
- (2) Mutual support from defensive positions (Are defensive positions able to support each other?)
- (3) Integrate obstacle plan with a fire plan
- (4) Counter attack to exploit weaknesses in the attacking force

- C. Overview of Amphibious Operations.
1. Littorals - coastal region.
 2. 75% of the earth's surface is covered in water.
 3. 80% of the earth's population lives in the littorals.
 4. Approximately 80% of the world's capitals are in the littorals.
- D. Defense of the Littorals. The fundamentals of the defense discussed above directly relate to the defense of amphibious operations. Provide a frame of reference to the specific aspects of the defense in the littorals.
1. Apply/modify METT-T to develop a plan for the defense of an amphibious operation.
 2. How much costal area must be defended? Where are landings possible/likely?
 3. Prevent enemy from coming ashore, or allow enemy to come ashore and attack them while they are vulnerable?
 4. What are the enemy's capabilities?
 5. Naval Warships - Control the seas to defend against an amphibious landing. Deny the enemy ships an opportunity to land. Navy vs Navy.
- E. Offense into the Littorals. The fundamentals of the offense discussed above directly relate to the offense during amphibious operations. Provide a frame of reference to the specific aspects of the offense in the littorals.
1. Apply/modify METT-T to develop a plan for an amphibious operation.
 2. What areas are suitable for landing (what equipment do you have for landings)?
 3. What type of attack (frontal, flanking, or envelopment)?
 4. What are the enemy's capabilities?
 5. Naval Warships - Control of the seas provides greater flexibility and ease of landing. Deny the enemy's naval forces from interfering with

the landing.

VI. Discussion Questions

A. None

VII. In-Class Exercises (Optional)

A. Tactical Decision Game - divide the class into two or more teams. One team is the offense, the other is the defense. Give them a simple map, mission, and situation. Let them come up with a plan using METT-T. As a class, compare each team's plan. Discuss how the plans were generated.

VIII. Supplemental Learning Activities

A. None

IX. Follow-on Assignments

A. None

NAVAL RESERVE OFFICERS TRAINING CORPS
AMPHIBIOUS WARFARE

MODULE I, LESSON: 4

HOURS: 1-2

TITLE: Themes and Types of Amphibious Warfare

I. Learning Objectives

- A. The student will understand the nine themes of Amphibious Warfare.
- B. The student will understand the three major types of attacks.
- C. The student will understand the four major types of amphibious operations.

II. References and Texts

- A. Instructor references
 - 1. None
- B. Student texts
 - 1. None

III. Instructional Aids

- A. Instructional Aid I-4-A. Student Handout - Themes and Types of Amphibious Operations. This handout provides a summary of the 8 themes and 5 types of amphibious operations.
- B. Instructional Aid I-4-B. Reading - *Joint Doctrine for Amphibious Operations (Chapt 1)*. This is a very informative quick read that will provide the student with an overview of amphibious operations.
- C. Instructional Aid I-4-C. Reading - *Some Aspects of the Historiography of British and U.S. Doctrines of Amphibious Operations in the 20th Century*. Additional reading regarding amphibious operations.

IV. Suggested Methods and Procedures (*and/or "Instructor Notes"*)

- A. Method options:

1. Lecture/Discussion: This lesson is well suited for lecture or small group discussion.
 2. Video: None.
- B. Procedural and student activity options:
1. Complete assigned reading.
 2. Continue working on Part I Study Guide.
- V. Presentation
- A. Amphibious Operation: An amphibious operation is a military operation launched from the sea by an amphibious force, embarked in ships or craft with the primary purpose of introducing a landing force (LF) ashore to accomplish the assigned mission (Joint Publication 3-02)."
1. Strengths and Capabilities of Amphibious Warfare:
 - a. Strategic mobility and flexibility
 - b. Strike at a point of choosing
 - c. Projection of power ashore
 - d. Forcible entry
(A conventional land force may use a neighboring country to stage and build up force. An amphibious force has the potential to "kick the door down" without relying on other nation's cooperation.)
 2. Limitations of Amphibious Warfare
 - a. Initially vulnerable.
 - b. Natural Hazards.
 - c. Complexity
- B. Themes of Amphibious Operations: These themes are common reoccurring themes of amphibious operations throughout history.
1. ***The problems of the tadpole.*** Amphibious warfare does not have a domain of its own, but exists instead in the region between war on land and war at sea. **Naval forces have only a limited and temporary ability to project forces over land. Similarly, ground forces have only a limited and temporary ability to project influence over the**

sea. Land and naval warfare have fundamentally different characteristics. Like a tadpole, the amphibious operations must make a transition from one element to the other and in so doing undergoes a **transformation from naval power to land power.** During this time the amphibious force and the operation itself are most vulnerable. One of the principal concerns of the amphibian becomes to undergo that transformation as quickly as possible - that is, **to build up ground combat power quickly - in order to minimize vulnerability.**

2. ***The landing itself is rarely the key problem.*** This is a corollary of the first theme. Historically, most actual landings have succeeded - that is, **the attacker has succeeded in getting ashore. Defenders are rarely able to cover an entire shoreline,** and so the attacker must sometimes fight a pitched battle merely to reach the beach. In fact, one of the **primary objectives of the amphibious planner is to choose his landing sites so as to minimize resistance** on the beach. Historically, the more critical problem for the attacker is building up enough combat power quickly to prevent being driven back into the sea when the enemy reacts to the landing by counterattacking.
3. ***The problems of command.*** The fact that amphibious operations exhibit characteristics of both **naval and land warfare poses problems for the unity of command.** In early amphibious operations a single leader directly commanded both components; Caesar in 54 B.C., for example, was both general and admiral. As each type of warfare became more complex and specialized, special command arrangements between land and naval commanders developed.
4. ***The amphibious invasion is a means to an end, not an end to itself.*** The objective of the amphibious operation is not merely to deposit a ground force on the beach. **The landing is merely a prerequisite for accomplishing a subsequent ground mission. Thus, consideration of the ground mission should drive amphibious planning -** although historically, this has not always been the case. In many cases, planners have become so concerned with the technically complex problems of getting to the beach that they have given little or no thought to what to do once they got there. Classic examples are Burnside's landing at Roanoke Island in 1862 or the first Union

attack on Fort Fisher in 1864. By contrast, Eisenhower's landings in the Mediterranean and at Normandy show excellent planning beyond the shoreline. British General James Wolfe, victor at Louisbourg in 1758, believed that when an army has landed, the business is only half done. This insightful statement not only recognizes the difficulties of the landing itself, but also that the landing is merely a prelude to what follows.

5. ***The influence of terrain and geography.*** Like land and naval warfare, amphibious warfare is heavily influenced by the conditions of terrain and geography. **Only certain portions of the world's coastlines are assailable by amphibious forces - dictating if and where a landing can be made and therefore influencing both the attacker's and defender's plans.** For example, in 1942, the vast stretches of usable shoreline on the North African coast gave Eisenhower the freedom to make landings against light resistance and thus envelope his objectives by land. By contrast, the nature of the Pacific theater in the Second World War compelled Marine and Navy forces in some cases to make costly, direct assaults against fortified islands. **The development of specialized amphibious equipment has decreased to some extent the obstacles imposed by geography and terrain.**

6. ***The amphibious operation as a form of envelopment.*** Often, amphibious operations have been a **means for turning the enemy's flank by sea.** This has occurred at various levels. Strategic examples include the Gallipoli expedition in 1915 and the landings in North Africa in 1942, followed by subsequent operations in the Mediterranean - both designed to turn the strategic flank of Europe and open a new front. Operational examples include MacArthur's landing at Inchon in 1950 and the attempt to flank the Germans in Italy by landing at Salerno vice driving the length of the peninsula. The classic example of tactical envelopment by amphibious landing is the Allied landing at Anzio in 1944.

Such use of amphibious operations provides the attacker the **flexibility and initiative to attack where and when he wants.** In that regard, B.H. Liddell Hart wrote: "Amphibious flexibility is the greatest strategic asset that a sea power possesses (Marines and Strategy, p. 31)." Likewise, Winston Churchill believed that it would be a crime to have amphibious capability

and leave it unused.

7. **The inherent chaotic and decentralized nature of landings.** The technical problems of transforming from naval to land power make a landing an extremely difficult undertaking. Enemy resistance compounds the problem many times over. George C. Marshall believed that a landing against an organized and highly trained opposition was probably the most difficult undertaking which military forces would be called upon to face. **By nature, amphibious operations are thus fraught with friction.** The landing itself is by nature a small unit action. The highest level of direct control that can be extended is limited by the number of men that can be carried in a single craft landing on the beach. **Small unit leadership and initiative are imperative to success.** It is only after the landing force has gotten organized on the beach that successively higher level commanders can assume control. In some cases, as at Tarawa, this cannot be gained for some time after the battle has begun.
8. **The development of amphibious technology and techniques.** Being a specialized and complex type of operation, the amphibious landing requires specialized amphibious equipment and techniques, especially in naval gunfire support and amphibious craft and vehicles. The development of technology and techniques has been continuous process, beginning as early as Caesar's invasions of Britain.

C. Five Types of Amphibious Operations:

1. Amphibious Assault - "...an attack launched from the sea by naval and landing forces embarked in ships or craft involving a landing on a hostile shore (Joint Publication 1-02)."
 - a. Purpose of an Amphibious Assault:
 - (1) Prosecute further combat operations (i.e. Okinawa and Normandy).
 - (2) Obtain a site for an advanced naval or air base (i.e. Iwo Jima).
 - (3) Deny the use of an area or facility to the enemy (i.e. Guadalcanal).
 - (4) Fix enemy forces or attention

- b. May be an opposed or unopposed landing.
 - c. Examples: Britain, 54 B.C.; Gallipoli, 1918; and Iwo Jima 1944.
 - 2. Amphibious Demonstration
 - a. Deceive the enemy with a show of force (a form of deception).
 - b. Cause the enemy to react or commit forces without actually landing.
 - c. Examples: Normandy (Pas de Calais), 1944; and Desert Storm, 1991.
 - 3. Amphibious Withdrawal
 - a. Withdraw forces from a hostile shore for tactical or operational reasons.
 - b. May be an opposed or unopposed withdrawal.
 - c. Example: Pusan, Korea 1950.
 - 4. Amphibious Raid
 - a. An amphibious assault with a planned withdrawal.
 - b. Typically short in duration with the intent of inflicting damage, securing information/intelligence, creating a diversion, or capturing/rescuing individuals or materials.
 - c. Examples: MEU TRAP mission of Capt Scott O'Grady, USAF in Bosnia 1994.
 - 5. Other Amphibious Operations
 - a. Using the capabilities of an amphibious force for military operations other than war (MOOTW)
 - b. Examples include non-combatant evacuation operations (Embassy Evacuation) and foreign humanitarian assistance (East Timor in 1999, Malaysia Tsunami in 2005).
- D. Phases of an Amphibious Operation (PERMA):
 - 1. Planning.

- a. Begin planning the operation upon receipt of the order.
 - b. Identify required capabilities (forces and equipment) for the mission. Develop courses of action for the scheme of maneuver.
 - c. Developing the plan will continue (and the plan may likely change) throughout the remaining phases.
2. Embarkation.
 - a. Assign and load personnel and equipment to ships based on the landing plan and mission.
 - b. Combat load - load in a manner to get the equipment and personnel off the ship in the right order to support the operation.
3. Rehearsal.
 - a. Test the adequacy of plans, timing, and combat readiness of participating forces.
 - b. Ensure that all echelons are familiar with the plan.
 - c. Provide an opportunity to reconfigure the forces and equipment.
4. Movement.
 - a. Movement of all forces from the point of embarkation to the area of operation.
 - b. Not complete until all necessary forces are assembled.
5. Action.
 - a. The period from the arrival in the area of operation through mission accomplishment and the termination of the amphibious operation.

VI. Discussion Questions

- A. None

VII. In-Class Exercises

- A. None

VIII. Supplemental Learning Activities

A. None

IX. Follow-on Assignments

B. Continue working on Part I Study Guide

**NAVAL RESERVE OFFICERS TRAINING CORPS
AMPHIBIOUS WARFARE**

MODULE I, LESSON: 5 (OPTIONAL)

HOURS: 1

TITLE: Introduction to Tactical Decision Games (TDG) (OPTIONAL)

I. Learning Objectives

- A. The student will understand the purpose, scope, and types of tactical decision games.
- B. The student will understand how to read a map, terrain model, or a sand table.
- C. The student will understand common military symbology for maps and tactic decision games.
- D. The student will understand basic infantry unit structure and weapon capability.
- E. The student will demonstrate the decision making process as it pertains to tactical decision gaming.

II. References and Texts

- A. Instructor references
 - 1. None
- B. Student texts
 - 1. None

III. Instructional Aids

- A. Instructional Aids I-5-A. Instructor Reference: *Designing TDG's and The Staff Ride Handbook*. This will assist the instructor with the development and conduct of TDG.

IV. Suggested Methods and Procedures (*and/or "Instructor Notes"*)

- A. Method options:
 - 1. Lecture/Discussion:
- B. Procedural and student activity options:
 - 1. Tactical Decision Game

V. Presentation

A. Tactical Decision Games (TDG):

1. Purpose of TDG: To provide simulation to develop tactical awareness and decision-making skills in military leaders.
2. Importance of Decision-Making to leaders:
 - a. Decision-making versus time:
 - (1) "To master his difficult art he must learn to cut to the heart of a situation, recognize its decisive elements and base his course of action on these (*Infantry in Battle*, p. 1)."
 - (2) "A good plan violently executed now is better than a perfect plan next week. (General George Patton)."
3. Types of TDGs:
 - a. Solitaire Decision Game: Working the scenarios just like you would solve a brain teaser or crossword puzzle.
 - b. Seminar Decision Game: Play the game in an interactive group/seminar setting with the senior member acting as the moderator. The moderator describes the situation and enforces the rules and time limits. Discuss and critique the different decisions each group came up with.
 - c. Force on Force Decision Game: Involving two or more groups working the same problem from opposite perspectives. The senior member is the controller and is responsible for updating each group as to the current situation. Each group makes decisions based on the situation, which is influenced by the other group.
 - d. Computer Simulations: Technology has made the use of tactical and strategic simulation games a worthwhile medium for decision games. The computer acts as the moderator and provides an interactive, realistic, and rapid play.

B. How to read a map, terrain model, and sand table.

1. Map
 2. Terrain Model
 3. Sand Table
 4. Computer Simulation Games (if applicable)
- C. Common military symbology. (See Instructor Aid A, *Designing TDG's*, appendix F)
1. Basic Symbols
 2. Unit Size
 3. Role Indicator
 4. Weapons and Vehicles
 5. Control Measures
 6. Movement and Activity
 7. Miscellaneous
- D. Basic Infantry Structure and Armament
1. Fire team. 4 Marines
 - a. Fire Team Leader: M16A2 w/ M203
 - b. Automatic Rifleman: M249 SAW
 - c. Assistant Automatic Rifleman: M16A2
 - d. Rifleman: M16A2
 2. Squad. Squad Leader + 3 Fire Teams = 13 Marines
 3. Rifle Platoon. 3 Squads + Platoon Commander, Platoon Sergeant, and Platoon Guide
 4. Rifle Company. 3 Platoons + Weapons Platoon + Company Commander, Company First Sergeant, and Company Gunnery Sergeant
 - a. Weapons Platoon: 6 - M240G Medium Machineguns, 6 - 60mm Mortars, 3 - SMAW, 6
 5. Infantry Battalion. 3 Rifle Companies + Weapons Company + Headquarters and Service Company
 - a. Weapons Company:

- (1) Mortar Platoon: 8 - 81mm Mortars
- (2) Heavy Machine Gun Platoon: 6 - .50 Cal
M2 Heavy Machineguns (HMMWV), 6 - MK19
40mm Machineguns (HMMWV),
- (3) Anti-Armor Platoon: 8 TOW Rockets
(HMMWV), 12 Javelin Rockets

VI. Discussion Questions

- A. None

VII. In-Class Exercises

- A. Practice TDGs

VIII. Supplemental Learning Activities

- A. None

IX. Follow-on Assignments

- A. None

**NAVAL RESERVE OFFICERS TRAINING CORPS
AMPHIBIOUS WARFARE**

MODULE II, LESSON GUIDE: 1

HOURS: 1-2

CASE STUDY: Marathon, 490 B.C.

I. Learning Objectives

- A. The student will comprehend/explain the political situation which provided the backdrop for the battle of Marathon, with special consideration of the political climate in Athens.
- B. The student will comprehend/explain the two military strategies considered by Darius and the characteristics of each.
- C. The student will comprehend/explain the conduct of the naval campaign by the Persians, particularly the choice of Marathon as the site for an amphibious landing.
- D. The student will comprehend/explain the conduct of the battle, with special consideration of geographic factors and the two competing military systems.

II. References and Texts

A. Instructor references

- 1. Bartlett, M.L., Assault From the Sea (Annapolis, MD: Naval Institute Press, 1983), pp. 3-11.
- 2. Creasy, Edward S., The Fifteen Decisive Battles of the World (London: J.M. Dent & Sons, 1949), pp. 1-34.
- 3. Dupuy and Dupuy, Encyclopedia of Military History (New York: Harper & Row, 1986), 2nd rev. ed., pp. 21-25.

- B. Student text - Bartlett, M.L., Assault From the Sea (Annapolis, MD: Naval Institute Press, 1983), pp. 3-11.

III. Instructional Aids - Maps

- A. "Persian Empire About 500 B.C." from Dupuy & Dupuy, Encyclopedia of Military History, 2nd rev. ed., p. 21.
- B. "Battle of Marathon," from Bartlett, Assault From the Sea, p. 4.

IV. Suggested Methods and Procedures

A. Method options in recommended order:

1. Seminar discussion
2. Lecture and discussion
3. Lecture

B. Procedural and student activity. Read assignment prior to class and discuss according to the "levels of war" construct.

V. Presentation

A. General significance

1. Classic example of contrasting systems: land power vs. sea power, heavy-infantry shock system vs. light-cavalry missile power.
2. In addition to being an interesting study in contrast, exhibits interesting subtleties, especially at strategic and operational levels.

B. Factual background

1. Athenians

- a. Led by Miltiades
- b. 10,000 troops including 1,000 Plataeans
- c. Phalanx (employment of troops)
- d. Heavy infantry (hoplites)
- e. Shock action, no firepower
- f. No cavalry
- g. Unbreakable front, vulnerable flanks

2. Persians

- a. Led by Datis (army) and Artaphernes (navy)
- b. 600 galleys
- c. 10-15,000 ground forces
- d. Light forces, predominantly cavalry

- e. Missile power, no shock
- 3. Darius launches land campaign (supported by navy) in 492; fails when fleet destroyed by storm off Mt. Athos.
- 4. Then attempts naval campaign
 - a. Departs Cilicia (Asia Minor) summer of 490
 - b. Via Samos, Naxos, Euboea
 - c. Sacks Eritria
 - d. To Marathon (26 miles from Athens) about 3 September
- 5. Persians land unopposed but take no action; rather, they bivouac on beach. Athenians sit and watch from hills nearby.
 - a. 9 September: Persians re-embark 1/2 of force (all of cavalry) for attack on Athens around Attican peninsula (60 miles).
 - b. Athenians offer battle, win, countermarch to Athens before Persians arrive.
 - c. Purported casualties are 192 Athenians vs. 6,400 Persians (probably exaggerated on both ends).

C. Policy considerations

- 1. Why does Darius invade?
 - a. To punish Athens, Eritrea for aiding Ionian revolt in 499.
 - b. To secure west flank of Aegean as Supply Lines of Communication (SLOC).
 - c. To secure south flank in preparation for attack out of Thrace vs. Scythians.
 - d. To subdue entire Greek race to lessen chances of revolt.
 - e. Because he is Darius, Empire Builder.
- 2. Hippias, exiled ex-ruler of Athens, allies with Persians in effort to regain power. Hippias supporters in Athens ready to foment uprising if

garrison can be drawn away.

3. Spartans will send forces to support Athens, but not until after religious holiday in 2 weeks.

D. Strategic considerations

1. Darius has two strategic options:
 - a. Land campaign (supported by navy) across Hellespont, though Thrace, Macedonia.
 - (1) Plays to Persian strength (land warfare)
 - (2) Can take as many land forces as he wants
 - (3) But, circuitous route is time-consuming
 - b. Naval campaign with amphibious landing.
 - (1) Direct route
 - (2) But Persia not a naval power
 - (3) Size of force limited by transport capacity
2. After first strategy fails in 492 when fleet destroyed by storm off Mt. Athos, opts for second.

E. Operational considerations

1. Why land at Marathon? Why not Piraeus or someplace else closer to Athens?
 - a. Unopposed landing
 - b. Hippias recommends because his father had landed there, and he remembered it to be a favorable landing beach.
 - c. Purported to be good terrain for cavalry.
 - d. Intentionally distant from Athens to draw garrison out of Athens to
 - (1) Give Hippias agents chance to foment uprising.
 - (2) As part of a cheng/ch'i maneuver, allow part of Persian force to move by sea to capture Athens unprotected. (Excellent example of operational maneuver)
2. Athenians in dilemma whether to fight or wait.

- a. If they wait, Spartan reinforcements will arrive.
- b. But if they do not attack, Hippias agents will have time to work, and the enveloping force will have time to maneuver.

F. Tactical considerations

1. Persians have stayed on the beach, have not seized high ground which commands the exits from the beach. Athenians able to seize commanding terrain.
2. Terrain not suitable for cavalry operations; too constricted.
3. Athenians decide to give battle.
 - a. Extend frontage of phalanx to strengthen flanks and anchor both flanks on terrain obstacles. Persians not able to maneuver against flanks as is normal tactic.
 - b. Phalanx moves quickly through Persian missile zone to engage in hand-to-hand.
 - c. Weakened Greek center gives, but weighted flanks create double envelopment.
 - d. Once engaged in hand-to-hand, becomes a decisive victory for Greeks.

G. Technical considerations

1. No specialized landing craft (LC); Persians use standard trireme as both transport and LC.
2. Due to tactics of Miltiades, Athenian arms far superior to Persian in hand-to-hand.

H. Conclusions

1. Interesting attempt by Persians to use amphibious operation to maneuver Greeks out of position and envelop Athens; but figured out by Miltiades.
2. Persian command structure earliest example of split nature of command in amphibious operations.
3. Persian failure to seize beachhead suitable for cavalry operations negated Persian strength.

4. Persian failure to move off the beach allowed Greeks to seize initiative, block exits, and choose the battlefield.
5. Tactical handling of battle by Miltiades negated strengths of Persian system, maximized strength of phalanx, and compensated for its weaknesses.
6. Excellent example of the difficulty of an amphibious withdrawal.
7. No consideration given to development of specialized amphibious equipment.

**NAVAL RESERVE OFFICERS TRAINING CORPS
AMPHIBIOUS WARFARE**

PART II, LESSON GUIDE: 2

HOURS: 1

CASE STUDY: Caesar's Invasions of Britain, 55-54 B.C.

I. Learning Objectives

- A. The student will comprehend/explain the political situation which provides the backdrop for Caesar's invasions.
- B. The student will comprehend/explain Caesar's strategic and operational plans, or lack thereof.
- C. The student will comprehend/explain Cassivellaunus' conduct of a defensive campaign.
- D. The student will comprehend/explain British and Roman tactical differences.
- E. The student will comprehend/explain technical considerations, to include naval "gunfire" support and the building of specially designed landing craft.

II. References and Texts

A. Instructor references

- 1. Burne, A.H., The Art of War on Land (Harrisburg, PA: Military Service Publishing Co., 1947), pp. 67-80 (Instructional Aid II-2-B).
- 2. Dupuy and Dupuy, Encyclopedia of Military History (New York: Harper & Row, 1986), 2nd rev. ed., pp. 102-106.
- 3. Vagts, Alfred, "Caesar Amphibious General," Landing Operations (Harrisburg, PA: Military Service Publishing Co., 1952), pp. 98-111 .

- B. Student text - Burne, A.H., The Art of War on Land (Harrisburg, PA: Military Service Publishing Co., 1947), pp. 67-80 *.

III. Instructional Aids - Map:

- A. Instructional Aid II-2-A. Map: "Caesar's Campaign of 54 B.C.," from Burne, The Art of War on Land, p. 70.
- B. Instructional Aid II-2-B. Reading: Burne, A.H., The Art of War on Land (Harrisburg, PA: Military Service Publishing Co., 1947), pp. 67-80.

IV. Suggested Methods and Procedures

- A. Method options in recommended order
 - 1. Seminar discussion
 - 2. Lecture and discussion
 - 3. Lecture
- B. Procedural and student activity: Read assignment prior to class and discuss according to the "levels of war" construct.

V. Presentation

- A. General significance
 - 1. Rare example of landing force having to fight its way ashore.
 - 2. Provides interesting comparison of two successive attempts at essentially the same landing and the lessons learned from one to the next.
- B. Factual background
 - 1. With two legions (7th and 10th (500 cavalry)) Caesar invades Britain in August, 55 B.C. After "reconnaissance in force" to ascertain geography of landing site. Embark 25 August, small fleet of galleys, 30 transports. Embark ports: Boulogne and Ambleteure (cavalry).
 - a. Lands near Dubra (Dover) after rowing up coast looking for suitable beach.
 - b. Landing fiercely opposed; hand-to-hand in the surf.
 - c. Supported by catapults, ballistae mounted on ships.
 - d. After a truce, with the weather deteriorating, Caesar stays only 3 weeks and returns to Gaul for the winter.
 - 2. Caesar invades again in July, 54 B.C.
 - a. 22,000 total troops
 - (1) 5 legions (approx. 20,000 troops)

(2) 2,000 cavalry

(3) 800 ships (28 war ships)

- b. Lands unopposed, again at Dubra (7 July).
- c. Caesar marches inland, Britons under Cassivellaunus wage guerrilla campaign while falling back; Caesar unable to force decisive battle.
- d. Storm damages Roman invasion fleet (9-10 July: 40 ships destroyed, considerable damage); Caesar returns to beach. After repairs, recommences offensive.
- e. 20 July: Battle of Canterbury (Koutish forces leave); Britons attack Roman camp 24 July at beachhead; Caesar returns to beach again.
- f. After receiving nominal submission of Britons, Caesar halts campaign, returns to Gaul.

C. Policy considerations

- 1. With Pompey and Crassus, Caesar part of triumvirate, a provisional government which has risen to power. Each triumvir is responsible for a part of the Republic and intends to use his position to gain ascendancy.
- 2. Caesar responsible for Gaul, spends time subduing Gallic tribes.
- 3. Nominally, invades Britain because Britons are helping Gauls resist.
- 4. But really a political ploy to gain fame and support in Rome by gaining victories, extending the Republic, etc.

D. Strategic considerations

- 1. Little strategic thought or subtlety to either invasion. Caesar has little respect for the "savage" Britons. Plan is simply to land and subdue by overwhelming force of arms.
- 2. Still a question whether first invasion was intended merely as reconnaissance or to actually subdue the enemy.
- 3. For second invasion, he reassesses the problem; returns with a much larger force.

E. Operational considerations

1. Little planning to first invasion; very much an ad hoc operation.
2. Done on a shoestring
 - a. Lack of supplies nearly calamitous to 7th Legion.
 - b. Small invasion force, lack of cavalry due to lack of transports.
3. Intelligence consisted of sending Gaius Volusenus ahead with one warship to reconnoiter. Unable to discover anything because lacks strength to go ashore.
4. Dubra chosen by personal reconnaissance of Caesar after invasion fleet had assembled off coast of Briton; looked like a good place once he got there.
5. No attempt at surprise: enemy watching from cliffs of Dover, follow invaders along coastline and are waiting for Romans on the beach.
6. Second invasion a more deliberate plan
 - a. Builds a larger fleet to carry necessary forces.
 - b. Caesar returns with overwhelming forces, to include cavalry and logistics.
 - c. Uses the same beach, but this time Britons, seeing larger force, decide not to fight.
7. Cassivelaunus, realizing he cannot beat Romans in battle, wages guerrilla campaign and falls back.
 - a. Avoids decisive engagement.
 - b. Harasses Roman outposts.
 - c. Strikes at Roman beachhead.

F. Tactical considerations

1. First landing is a melee in the surf; no landing plan per se.
2. Warships with catapults, ballistae, and archers

beach themselves in surf at flanks of landing to provide fire support; critical to the landing.

3. Ashore, Roman training, equipment, and engineering skill far superior, but Britons, in chariots, are more mobile and can avoid combat if desire.
4. Lack of cavalry made it difficult for Caesar to develop combat intelligence.

G. Technical considerations

1. Disembarkation a problem in first invasion due to excessive draft of transports; troops forced to disembark in shoulder-deep water. (Lack of reconnaissance a factor).
2. For second invasion, designs transports specifically with shallower draft to get closer to beach, broader beam to carry more troops and cargo, and lower freeboard to facilitate disembarkation.
3. For second invasion, some 28 galleys used as "gunships," with catapults, ballistae, and archers.
4. Use of chariots confused and alarmed Roman troops.

H. Conclusions

1. Security of beachhead and communications back to Gaul of principal concern to Caesar in both campaigns.
2. Britons unable to beat Romans in battle, but by threatening beachhead able to compel him to give up campaign. Cassivelaunus wages brilliant guerrilla campaign.
3. Caesar commands both land and navy components.
4. Earliest example of significance of naval "gunfire" support (NGFS).
5. In spite of failure to gain military victory and subdue Britons, Caesar gains the political effect and publicity he desires and uses it to advantage to gain ascendancy over other triumvirs and eventually become dictator.
6. Audacity of British tactics revealed knowledge of opponent's sensitivity to ensuring safety of his base of operations.

7. Successful application of principle of surprise.
8. Flexibility of British commander noteworthy.
9. Crossing of Thames River excellent example of cooperation of all arms (cavalry, supporting fire, infantry).
10. Problem of time factor vs. security factor.
11. Familiarity with new weapons ultimately bred contempt (Caesar's troops vs. Briton's chariots).

**NAVAL RESERVE OFFICERS TRAINING CORPS
AMPHIBIOUS WARFARE**

MODULE II, LESSON GUIDE: 3

HOURS: 1

CASE STUDY: Hastings, 1066

I. Learning Objectives

- A. The student will comprehend/explain the political factors which led to the Battle of Hastings.
- B. The student will comprehend/explain the strategic effect of Tostig's invasion of Northumbria upon William's campaign in Sussex and the battle.
- C. The student will comprehend/explain the operational factors which influenced William's and Harold's decisions of when, where, and under what conditions to give battle.
- D. The student will comprehend/explain the tactical lessons of the conduct of the battle.

II. References and Texts

A. Instructor references

1. Bartlett, M.L., Assault from the Sea (Annapolis, MD: Naval Institute Press, 1983), pp. 12-16.
2. Dupuy and Dupuy, Encyclopedia of Military History (New York: Harper & Row, 1986), pp. 285-289.
3. Fuller, J.F.C., A Military History of the Western World, vol. I (New York: Da Capo Press, 1954), pp. 360-384.

- B. Student text - Bartlett, M.L., Assault from the Sea (Annapolis, MD: Naval Institute Press, 1983), pp. 12-16.

III. Instructional Aids: None

IV. Suggested Methods and Procedures

A. Method options in recommended order

1. Seminar discussion
2. Lecture and discussion
3. Lecture

- B. Procedural and student activity: Read assignment prior to class and discuss according to the "levels of war" construct.

V. Presentation

A. General significance

- 1. One of the most decisive battles in all of history
- 2. Classic example of a cheng/ch'i maneuver

B. Factual background

1. Key personalities

- a. William of Normandy
- b. Harold
- c. Earl of Tostig
- d. Harald Hardrada

2. Chronology

- a. 6 January 1066: Harold elected King of England upon death of Edward. William of Normandy, believing himself heir, prepares to invade.
- b. June-August: English Navy protects coast against Norman invasion.
- c. After storms, navy to London to refit.
- d. September: Norse invasion (under Tostig and Harald) of England (Northumbria).
- e. 16 September: Harold moves north from London.
- f. 25 September: Harold defeats invaders at Battle of Stamford Bridge.
- g. 28 September: William lands at Pevensey, Sussex.
- h. 2 October: Harold marches south.
- i. 14 October: Battle of Hastings
- j. 25 December: William crowned King of England.

3. Forces

a. William

- (1) 7,500 infantry
- (2) 3,600 mounted knights
- (3) 1,000 archers
- (4) 700 ships

b. Harold

- (1) 6,000 in a.m. (increasing throughout day)
- (2) fyrð (shire levies)
- (3) housecarls (1-2,000)

C. Political considerations

1. Harold, a true Saxon, elected by Witan (Council of Leaders).
2. William believes himself to be rightful heir.
3. William's army includes peoples from all parts of Western Europe who have been offered rewards if William succeeds.
4. Harold having problems with rebel brother, Tostig.

D. Strategic considerations

1. Harold facing two threats at once
 - a. William from Normandy
 - b. Tostig, Harald from north
2. Are William and Tostig intentionally working in concert?
3. William must secure own realm before making invasion. He does this through negotiations with France and Pope Alexander II and by creating cosmopolitan army.
4. English Navy not in position to contest crossing. After William had landed, would Harold have been wiser to delay attack with his army while attacking Normans by sea, threatening beachhead indirectly?

E. Operational considerations

1. Tostig's invasion, although eventually defeated, had effect of drawing Harold north and uncovering London, allowing William to land unopposed and consolidate.
2. William, unwilling to move far from base on the beach, compels Harold to come to him by ravaging countryside.
3. Harold hurries south to deal with William, although not all the fyrd has gathered. By waiting a couple days, according to Oman, he could have doubled the size of his army.

F. Tactical considerations

1. Initial assault driven back by storm of missiles.
2. Infantry driven back by strong defensive position, supported by cavalry.
3. Britons lack resolve to keep front firm until assailants' strength exhausted led to envelopment on flanks.
4. Successive assaults on foot-infantry by cavalry, and damage of missiles deplete English ranks.
5. Use of "enfilade" fire, plus loss of English command and control (Harold wounded) seals English fate.
6. Example of unsupported infantry failing to defend against combined assault of cavalry and "NGFS" (archers).

G. Technical considerations. No specific considerations given to technical problems of amphibious warfare.

H. Conclusions

1. Excellent example of use of landing as operational envelopment, whether by design or good luck.
2. Unchallenged channel crossing possible because English fleet had been forced to return to port to refit.
3. Example of amphibian's unwillingness to travel too far from beach. Like Caesar, William concerned for beachhead.

**NAVAL RESERVE OFFICERS TRAINING CORPS
AMPHIBIOUS WARFARE**

MODULE II, LESSON GUIDE: 4

HOURS: 1

CASE STUDY: Vera Cruz, 1847

I. Learning Objectives

- A. The student will comprehend/explain the political events which led to the Mexican War.
- B. The student will comprehend/explain the party politics within the U.S. which influenced the choice of military commanders and the conduct of the war.
- C. The student will comprehend/explain the military strategic considerations pertinent to the U.S. and Mexican conduct of the war.
- D. The student will comprehend/explain the choice of Vera Cruz as the site of an amphibious operation.
- E. The student will comprehend/explain the command relationships and coordination between Navy and Army components during the Vera Cruz expedition.
- F. The student will comprehend/explain the characteristics and conduct of the landing and subsequent operations around Vera Cruz.

II. References and Texts

A. Instructor references

- 1. Bartlett, M.L., Assault From the Sea (Annapolis, MD: Naval Institute Press, 1983), pp. 74-78.
- 2. Dupuy and Dupuy, Encyclopedia of Military History (New York: Harper & Row, 1986), 2nd rev. ed., pp. 805-811.
- 3. Weigley, Russell, The American Way of War: A History of United States Military Strategy and Policy (Bloomington, IN: Indiana University Press, 1973), pp. 71-76.

- B. Student text - Bartlett, M.L., Assault From the Sea (Annapolis, MD: Naval Institute Press, 1983), pp. 74-78.

III. Instructional Aids - Maps

- A. Instructional Aid II-4-A. Map: "The Mexican War," from Dupuy and Dupuy, Encyclopedia, p. 806.
- B. Instructional Aid II-4-B. Map: "Vera Cruz and the Anchorages," from Bauer, Surfboats and Horse Marines, p. 19.
- C. Instructional Aid II-4-C. Map: "Vera Cruz and its Environs," ibid., p. 84.

IV. Suggested Methods and Procedures

- A. Method options in recommended order
 - 1. Seminar discussion
 - 2. Lecture and discussion
 - 3. Lecture
- B. Procedural and student activity: Read assignment prior to class and discuss according to the "levels of war" construct.

V. Presentation

- A. General significance
 - 1. Amphibious operation as a form of envelopment.
 - 2. Excellent example of Army-Navy cooperation.
 - 3. First U.S. joint overseas expedition.
 - 4. Excellent example of party politics influencing military action.
- B. Factual background
 - 1. Key personalities
 - a. President Polk
 - b. Secretary of the Navy John Mason
 - c. Secretary of War W. L. Marcy
 - d. General Winfield Scott
 - e. General Zachary Taylor
 - f. Commodore David Conner (Home Squadron)
 - 2. Chronology

- a. 1 March 1845: Texas annexed by U.S. - at request of Texans.
 - b. 24 March 1845: Taylor advances with 3,500 men to Rio Grande.
 - c. 13 May 1846: After border skirmishes, U.S. declares war.
 - d. August 1846: Taylor moves south with 6,000 troops (1/2 regulars, 1/2 volunteers).
 - e. 20-24 September 1846: Battle of Monterrey.
 - f. 24 November 1846: Scott departs Washington as commander of Vera Cruz expedition.
 - g. 18 February 1847: Scott arrives at Tampico, base of operations.
 - h. 22-23 February 1847: Battle of Buena Vista (Taylor vs. Santa Anna).
 - i. 9 March 1847: With 10,000 troops, Scott lands unopposed at Vera Cruz.
 - j. 27 March 1847: Under siege, Vera Cruz capitulates; Scott moves west toward Mexico City.
- 3. Losses at Vera Cruz (Killed in Action [KIA]/Wounded in Action [WIA])
 - a. U.S. - 82
 - b. Mexico - 182

C. Political considerations

- 1. "Manifest Destiny" the national attitude.
- 2. Scott and Taylor potential Whig threats to Democrat President Polk; Polk unable to find another suitable commander, settles for Scott by default.
- 3. Mason doubtful of Connor's ability, replaces him with Matthew Perry just before execution of operation.
- 4. Marcy more energetic than Mason, results in Army primacy in control of expedition.
- 5. Once expedition settled on and commander selected,

politicians leave execution to military men. Polk to Scott: "It is not proposed to control your operations by definite and positive instructions, but you are left to prosecute them as your judgment, under full view of all circumstances, shall dictate. The work is before you, and the means provided, or about to be provided, for accomplishing it, and are committed to you, in the full confidence that you will use them to the best advantage." [Surfboats and Horse Marines: U.S. Naval Operations in the Mexican War, 1846-48, Bauer, p. 68.]

6. U.S. uses war to seize California.
7. U.S. public support wanes as war progresses; U.S. wants decisive military action.
8. U.S. wants Mexico to accept Rio Grande as new border; Mexico wants to regain Texas.

D. Strategic considerations

1. In spite of significant military victories, Taylor fails to gain Mexican surrender.
2. U.S. decides it must strike decisive blow at heart of Mexico -- Mexico City -- in order to compel Mexico to accept new border.
3. Overland campaign by Taylor infeasible due to distance and difficulty of terrain.
4. U.S. opts for amphibious landing at Vera Cruz and march on Mexico City while Taylor holds Mexican Army in the north.

E. Operational considerations

1. Scott overall commander, but coordinates well with Connor.
 - a. Connor on station blockading Mexican coast long before Scott arrives.
 - b. Scott/Connor coordinate early in writing.
 - c. Scott accepts Connor's recommendations on:
 - (1) Rendezvous area
 - (2) Landing beach
 - (3) Fire support plan

(4) Control of shipping

2. Landing forces drawn from Taylor via Tampico and from U.S.; rendezvous off Ilse de Lobos, 1 March 1847.
3. Nearest naval base is Pensacola.
4. Transports from 6 different ports.
5. Timing of campaign designed to minimize exposure during disease season.

F. Tactical considerations

1. Collados Beach chosen as landing site.
 - a. 3 miles south of Vera Cruz.
 - b. Out of range of enemy guns at Vera Cruz and Castle San Juan de Ulloa.
 - c. Good beach, but Isla Sacrificios limits number of ships in landing area.
 - d. Scott/Connor conduct personal reconnaissance.
2. Shallow-draft NGFS ship on flanks of landing waves provide fire support, chase off enemy cavalry on beach.
3. Landing unopposed
4. Rather than assault Vera Cruz, Scott conducts siege; Vera Cruz capitulates.

G. Technical considerations

1. Landing thoroughly organized
 - a. 6 waves of 10 boats wide
 - b. NGFS ships on flanks
 - c. 3 divisions (8,000 men) ashore in 5 hours with no casualties
2. Specially designed landing craft
 - a. Designed by Navy officer
 - b. Carry 40 troops each

- c. Crew of 8: 2 coxswains, 6 oarsmen
- d. Designed in 3 slightly different sizes to be stacked 3-high for transport
- e. Shallow draft
- f. Equipped with kedge for reentry into surf

H. Conclusions

1. Success due to thorough planning, cooperation between Navy and Army.
 - a. Clear delineation of responsibilities
 - b. Early, continuous cooperation
2. Use of amphibious operation to envelop at operational level while Taylor fixed enemy in northern part of theater.
3. Largest U.S. amphibious operation to date.

**NAVAL RESERVE OFFICERS TRAINING CORPS
AMPHIBIOUS WARFARE**

MODULE II, LESSON GUIDE: 5

HOURS: 1

CASE STUDY: Invasion of the Crimea, 1854

I. Learning Objectives

- A. The student will comprehend/explain the political circumstances which led to the Crimean War.
- B. The student will comprehend/explain the political and strategic considerations which led to the Allied campaign against Sebastopol.
- C. The student will comprehend/explain the planning and conduct of the expedition by the Allies and the conduct of subsequent operations ashore by both the Allies and Russians.
- D. The student will comprehend/explain the use of recent technological advances in the operations conducted.

II. References and Texts

A. Instructor references

- 1. Bartlett, M.L., Assault from the Sea (Annapolis, MD: Naval Institute Press, 1983), pp. 79-87.
- 2. Dupuy and Dupuy, Encyclopedia of Military History (New York: Harper & Row, 1986), pp. 825-829.
- 3. Potter, E.B., Sea Power: A Naval History (Annapolis, MD: Naval Institute Press, 1981), pp. 116-17.

- B. Student text - Bartlett, M.L., Assault from the Sea (Annapolis, MD: Naval Institute Press, 1983), pp. 79-87.

III. Instructional Aids - Maps

- A. Instructional Aid II-5-A. Map: "Part of the Western and Southern Coasts of the Crimea," from Edward B. Hamley, The War in the Crimea (New York: Scribner & Welford, 1890), p. 34
- B. Instructional Aid II-5-B. Map: "Main Theater of the Crimean War," from Potter, Sea Power: A Naval History, p. 116

IV. Suggested Methods and Procedures

A. Method options in recommended order

1. Seminar discussion
2. Lecture and discussion
3. Lecture

B. Procedural and student activity: Read assignment prior to class and discuss according to the "levels of war" construct.

V. Presentation

A. General significance

1. Ropp called the Crimean War "the greatest amphibious war of this [i.e., the 18th] century".
2. Good example of the effects of poor leadership on a military operation.
3. Good example of the effects of poor planning to an amphibious operation.

B. Factual background

1. Key personalities
 - a. Lord Raglan
 - b. Marshall de Saint-Arnaud
 - c. Lord Cardigan
 - d. Menshikov
 - e. Prince Michael Gorchakov
2. Chronology
 - a. 1853: Disputes over holy sites in Jerusalem prompt Russian advance into Turkish Wallachia and Moldavia.
 - b. 4 October: Turkey declares war on Russia.
 - c. 30 November: Russian attack on Turkish fleet at Sinope.
 - d. 28 March 1854: British and French declare war on Russia.

- e. April: Austrian movement into Balkans in support of Turkey.
- f. June: British, French expeditions depart for Black Sea (Varna).
- g. 2 August: Russian withdrawal from Wallachia, Moldavia.
- h. 7 September: Allied invasion force departs Varna.
- i. 13-18 September: Landing at Old Fort (Calamita Bay).
- j. 8-16 October: Siege of Sebastopol.
- k. 8 September 1855: Russians evacuate Sebastopol.

3. Casualties

- a. Allied: 253,000 total (70,000 in battle, remainder to disease)
- b. Russian: 256,000 total (129,000 in battle, remainder to disease)

C. Political considerations

- 1. Dispute between Russia, Turkey over guardianship of holy places in Jerusalem.
- 2. Russian desire to control Turkish straits and gain access to Mediterranean from Black Sea.
- 3. In general, Russian desire to exploit decline of Ottoman Empire.
- 4. The threat of Russian expansion to the Grand Concert of Europe.
- 5. Public opinion: "War fever".

D. Strategic considerations

- 1. British line of communication to India threatened by Russian growth.
- 2. Deterioration of the British Army since the Napoleonic Wars.
- 3. Threat to France of the growth of a continental power and threat to Britain of growing sea power.

4. Original Allied strategy called for reinforcing Turkey with ground troops by sea at Varna. Only Allied option for protecting Turkey is via a naval campaign.
5. After Russian withdrawal, Allies no longer have strategic reasons for continuing war, but public opinion insists that Russia be taught a lesson.

E. Operational considerations

1. Why land in the Crimea?
 - a. Sebastopol is the largest Russian naval base.
 - b. Kronstadt and St. Petersburg are too well fortified.
 - c. Decision made by politicians in London with little intelligence or strategic reason as concession to public pressure. (For a satirical, fictional account of the decision process, see Fraser, Flashman At the Charge, pp. 49-58.)
2. Where to land? Decision not made until after embarkation, based on sailing along the Crimean coast looking for a suitable spot.
 - a. Kaffa (100 miles east of Sebastopol)
 - b. Balaklava too close to Sebastopol
 - c. Sebastopol too well fortified for direct assault.
 - d. Katcha (St. Arnaud's choice)
 - e. Calamita Bay (Eupatoria)
 - (1) Defendable and distant enough, with suitable beaches.
 - (2) Protected by two salt lakes.
 - (3) Cliffs to the south can be covered by NGFS.
3. Poor command relations between Lord Raglan and Marshall Arnaud.
4. Allies completely underestimate logistical requirements of naval expedition, landing operation, and operations ashore.

- a. Must use cruise liners, etc., as transports.
- b. Little thought to problems of hygiene.
- c. Unable to properly care for horses while embarked.
- d. Must improvise logistics once ashore; collect:
350 wagons, 67 camels, 253 horses, 45
cartloads of farm supplies, 1,000 cattle.

F. Tactical considerations

1. Allied landing mismanaged: 4 days to unload in spite of no enemy resistance.
2. Allies have no scheme of maneuver ashore; fortunately, the Russians do not defend or counter-attack.
3. British failure to exploit victory at Alma.
4. Lack of supplies for Allies once ashore.
5. Russians fortify Sebastopol, able to hold out for a year.

G. Technical considerations

1. Russian use of mines to defend St. Petersburg.
2. First use of iron warships.
3. Allies shell Sebastopol, but do not support landing by fire.
4. Allies used markers to organize beach (although markers were placed in wrong location).

H. Conclusions

1. Entire campaign badly mishandled by both sides.
 - a. Lack of clear objectives
 - b. Incompetent leadership at numerous levels
2. No consideration whatsoever of peculiar requirements of amphibious operations by Allies.
 - a. Inadequate logistics
 - b. Lack of tactical planning during landing or

subsequent operations ashore.

- c. No rehearsal or training conducted during long wait at Varna.

**NAVAL RESERVE OFFICERS TRAINING CORPS
AMPHIBIOUS WARFARE**

MODULE II, LESSON GUIDE: 6

HOURS: 1

CASE STUDY: Roanoke Island, 1862

I. Learning Objectives

- A. The student will comprehend/explain the political conditions which led to the American Civil War and the political considerations which influenced the conduct of that war by both sides.
- B. The student will comprehend/explain the overall military strategy adopted by the Union which resulted in the landing on Roanoke Island.
- C. The student will comprehend/explain the operational and geographic significance of Roanoke Island as the site of an amphibious landing.
- D. The student will comprehend/explain the salient factors in the planning, equipping, and conduct of the amphibious expedition.
- E. The student will comprehend/explain the tactical conduct of the landing and the subsequent actions ashore.

II. References and Texts

A. Instructor references

- 1. Bartlett, M.L., Assault From the Sea (Annapolis, MD: Naval Institute Press, 1983), pp. 88-94.
- 2. Dupuy and Dupuy, Encyclopedia of Military History (New York: Harper & Row, 1986) 2nd Revised Ed., pp. 868-870, 873.

- B. Student text - Bartlett, M.L., Assault From the Sea (Annapolis, MD: Naval Institute Press, 1983), pp. 88-94.

III. Instructional Aids - Maps

- A. Instructional Aid II-6-A. Map: "The American Civil War," from Dupuy and Dupuy, Encyclopedia of Military History, p. 871.
- B. Instructional Aid II-6-B. Map: "Battle of Roanoke Island 7-8 Feb. 1862," from Robert W. Daly,

"Burnside's Amphibious Division," Marine Corps Gazette, December 1951, p. 31. *

- C. Instructional Aid II-6-C. Map: "First Wave of the Federal Landing at Ashby's Harbor," from Robert W. Daly, "Burnside's Amphibious Division," Marine Corps Gazette, December 1951, p. 32. *
- D. Instructional Aid II-6-D. Map: "Battle of Roanoke Island, 8 February 1862," from Robert W. Daly, "Burnside's Amphibious Division," Marine Corps Gazette, December 1951, p. 33.

IV. Methods and Procedures

- A. Method options in recommended order
 - 1. Seminar discussion
 - 2. Lecture and discussion
 - 3. Lecture
- B. Procedural and student activity: Read assignment prior to class and discuss according to the "levels of war" construct.

V. Presentation

- A. General significance
 - 1. First attempt at the creation of a specialized amphibious force in the U.S.
 - 2. Excellent example of the increasing complexity of amphibious operations and the unique requirements of and need for expertise in each of the land and naval components associated with an amphibious operation.
- B. Factual background
 - 1. Key personalities
 - a. Major General Ambrose Burnside (Expedition Commander)
 - b. Rear Admiral Louis Goldsborough (Naval Commander)
 - c. Brigadier General Henry Wise (Confederate Commander on Roanoke Island)
 - d. Major General Benjamin Huger (Confederate

Commander at Norfolk)

2. "Burnside Expedition" assembled and ready by early January 1862
 - a. Troops embarked from Annapolis, MD
 - b. 13,000 infantry in 3 brigades
 - c. 80 vessels of varying type/size (20 warships with 64 guns)
 3. Chronology
 - a. August 1861: Union Navy gains control of Pamlico Sound in North Carolina - main approach to route to Roanoke Island.
 - b. 9 January 1862: Expedition departs Annapolis.
 - c. 11 January: Invasion fleet clears Hampton Roads, VA.
 - d. 15 January: Goldsborough's 30 vessels pass through Hatteras inlet.
 - e. 5 February: Burnside's transports pass through Hatteras inlet after much trouble.
 - f. 7 February: After 2-day delay due to bad weather, landings begin at 1600 hours - scattered opposition encountered.
 - g. 8 February: Confederate garrison on Roanoke Island surrenders.
 - h. 14 March: New Bern surrenders.
 - i. 26 April: Beaufort surrenders.
 4. Losses
 - a. Union: 264 casualties
 - b. Confederate: 143 casualties; 2,675 troops, 32 cannon surrendered
- C. Political considerations
1. Union objective much more difficult: in order to reestablish status quo ante bellum, must conquer the South. Southern objective: to establish independence by opposition of Northern invasion and eventual recognition by foreign powers.

2. Foreign imports essential to the South.

D. Strategic considerations

1. Northern strategy: "Anaconda Plan"

a. Brainchild of Winfield Scott

b. Designed to isolate the Confederacy.

c. With Union command of the sea, blockade Southern Atlantic seaboard and Gulf coasts, seize ports, if possible.

d. Isolate the western activities by controlling Mississippi River.

e. Drive south into Virginia with Union Army.

2. Norfolk of significant importance to Confederacy

a. Major hub for supplying Confederate Army in Virginia.

b. Confederates preparing ironclad Navy, CSS Virginia (formerly USS Merrimack); cannot afford to lose Norfolk before Virginia can put to sea and utilized against the Union blockading fleet.

c. Inland waterway along North Carolina coast major Confederate SLOC.

E. Operational considerations

1. Significance of Roanoke Island: Wise: "It was the key to all the rear defenses of Norfolk. It unlocked two sounds ... eight rivers ... four canals ... and two railroads. ... It guarded more than four-fifths of all Norfolk's supplies of corn, pork, and forage, and it cut the command of Gen Huger off from all efficient transportation. ... It should have been defended at the expense of 20,000 men and of many millions of dollars." (Bartlett, p. 91)

2. Norfolk defenses oriented north; campaign through Roanoke Island would:

a. Cut off communications to Norfolk.

b. Meet limited resistance.

- c. Take Norfolk from rear.
- 3. Very poor cooperation between Army and Navy during planning and conduct of expedition.
 - a. Burnside determined to be self-sufficient from Navy, acquires own transports and NGFS boats.
 - b. Burnside spends most of time mastering naval logistical problems himself, without relying on expertise of Navy.

F. Tactical considerations

- 1. Little thought given to tactics ashore.
 - a. "Burnside was apparently interested only in carrying his force to the objective area, after which nature would presumably take its course." (Bartlett, p. 89)
 - b. "Burnside's logistical work was creditable, but his tactical success in the field was due to his overwhelming numbers and the Confederates' slipshod defenses. In tactics, Burnside planned very little." (Bartlett, p. 90)
 - c. Landing forces have time to train, but spend no time practicing debarkation.
 - d. Confederate defenses concentrated on northern half of island: ground forces sent to likely landing sites at last minute, driven off by USS Delaware in spontaneous bombardment.
 - e. Conduct of battle ashore
 - (1) Union scheme of maneuver ashore is three brigades abreast in frontal attack.
 - (2) Center brigade moves down causeway, outer brigades move through swampy lowlands.
 - (3) Confederates defend only in center along causeway.
 - (4) Union center thrown back, but flanks continue to advance and create double envelopment.
 - (5) Confederate defenses break.

G. Technical considerations

1. Burnside's vessels a motley fleet
 - a. Differing drafts, but all less than 8 feet
 - b. Some sail, some steam
2. Ship-to-shore planning
 - a. First wave well organized: lands 4,000 troops in 20 minutes without casualties.
 - b. No plan for subsequent waves. Rest of force (6,000) not ashore for over 7 hours. From Bartlett: "After this first wave, however, Burnside's organizational work had apparently ended. The recall of boats and reformation of groups must have been left to improvisation, because while twenty minutes sufficed to land four thousand men and Midshipman Porter's six-gun howitzer battery, the remainder of Burnside's men weren't ashore until midnight." (Bartlett, p. 94)
3. Ship-to-shore technique
 - a. Transports anchor 3 miles astern of gunboats, out of range of Confederate batteries.
 - b. Steamers pulling surf boats approach shore obliquely at flank speed, cast off boats and pull away.
 - c. Boats coast into shore: Burnside: "I have never witnessed a more beautiful sight ... As the steamers approached the shore at a rapid speed each surfboat was 'let go,' and with their acquired velocity and by direction of the steersman reached the shore in line." (Bartlett, p. 94)
 - d. Units arrived to form three brigades abreast on division frontage.

H. Conclusions

1. Shelby Foote: "Best of all, from the Northern point of view, Burnside had won control of North Carolina's inland sea, thereby tightening the blockade one hard twist more, opening a second front in the Virginia army's rear, gaining access to the back door to Norfolk, and arousing the immediate apprehension of every rebel posted within gunshot of salt water. No beach was safe. This newly bred amphibious beast, like some

monster out of mythology--half Army, half Navy: an improbable, unholy combination if ever there was one--might come splashing and roaring ashore at any point from here on down." [p. 230]

2. In conception a promising idea, left something to desire in execution. A success mostly due to inadequate Confederate defenses and overwhelming Union forces.
3. Demonstrates clearly the need for specialized skills of both Army and Navy and the requirement for cooperation between services.
4. NGFS, although unplanned, was important contributor to success.
5. Demonstrates a need for an offensive plan ashore once the landing force is landed.

**NAVAL RESERVE OFFICERS TRAINING CORPS
AMPHIBIOUS WARFARE**

MODULE II, LESSON GUIDE: 7

HOURS: 1

CASE STUDY: Fort Fisher Campaigns, 1864-65

I. Learning Objectives

- A. The student will comprehend/explain the strategic importance of Fort Fisher to the overall planning of the Union, and to the Confederacy.
- B. The student will comprehend/explain the differences between the first and second operations.
- C. The student will comprehend/explain the technological advancements made as a result of the lessons learned during the first assault on Fort Fisher, to include highly accurate NGFS and excellent communications.

II. References and Texts

A. Instructor references

- 1. Bartlett, M.L., Assault from the Sea (Annapolis, MD: Naval Institute Press, 1983), pp. 95-103.
- 2. Dupuy and Dupuy, The Encyclopedia of Military History (New York: Harper & Row, 1986), p. 902. 2nd Rev. ed.

- B. Student text - Bartlett, M.L., Assault from the Sea (Annapolis, MD: Naval Institute Press, 1983), pp. 95-103.

III. Instructional Aids

- A. Instructional Aid II-7-A. Map: "The Fort Fisher Campaign, 1864-1865" from Bartlett, Assault from the Sea, p. 97.

IV. Suggested Methods

A. Method options in recommended order

- 1. Seminar discussion
- 2. Lecture and discussion
- 3. Lecture

- B. Procedural and student activity: Read assignment

prior to class and discuss according to the "levels of war" construct.

V. Presentation

A. General significance

1. Provides interesting comparison of two successive attempts at essentially the same landing and the lessons learned from one to the next.
2. Excellent example of the necessity for good command relations in an amphibious operation, and aggressiveness of landing force commander(s).
3. Several innovations or improvements in the use of communication and NGFS.

B. Factual background

1. Key personalities
 - a. General Grant
 - b. Admiral Porter
 - c. General Butler
 - d. General Weitzel
 - e. General Terry
 - f. General Bragg (CS)
 - g. General Hoke (CS)
 - h. Colonel Lamb (CS)
 - i. Colonel Whiting (CS)
2. Chronology
 - a. Late 1864: Wilmington, NC is the only remaining port open in the South.
 - b. 24 December: Powder Ship USS Louisiana detonated in vain attempt to weaken Fort Fisher defenses.
 - c. 25 December: Approximately one-half of Union forces come ashore, suffers from poor leadership of landing force commander, gains little advantage.

- d. 26 December: Butler begins withdrawing troops in frustration.
 - e. 27 December: Porter removes remaining forces; all Union forces depart the area.
 - f. 2 January 1865: Terry appointed to command second attack.
 - g. 8 January: Terry and Porter gather forces at Beaufort, SC.
 - h. 12 January: Expedition embarks from Beaufort.
 - i. 13 January: Opening bombardment and initial landings (infantry and naval brigades). Approximately 8,500 troops vs. 2,000 man Confederate garrison.
 - j. 15 January: Assault and surrender of Fort Fisher.
3. Forces and casualties (both operations)
- a. First operation forces
 - (1) Union: 6,500 troops and 57 ironclads
 - (2) Confederate: 1,371 troops and 47 mortars
 - b. Second operation forces
 - (1) Union: 10,000 troops
 - (2) Confederate: 1,550 troops.
 - c. Casualties (both operations)
 - (1) Union: 955 soldiers, 386 sailors and Marines
 - (2) Confederate: approximately 500

C. Policy considerations.

- 1. Union objective much more difficult: in order to reestablish status quo ante bellum, must conquer the South. Southern objective: to establish independence by opposition of Northern invasion and eventual recognition by foreign powers.
- 2. Foreign imports essential to the South.

D. Strategic considerations

1. Union continuation of the Anaconda Plan, which increasingly constricts the Confederacy; General Sherman, having taken Atlanta, moves north through the Carolinas to eventually join forces with General Grant, who is invading Petersburg. The war is drawing to a close.
2. Wilmington is the sole remaining port open to the South. The flow of supplies through Wilmington allows Lee's Army in Virginia to remain in the field.
3. North has uncontested command of the Atlantic seaboard.

E. Operational considerations

1. Fort Fisher protects the mouth of the Cape Fear River and is therefore the key to the port of Wilmington.
2. Union command relations
 - a. First operation: Relations between Butler/Weitzel and Porter characterized by lack of unity and cooperation.
 - b. Second operation: As result of very firm guidance from Grant, and mutual respect, relations between Terry and Porter were characterized by excellent unity of effort and cooperation. Grant to Terry: "It is exceedingly desirable that the most complete understanding exist between yourself and the Naval commander. I suggest, therefore, that you consult with Adm. Porter freely ... defer to him as much as is consistent with your own responsibilities." (Bartlett, p. 98) Terry, Porter met together on USS Malvern.
3. Different landing beaches in Army/Navy operations.
4. Importance of operations security and differing attempts at secrecy between the two operations.

F. Tactical considerations

1. The threat to the landing beaches from Hoke's infantry division based at Wilmington and entrenched along Confederate Point.
2. Tactical planning for operations ashore

- a. Nonexistent in first operation
- b. Second operation, extensive
 - (1) Personal reconnaissance
 - (2) Troops carried extra food and ammunition
 - (3) Effective use of terrain ashore
- 3. Tactical use of NGFS
 - a. First operation: no coordination between ground troops and NGFS
 - b. Second operation
 - (1) Effective preparatory bombardment
 - (2) After landing, effective, flexible support of operations ashore
- 4. Recognized need for more infantry in second operation leads to use of Marines and sailors in assault.
- 5. Two-pronged attack fixes and envelops enemy position.
- 6. Lack of infantry support by Bragg ensures defeat of Confederate garrison in Fort Fisher.
- G. Technical considerations
 - 1. Significant advancements in quality of NGFS from first to second operations.
 - a. Accuracy stressed in second operation
 - b. Intense gunnery training between operations
 - c. Use of ironclads at close range
 - d. Enfilade fire
 - e. First operation: 20,271 rounds at 1,275,000 pounds
 - f. Second operation: 19,682 rounds at 1,652,638 pounds
 - 2. Well-organized, coordinated landing plan facilitated ship-to-shore movement.

3. Use of signalmen to develop standardized ship-to-shore communications between Army and Navy.
4. Use of powder ship in first operation an ill-fated attempt at "strategic" weapon.
5. Confederate use of mines to protect the landward approach to the fort. (Although extensive naval bombardment severed the electrical wiring connections to the fort, rendering the mines useless.)

H. Conclusions

1. Illustrates the necessity of cooperation between land and naval components.
2. Illustrates in general the importance of strong, competent leadership.
3. Advancements in the application of naval gunfire tactics and techniques.
4. Excellent example of importance of sound tactical plan ashore.
5. Possibly the first example of "real-time" communication between ship and shore.
6. Increasing recognition of the importance of operations security to the success of an operation.
7. Fall of Fort Fisher ensured the capture of Wilmington.

**NAVAL RESERVE OFFICERS TRAINING CORPS
AMPHIBIOUS WARFARE**

MODULE II, LESSON GUIDE: 8

HOURS: 1

CASE STUDY: Tanga, 1914

I. Learning Objectives

- A. The student will comprehend/explain the political interests and objectives of British and Germans in East Africa.
- B. The student will comprehend/explain the British strategic considerations which led to the decision to make an amphibious landing at Tanga.
- C. The student will comprehend/explain the British tactical plan and actions ashore.
- D. The student will comprehend/explain the conduct of the battle with special consideration of geographic factors and effective use of railroad and telegraphic communications.

II. References and Texts

- A. Instructor references - Lettow-Vorbeck, Paul von, My Reminiscences of East Africa (Nashville, TN: Battery Classics, 1990), pp. 35-49 (Instructional Aid II-8-A).
- B. Student text - Lettow-Vorbeck, Paul von, My Reminiscences of East Africa (Nashville, TN: Battery Classics, 1990), pp. 35-49 (Instructional Aid II-8-A).

III. Instructional Aids - Maps

- A. Instructor references - Lettow-Vorbeck, Paul von, My Reminiscences of East Africa (Nashville, TN: Battery Classics, 1990), pp. 35-49.

IV. Suggested Methods and Procedures

- A. Method options in recommended order
 - 1. Seminar discussion
 - 2. Lecture and discussion
 - 3. Lecture
- B. Procedural and student activity: Read assignment prior to class and discuss according to the "levels of

war" construct.

V. Presentation

A. General significance

1. Example of early 20th century colonial action using native troops.
2. The British rout shows what a poorly planned operation can become in the face of organized, determined resistance.
3. Coupled with the Gallipoli debacle which followed the next year, went a long way toward convincing the British of the infeasibility of amphibious operations.

B. Factual background

1. British
 - a. Led by General Aitken
 - b. 8,000 men in 2 brigades, mostly poorly trained colonial troops
2. German
 - a. Led by General Paul von Lettow-Vorbeck.
 - b. 1,000 men, mostly native Askari troops (only 2 of the 9 companies were European settlers).
 - c. Troops were ill equipped, with obsolete weapons and poorly trained in type of warfare to be expected. Discipline lax.
3. Casualties: British had 2,000; Germans had 15 KIA and 54 WIA.
4. British left behind 16 machine guns, 600,000 rounds, 455 modern rifles

C. Policy considerations

1. Civilian colonial leadership on both sides interested in "sitting war out," if possible.
 - a. British and German governors make treaty prohibiting naval bombardment of port cities without prior warning and evacuation.
 - b. Requirement to warn Germans of attack results

in British loss of surprise, has immense effect on subsequent conduct of military operations.

2. German military leadership desires to use war in Africa to keep as many British and other enemy troops as possible occupied in theaters away from Europe.
3. Germans also desire to use colony as base to interrupt British shipping.
4. British desire to use war as an excuse to seize German colonies for economic and imperial gain.

D. Strategic considerations

1. Lettow-Vorbeck decides on "offensive strategy" to attack British interests in East Africa and put British on defensive.
2. British adopt traditional "peripheral" strategy, based on sea power, of seizing enemy colonies away from main theater for gain or use as bargaining chips.
3. British decide to use mobility of their naval forces to land troops at various places on the coast and then conduct operations inland.

E. Operational considerations

1. Germans concentrate and move into British East Africa unsuccessfully -- these efforts are directed towards the British Uganda Railway, the main lines of communication in the colony.
2. British effort to envelop German coastal right flank.
3. Aitken decides to land at Tanga almost on a whim; lacked intelligence about Tanga and German capabilities in the area. In keeping with British strategy, but short on operational judgment or execution.
4. Lettow-Vorbeck warned by British of landing at Tanga (as result of governors' treaty) and is able to concentrate quickly by using railroad.

F. Tactical considerations

1. British land in mango swamp east of Tanga unopposed.

2. British come ashore slowly, once ashore do not move aggressively -- still have the opportunity to destroy Germans who are still arriving and organizing.
3. Poorly trained British colonial troops break under accurate fire of German colonials and are routed. No heavy British guns landed with troops. No reconnaissance by British.
4. Germans are able to go around British and set up machine guns to enfilade them on the left flank of regular British battalion.
5. Environmental factors also make some British and German positions untenable (swampy land, aggressive insects).
6. No effective use of naval gunfire by British (did not want to destroy town of Tanga).

G. Technical considerations

1. No specialized landing craft.
2. Railroad enables Germans to concentrate quickly at point of British landing.
3. Telegraph enables Germans to communicate rapidly enabling them to respond to British landing.

H. Conclusions

1. British inexperience in amphibious operations largely responsible for failure. Still no appreciation for peculiar requirements of amphibious landing.
2. The British lack of intelligence about Tanga was a major factor.
3. British lack aggressiveness ashore, could have driven inland while Germans were still organizing. (We will see this problem again soon).
4. Poor training of British troops -- colonial troops not ready for combat.
5. Unsound troop disposition by British.
6. Lack of NGFS - "Blind Bombardment" - method obsolete.

7. No cooperation between artillery and infantry
8. No support of infantry advance
9. Overall commander's poor grasp of tactical situation. Became too involved in localized action, vice "Big Picture".
10. Premature retreat, abandoning valuable stores.
11. "Superiority of force at the decisive point" concept was disregarded by British.

**NAVAL RESERVE OFFICERS TRAINING CORPS
AMPHIBIOUS WARFARE**

MODULE II, LESSON GUIDE: 9

HOURS: 2-4

CASE STUDY: Gallipoli, 1915

I. Learning Objectives

- A. The student will comprehend/explain the political background to the First World War.
- B. The student will comprehend/explain the political and strategic considerations which led to the Gallipoli campaign.
- C. The student will comprehend/explain the three phases of the campaign.
- D. The student will comprehend/explain the operational consideration of where to make the amphibious landings.
- E. The student will comprehend/explain the conduct of the amphibious operation and subsequent operations ashore.
- F. The student will comprehend/explain the technical advancements implemented at Gallipoli.

II. References and Texts

A. Instructor references

- 1. Bartlett, M.L., Assault From the Sea (Annapolis, MD: Naval Institute Press, 1983), pp. 142-153.
- 2. Churchill, Winston, The World Crisis (New York: Charles Scribner's & Sons, 1949) pp. 297-309.
- 3. Dupuy and Dupuy, Encyclopedia of Military History (New York: Harper & Row, 1986), pp. 947-949, 952-955.
- 4. Keyes, Lord, Admiral of the Fleet, Amphibious Warfare and Combined Operations (New York: MacMillan Co., 1943), pp. 34-53..
- 5. Moorehead, Alan, Gallipoli (Annapolis, MD: Nautical & Aviation Publishing Co., 1985).
- 6. Potter, E.B., Sea Power: A Naval History (Annapolis, MD: Naval Institute Press, 1981), pp. 212-221.

B. Student texts

1. Bartlett, M.L., Assault From the Sea (Annapolis, MD: Naval Institute Press, 1983), pp. 142-153.
2. Moorehead, Alan, Gallipoli (Annapolis, MD: Nautical & Aviation Publishing Co., 1985), pp. 11-108, 128-194, 219-294, 356-369.
3. Potter, E.B., Sea Power: A Naval History (Annapolis, MD: Naval Institute Press, 1981), pp. 212-221.

III. Instructional Aids:

A. Instructional Aids - Maps

1. Instructional Aid II-9-A. Map: In "The Western Front," from Dupuy and Dupuy, Encyclopedia of Military History, p. 948.
2. Instructional Aid II-9-B. Map: "Dardenelles-Gallipoli Campaign," from Potter, Sea Power, A Naval History, p. 215.
3. Instructional Aid II-9-C. Map: "Gallipoli and the Dardenelles," from J.F.C. Fuller, A Military History of the Western World, vol. III (New York: Da Capo Press, 1956), p. 243.
4. Instructional Aid II-9-D. Map: "Battle of Sari Bair," ibid., p. 250.
5. Instructional Aid II-9-E. Map: "Battle of Suvla Bay," ibid., p. 254.
6. Instructional Aid II-9-F. Map: "Gallipoli: Final Situation," from E.B. Potter, ed., Sea Power, 1st edition (Inglewood Cliffs, NJ: Prentiss-Hall, 1960), p. 427 *.
7. Instructional Aid II-9-G. Student Handout - Gallipoli Reference Sheet.

C. Instruction Aids - Movies: These movies are not part of the curriculum and are not provided by NETC; however, they may be obtained locally by the instructor to augment the instruction.

1. Peter Weir, dir., Gallipoli (Australian Film Distribution Co., 1981; Paramount Pictures, 1988), running time: 111 minutes. Available at most video stores for students to view at home. Most valuable for its portrayal of the action on the

beaches, the tactics used and the quality of high-level leadership.

2. Battlefield Detectives - Gallipoli. History Channel. Hard to find, but well worth it. Walk the terrain and analyze the failures at Gallipoli.

IV. Suggested Methods and Procedures

A. Methods options in recommended order

1. Seminar discussion
2. Lecture and discussion
3. Lecture

- ##### B. Procedural and Student Activity: Read assignment and view movie prior to class, and discuss according to "levels of war" construct.

V. Presentation

A. General significance

1. Disaster which convinced British that amphibious operations were not practicable.
2. Became primary subject for U.S. Marine Corps study of amphibious operations before World War II.

B. Factual background

1. With Battle of the Marne, German offensive failed and stalemate developed on Western Front.
2. Key personalities
 - a. Winston Churchill (1st Lord of Admiralty)
 - b. Sir John Fisher (1st Sea Lord)
 - c. Vice Admiral Carden (Fleet Commander)
 - d. Rear Admiral de Robeck (Carden's replacement)
 - e. General Hamilton (Land Commander)
 - f. General Hunter-Weston (Commander C. Helles assault)
 - g. General von Sanders (German Commander)
 - h. Mustafa Kemal (Turkish Division Commander)

i. General Stopford (XXXth Corps)

3. Chronology

- a. 8 August: Goeben/Breslau Incident
- b. 5-10 September 1914: Battle of the Marne
- c. 29 October: Goeben/Breslau attack Odessa.
- d. November: British naval force bombards Dardenelles.
- e. February-18 March 1915: Allied naval assault
- f. March: Expeditionary force departs England.
- g. 25 March: Expeditionary force proceeds to Alexandria.
- h. 25 April: First landings
- i. 6-8 August: Second landings
- j. 15 October: Hamilton relieved.
- k. 23 November: Decision to evacuate.
- l. 8-9 January 1916: Evacuation

4. Forces

- a. Allied:
 - (1) 200 ships
 - (2) 78,000 for initial landing
 - (a) 10,000 for Bulair feint
 - (b) 3,000 French for Kum Kale
 - (c) 30,000 ANZACs for Gaba Tepe
 - (d) 17,000 (29th Division) for Helles
 - (3) 120,000 by 6 August
- b. German/Turkish
 - (1) 60,000 troops
 - (a) 2 divisions, Bulair

(b) 2 divisions, Kum Kale

(c) 1 division, Cape Helles

(d) 1 division in reserve

(2) 115 guns in 15 forts from Cape Helles to Narrows

5. Losses

a. Allied: 256,000 (for the entire Dardenelles campaign)

b. German/Turkish: 251,000 (21,000 to disease)

C. Political considerations

1. Primary consideration: Western Allies must take some action to link up with and relieve pressure on Russia to keep Russia in the war.

2. Each side interested in influencing Balkan and/or Baltic states to join its alliance or at least remain neutral.

D. Strategic considerations

1. Stalemate has resulted in strategies of attrition on both sides.

2. Allies have three strategic options.

a. Make main effort on Western Front: British Army argues this is the main or decisive theater, where the war must be won.

b. Launch campaign into Baltic

(1) Take pressure off Western Front.

(2) Gain Baltic States to Alliance.

(3) Most direct linkup with Russia.

(4) Use Russian troops to land on German coast and attack Berlin (only 90 miles inland).

(5) Requires defeating German High Seas Fleet which controls Baltic.

(6) Offensive on Western Front too costly.

- c. Launch campaign into Balkans.
 - (1) Take pressure off Western Front.
 - (2) Gain Balkan states to Alliance.
 - (3) Link up with Russia through Black Sea.
 - (4) Knock Turkey out of war.
 - (5) Fighting Turks rather than Germans.
 - (6) Allies control Mediterranean.
 - (7) Requires forcing Dardenelles.
 - (8) Offensive on Western Front too costly.
- 3. Amphibious options exploit British superiority in naval power.
- 4. Amphibious options reflect traditional British preference peripheral maritime strategy as practiced successfully since Seven Years' War.
- 5. Lack of agreement in British War Cabinet for conduct of the war. Campaign receives limited, lukewarm support outside of Admiralty.
- 6. Strategic element of surprise lost when British naval bombardment of Gallipoli in late 1914 shows Allied interest/intentions in region.

E. Operational considerations

- 1. Poor coordination between land and naval commanders.
- 2. Expedition poorly organized, must divert to Alexandria for 1 month to reorganize and train: element of surprise lost. Sanders wrote that extra month gave him necessary time to prepare defenses.
- 3. Four phases of campaign
 - a. February-18 March: Naval phase; attempt to force Dardenelles, reduce forts with naval power only.
 - b. 25 April-5 August: Initial landings and subsequent tactical stalemate.
 - c. 6 August-23 November: Second landings and

continued stalemate.

d. 23 November 1915-9 January 1916: Withdrawal.

4. If de Robeck had not called off naval attack after losing several ships to mines, would naval phase have succeeded?

5. Where to land?

a. Where is key terrain in theater?

(1) Key consideration in theater is the Narrows which controls passage through Dardenelles.

(2) Defenders can shuttle forces between peninsula and mainland across Narrows.

(3) Kilid Bahr, high ground, dominates Narrows and must be key objective.

b. Bulair

(1) Sanders expects this to be main attack.

(2) Can sever peninsula from mainland

(3) Strongly fortified

(4) Feint only

c. Kum Kale

(1) Whitehall prohibits main landing on Asian coast.

(2) Permits enveloping Narrows by land.

(3) Requires long land movement along coast; landing force lacks necessary mobility on land.

(4) French supporting attack

d. Cape Helles

(1) Direct; obvious

(2) Narrows easily accessed

(3) British expect toughest resistance

(4) Narrow beaches

- (5) Dominated by high ground, cliffs
- (6) Can be surrounded on three sides by NGFS ships

e. Gaba Tepe

- (1) Most direct route to Kilid Bahr
- (2) Flanks Cape Helles
- (3) Narrow beaches
- (4) Gentle slope inland

f. Suvla Bay

- (1) Allows envelopment from north of enemy positions on western coast.
- (2) Open beaches.
- (3) Surrounded inland by high ground.

F. Tactical considerations

1. Conduct of landings

a. Gaba Tepe

- (1) Landing at night to achieve surprise.
- (2) Rowing ashore, assault wave loses direction.
- (3) Lands 1 mile north of designated beach where terrain is very difficult.
- (4) Limited resistance, but no aggressive move inland.
- (5) On own initiative, Mustafa Kemal counter-attacks, seizes high ground before ANZACs can secure beachhead, pins ANZACs on beach.

b. Cape Helles

- (1) No night landing because of difficult currents
- (2) 5 separate beaches: S, W, X, Y, V

- (3) Main landing is 3,000 troops on 300-yard wide V Beach.
 - (4) 5,000 troops total on other 4 beaches, which all flank V Beach.
 - (5) Hunter-Weston orders forces at S, W, X, and Y not to advance until V force has come abreast.
 - (6) Y Beach landing unopposed; troops idling on cliffs, waiting for V force.
 - (7) Hamilton's chief of staff recommends landing Blair diversionary force at Y and immediately attacking Kilid Bahr (only 3 miles away); Hamilton refuses.
 - (8) V Beach landing a disaster
- c. Cape Helles and Gaba Tepe landings outside of mutual supporting range from each other.
 - d. Bulair diversion works: Sanders holds two divisions in place until night, even after main landings ashore.
 - e. After diversion at Kum Kale, French forces occupy right of British line.
 - f. Lack of aggressive leadership cost chance to seize key high ground before Turks could react. Hamilton did not want to interfere with Hunter-Weston's control of landing.
 - g. Inflexibility: Hamilton, Hunter-Weston did not shift main effort to Y Beach, where resistance was minimal, when they had chance; did not want to change plan.
 - h. Key leaders remain afloat, unable to communicate effectively with landing forces or get clear estimate of situation [Moorehead, p. 129]
 - i. Turks rush forces to Cape Helles from Bulair and across Narrows from Kum Kale.
 - j. Action reduced to trench-warfare stalemate.

G. Technical considerations

- 1. Use of gangway from transport ship River Clyde directly to beach an utter failure.

2. Beetle boats (motor-lighters).
3. 300-foot pontoon pier and four 50-ton water-lighters for Suvla Bay landings.

H. Conclusions

1. Strategic potential squandered by incompetence and lack of leadership at all military levels.
2. Resulted in exactly same stalemate that it was intended to solve.
3. British conclude amphibious operations too difficult in face of modern defenses.
4. Disciplined troops a must for tenacious, aggressive operations.
5. Submarine interdiction of enemy SLOC a decisive factor.
6. Superb efforts by naval beach parties and landing craft operations.
7. Lack of combined Army-Navy effort was critical to outcome.
8. Failure to exploit element of surprise again shown to be an important factor.
9. Lack of intelligent use of reserve forces led to inability to capture key strategic position.
10. NGFS a deciding factor (and one still being debated regarding this operation).
11. Daylight landings against strong defensive positions should be avoided, if feasible.

**NAVAL RESERVE OFFICERS TRAINING CORPS
AMPHIBIOUS WARFARE**

MODULE II, LESSON GUIDE: 10

HOURS: 1

CASE STUDY: Zeebrugge, 1918

I. Learning Objectives

- A. The student will comprehend/explain the political and strategic considerations which led to the British decision to undertake the Zeebrugge operation.
- B. The student will comprehend/explain the operational considerations and problems of planning the operation.
- C. The student will comprehend/explain the conduct and results of the operation.
- D. The student will comprehend/explain specialized techniques and equipment developed for the operation.

II. References and Texts

A. Instructor references

1. Bartlett, M.L., Assault From the Sea (Annapolis, MD: Naval Institute Press, 1983), pp. 154-156.
2. Keyes, Lord, Admiral of the Fleet, Amphibious Warfare and Combined Operations (New York: MacMillan, 1943), pp. 54-73.
3. Pitt, Zeebrugge (London: Cassell, 1958).
4. Potter, E.B., Sea Power: A Naval History (Annapolis, MD: Naval Institute Press, 1981), pp. 222-230.

- B. Student text - Bartlett, M.L., Assault From the Sea (Annapolis, MD: Naval Institute Press, 1983), pp. 154-156.

III. Instructional Aids - Maps

- A. Instructional Aid II-10-A. Map: "The Western Front, 1914-1918," from Dupuy and Dupuy, p. 948.
- B. Instructional Aid II-10-B. Harbor of Zeebrugge, Showing German Defenses and British Blockships," from E.B. Potter, ed., Sea Power, 1st ed. (Inglewood Cliffs, NJ: Prentiss-Hall, 1960), p. 471.
- C. Instructional Aid II-10-C. Map: "North Sea," Source

Unknown.

IV. Suggested Methods and Procedures

- A. Method options in recommended order
 - 1. Seminar discussion
 - 2. Lecture and discussion
 - 3. Lecture
- B. Procedural and student activity: Read assignment prior to class and discuss according to "levels of war" construct.

V. Presentation

- A. General significance
 - 1. In planning, techniques, organization, and scale, the antithesis of Gallipoli
 - 2. Early commando, or special, operation
- B. Factual background
 - 1. Key personalities
 - a. Rear Admiral Keyes (Dover Patrol)
 - b. Captain Carpenter (HMS Vindictive)
 - c. Major Elliot (Royal Marines)
 - 2. Chronology
 - a. 1917: Allies suffer terrible losses to German U-boats.
 - b. 31 July-10 November: Allied offensive (Battle of Passchendale) fails to capture U-boat base at Bruges.
 - c. November: Admiralty approves Keyes' idea of raid on Zeebrugge and Ostend.
 - d. 22-23 April 1918: Raid
 - e. 9 May: Second raid on Ostend fails.
 - 3. British forces
 - a. Flotilla (75 ships)

- (1) 5 blockships filled with concrete and explosives: 3 for Zeebrugge (Thetis, Intrepid, Iphigenia), 2 for Ostend.
 - (2) Assault ships: Vindictive, supported by Iris and Daffodil.
 - (3) Submarines: C.1 and C.3
 - (4) NGFS ships
 - (5) Flagship: Warwick (destroyer)
- b. Landing forces: 750 marines, 1,030 sailors

4. Objective area

- a. Triangle with two sea entrances
 - (1) Eastern side: 8 miles, Zeebrugge-Bruges canal
 - (2) Southern side: 11 miles, Ostend-Bruges by smaller canals
 - (3) Coastline faces northwest; 12 miles between Ostend-Zeebrugge; heavily fortified.
- b. Area defended by 225+ guns (136 of which were greater than 6-inch caliber), with range of 23 miles for 15-inch guns.
- c. Bruges home for 35 torpedo boats, 30 submarines
- d. Zeebrugge protected by 1 mile stone mole curving in front of canal entrance, 29 feet above sea level.

C. Political considerations

1. German U-boats campaign having significant effect on Allied war economies and national morale.
2. Threatens pipeline from U.S.
3. Situation frustrating for Allies
4. Unrestricted U-boat warfare draws U.S. into war.

D. Strategic considerations

1. U-boat base at Bruges allows easy access to English Channel and Allied sea lanes; also makes

it easier for Germans to break British naval blockade.

2. Unsuccessful in trying to catch U-boats, Allies decide to close U-boat bases in Flanders, i.e., to strike at "the hornet's nest" rather than "hunting hornets all over the farm," as President Wilson put it.
3. British offensive in Ypres salient intended to capture Bruges; fails at cost of 300,000 British and 8,500 French casualties.
 - a. Jellicoe believed that if the army could not get the Belgian coast ports, the navy could not hold the Channel and the war would be lost. He argued that shipping losses would make it impossible to carry on war.
 - b. Churchill was critical of Jellicoe's statement because it seemed to throw the army into the struggle against submarines. This argument was "wholly fallacious." Churchill said that a grave responsibility rested on the Admiralty for misleading Haig and his staff about the value of Ostend and Zeebrugge to the submarine campaign. Churchill argued that even with Bruges closed, U-boats could use other channel ports.
4. Amphibious operations offer chance to turn German right flank in Belgium. Not exploited.
5. Other possible solutions to U-boat problem: mining and convoys.
6. Convoy will be ultimate solution to U-boats; by the time the raid was conducted, the problem was already under control.

E. Operational considerations

1. To close down Bruges, must block canals at Zeebrugge and Ostend. Zeebrugge more important.
2. Unity of command: all-navy show
3. When? Considerations
 - a. For surprise and concealment against enemy coastal guns, Keyes desires moonless night (5-day period each month).
 - b. Calm seas

- c. Favorable wind: light and northerly to favor use of smoke to obscure enemy visibility.
- d. Keyes believed that the plan had been worked out on an exact time table for each of the five possible days.

4. Surprise essential

- a. Keyes: "In order to accustom the enemy to our appearance off the Belgian coast at night, the monitors bombarded and air attacks were made, while C.M.B.s (fast motor torpedo boats) were active off Zeebrugge and Ostend every favorable night." [Amphibious Warfare and Combined Operations, Admiral of the Fleet, the Lord Keyes, p. 59]

- b. Operational Security (OPSEC)

- (1) Isolated training area

- (2) Troops not told of mission until last minute.

- c. To disguise training of landing force near Dover, Keyes sends "Most Secret" letter to himself without using normal security precautions: "In view of the possibility of the enemy breaking through the line on the North Coast of France and attacking Calais and Dunkirk, a special battalion of marines and a company of bluejackets will be placed at your disposal for reinforcements..." [Amphibious Warfare and Combined Operations, p. 64]

5. Detailed, deliberate planning

F. Tactical considerations

1. Problems

- a. How to get blockships into mouth of canal before they are destroyed by coastal guns.
- b. How to neutralize batteries on mole.
- c. How to prevent enemy reinforcements getting to mole.

2. Plan

- a. Use smoke to conceal approach.

- b. Vindictive, Marines to assault mole to take out enemy battery.
 - c. Submarines packed with explosives to blow up viaduct connecting mole to land.
 - d. NGFS and close air support
3. Rehearsal: replica of objective area constructed near Deal for detailed training.
4. Conduct
- a. Vindictive misses position by 340 yards.
 - b. Two of three blockships reach canal.
 - c. C.3 blows up viaduct.
 - d. Weather nullifies air support.
 - e. Heavy casualties (1,200+), mostly during withdrawal.
5. Raid on Ostend a complete failure because Germans moved buoys which guided British ships.

G. Technical considerations

1. Numerous innovations
- a. Smoke
 - b. Planned use of combined arms support.
 - c. Blockships filled with concrete and explosives.
 - d. Submarines filled with explosives.
 - e. Vindictive fitted with.
 - (1) Howitzer
 - (2) Mortars
 - (3) Flame throwers
 - (4) Raised deck and pivoting gangplanks for disembarking troops on mole (1/2 gangplanks destroyed in approach).
 - (5) Fenders to protect hull as ship hits mole.

- f. Ladders, grappling hooks to get over seawall.
- g. Iris, Daffodil to act as tugs to push and hold Vindictive in position.

2. Germans use airplanes to spot for coastal batteries.

H. Conclusions

- 1. Mission failed in primary objective: Ostend canal remained open, and within a few hours Germans had dredged channel around blockships at Zeebrugge.
- 2. British publicly proclaimed complete success. Served to boost public morale.
- 3. Prototype of special/commando operations.
- 4. Executive use of minefields a significant factor.
- 5. Definitive strike planned specifically to prevent enemy reinforcements from reaching landing area.
- 6. Numerous technological innovations utilized.
- 7. Assault planned for high water/darkness period.
- 8. Diversionary bombardment drew attention of enemy forces away from landing forces.
- 9. Accurate NGFS achieved through detailed preparations.
- 10. OPSEC utilized successfully.
- 11. Example of weather a decisive factor, despite extensive, detailed preparations.

**NAVAL RESERVE OFFICERS TRAINING CORPS
AMPHIBIOUS WARFARE**

MODULE II, LESSON GUIDE: 11

HOURS: 2

CASE STUDY: The Interwar Years: Developing a Doctrine

I. Learning Objectives

- A. The student will comprehend/explain the contribution of Earl Ellis to the development of amphibious doctrine.
- B. The student will comprehend/explain the impact of Marine Corps operations in World War I and "small wars" on the development of amphibious doctrine.
- C. The student will comprehend/explain the development of the advance base concept, forces equipment, and doctrine.
- D. The student will comprehend/explain the development and substance of the Tentative Manual for Landing Operations.
- E. The student will comprehend/explain institutional developments in the Marine Corps in support of the adoption of amphibious doctrine, especially in the areas of education and training.
- F. The student will comprehend/explain advancements in amphibious technology pioneered by the Marine Corps in the years leading to World War II.

II. References and Texts

A. Instructor references

- 1. Bartlett, M.L., Assault From the Sea (Annapolis, MD: Naval Institute Press, 1983), pp. 157-194.
- 2. Clifford, K.J., Progress and Purpose: A Developmental History of the United States Marine Corps 1900-1970, pp. 25-60.
- 3. Isely and Cowl, U.S. Marines and Amphibious War (Princeton, NJ: Princeton University Press, 1951), pp. 21-44.
- 4. Moore, R. Scott, "Ideas and Direction: Building Amphibious Doctrine," Marine Corps Gazette, November 1982, pp. 49-58 (Instructional Aid II-11-A).

B. Student texts

1. Bartlett, M.L., Assault From the Sea (Annapolis, MD: Naval Institute Press, 1983), pp. 157-194.
2. Clifford, K.J., Progress and Purpose: A Developmental History of the United States Marine Corps 1900-1970, pp. 25-60.
3. Moore, R. Scott, "Ideas and Direction: Building Amphibious Doctrine," Marine Corps Gazette, November 1982, pp. 49-58 (Instructional Aid II-11-A).

III. Instructional Aids.

- A. Instructional Aid II-11-A. Reading: Moore, R. Scott, "Ideas and Direction: Building Amphibious Doctrine," Marine Corps Gazette, November 1982, pp. 49-58.
- B. Instructional Aid II-11-B. Sample Discussion Questions.

IV. Suggested Methods and Procedures

- A. Method options
 1. Guided discussion
 2. Lecture
- B. Procedural and student activity. Read the assignment prior to class and discuss.

V. Presentation

- A. General significance of the period
 1. Emergence of a well-defined mission for the Marine Corps
 2. Development of amphibious warfare doctrine
 3. Formation of the Fleet Marine Force
- B. Jomini (his broad precepts on amphibious warfare)
 1. Deceive the enemy as to the point of debarkation.
 2. Select a beach with hydrography favorable to the attacker.
 3. Employ naval guns to prepare the landing site for

the troops.

4. Land artillery as soon as possible.
5. Push forward, seize the high ground, and secure the beachhead from the enemy.
6. Allow a quick buildup of supplies ashore to go from an amphibious operation to land warfare.

C. Technology of the era

1. Favors the defender: mines, torpedoes, machine guns, land based artillery/weapons
2. Reasons for the failure at Gallipoli:
 - a. Faulty doctrine
 - b. Ineffective tactics (inadequacy of NGFS, failure of logistics)
 - c. Poor leadership and communications (failure of command, lack of means of control, lack of special equipment/material, etc.)
 - d. Utter lack of coordination between the services

D. Post-World War I - the 1920's

1. The "isolationist" movement
2. Disarmament from the Washington Conference, 12 November 1921; tons of shipping scrapped
3. Non-fortification clause
4. U.S. picks up Guam, Wake, Philippines, Aleutians; Britain picks up Hong Kong, Singapore, Borneo, Solomons, and the Gilberts; Japan picks up Formosa, Marianas, and the Carolinas. The U.S. Navy was adamantly against the treaty clause.

E. Marine Corps planning

1. June 1920: Major General Lejeune becomes 13th Commandant of the Marine Corps (CMC) (holds billet for 9 years) and faces post-war challenges of manning levels, recruiting, defining the Marine Corps role and organization.
2. February 1922: CMC memo to the General Board dictates strength of the Marine Corps be tied to peacetime duties and wartime missions. This memo

addressed not only strength levels, but the reason for the Marine Corps' existence. This changed the direction the Corps would go for succeeding decades. The concept of a mobile force in readiness, capable of offensive operations grew. This was considered the germination of the Fleet Marine Force concept. Lejeune also established beneficial rapport with Congress; he established Marine Corps Institute (MCI) and Marine Corps Station (MCS), Quantico (the foundation for The Basic School (TBS), Amphibious Warfare School (AWS), and Command and Staff College (C&S)); he improved public relations effort which included Civil War reenactments. President Harding was brought to witness one at New Market in 1923.

F. Preparation for war in the Pacific

1. War Plan Orange is developed by the Naval War College.
2. Lieutenant Colonel Ellis develops Op Plan 712 (July 1921) (Op Plan 712 is a 30,000 word document outlining a probable war with Japan to include the requirement for seizure of advance bases. This was prophetic the way he outlined requirements.)
3. Op Plan 712 was the doctrinal base for Marine Corps training
4. Amphibious exercises (1922-1925) were conducted in Culebra, Hawaii, and Panama. They began a slow evolution of offensive tactics and doctrine. The primary emphasis became the development of suitable landing craft. Important lessons were learned in large scale landings; including ship-to-shore movement of heavy artillery (155mm) and 10-ton tractors. The early landings were a fiasco, but later improved movement to the beach, combat loading, and NGFS. Hawaii (in 1925) highlighted good staff planning.
5. The General Board (in 1927) recognized the special ability and affinity of the Marine Corps for landing operations. The Marine Corps was assigned the general function to "provide and maintain forces for land operations in support of the Fleet for initial seizure of advance bases..."

G. The decade of the 1930's

1. The Great Depression came about with the stock market crash, 24 October 1929. Thirteen million were unemployed (25% of the labor force).

2. Roosevelt was elected President in 1933, Hitler appointed Chancellor in Germany, and the Japanese militarists continued expansion toward China. All of these events occurred under the strong U.S. feeling of isolation.
 3. Marine Corps schools continued the development of amphibious doctrine. Gallipoli was studied in detail while advance base exercises were conducted. Field grade officers evaluated and resolved requirements for seizing and defending advance bases in different areas. This highlighted the importance of organized fleet landing units. In August 1923, Major General Russell, Assistant Commandant of the Marine Corps (ACMC) suggests creation of the Fleet Marine Force (FMF). The Marine Corps equipment board was established at this time.
 4. Government Order No. 241 of 7 December 1933 states: "...a force of Marines will be maintained by the MGen Commandant of the Marine Corps in a state of readiness for operations with the Fleet." A quick and strong distinction is drawn between the FMF and "post troops." The east and west coast expeditionary units are replaced by brigades (RCTs and RLTs) which become combined arms teams built around infantry units (to include: artillery, service, engineers, anti-air, signals, medical, armor, and chemical).
 5. The Tentative Landing Operations Manual is established (9 January 1934) after evolving from numerous earlier papers. The Marine Corps schools (faculty and students in a combined effort) establish several essential topics for the manual.
 - a. Command relationships
 - b. NGFS
 - c. Aerial support
 - d. Ship-to-shore movements
 - e. Securing the beachhead
 - f. Logistics and communications
- H. The six phases of amphibious operations are established under the following acronym:
1. **P** - Planning

2. **E** - Embarkation
3. **R** - Rehearsal
4. **M** - Movement to the objective area
5. **A** - Assault
6. **T** - Termination (objective secure)

I. Summary

**NAVAL RESERVE OFFICERS TRAINING CORPS
AMPHIBIOUS WARFARE**

PART II, LESSON GUIDE: 12

HOURS: 1-2

CASE STUDY: European Strategy and North Africa, 1942

I. Learning Objectives

- A. The student will comprehend/explain the political conditions and circumstances behind the war in Europe in 1942.
- B. The student will comprehend/explain the Allied strategic considerations for the conduct of World War II in Europe.
- C. The student will comprehend/explain the objectives, planning, and conduct of the amphibious invasion of North Africa.
- D. The student will comprehend/explain the important lessons learned from the North Africa landings.
- E. The student will comprehend/explain technical developments demonstrated in the North Africa landings.

II. References and Texts

A. Instructor references

- 1. Eisenhower, Dwight D., Crusade in Europe (New York: Doubleday, 1948), pp. 49-114.
- 2. Morison, S.E., The Two-Ocean War (New York: Ballantine Books, 1974), pp. 179-199.
- 3. Potter, E.B., Sea Power: A Naval History, 2nd ed. (Annapolis, MD: Naval Institute Press, 1981), pp. 270-275.

- B. Student texts: Potter, E.B., Sea Power: A Naval History, 2nd ed. (Annapolis, MD: Naval Institute Press, 1981), pp. 270-275.

III. Instructional Aids - Maps

- A. Instructional Aid II-12-A. Map: "Allied Operations Against the Axis, 1942-45," from Potter, Sea Power: A Naval History, 2nd ed., p. 272.
- B. Instructional Aid II-12-B. Map: "Landings in North

Africa," from Dupuy and Dupuy,
Encyclopedia of Military History, p. 1085.

- C. Instructional Aid II-12-C. Map: "American Landings in French Morocco," from E.B. Potter, ed., Sea Power, 1st ed. (Inglewood Cliffs, NJ: Prentiss-Hall, 1960), p. 572. *
- D. Instructional Aid II-12-D. Map: "Initial Landing Plan for Fedala," ibid., p. 573. *
- E. Instructional Aid II-12-E. Map: "The Assault on the Casablanca Area," ibid., p. 574. *

IV. Suggested Methods and Procedures

- A. Method options in recommended order
 - 1. Seminar discussion
 - 2. Lecture and discussion
 - 3. Lecture
- B. Procedural and student activity: Read assignment prior to class and discuss according to the "levels of war" construct.

V. Presentation

- A. General significance
 - 1. First Allied ground offensive in European Theatre of Operation (ETO).
 - 2. Solidified United States-British cooperation.
 - 3. Provided valuable experience for future, tougher amphibious operations.
- B. Factual background
 - 1. Key personalities
 - a. President Roosevelt
 - b. Prime Minister Churchill
 - c. General Marshall
 - d. General Eisenhower, Commander in Chief (CINC)
 - e. Major General Patton, Western Task Force (TF)

- f. Rear Admiral Hewitt, Western Naval TF
- g. Major General Fredenall, Central TF
- h. Major General Ryder, Eastern TF

2. Chronology

- a. December 1941-January 1942: Arcadia Conference
- b. January-July 1942: Controversy over Allied strategy
- c. 14 April: "Marshall Memorandum"
- d. 21 June: Rommel captures Tobruk
- e. 24 July: CCS approves Torch
- f. 26 July: Eisenhower appointed CINC
- g. 8 November: Landings
- h. 10 November: Algiers, Oran capitulate
- i. 11 November: Casablanca captured

3. Forces

- a. Allied
 - (1) Western Naval TF: 35,000 U.S. troops transported directly from U.S. to seize Casablanca.
 - (2) Center Naval TF: 39,000 U.S. troops with British naval support staging in England to seize Oran.
 - (3) Eastern Naval TF: 23,000 British and 10,000 U.S. troops embarked from England to seize Algiers.
- b. Vichy French
 - (1) 120,000 troops
 - (2) 350 aircraft
 - (3) 200 tanks
 - (4) Naval forces

C. Political considerations

1. Arcadia Conference: "Germany first"
2. Russian situation desperate; United States-British promise to open "2nd front".
3. Political imperative to "do something" in 1942
4. Torch itself a very politically sensitive operation:
 - a. Uncertainty of French reaction
 - b. Secret negotiations with Vichy regime as well as with Free French
 - c. Attempt to put U.S. appearance on Torch because of British-French clashes
5. Relations between U.S. and Britain still to be ironed out.

D. Strategic considerations

1. How is Allied strategic situation in Europe different in WWII compared to WWI?
 - a. In WWI, Allies maintained foothold in Western Europe; in WWII, have been ejected - therefore, the necessity for amphibious operations.
 - b. In WWI, enemy northern and southern flanks exposed; in WWII, Germans have secured Norway and North Africa - Allies must fight way through the Mediterranean.
2. U.S. favors immediate, direct approach: "Marshall Memorandum"
 - a. Sledgehammer in 1942
 - b. Followed by Roundup in 1943
 - c. Marshall believes Allies have made commitment to Russia.
 - d. Fears Torch will commit Allies to protracted campaign in secondary theater
3. British favor indirect ("peripheral") strategy through Mediterranean.
 - a. Germany too strong for direct assault

- b. Allies not prepared, lack experience
 - c. Rather fight Vichy French than Germans
 - d. Draw German forces away from Western Europe
 - e. Deny Germany and Italy use of bases on Atlantic coast
 - f. Accelerate defeat of Italo-German forces in North Africa
 - g. Partially satisfy requirement for "2nd front"
4. Morison: "This Torch decision was one of the most momentous in the war. It setup what was supposed to be only a secondary front; but the force of logic, the natural desire to build on foundation that have already cost dearly, pulled more and more Allied forces into the Mediterranean theater--over a million Americans alone. In consequence, the cross-channel operation was impossible before 1944; and we came measurably close to having it postponed another year." [p. 185]

E. Operational considerations

- 1. Main strategic objective in North Africa is Tunis, base of Axis operations and supply. Plan is to cut off Italo-German forces by seizing Tunis as soon as possible.
- 2. Where to land? Why?
 - a. Casablanca
 - (1) Base on Atlantic coast in case Gibraltar falls.
 - (2) Landing in Morocco would stabilize Gibraltar by deterring Spain from joining Axis or allowing Axis occupation.
 - (3) Narrow-gauge railroad from Casablanca to Tunis.
 - (4) Does not risk naval forces by entering Axis-controlled Mediterranean.
 - (5) Air cover from Gibraltar
 - (6) Distant from ultimate objective

- (7) Atlantic surf hazardous in fall
- b. Oran
 - (1) Closer to Tunis
 - (2) Good port
 - (3) Naval forces must move further into Mediterranean.
 - (4) Further from Gibraltar air cover, but still within umbrella
 - (5) Calmer sea state than Atlantic
 - (6) Must pass through Gibraltar choke point
- c. Algiers
 - (1) Capital of Algeria: good political prize
 - (2) Close to Tunis
 - (3) Good port
 - (4) Riskiest: must travel furthest into Mediterranean; furthest from Gibraltar air base
- d. Bone/Bizerte
 - (1) Closest to Tunis
 - (2) Outside air umbrella
 - (3) Ike dismisses as too risky.
- 3. Deployment: Western Naval TF deployed directly from U.S.
 - a. Troops embarked from Norfolk 23 October.
 - b. Air Group (carrier Ranger, escort carriers Suwannee, Sangamon, Santee, and Chenango embark from Bermuda.
 - c. Rendezvous 28 October
 - d. Two at-sea refuelings enroute to objective area
- 4. Surprise: due to over 1,000 miles of available coastline, Axis unsure of where Allies will land. Cannot defend everywhere; as result, landings in

general only lightly opposed.

5. Effective cooperation between U.S. and British staffs.

F. Tactical considerations

1. Landing craft crews had less than 2 months of training in Chesapeake Bay prior to embarkation.
2. Three Army divisions train with U.S. Marines prior to embarkation.
3. No rehearsals due to short time frame.
4. All landings will take place on flank of objective to lessen chance of resistance. LF will then envelop by land.
5. Due to Army skepticism of NGFS, landings at night for surprise, with no NGFS preparation.
6. Morocco landings
 - a. H-Hour: 0400
 - b. Main landing at Fedala
 - (1) Insufficient landing craft
 - (2) Unexpected currents and inexperience of boat crews hampered execution of landing; 1+ hours behind schedule.
 - (3) By dawn Fedala secured, but major resistance encountered from French naval forces.
 - c. Landing at Port Lyautey: encountered similar problems as Fedala landing.
 - d. Landing at Sofi executed as planned; objective secured.
 - e. Support of Ranger proves invaluable.
 - f. By D+2, U.S. forces in position for final attack on Casablanca when French resistance ceased.
7. Algiers landings
 - a. Ship-to-shore movement confused and behind

schedule

- b. Bad weather and poor training of crews prevented off-loading of many troops and supplies.
- c. As result of Vichy D-Day armistice, port secured without serious losses.

8. Oran landings

- a. Most powerful of three landings
- b. Characterized by smooth ship-to-shore movement and ineffective resistance.
- c. Secured with French cease-fire on 10 November.

G. Technical considerations

- 1. Value of LST proven at Oran.
- 2. Pressing need for big beaching craft - LST, LCT, and LCI
- 3. Higgins Boat - plywood, rampless - inadequate; need steel, diesel-powered, ramped craft

H. Conclusions

- 1. Morison: "As a result of this massive three-pronged amphibious operation, North Africa west of Tunisia was denied to the Axis, valuable airdromes, military, naval and antisubmarine bases were secured, and foundations laid for driving the Germans out of North Africa. The Royal and United States Navies had learned far more about amphibious operations than they ever could have done from the most prolonged training and rehearsal; later assaults in the European theater would have failed but for the lessons learned in Torch" [p. 196].
- 2. From Navy point of view, better to renounce surprise in order to deliver NGFS and land by day - an opinion Army not ready to share yet.
- 3. U.S. forces bloodied; gain invaluable experience.
- 4. Lessons learned
 - a. LC crew training
 - b. Navigation devices for LC

- c. Beach survey and reconnaissance
- d. LC salvage operations
- e. LF commanders communications established ashore, prior to debarkations.
- f. Managing beach traffic/unloading

**NAVAL RESERVE OFFICERS TRAINING CORPS
AMPHIBIOUS WARFARE**

MODULE II, LESSON: 13

HOURS: 1

CASE STUDY: Sicily, 1943

I. Learning Objectives

- A. The student will comprehend/explain the political and strategic factors which influenced the Allied decision to invade Sicily.
- B. The student will comprehend/explain the organization and command relations established for the operation.
- C. The student will comprehend/explain the characteristics and conduct of the landings and subsequent operations ashore.
- D. The student will comprehend/explain technological advancements demonstrated at Sicily.

II. References and Texts

A. Instructor references

- 1. Dupuy and Dupuy, Encyclopedia of Military History (New York: Harper and Row, 1986), pp. 1093-1096.
- 2. Eisenhower, Dwight D., Crusade in Europe (New York: Doubleday, 1948), pp. 159-192.
- 3. Morison, S.E., The Two-Ocean War (New York: Ballantine Books, 1974), pp. 205-221.
- 4. Potter, E.B., Sea Power: A Naval History (Annapolis, MD: Naval Institute Press, 1981), pp. 275-77.

- B. Student texts: Potter, E.B., Sea Power: A Naval History (Annapolis, MD: Naval Institute Press, 1981), pp. 275-77.

III. Instructional Aids

- A. Instructional Aid II-13-A. Map: "Invasion of Sicily," from Dupuy and Dupuy, Encyclopedia of Military History, p. 1095.
- B. Instructional Aid II-13-B. Map: "The Conquest of Sicily," from Churchill, Closing the Ring, p. 25.

- C. Instructional Aid II-13-C. Map: "Allied Operations Against Sicily and Italy," from E.B. Potter, ed., Sea Power, 1st edition (Ingle-wood Cliffs, NJ: Prentiss-Hall, 1960), p. 586. *
- D. Instructional Aid II-13-D. Map: "Sicily 1943," from Morison, The Two-Ocean War, pp. 210-211.
- E. Instructional Aid II-13-E. Map: "Gela (Dime) Force Landings," ibid., pp. 214-15.
- F. Instructional Aid II-13-F. Diagram: Command relationships, ibid., p. 206.

IV. Suggested Methods and Procedures

- A. Method options in recommended order
 - 1. Seminar discussion
 - 2. Lecture and discussion
 - 3. Lecture
- B. Procedural and student activity: Read assignment prior to class and discuss according to the "levels of war" construct.

V. Presentation

- A. General significance
 - 1. This was the largest joint Allied amphibious assault of the war. There were a total of 478,000 troops; 250,000 British and 228,000 U.S. Over 2,500 vessels were used in the operation.
 - 2. The fall of Sicily would eventually bring about the fall of the Fascist power in Italy and support for the German cause.
 - 3. Whoever owned or controlled Sicily would also control the Sicilian Strait which largely effected shipping and passage from the Western Mediterranean to the East.
- B. Factual background
 - 1. Key personalities
 - a. General Eisenhower (Supreme Commander)
 - b. General Sir Harold Alexander (15th Army Group)

- c. General Patton (Commander 7th Army)
- d. Vice Admiral Hewitt (Western Naval TF)
- e. General Montgomery (Commander 8th Army)
- f. Vice Admiral Sir Bertram Ramsay (Eastern Naval TF)
- g. General Guzzoni (Italian 6th Army)
- h. General Hube (6th Army after Guzzoni)

2. Chronology

- a. 14-23 January 1943: Casablanca conference.
- b. 10 July: Amphibious landings begin.
- c. 11-12 July: Axis counterattacks.
- d. 15-23 July: Western Sicily is cleared.
- e. 17 August: Sicily is secured by Allies.
- f. 3 September: British units start moving across the Straits of Messina.

3. Forces

a. Allied

- (1) 250,000 British (8th Army)
- (2) 228,000 U.S. (7th Army)
- (3) Approximately 3,700 planes

b. Axis

- (1) Italian 6th Army (5 coastal divisions, 4 infantry divisions, and 2 German armored divisions - the 15th and the Herman Goering Divisions).
- (2) Later the German 29th Armored Grenadier Division with another division were transported to Sicily for use during the final phase of the campaign.
- (3) Axis totals were estimated at 200,000 (350,000 actual) with approximately 1,600 combat planes in the Mediterranean.

C. Political considerations

1. Churchill considered Italy to be the "soft underbelly" of the Axis which should be attacked before Normandy.
2. Attacking the Italian peninsula fulfilled the Allied promise to open the second front.
3. Sicilian forces made up a large amount of the coastal defense divisions in Sicily. The Sicilian reservists detested the Germans, despised Mussolini and admired the United States, where many of their friends and relatives lived.

D. Strategic considerations

1. The decision to attack Sicily before Normandy was based upon the assumption that if pressure was taken off Axis forces in the Mediterranean, they could be withdrawn from the Italian peninsula and sent to France where they would make the Channel crossing much more difficult.
2. The Sicilian campaign was both a continuation of the North African conflict and a diversion which would permit the Allies to build up their strength for Normandy.
3. Sicily was considered a "stepping stone" necessary for the Allies to take in order to eventually take the Italian boot.
4. Admiral Cunningham wanted landing beaches located within Allied fighter cover. This meant limiting the landing to the beaches closest to Malta (combat radius of Spitfire fighters from Malta).

E. Operational considerations

1. Allies bombed Axis air bases in Sicily, Sardinia, and Italy for one month prior to the amphibious assault.
2. Although Eisenhower was the Supreme Commander of the Italian campaign, the actual planning and execution was the joint responsibility of Generals Montgomery and Patton.

F. Tactical considerations

1. American casualties were 7,319, the British lost 9,353; Axis losses were over 164,000, including some 32,000 Germans.

2. Italians showed little desire to fight. They were caught by surprise, not expecting a landing during stormy weather.
3. Naval gunfire gave "effective support" of the landing. The landings were made without incident. By 12 July, all Allied beachheads were secured and the two armies were ready to proceed inland.
4. On 11 and 12 July, the Italian 6th Army counter-attacked the Allies with German divisions attacking American troops near Gela and Licata. These counterattacks were repulsed after nearly driving the Allies to the sea.
5. Allied airborne landings were disrupted by bad weather and mistaken Allied antiaircraft fire.
6. The German withdrawal (11-17 August) succeeded by evacuating over 100,000 men, 9,800 vehicles, and 50 tanks before the Allies occupied Messina (17 August).

G. Technical considerations

1. Ships were told to hold naval gunfire until surprise was no longer evident, then open up on the coastal defenses.
2. Amphibious landing craft were available in adequate quantity which made the landing of such a large force and its supplies possible. Landing craft included LSTs (Landing Ship, Tank), LCTs (Landing Craft, Tank), and LCIs (Landing Craft, Infantry).
3. Also becoming available were DUKWs (called "ducks") which were amphibious trucks that could haul supplies from ships offshore to inland dumps.
4. The LCVPs (Landing Craft, Vehicle and Personnel) were new and used to carry first waves of infantry from ship to shore.
5. Allied ships, which were threatened by German aircraft launched from the Italian mainland, used new proximity-fused antiaircraft shells to shoot down aircraft or hinder accurate bombing of the shipping. Some Allied aircraft were shot down accidentally.

H. Conclusions

1. In late July, when the fall of Sicily was

impending, the Fascist Grand Council repudiated Mussolini, and the king dismissed him from office and had him imprisoned. Marshal Pietro Badoglio, his successor, announced that Italians would continue to fight with the Germans even though he put out peace feelers to the Anglo-Americans.

2. Patton used his naval shipping to allow several more amphibious insertions on the Sicilian coast in order to route the Axis forces.

**NAVAL RESERVE OFFICERS TRAINING CORPS
AMPHIBIOUS WARFARE**

MODULE II, LESSON: 14

HOUR: 1

CASE STUDY: Salerno, 1943

I. Learning Objectives

- A. The student will comprehend/explain the political and strategic considerations and consequences of the invasion of Italy.
- B. The student will comprehend/explain the key considerations and plans for the Italian campaign.
- C. The student will comprehend/explain the importance of naval gunfire and aviation support in the amphibious operation.
- D. The student will comprehend/explain the characteristics and conduct of the Salerno landing and subsequent operations ashore.

II. References and Texts

A. Instructor references

- 1. Dupuy and Dupuy, Encyclopedia of Military History (New York: Harper & Row, 1986), pp. 1096-1098.
- 2. Eisenhower, Dwight D., Crusade in Europe (New York: Doubleday, 1948), pp. 173-219.
- 3. Morison, S.E., The Two-Ocean War (New York: Ballantine Books, 1974), pp. 292-299.
- 4. Potter, E.B., Sea Power: A Naval History, 2nd ed. (Annapolis, MD: Naval Institute Press, 1981), pp. 277-279.

- B. Student texts: Potter, E.B., Sea Power: A Naval History, 2nd ed. (Annapolis, MD: Naval Institute Press, 1981), pp. 277-279.

III. Instructional Aids

- A. Instructional Aid II-14-A. Map: "Invasion of Italy," from Dupuy and Dupuy, Encyclopedia of Military History, p. 1097.
- B. Instructional Aid II-14-B. Map: "The Invasion of Italy," from Historical Division, War Department,

Salerno: American Operations from the Beaches to the Volturno (Washington: Government Printing Office, 1944), facing p. 1. *

- C. Instructional Aid II-14-C. Map: "The Salerno Plain: D-Day Plans," ibid., facing p. 5. *
- D. Instructional Aid II-14-D. Map: "D-Day Progress," ibid., p. 32. *
- E. Instructional Aid II-14-E. Map: "Bay of Naples and Gulf of Salerno," from Morison, The Two-Ocean War, pp. 294-295.
- F. Instructional Aid II-14-F. Diagram: "Organization of the Fifth Army at Salerno," ibid., p. 5. *

IV. Suggested Methods and Procedures

- A. Method options in recommended order
 - 1. Seminar discussion
 - 2. Lecture and discussion
 - 3. Lecture
- B. Procedural and student activity: Read assignment prior to class and discuss according to the "levels of war" construct.

V. Presentation

- A. General significance
 - 1. This operation drastically shifted German strength away from the Western Front.
 - 2. Forcing the Italian surrender would cause the Axis powers to replace them with German units.
 - 3. Vital airfields in Italy could be seized to further control the Mediterranean.
 - 4. The push north in Italy would create a second front to relieve pressure on Stalin in the east.
- B. Factual background
 - 1. Key personalities
 - a. General Mark Clark (Commander 5th Army)
 - b. General Montgomery (Commander 8th Army)

- c. General Dawling
- d. General Sir McCreery
- e. General Vietinghoff (Initial Axis Commander)
- f. General Kesselring (Commander Axis Corps)
- g. Admiral Cunningham (Commander Allied Naval TF)

2. Chronology

- a. 17 August: Sicily secured by Allies via Operation Husky.
- b. 3 September: Italian surrender signed; Hitler moves 16 German Panzer Divisions into Italy.
- c. 3 September: Elements of Montgomery's 8th Army begin landing at Tarranto and Bari Beaches on southern tip.
- d. 9 September: Clarks' 5th Army lands at Salerno.
- e. 16 September: Kesselring decides to concede Salerno and falls back to Volturno River to set up final defensive line.

3. Forces

a. Allied

- (1) 5th Army consisted of: one U.S. Ranger Div., one British Commando Div., 46th, 56th and 36th U.S. Infantry Divisions, 7th Tank Div., and the 5th Floating Reserve Div.
- (2) 82nd Airborne Div. to arrive later
- (3) Approximately 500 ship armada
- (4) Strategic bombers out of Italy

b. Axis

- (1) 16th Panzer Div. in hills around Salerno Bay, commanded by Vietinghoff. Approximated at 17,000 troops and 100 tanks
- (2) Later Herman Goering and 26th Panzer Div. shifted from Rome to reinforce Vietinghoff.

(3) 29th and 15th Panzer Grenadier Divisions shifted from Rommel's Corps from southern Italy.

(4) Luftwaffe bombers available from nearby airfields outside of Salerno.

C. Political considerations

1. The Allies were still too weak to cross the English Channel (invade France).
2. The Anglo-American Command wanted to appease Stalin's request for a second front.
3. The Sicilian Campaign was a success.
4. After Sicily was captured the Italian King, Emmanuel III, removed Mussolini from power.
5. Field Marshall Badoglio was secretly seeking an armistice with the Allies.
6. Italy wanted protection against German retaliation.

D. Strategic considerations

1. Good beaches for landing craft (steep slope)
2. Moderately sized harbor to allow for supplies
3. Railroads and coastal highways that reached Rome
4. Large airfield outside of city
5. Planes from Sicilian airfields were within range for ground support.
6. Sele River had a treacherous sandbar by its mouth.
7. Germans had immediately disarmed Italian Army in the area and taken over.
8. Germans had expected Allies to choose Salerno as main thrust and were not fooled by Montgomery's diversionary assault through Southern Italy.

E. Operational considerations

1. General Clark and both of his Corps commanders had no amphibious experience prior to Salerno.
2. Both Corps commanders decided to skip the pre-

invasion bombardment in order to obtain tactical surprise.

3. After landing, both sides raced to obtain numerical superiority over the other.

F. Tactical considerations

1. Landing phase
 - a. No surprise
 - b. One Panzer Div. had to defend 30 miles of beach.
2. Reinforcement race (10-13 September)
 - a. 45th Div. (reserve) thrown in
 - b. 82nd Airborne Div.
 - c. 26th Panzer and 29th Panzer Grenadier Divisions
 - d. 15th Panzer Grenadier Div.
3. Counterattack (13-16 September)
 - a. Three Panzer and three Panzer Grenadier Divisions
 - b. Main drive against VI Corps along Sele River
 - c. Push Allies back to their D+1 positions.
4. Kesselring stopped by massive naval gunfire, strategic bombers, and determined Allied ground forces.

G. Technical considerations

1. Germans had over 100 tanks, but no heavy Panzer VI Tiger tanks, whose crews were still training in Germany.
2. Luftwaffe used new radio-controlled glider bombs and rockets (these were available in Sicily, but Miller wanted to keep them a secret).
 - a. They contained 600 lbs. of explosives, 3 1/2 - 8 mile range, and flew at speeds of 570 to 600 mph.
 - b. Very successful: 2 British warships and 1 U.S.

cruiser put out of action.

H. Conclusions

1. Landing at Salerno led to major land campaign.
2. Capturing of Naples caused Germans to retreat to the north.
3. Gustav Line was a major defensive position to defend Rome (astride the Liri, Sangro, Rapido, and Garigliano Rivers) where they held the Allies at bay until spring of 1944.
4. Led to a decision by Eisenhower to make a landing at Anzio in order to cut the enemies communications and threaten the Germans rear.

**NAVAL RESERVE OFFICERS TRAINING CORPS
AMPHIBIOUS WARFARE**

MODULE II, LESSON: 15

HOURS: 1

CASE STUDY: Anzio, 1944

I. Learning Objectives

- A. The student will comprehend/explain the tactical considerations which led to Operation Shingle.
- B. The student will comprehend/explain the planning and conduct of the landing and subsequent operations ashore.
- C. The student will comprehend/explain issues regarding high-level leadership arising at Operation Shingle.
- D. The student will comprehend/explain any similarities between the Anzio operation and the British landing at Gallipoli in World War I.

II. References and Texts

A. Instructor references

- 1. Dupuy and Dupuy, Encyclopedia of Military History (New York: Harper and Row, 1986), pp. 1103-1104.
- 3. Eisenhower, Dwight D., Crusade in Europe (New York: Doubleday, 1948), pp. 217-219.
- 5. Morison, S.E., The Two-Ocean War (New York: Ballantine Books, 1974), pp. 299-304.

B. Student Text: None.

III. Instructional Aids - Maps

- A. "Allied Operations Against Sicily and Italy", from Potter, Sea Power, 1st ed., p. 586 [see Lesson 14 in Resource Manual]. *
- B. "Anzio Situation Map," from Morison, The Two-Ocean War, p. 303.

IV. Suggested Methods and Procedures

- A. Method options in recommended order
 - 1. Seminar discussion
 - 2. Lecture and discussion

3. Lecture

- B. Procedural and student activity: Read assignment prior to class and discuss according to the "levels of war" construct.

V. Presentation

A. General significance

1. Anzio was an attempt to turn the German flank in Southern Italy at the start of 1944. The Allies would eventually occupy Rome, doing exactly what Churchill had proposed... to draw vital troops away from both Russia and the English Channel, giving valuable experience and confidence to Allied commanders, and eventually reducing Nazi morale through subsequent major defeats.
2. Encouraged by the near victory by Axis powers at Salerno, Hitler tried to make the battle for Anzio and Cassino a turning point for Germany... and failed.

B. Factual background

1. Key personalities

- a. General Eisenhower (Supreme Commander)
- b. General Sir Harold Alexander (15th Army Group)
- c. Lieutenant General Mark Clark (Fifth Army)
- d. Major General John P. Lucas (6th Army Corps) - Commander Landing Force
- e. Rear Admiral F. J. Lowry (Commander, TF 81) - Commander Allied TF
- f. Field Marshal Albert Kesserling (German Commander, Italian Theater)

2. Chronology

- a. 22-23 January: Anzio landing
- b. 24-29 January: Establishment of the beachhead
- c. 30 January-1 February: Allied offensive
- d. 3-12 February: Initial German attack

- e. 16-20 February: Major German offensive begins.
- f. 20 February-3 March: VI Corps holds the beachhead.
- g. 23 May: VI Corps joins the allied offensive and begins to break through the beachhead.

3. Forces

a. Allied

(1) U.S. 6th Corps consisted of

- 1 U.S. infantry division
- 1 armored element
- 1 battalion of rangers
- 1 parachute regimental combat team
- 1 British infantry division
- 1 British armored element
- 2 commando units

(2) Naval and air forces

- 126 ships and 2,600 Allied aircraft

b. Axis

(1) Initial German forces at Anzio included elements of the 29th Panzer Div., consisting of only the 2nd Battalion, 71st Panzer Grenadier Regiment, and 3 engineer companies.

(2) By day 16 of the operation, the Germans had committed 61,300 men to "liquidate" the beachhead.

(3) The total force thrown against the beachhead amounted to 10 divisions under Kesselring.

C. Political considerations

- 1. At the Tehran Conference in 1943, Roosevelt and Stalin convinced Churchill to plan for an invasion of Normandy the next year. This decision limited the amount of human and material resources available for the Italian campaign.
- 2. 1943 was generally a year of failure for Hitler. Holding the Allies south of Rome would help repair his wounded ego.

3. A successful beachhead at Anzio would provide a passageway to Rome - an important political, as well as strategic, target.

D. Strategic considerations

1. Before Anzio, Allied and German forces were stalemated along the Gustav Line in the hilly portion of Southern Italy.
2. The decision to attack Anzio was based on the assumption that the Gustav line could be broken by forcing a weakening of the German defensive positions along the line in order to meet the new threat at Anzio.
3. The Anzio landing was a continuation of the Italian conflict meant to soften up German resistance in Russia and in the future Normandy invasion.
4. Anzio provided an excellent location for an advance on Rome, which was 22 miles away.
5. While the Germans realized that they did not have available sufficient forces to prevent an allied landing behind the Gustav Line, they believed that they could contain and then destroy it by hurrying reinforcements into Italy to meet the emergency. (But the 10 divisions hurled at Anzio were finally defeated and withdrew).

E. Operational considerations

1. General Clark's 5th Army was ordered to
 - a. Seize/secure a beachhead near Anzio
 - b. Advance and secure Colli Laziali
 - c. Be prepared to advance on Rome
2. Surprise was to be utilized
3. Foul weather and insufficient time to prepare were among the problems with which Lieutenant General Lucas was faced. Rehearsals had met with only moderate success, especially American night landings.

F. Tactical considerations

1. Allied casualties were 43,000; 7,000 of which were KIA. The Germans had 40,000 casualties, of which 5,000 were KIAs and 4,500 were captured.

2. Many American units suffered horrendous casualties after the drive inland, such as one battalion which lost 650 of its 800 soldiers.
3. The Germans had little prior knowledge of the landing, due to the destruction of their air force and its reconnaissance abilities.
4. American troops had severe morale problems in the drive inland due to the terrible casualties.
5. Naval artillery preparation of the beach was adequate due to the "complete surprise" of the landing.

G. Technical considerations

1. The German forces attempted psychological warfare through the use of propaganda leaflets dropped by artillery shell. These clumsy attempts met with little success.
2. The use of weather forecasts was essential to the timing and success of Allied air attacks.
3. Excellent German tanks became ineffective as they became bogged down in the mud which covered the countryside, and could only operate on roads, which exposed them to Allied fire.
4. Naval rocket barrages did an outstanding job of preparing the Anzio beach for invasion.
5. The Allies used an extremely balanced force of air power, ranging from B-17 flying fortresses to A-36 invaders. Small artillery observation planes were also used.

H. Conclusions

1. Allies break through the Gustav Line reaching and occupying Rome after 4 months of hard fighting.
2. The German backbone in Italy was broken, devastating Nazi morale.
3. Ten Nazi divisions were hurled at the Allies, leaving a much weaker Nazi presence in Russia. The intense concentration of Nazi forces at the Gustav Line drew many needed German units away from Normandy.

**NAVAL RESERVE OFFICERS TRAINING CORPS
AMPHIBIOUS WARFARE**

MODULE II, LESSON: 16

HOURS: 2

CASE STUDY: Normandy, 1944

I. Learning Objectives

- A. The student will comprehend/explain the political concerns of the Allied leaders as the end of the war in Europe approached, and the influence of those concerns on military strategy.
- B. The student will comprehend/explain the continuing strategic considerations of the European war.
- C. The student will comprehend/explain how Overlord utilized the lessons learned in previous amphibious operations.
- D. The student will comprehend/explain the operational considerations influencing decision of where and when to conduct the cross-channel invasion.
- E. The student will comprehend/explain the operational logistical considerations for supporting Overlord.
- F. The student will comprehend/explain German operational and tactical plans for defending against an Allied invasion of France.
- G. The student will comprehend/explain the conduct of the landing and subsequent operations ashore.
- H. The student will comprehend/explain technical innovations which made Overlord possible.

II. References and Texts

A. Instructor references

- 1. Bartlett, M.L., Assault from the Sea (Annapolis, MD: Naval Institute Press, 1983), pp. 308-325.
- 2. Dupuy and Dupuy, Encyclopedia of Military History, 2nd rev. ed. (New York: Harper & Row, 1986), pp. 1104-1109.
- 3. Eisenhower, Dwight D., Crusade in Europe (New York: Doubleday, 1948), pp. 220-265.
- 4. Potter, E.B., Sea Power: A Naval History, 2nd ed.

(Annapolis, MD: Naval Institute Press, 1981), pp. 279-286.

B. Student texts

1. Bartlett, M.L., Assault from the Sea (Annapolis, MD: Naval Institute Press, 1983), pp. 308-325.
2. Potter, E.B., Sea Power: A Naval History, 2nd ed. (Annapolis, MD: Naval Institute Press, 1981), pp. 279-286.

III. Instructional Aids - Maps

- A. Instructional Aid II-16-A. Map: "American and British Strategies in the Mediterranean, Summer 1944," from Potter, Sea Power, 1st ed., p. 607.
- B. Instructional Aid II-16-B. Map: "Distribution of German Divisions, June 6, 1944," ibid., p. 609. *
- C. Instructional Aid II-16-C. Map: "Routes of the Invasion Convoys, Operation Overlord, June 6, 1944," ibid., p. 613. *
- D. Instructional Aid II-16-D. Map: "'Mulberry A,' Omaha Beach," ibid., p. 617. *
- E. Instructional Aid II-16-E. Map: "Invasion and Battle of Normandy," ibid., p. 619. *
- F. Instructional Aid II-16-F. Map: "Invasion of Southern France, August 15, 1944," ibid., p. 621. *
- G. Instructional Aid II-16-G. Map: "The Drive Into Germany," ibid., p. 624. *
- H. Instructional Aid II-16-H. Map: "Operation Overlord," from Dupuy and Dupuy, Encyclopedia of Military History, p. 1105.
- I. Instructional Aid II-16-I. Map: "Breakout and Pursuit," ibid., p. 1107.
- J. Instructional Aid II-16-J. Map: "The Normandy Invasion and Campaign" from Potter, Sea Power: A Naval History, 2nd ed., p. 280.
- K. Instructional Aid II-16-K. Map: "Isolation by Air," from Eisenhower, Crusade in Europe, p. 233.
- L. Instructional Aid II-16-L. Map: "General Strategy of Overlord," ibid., p. 227.

M. Instructional Aid II-16-M. Map: "D-Day Assault",
ibid., p. 255.

IV. Suggested Methods and Procedures

A. Method options in recommended order

1. Seminar discussion
2. Lecture and discussion
3. Lecture

B. Procedural and student activity: Read assignment prior to class and discuss according to "levels of war" construct.

V. Presentation

A. General significance

1. Largest amphibious operation ever undertaken.
2. Overlord represents an operation aimed at ending the war with one move.
3. Numerous technological advancements utilized by the Allies.
4. Fundamentally different than previous amphibious operations undertaken in European theater.
5. Largest use of airborne forces to that time.

B. Factual background

1. Key personalities
 - a. General Eisenhower
 - b. Air Chief Marshall Tedder
 - c. Lieutenant General Morgan
 - d. Admiral Ramsay
 - e. General Montgomery
 - f. Air Marshall Leigh-Mallory
 - g. General Bradley
 - h. General Dempsey

- i. Air Chief Marshall Harris
 - j. General Doolittle
 - k. Field Marshal von Rundstedt
 - l. Field Marshal Rommel
2. Chronology
 - a. 15-25 May: Trident Conference
 - b. February: SHAEF established
 - c. May: Preparations complete
 - d. 6 June: D-day
 - e. 7-18 June: Expansion of beachhead
 - f. 25-31 July: Breakout

C. Political considerations

1. Was cross-channel invasion possible in 1942-43?
(Sledgehammer, Roundup)
2. Churchill looking past war, wants to forestall Soviet move into Balkans, Eastern Europe. Advocates continued Mediterranean strategy.
3. Based on WWI experience, British in general reluctant to make direct assault into western Europe.
4. The course of the war in the East and Soviet advances into Western Europe.

D. Strategic considerations

1. Course of the war on the Eastern Front. Bulk of German Army fighting Soviets. Before the landing at Normandy, USSR had killed 2 million Germans and continues to occupy 212 divisions, thereby contributing directly and significantly to victory in France.
2. Course of the war in Italy and Mediterranean: slow going vs. Germans in Italy
 - a. 15th Allied Army Group (5th and 8th Armies) in Northern Italy occupying 25 more divisions.
 - b. Alexander (15th Allied Army Group) with option

to go into Southern France or Yugoslavia
(Churchill's idea - Trieste).

3. Overlord fundamentally different than any of previous amphibious operations in Europe. Direct assault vice peripheral strategy. Lacks subtlety, strategic uncertainty of previous operations: a blow directly at Germany, designed to end the war.
4. On a scale eventually to dwarf all previous
 - a. Husky initial landings bigger, but Overlord will put 50+ divisions, over 3 million men, into France.
 - b. Logistics alone staggering: 600-700 tons per division, per day (35,000 tons/day).
 - c. Southern England turned into an armed camp.
5. Were Operations Torch, Husky, Avalanche, and Shingle necessary preludes to Overlord? Why or why not? (Important experience?)
6. U.S. plan since 1942. Marshall wants to go in late '42 as promised to Russia. Churchill talks him out of it for variety of reasons; talks him into Operation Torch, later Husky, Avalanche. As late as late-Spring '44, still trying to talk Marshall out of it. Instead wants to go into Yugoslavia (Trieste).
7. What are Churchill's reasons for still insisting on the peripheral campaign? What does he hope to accomplish at Trieste?
 - a. Roosevelt calls them "sideshow".
 - b. Of Shingle, Churchill said: "We hoped to land a wildcat that would tear out the bowels of the Boche. Instead we have stranded a vast beached whale with its tail flopping about in the water." [Dictionary of Military and Naval Quotations, Heinl, p. 12]
 - c. Other Churchill reasons: Political - British control--Overlord will be an American show; WWI experience.
8. Other strategic options
 - a. Go into Norway again and open up a new front there.

b. Go into Southern France.

9. What is strategic objective? Clear guidance?
Yes; Combined Chiefs directed Eisenhower to enter the continent of Europe and, in conjunction with other Allied nations, undertake operations aimed at the heart of Germany and the destruction of her armed forces.

10. What about from German point of view? What is strategic situation?

a. Being rolled back in Russia by overwhelming forces, Hitler making situation worse by insisting on holding everything (loses 6th Army at Stalingrad).

b. Being beaten in Northern Italy

c. Holding on in Norway

d. Awaiting landing in France. Trying to defend entire continent: Festung Europa - ability of amphibious operations to stretch defenders from Adriatic to Norway [Marines and Strategy, Liddell Hart].

e. From any rational view, the war is lost. Why continue to fight?

E. Operational considerations

1. German defensive situation

a. Atlantic Wall from North Sea to Brittany, then south to Spain

(1) Fortified, strong points, gun positions, minefields, obstacles.

(2) Inland areas favoring air drops mined, strewn with obstacles, flooded.

(3) Bocage favors defense.

(4) Defended by 10 Panzer, 15 infantry, and 33 coastal defense divisions.

b. Western High Command: von Rundstedt

c. Immediate invasion area: Rommel with Army Group B (7th, 15th Armies). Four divisions in coastal defense, one infantry div., Cherbourg garrison, three Panzer divisions in reserve.

- d. Hitler insists that landing will take place at Pas de Calais.
 - (1) Keeps 15th Army there.
 - (2) Only he can release Panzer divisions.
 - (3) Brunt of attack will be borne by 7th Army (Colonel General Friedrich Dollman).
 - e. Luftwaffe swept from skies. No navy, but small torpedo boats
 - f. Controversy: Rundstedt vs. Rommel
 - (1) Runstedt: mobile defense - light defenses on beaches, counterattack with strong reserves.
 - (2) Rommel: defend in strength on beaches.
 - (3) Hitler compromises, adopts worst of both plans: beach defenses not strong enough to stop landing; reserves not strong enough to destroy beachhead.
2. Key operational decisions: Where?
- a. Norway, Mediterranean options eliminated. But where in France?
 - b. Pas de Calais
 - (1) Shortest distance. Easiest for shipping, aviation
 - (2) Best beaches
 - (3) But shallow inland
 - (4) Direct route to Germany
 - (5) Ports: Antwerp, Rotterdam, Ostend, Zeebrugge, Calais
 - (6) Patton favors
 - (7) Obvious. Best defended
 - c. Brittany
 - (1) Weaker defenses

- (2) Difficult sea move
- (3) Ports: Brest, Nantes, Bordeaux
- (4) Air cover difficult
- d. Normandy
 - (1) Proximity to air forces in Britain
 - (2) Short water distance
 - (3) Sufficient beaches
 - (4) Beachhead terrain
 - (5) Weaker defenses than Calais
 - (6) Ports: Cherbourg (key), Le Havre, Brest
 - (7) In order to attack toward Germany, must take left turn, exposing southern flank.
- e. Marseille
 - (1) Indirect
 - (2) Difficult move from Britain: have to set up another base in Italy.
 - (3) Good port
 - (4) Narrow zone
 - (5) Good as subsidiary landing site
- f. Actual choice by Morgan before Eisenhower takes over. But restraints: 1 May - 3 divisions. Ike, Montgomery insist on 5 divisions, including 1 west of Carenton.
- 3. D-day: When to land?
 - a. Target date 1 May, with actual choice based on conditions of tide, visibility, weather, availability of equipment.
 - b. Pushed back 1 month to get more LC.
 - c. Also postpone Anvil-Dragon until August
 - d. Can't go much later because need all available campaigning season to secure beachhead. Morgan believed that the crux of the operation

was likely to be the Allied Forces' ability to drive off the German reserves rather than the initial breaking of the coastal crust.

- e. With 1 June as new target date, look for suitable conditions.
 - (1) Moonlit night for paratroopers
 - (2) Cross channel during darkness, arrive before sunrise.
 - (3) 30-90 min of daylight for naval bombardment
 - (4) Tide crucial: must be rising at time of landing so LCs can unload and extract for later waves without getting stranded.
 - (a) But not too high, because need to pick out and reduce underwater obstacles.
 - (b) Low tide infeasible because of reefs, foul ground.
 - (5) Final choice: 1 hour after low tide
 - f. All these conditions could be met only 3 days out of each month; in June: 5th, 6th, and 7th
 - g. Ike picked 5 June, with H-Hour between 0630 and 0750, based on conditions at each beach.
4. Sound campaign plan ashore? Yes - Ike: "It was important that a long-term strategic concept of the operation--of which the amphib assault would merely be the opening phase--should develop early" [Crusade in Europe, p. 228].
5. Dragoon still on, but after Overlord. Churchill wants to cancel. Why or why not?
- a. No longer simultaneous, so Churchill argues it will not act as diversion.
 - b. But threat will still keep Germans in the south.
 - c. Landing will be easier.
 - d. Operations from the south will open another LOC.

- e. Protect southern flank as Normandy force turns east.
 - f. Catch German defenses in "pincer" movement.
6. Operational deception
- a. Convince Germans that the landing will be at Pas de Calais.
 - (1) Hitler already inclined to believe this.
 - (2) Patton, who favors Calais landing, in southeastern England, employing
 - (a) Demonstrations
 - (b) False messages
 - b. OPSEC so effective that a full month after D-day, Hitler still thinks Normandy landing is a diversion. Refuses to send 15th Army (still at Calais) as reinforcements to Normandy.
7. Aviation
- a. Unlike Operations Husky and Avalanche, the Air Force reported directly to General Eisenhower.
 - b. Employed a combined bomber offensive to create progressive disruption of the German military, industrial and economic systems, and the undermining of the morale of the German people to the point where their capacity for armed resistance was fatally weakened.
 - c. In short, all-out attempt to defeat Germany by air attack.
 - d. Targets: construction yards, railroads, aircraft industry, oil plants.
 - e. U.S. attacks by day for precision bombing. British think it too risky; bomb at night.
 - f. Attack on railroads argued against by all but Leigh-Mallory; they think it a waste of bombs. But far more successful than expected.
8. Logistics
- a. Big problem
 - b. Need ports, but Germans will destroy them as

they withdraw.

- c. Even after landing, operations driven by need to seize ports: 21st Army Group attacks along coast to seize Antwerp and Rotterdam.
- d. Mulberries (2), Gooseberries (5). Mountbatten's idea; laughed at, but worked until they could get real ports.
- e. 600-700 tons/day/division = 35,000 tons/day across beaches

F. Tactical considerations

- 1. Five beaches (60-mile front)
 - a. Utah: 26 waves; little resistance; 6 mile beachhead secured
 - b. Omaha: heavy resistance; tanks lost in surf; 1 mile beachhead gained
 - c. Juno: heavy surf delayed landings; light resistance; advanced 4 miles inland
 - d. Sword: similar results
 - e. Gold: similar results
- 2. Use of airborne divisions to protect beachhead
 - a. 82d and 101st divisions seize causeways leading out of beaches (flooded on either side) and bridges at St. Mere-Eglise and Carenton.
 - b. 6th div. between Caen and Cabourg to seize bridges over Orne River and Caen Canal.
 - c. Leigh-Mallory thinks it too dangerous; estimates 80% losses.
 - d. Ike accepts responsibility in writing.
- 3. Ike's objective: Seize a satisfactory and "indestructible" beachhead
- 4. Rehearsal
 - a. Terrain model in secluded part of Southeastern England
 - b. Whole year to prepare

5. Terrain
 - a. Obstacles on the beaches
 - b. Geography of inland areas
 6. Ike convinced of importance of preparatory bombardment, sacrificing tactical surprise.
- G. Technical considerations
1. Flail/Roller tanks to clear minefields utilized by British.
 2. Gooseberries and Mulberries
 3. Huge requirement for equipment: 4,000 amphibious ships and LC, 600 warships, 2,500 bombers, 7,000 fighters
- H. Conclusions
1. Culmination of amphibious operations in ETO.
 2. Reflected lessons of previous amphibious operations.
 3. The success of Overlord ensured the rapid defeat of Germany.
 4. Introduced many technological advancements in amphibious warfare.
 5. The largest amphibious operation ever undertaken.
 6. Multinational cooperation required to overcome strong opponent.
 7. Advance preparations crucial to success
 - a. Neutralization of air, submarine threats
 - b. Provision for adequate numbers of LC
 - c. Sufficient NGFS to batter shore defenses, prior to assault
 - d. Specialized command structure
 - e. OPSEC utilization; surprise and rapid assault

**NAVAL RESERVE OFFICERS TRAINING CORPS
AMPHIBIOUS WARFARE**

MODULE II, LESSON: 17

HOURS: 1-2

CASE STUDY: Pacific Strategy and Guadalcanal

I. Learning Objectives

- A. The student will comprehend/explain the course of the war leading up to American invasion of Guadalcanal.
- B. The student will comprehend/explain Japanese and U.S. strategic planning for the conduct of the Pacific campaign.
- C. The student will comprehend/explain the choice of objectives for Operation Watchtower.
- D. The student will comprehend/explain the role of the amphibious operation in the fulfillment of Allied strategic objectives.
- E. The student will comprehend/explain the conduct of the amphibious operation and subsequent operations ashore.
- F. The student will comprehend/explain the significance and consequences of the U.S. and Japanese contest for sea control during the campaign.

II. References and Texts

A. Instructor references

1. Dupuy and Dupuy, Encyclopedia of Military History, 2nd rev. ed. (New York: Harper & Row, 1986), pp. 1123-1129, 1132-1133, 1140-1143.
2. Dyer, VADM George C., The Amphibians Came to Conquer: The Story of Admiral Richmond Kelly Turner, vol. I (Washington: Headquarters, U.S. Marine Corps, 1991), pp. 229-353.
3. Fuller, J.F.C., A Military History of the Western World, vol. III (New York: Da Capo Press, 1956), pp. 590-599.
4. Isely and Crowl, The U.S. Marines and Amphibious War (Princeton, NJ: Princeton University Press, 1951), pp. 72-165.
5. Millett, Allan R., Semper Fidelis: The History of the United States Marine Corps (New York:

MacMillan, 1980), pp. 344-387.

6. Potter, E.B., Sea Power: A Naval History, 2nd ed. (Annapolis, MD: Naval Institute Press, 1981), pp. 287-310

B. Student resource texts (3-5 textbooks per unit)

1. Isely and Crowl, The U.S. Marines and Amphibious War (Princeton, NJ: Princeton University Press, 1951), pp. 72-165.

2. Millett, Allan R., Semper Fidelis: The History of the United States Marine Corps (New York: MacMillan, 1980), pp. 344-387.

III. Instructional Aids

A. Instructional Aid II-17-A. Map: "The Pacific Areas," from Potter, Sea Power: A Naval History, p. 291.

B. Instructional Aid II-17-B. Map: "Scene of Early Operations in the South and Southwest Pacific Areas," ibid., p. 303.

C. Instructional Aid II-17-C. Map: "South Pacific Theater," from Millett, Semper Fidelis, p. 358.

D. Instructional Aid II-17-D. Map: "Guadalcanal and Florida Islands," from Hough, et al., History of U.S. Marine Corps Operations in World War II, Vol I, Map 13, end pages. *

E. Instructional Aid II-17-E. Map: "October Attacks on the Perimeter," ibid., Map 23. *

F. Instructional Aid II-17-F. Map: "Approach of Task Forces 61 and 62 to Guadalcanal," from John L. Zimmerman, The Guadalcanal Campaign (Washington: Headquarters, U.S. Marine Corps, 1949), p. 24. *

G. Instructional Aid II-17-G. Map: "Landings in the Tulagi Area," from Hough et al., Pearl Harbor to Guadalcanal, Map 15, end pages. *

H. Instructional Aid II-17-H. Map: "Transport Area, Guadalcanal," from VADM George Carroll Dyer, The Amphibians Came to Conquer: The Story of Admiral Richmond Kelly Turner, vol. I, reprint (Washington: Headquarters, U.S. Marine Corps, 1991), p. 335. *

I. Instructional Aid II-17-I. Map: "Initial Dispositions," from Zimmerman, Guadalcanal Campaign, p. 44. *

- J. Instructional Aid II-17-J. Map: "Battle of Guadalcanal," from Dupuy and Dupuy, Encyclopedia of Military History, p. 1142.
- K. Instructional Aid II-17-K. Video: The World at War: Pacific--The Island to Island War (New York: Thames Video Collection, HBO Video, 1982), 52 min. Available at most video stores for students to view at home.
- L. Instructional Aid II-17-L. Video: "V" for Victory: Guadalcanal (New York: Atlas Video, 1991), ISBN 0-945716-14-1, 45 min. For students to view at home.

IV. Suggested Methods and Procedures

- A. Method options in recommended order
 - 1. Seminar discussion
 - 2. Lecture and discussion
 - 3. Lecture
- B. Procedural and student activity: Read assignment prior to class and discuss according to the "levels of war" construct.

V. Presentation

- A. General significance
 - 1. The successful completion of the Guadalcanal operation brought an end to Japanese expansion in the Pacific.
 - 2. Guadalcanal demonstrated the need for sea and air control in the conduct of an amphibious assault.
 - 3. The first use of the new Marine amphibious doctrine
 - 4. Illustrates the differences in the continental campaign of Europe and the maritime campaign in the Pacific.
 - 5. First Allied land offensive in World War II
- B. Factual background
 - 1. Key personalities
 - a. Admiral Nimitz
 - b. Vice Admiral Ghormley

- c. Rear Admiral Fletcher
- d. Rear Admiral Turner
- e. Rear Admiral McCain
- f. General Vandegrift

2. Chronology

- a. 1931: Japan invades Manchuria.
- b. 1931-37: Aggressive policy of expansion in China
- c. 7 July 1937: "China Incident" - Japanese troops in northern China on maneuvers, clash with Chinese troops near Peking. Initiates full-scale invasion. Start of World War II.
- d. 1939: Japanese efforts shift south.
- e. 25 June 1940: Japanese invade Indo-China; U.S. steel embargo.
- f. 7 December 1941: Attack on Pearl Harbor
- g. 8 December: Guam falls
- h. 1 February 1942: Malaya falls
- i. 15 February: Singapore falls
- j. 9 March: Dutch East Indies fall
- k. May: Burma falls
- l. May-June: Japanese advance into the Solomons.
- m. 7-8 May: Battle of Coral Sea
- n. 4-6 June: Battle of Midway
- o. 7 August: 1st Marine Division lands on Guadalcanal.
- p. 9 August: Battle of Savo Island (surface action). Navy departs.
- q. 21 August: Battle of Tenaru River (land action)
- r. 24-25 August: Battle of Eastern Solomons

(carrier action)

- s. 12-14 September: Battle of Bloody Ridge (land action)
 - t. 11-12 October: Battle of Cape Esperance (surface action)
 - u. 23-26 October: Battle of Henderson Field (land action)
 - v. 26 October: Battle of Santa Cruz Islands (carrier action)
 - w. 30 November: Battle of Tassafaronga (surface action)
 - x. 9 February 1943: Guadalcanal secured
- 3. Forces: See table, Potter, Sea Power: A Naval History, p. 307.
 - 4. Losses during campaign
 - a. United States
 - (1) Ground forces: 1,600 KIA, 4,200 WIA
 - (2) Naval losses: 2 carriers, 6 heavy cruisers, 2 light cruisers, 14 destroyers - totaling 126,000 tons
 - b. Japanese
 - (1) Ground forces: 14,000 KIA or MIA, 9,000 died of disease, 1,000 captured
 - (2) Naval losses: 2 battleships, 1 light carrier, 3 heavy cruisers, 1 light cruiser, 11 destroyers, 6 submarines - totaling 135,000 tons

C. Political considerations

- 1. Pacific Theater of lesser importance to the Allies than that of Europe; "Europe first".
- 2. Primary Japanese interest is China. Japanese expansion in Pacific an effort to gain the resources to wage war against China when U.S. embargo begins.
- 3. Threats to Australia and India by Japanese advances

4. Morale is low among Allies as a result of continuing string of Japanese successes in the opening phases of the war.
5. Primary U.S. interest in Pacific is Philippines.

D. Strategic considerations

1. Admiral King argues Allies cannot be completely inactive in Pacific.
2. As result of Versailles Treaty
 - a. Japanese mandated German islands in central Pacific.
 - (1) Marshalls
 - (2) Carolines
 - (3) Palaus
 - (4) Marianas (except Guam)
 - b. Japanese proceed to fortify the islands.
 - c. Gives Japanese control of LOC between U.S. and Philippines.
3. Japanese strategy
 - a. Based on fact that they could not match U.S. production
 - b. Three phases
 - (1) Neutralize U.S. Pacific Fleet with a surprise attack (Pearl Harbor) and seize Southern Resources Area (SRA).
 - (2) Establish impregnable perimeter around SRA.
 - (3) Await and smash U.S. counterattack.
 - c. Offensive to defensive operations shift
 - d. Japanese view conflict with U.S. as limited war: objective is to convince U.S. it is not worth cost to drive Japanese out of Pacific.
 - e. Major error in judgment
 - f. Phase I of strategy so successful and ahead of schedule, Japanese decide to extend expansion:

southern Solomons, Midway, Aleutians, southern New Guinea.

4. Battles of Coral Sea and Midway important in turning tide, interrupting string of Japanese victories.
5. U.S. Pacific strategy
 - a. Based on War Plan Orange developed before war.
 - b. Strategic controversy between MacArthur and King
 - (1) MacArthur proposes moving north into New Guinea to Philippines.
 - (a) Cuts off Japanese forces in the south west Pacific, eliminating access to natural resources, etc.
 - (b) Philippines can provide base for ultimate drive into Japan.
 - (c) Must deal with problem of Rabual.
 - (d) Allies lack naval and air superiority.
 - (e) Will put the limited number of U.S. carriers at risk.
 - (2) Nimitz proposes to move west through central Pacific cutting Japanese LOCs.
 - (a) Most direct plan to attack Japan itself
 - (b) Severs LOC between Japan and SRA.
 - (c) Naval strategy will allow many more operational and tactical options in its execution.
 - (d) Less threat to naval and air assets
 - (e) Solomons must be secured before drive into Marshalls and Gilberts.
 - (f) The plan relies on unproven amphibious doctrine.
 - c. JCS settles on compromise strategy using both offensives in conjunction with each other.

6. U.S. carriers undamaged in Pearl Harbor attack.
7. Marine division in Pacific is trained for amphibious operations.
8. Primary objective is newly constructed airfield on Guadalcanal.

E. Operational considerations

1. In any case, first move must be in Solomons, which flanks either line of operations and threatens LOC between Pearl Harbor and Australia. U.S. to conduct campaign in Solomons-New Ireland-New Britain-New Guinea area to seize Rabaul.
 - a. U.S. constructs bases at Efate and Espirito Santo to block Japanese expansion in area.
 - b. Phase I: Seizure of Santa Cruz, Tulagi, and adjacent islands by Nimitz
 - c. Phase II: Seizure of other Solomon islands plus positions on New Guinea by MacArthur
 - d. Capture of Rabaul and adjacent bases in New Britain and New Ireland by MacArthur
 - e. JCS to govern time, task organization, and command relationships.
2. Each advance no more than 300 miles to allow for land-based air support.
3. Japanese airfield spotted under construction on Guadalcanal adds urgency to operation.
4. Planning difficulties
 - a. Landing initially set for 1 August, but postponed to 7 August at Vandegrift's request.
 - b. Fletcher planned to retire with carriers no later than 11 August, which meant that transport shipping would have to leave shortly thereafter.
 - c. Intelligence regarding enemy forces and terrain almost nonexistent. Maps crude, handdrawn; aerial photos arrived after the landings.
 - d. Shortage of time (1 month to plan) prevented large scale rehearsals.

- e. Transport shipping had to be reloaded in New Zealand to combat loading specifications limited shipping resources.

F. Tactical considerations

- 1. Japanese defenders
 - a. Guadalcanal - 2,200 men
 - b. Tulagi - 1,500 men
- 2. Four simultaneous landings
 - a. 1st and 5th Marines on Guadalcanal
 - b. 1st Raider Battalion on Tulagi
 - c. 1st Paratrooper Battalion on Gavutu-Tanambogo
 - d. 1st Battalion, 2nd Marines to sweep coast of Florida Island
- 3. Main landing at Guadalcanal (TG X-Ray) unopposed; airfield captured by morning of 8 August.
- 4. Landings at Tulagi and Gavutu-Tanambogo (TG Yoke) meet heavy resistance, but ultimately succeed.
- 5. Problems
 - a. Inadequate NGFS and air preparations
 - b. As result of Battle of Savo Island, Fletcher withdraws carriers, followed by transports (only half unloaded).
 - c. Landing force now faces prospect of extended campaign with inadequate supplies.
- 6. Success primarily result of
 - a. Efforts of "Cactus Air Force" operating from Henderson Field
 - b. Efforts by Navy to resupply and support operations ashore
 - c. Disorganized, uncoordinated Japanese effort to retake island

G. Technical considerations

- 1. Logistical problems cause by inadequate beach and

insufficient personnel in shore party. Unloading proceeded very slowly.

2. Use of fast destroyers as a means of resupply and reinforcement; transports unable to accomplish task due to lack of sea control.
3. "Higgins" boats
4. Combat loading and need to move supplies rapidly from ship-to-shore and off the beach.
5. Close air support in support of ground operations
6. Amphibious tractor valuable asset for logistical support, unloading.

H. Conclusions

1. Guadalcanal was the end of the Japanese advance in Pacific and signaled the beginning of the U.S. island-hopping campaign towards Japan.
2. Illustrates the necessity for air and sea control when conducting an amphibious operation.
3. Japanese realize they cannot allow an enemy to get ashore, decide that they will defend other landings at the beach.
4. Guadalcanal begins to illustrate the mobility and flexibility an amphibious campaign offers.
5. Henceforth, Commander Landing Force will be subordinate to Commander Amphibious Task Force only after embarkation and until amphibious operation is disestablished.
6. Emphasized need for amphibious reconnaissance.
7. Need to establish beachhead large enough to support flow of supplies and a shore party large enough to handle movement of those supplies.
8. Landings only the beginning of a long campaign; S.E. Morison: "[O]n the whole the landings at Tulagi and Guadalcanal were very successful. Not the most pessimistic old chief petty officer in the Expeditionary Force could have predicted that it would take twenty-six weeks' hard fighting by Navy, Marine Corps, Army and Air Forces to secure what had been occupied in little more than that number of hours." [History of U.S. Naval Operations in World War II, vol. 5, p. 16].

**NAVAL RESERVE OFFICERS TRAINING CORPS
AMPHIBIOUS WARFARE**

MODULE II, LESSON: 18

HOURS: 1

CASE STUDY: Tarawa, 1943

I. Learning Objectives

- A. The student will comprehend/explain the political and strategic considerations facing the Allies in the Pacific in 1943.
- B. The student will comprehend/explain the considerations behind the decision to begin the Central Pacific Drive in the Gilberts.
- C. The student will comprehend/explain the key operational concerns in planning Operation Galvanic .
- D. The student will comprehend/explain the conduct of the Tarawa landing and subsequent operations ashore.
- E. The student will comprehend/explain technical and technological developments demonstrated at Tarawa.
- F. The student will comprehend/explain the results of Operation Galvanic and their impact on future amphibious operations in the Pacific.

II. References and Texts

A. Instructor references

- 1. Bartlett, M.L., Assault From the Sea (Annapolis, MD: Naval Institute Press, 1983), pp. 210-218.
- 2. Dupuy and Dupuy, Encyclopedia of Military History, 2nd rev. ed. (New York: Harper & Row, 1986), pp. 1162-1163.
- 3. Dyer, VADM George C., The Amphibians Came to Conquer: The Story of Admiral Richmond Kelly Turner (Washington: Headquarters, U.S. Marine Corps, 1991), vol. II, pp. 597-731.
- 4. Isely and Crowl, U.S. Marines and Amphibious War (Princeton, NJ: Princeton University Press, 1951), ch. 6, pp. 192-252.
- 5. Millett, A.R., Semper Fidelis: The History of the United States Marine Corps (New York: MacMillan, 1980), pp. 388-404.

6. Morison, S.E., The Two-Ocean War (New York: Ballantine Books, 1974), pp. 247-257.
7. Potter, E.B., Sea Power: A Naval History, 2nd ed. (Annapolis, MD: Naval Institute Press, 1981), pp. 317-323.

B. Student texts/resource text

1. Bartlett, M.L., Assault From the Sea (Annapolis, MD: Naval Institute Press, 1983), pp. 210-218.
2. Isely and Crowl, U.S. Marines and Amphibious War (Princeton, NJ: Princeton University Press, 1951), ch. 6, pp. 192-252 (student resource text, 3-5 per unit).
3. Potter, E.B., Sea Power: A Naval History, 2nd ed. (Annapolis, MD: Naval Institute Press, 1981), pp. 317-323.

III. Instructional Aids

- A. Instructional Aid II-18-A. Map: "Scene of Battle 1943-1944," from Henry I. Shaw, et al., Central Pacific Drive: History of U.S. Marine Corps Operations in World War II, vol. III (Washington: Headquarters, U.S. Marine Corps, 1966), end pages.
- B. Instructional Aid II-18-B. Map: "Gilbert Islands; Central Pacific Distance Chart," from VADM George Carroll Dyer, The Amphibians Came to Conquer: The Story of Admiral Richmond Kelly Turner, vol. II, reprint (Washington: Headquarters, U.S. Marine Corps, 1991), p. 615. *
- C. Instructional Aid II-18-C. Map: "Betio Island: Showing Main Japanese Defenses," from Shaw, et al., Central Pacific Drive, Map II, end pages. *
- D. Instructional Aid II-18-D. Map: "Landing Plan Red Beaches, Betio Island," from Dyer, The Amphibians Came to Conquer, p. 698. *
- E. Instructional Aid II-18-E. Map: "Betio Island: Landings and Situation 1800, 20 November," from Shaw, et al., Central Pacific Drive, Map III, end pages. *
- F. Instructional Aid II-18-F. Table: "Time Schedule," from Dyer, The Amphibians Came to Conquer, pp. 690-691.
- G. Instructional Aid II-18-G. Video: "V" for Victory: Tarawa and the Island War (New York: Atlas Video,

1991), ISBN 0-945716-18-4, 45 min. Available at many video stores for students to view at home.

IV. Suggested Methods and Procedures

A. Method options in recommended order

1. Seminar discussion
2. Lecture and discussion
3. Lecture

B. Procedural and student activity: Read assignment prior to class and discuss according to the "levels of war" construct.

V. Presentation

A. General significance

1. Legendary battle
2. First true test of amphibious doctrine
3. Beginning of Central Pacific Drive

B. Factual background

1. Key personalities

- a. Admiral Turner (V Amphibious Force)
- b. Major General H. M. Smith (V Army Corps)
- c. Major General Julian Smith (2d Marine Div.)
- d. Major General Ralph Smith (27th Infantry Div.)
- e. Rear Admiral Shibasaki

2. Chronology

- a. January-October 1943: U.S. naval buildup
- b. 13-20 November: Pre-assault bombardment of Gilberts
- c. 20 November: Main landings Tarawa and Makin
- d. 23 November: Makin secured
- e. 24 November: Tarawa secured

3. Forces
 - a. V Army Corps (Smith)
 - (1) TF 53 (Tarawa): Landing Force - 2d Marine Div. (18,600)
 - (2) TF 52 (Makin): Landing Force - 27th Infantry Div.
 - b. Japanese: 4,700 troops
4. Casualties
 - a. U.S.
 - (1) USS Liscome Bay: 643 KIA on 24 November
 - (2) Betio: Of 5,000 put ashore on D-day, 1,500 are casualties. Total casualties: 1,009 KIA, 2,101 WIA
 - b. Japanese: Only 17 taken prisoner
- C. Political considerations
 1. Casablanca conference
 - a. Cross-channel invasion of Europe postponed until 1944.
 - b. U.S. will exploit initiative gained in Pacific in 1942.
 - c. Allies to accept nothing less than "unconditional surrender".
 2. U.S. industrial mobilization/naval buildup exceeds expectations.
- D. Strategic considerations
 1. Beginning of Central Pacific Drive
 2. Strategic objective: Marshall Islands
 - a. Potter: "The Marshalls, under Japanese mandate since World War I, had been closed to foreigners since 1935. In the years of privacy thus afforded, Japan had ample opportunity to fortify and make them as impregnable as natural conditions permitted. Allied intelligence correctly estimated that they contained at least half a dozen air

bases. But no one could be sure ... there were no Allied airfields close enough from which to take them under reconnaissance." [Sea Power, 1st ed., pp. 738-739]

- b. Penetrated Japanese defenses; opened way to Carolines, Marianas
- c. Threatened Japanese SLOCs
- d. Secure strategic outposts

3. Problem: Distant and well fortified. Potter: "To the planners, weighing all the available evidence, it became increasingly obvious that the Central Pacific forces had neither the power nor the experience to go in and take the Marshalls in 1943." [Sea Power, 1st ed., p. 739]

- a. Available troops assigned to
 - (1) Defending bases
 - (2) Aleutian campaign
 - (3) Rabaul campaign

- b. 5th Fleet not yet up to full strength.
- c. U.S. lacked amphibious experience.

4. Marshalls had to be attacked by means of intermediate objectives.

E. Operational considerations

1. Where to land enroute to Marshalls?

- a. Wake Island
 - (1) Had been U.S. possession: political value, good knowledge of island, airfields
 - (2) 2,000 miles from Pearl Harbor, less from Midway
 - (3) 525 miles from Eniwetok (northern Marshalls)
 - (4) Offers line of operations: Midway-Wake-Marcus-Bonins-Okinawa; most direct route to Japan
 - (5) Requires opening new line of operations,

with attendant logistic support, etc.

b. Gilberts

- (1) 1,925 miles from Pearl Harbor
- (2) 700 miles from U.S. base at Funafuti
- (3) Series of atolls
- (4) Poor intelligence
- (5) Made use of existing line of operations
- (6) Protected Samoa, Ellice Island
- (7) Protected, shortened SLOC from Pearl Harbor to Australia

2. Decision to go to Gilberts

- a. Tarawa (Betio): airfield and key enemy defensive position
- b. Makin (Butaritari): airfield and closer to Marshalls
- c. Apemama

3. Deployment

- a. RCT from 27th Infantry Div. (objective: Makin) from Pearl Harbor
- b. 2d Marine Div. (objective: Tarawa) from Wellington, N.Z.
- c. Rehearsals at New Hebrides
- d. One Marine company by submarine (USS Nautilus) for Apemama

4. Deception

- a. Bombed other island groups as well as Gilberts so as not to tip off Japanese.
- b. J.F.C. Fuller: Galvanic "misled the Japanese into a belief that their enemy's intention was to make his main thrust toward the Solomons in support of the Rabaul campaign." [Military History of the Western World, vol. III, p. 597.]

F. Tactical considerations

1. Isely and Crowl: "Tactically, Betio became the textbook for future amphibious landings and assaults" [P. 251].
2. Strictly frontal assault: no room for maneuver
3. Small-unit assaults against pillboxes
4. Japanese spent 1+ years fortifying.
5. Tide unpredictable and of uncertain depth; uncertain if LC can clear the reef.

G. Technical considerations

1. Shaw, et al.: "The most important feature of the assaults upon Betio and Butaritari was the role of the amphibian tractor as an assault craft." [p. 108] Of 125 LVTs used at Tarawa, 90 lost.
 - 35 Sunk by gunfire in deep water
 - 26 Destroyed on reef by gunfire
 - 9 Burned by gunfire hitting gas tanks
 - 2 Mined
 - 10 Destroyed by gunfire on beach
 - 8 Mechanical breakdown
2. Equipment required in support of small-unit actions against pillboxes
 - a. Flame throwers: Recommended 1/squad
 - b. Demolitions: Recommended 1 kit/squad
 - c. Hand grenades: Concussion type
 - d. Armor: More Sherman tanks with 75mm gun needed vice light tank with 37mm gun.
3. NGFS: Destruction vs. neutralization fire
4. Close Air Support (CAS): Poor coordination, communications, and pilot training a factor.
5. Command and Control: USS Maryland poor command ship
 - a. Too many radios, antennae, etc., in tight space interfered with each other.
 - b. Concussion from 16-in. guns knocked out radios.

c. Need a specially designed command ship.

H. Conclusions

1. Shaw, et al.
 - a. "In the flames of Tarawa was tempered the sword that would cut to the heart of the Japanese Pacific empire" [p. 114].
 - b. "By capturing Betio Island, the men of the 2d Marine Division had proven that Marine Corps amphibious doctrine was essentially sound" [p. 104].
2. As result of Galvanic, Allied Air Force gained four new airfields from which to strike the Marshalls.
3. Lack of hydrographic information a critical factor in island campaigns.
4. Neutralization of Japanese air and submarine threat a primary consideration.

**NAVAL RESERVE OFFICERS TRAINING CORPS
AMPHIBIOUS WARFARE**

MODULE II, LESSON: 19

HOURS: 1

CASE STUDY: Marianas, 1944

I. Learning Objectives

- A. The student will comprehend/explain the political significance and consequences of the Marianas campaign.
- B. The student will comprehend/explain the considerations of military strategy facing the Allies and Japan in the Pacific in 1944.
- C. The student will comprehend/explain the key operational factors in planning Operation Forager.
- D. The student will comprehend/explain the conduct of the landings and operations ashore on Saipan, Tinian, and Guam.
- E. The student will comprehend/explain technological developments exhibited during Forager.

II. References and Texts

A. Instructor references

- 1. Bartlett, M.L., Assault From the Sea (Annapolis, MD: Naval Institute Press, 1983), pp. 219-227.
- 2. Dyer, VADM George C., The Amphibians Came to Conquer: The Story of Admiral Richmond Kelly Turner, FMFRP 12-109 (Washington: Headquarters, U.S. Marine Corps), Vol. II, pp. 853-968.
- 3. Isely and Crowl, The U.S. Marines and Amphibious War (Princeton, NJ: Princeton University Press, 1951), pp. 310-371.
- 4. Millett, A.R., Semper Fidelis: The History of the United States Marine Corps (New York: MacMillan, 1980), pp. 404-441.
- 5. Morison, S.E., The Two-Ocean War (New York: Ballantine Books, 1974), pp. 271-277, 289-291.
- 6. Potter, E.B., Sea Power: A Naval History, 2nd ed. (Annapolis, MD: Naval Institute Press, 1981), pp. 327-330.

B. Student texts/resource textbook

1. Bartlett, M.L., Assault From the Sea (Annapolis, MD: Naval Institute Press, 1983), pp. 219-227.
2. Isely and Crowl, The U.S. Marines and Amphibious War (Princeton, NJ: Princeton University Press, 1951), pp. 310-371 (student resource textbook, 3-5 per unit).
3. Potter, E.B., Sea Power: A Naval History, 2nd ed. (Annapolis, MD: Naval Institute Press, 1981), pp. 327-330.

III. Instructional Aids - Maps

- A. Instructional Aid II-19-A. Map: "Saipan Island," from Hoffman, Saipan: The Beginning of the End, p. 5.
- B. Instructional Aid II-19-B. Map: "Japanese Defense Sectors," ibid., p. 12.
- C. Instructional Aid II-19-C. Map: "Plans for Landing," ibid., p. 31.
- D. Instructional Aid II-19-D. Map: "Positions at Close of D-Day," ibid., p. 70.
- E. Instructional Aid II-19-E. Map: "Japanese Counterattack Plan," ibid., p. 14.
- F. Instructional Aid II-19-F. Map: "Saipan: Showing Division Boundaries and Phase Lines," from James R. Stockman, "The Battle for Saipan," Campaign for the Marianas (Washington: Headquarters, U.S. Marine Corps), p. 32.
- G. Instructional Aid II-19-G. Map: "Tinian Operation," from Hoffman, The Seizure of Tinian, inside front cover.
- H. Instructional Aid II-19-H. Map: "Plans for Landing," ibid., p. 24.
- I. Instructional Aid II-19-I. Map: "Tinian: Progress of the Attack, Division Boundaries and Phase Lines," from James R. Stockman, "The Tinian Fight," Campaign for the Marianas, p. 6.
- J. Instructional Aid II-19-J. Map: "Guam: Daily Progress Lines," from Phillips D. Carleton, "The Guam Operation," Campaign for the Marianas, p. 48.
- K. Instructional Aid II-19-K. Presentation - Tinian.

Additional presentation about the Battle of Tinian.

IV. Suggested Methods and Procedures

A. Method options in recommended order

1. Seminar discussion
2. Lecture and discussion
3. Lecture

B. Procedural and Student Activity: Read assignment prior to class and discuss according to the "levels of war" construct.

V. Presentation

A. General significance

1. Most important amphibious operation yet in Pacific
2. Result dooms Japan to defeat
3. Continued improvement of amphibious doctrine
4. "Smith" incident touches off Army-Marine Corps controversy still unresolved

B. Factual background

1. Key personalities

- a. Vice Admiral Turner
- b. Lieutenant General H. M. Smith
- c. Rear Admiral Conolly
- d. Major General Geiger
- e. Major General R. Smith

2. Chronology

- a. 23 February 1944: First U.S. air strikes on Marianas
- b. 12 March: JCS decision to attack Marianas in June
- c. 15 June: Saipan landings
- d. 19 June: 27th Infantry Div. lands

- e. 19-21 June: Battle of Philippine Sea
- f. 24 June: H. M. Smith fires R. Smith due to 27th Division's slow progress
- g. 13 July: Saipan secured
- h. 18 July: Tojo cabinet resigns
- i. 21 July: Guam landings
- j. 25 July: Tinian landings
- k. 2 August: Tinian secured
- l. 10 August: Guam secured

C. Political considerations

- 1. Marianas considered by Japanese part of homeland; capture would have huge psychological effect.
- 2. Guam was a U.S. possession for 40 years until captured by Japanese; significant boost for morale to recapture.

D. Strategic considerations

- 1. As a result of Japanese fleets retreat from Truk to Palaus and accelerated seizure of Marshalls by February '44 vice May, JCS decides to bypass Truk and attack Marianas in June 1944.
- 2. Marianas the heart of Japanese defenses; capture offers multiple options.
 - a. South to Carolines, Truk
 - b. Southwest to Palaus
 - c. West to Philippines
 - d. North to Volcanoes, Bonins
- 3. Threatens Japanese SLOCs to Rabaul, Truk.
- 4. Isolates Carolines.
- 5. Provides air base for long-range air strikes against Japan.
- 6. Large staging area from which future operations can be launched toward Japan and China.

E. Operational considerations

1. R.K. Turner's 5th amphibious operation; nobody better
2. Marianas 1,000 miles from base in Marshalls (Eniwetok); longest amphibious leap yet
3. Command structure: Joint Expeditionary Force (Turner); 530+ ships. V Amphibious Corps (H.M. Smith); 127,000
 - a. Northern Attack Force (Saipan and Tinian)
 - (1) Commander Amphibious TF: Turner
 - (2) Commander Landing Force: H.M. Smith
 - (a) 2d Marine Div.
 - (b) 4th Marine Division
 - (c) 27th Infantry Div.
 - b. Southern Attack Force (Guam)
 - (1) Commander Amphibious TF: Conolly
 - (2) Commander Landing Force: Geiger
 - (a) 3d Marine Div.
 - (b) 1st Provisional Marine Brigade
4. Objectives: Only Southern Marianas of military significance
 - a. Saipan: 72 square miles; northernmost
 - b. Tinian: 50 square miles; 3 miles south of Saipan; best airfields
 - c. Guam: 225 square miles; 100 miles south of Saipan; less valuable as air base due to extra distance; best harbors.
5. Seize Saipan first; isolates Guam from Japanese air support from mainland Japan.
6. Naval victory in Battle of the Philippine Sea ensures sea control, isolates islands, and thereby seals fate of defenders.

7. Guam landing postponed 1 month due to heavy fighting on Saipan

F. Tactical considerations

1. Saipan

- a. Landing force reserve (27th Infantry Div.) conducts feint on northern beaches.
- b. Beaches (all in southwest sector)
 - (1) 2d Marine Div. - Red and Green
 - (2) 4th Marine Div. - Blue and Yellow
- c. 24 LCI gunboats precede assault waves to deliver 40mm fire support.
- d. 8 battalions in the assault in effort to "steamroller" over resistance; 8,000 Marines ashore in 20 minutes. Japanese defenses incomplete (neglect/attrition).
- e. LVTs to continue inland up to a mile before unloading troops, bypassing enemy strongpoints; does not work due to heavy resistance.
- f. Tough fight, takes 3 weeks to secure island (32,000 defenders). Counterattacks broken by machine gun, tanks, artillery, NGFS.
- g. Casualties
 - (1) U.S. - 3,400 KIA/MIA, 13,000 WIA
 - (2) Japanese - 27,000 KIA (including hundreds of civilians who jumped off cliffs), 2,000 POW

2. Tinian

- a. Shore-to-shore operation; not a true amphibious operation. Supported by NGFS, air, and artillery posted on southern Saipan.
- b. Scheme: Main landings at two small beaches on northwest coast and feint near Tinian Town (most likely beaches).
- c. Achieves complete tactical surprise.
- d. Well planned, flawlessly executed.

e. Island secured in 7 days.

f. Casualties

(1) U.S. - 389 KIA, 1,800 WIA

(2) Japanese - 10,000 KIA

3. Guam

a. Commencing 8 July, most systematic, effective air and NGF bombardment yet seen in Pacific

b. Assault wave lands on two beaches, eastern coast; heavy fighting for first 5 days

c. Expecting tough fight, 77th Infantry Div. brought from Hawaii; lands 26 July to reinforce

d. Casualties: 1,435 KIA/MIA, 5,600 WIA

G. Technical considerations

1. Tinian saw first use of napalm.

2. Use of Underwater Demolition Team (UDT) to reconnoiter, clear beaches

3. Marine division includes medium tank battalions vice light tanks.

4. Ten times the earlier allowance of flame throwers (243/div. vice 24)

5. Revised Marine rifle squad (13 men in 4-man FTMs)

6. Improved shore party organization

7. Hospital-equipped LSTs stationed at each beach.

8. LVTA(4)s armed with 75mm howitzers and .50 MGs to lead LVT assault waves.

9. Intensive air and NGFS bombardment. NGFS will not cease until assault waves 300 yards from shore, after which aircraft strafing will continue. Fire support ships only 1,250 yards offshore.

10. DUKWs available in quantity to rapidly deliver artillery and supplies ashore.

11. 64 LSTs in operation

H. Conclusions

1. Forager did not result in any significant lessons learned or changes to amphibious doctrine. Rather, doctrine is now in the fine-tuning stages.
2. By Nov 1944, B-29s operating out of Marianas attacking Japan on daily basis. Ultimately, sorties out of Saipan to reach 1,200/wk. (Enola Gay took off from Tinian)
3. Loss of Marianas results in resignation of Tojo cabinet.
4. Potter: "In terms of sheer magnitude, including the follow-up forces, the cross-channel invasion of France is without rival, but the assault on Saipan nine days later was scarcely less complex, for the Saipan operation required projecting overwhelming power more than three thousand miles westward from Pearl Harbor and a thousand miles from Eniwetok, the most westerly American anchorage in the Central Pacific. Whereas planning for the Normandy invasion had been under way for more than two years, Spruance, Turner, and Holland Smith and their staffs had only three months to plan and organize the expedition against the Marianas." [Sea Power, 1st ed., pp. 760-61]

**NAVAL RESERVE OFFICERS TRAINING CORPS
AMPHIBIOUS WARFARE**

MODULE II, LESSON: 20

HOURS: 1

CASE STUDY: Iwo Jima, 1945

I. Learning Objectives

- A. The student will comprehend/explain the political significance and consequences of the Iwo Jima operation.
- B. The student will comprehend/explain the considerations of military strategy facing the Allies and Japan in the Pacific in 1944-45.
- C. The student will comprehend/explain the key operational factors in planning Operation Detachment.
- D. The student will comprehend/explain the conduct of the landings and subsequent operations ashore.
- E. The student will comprehend/explain the small-unit tactics and techniques employed by Marines and Japanese during the battle ashore.

II. References and Texts

A. Instructor references

- 1. Dupuy and Dupuy, Encyclopedia of Military History, 2nd rev. ed. (New York: Harper & Row, 1986), pp. 1191-1192.
- 2. Dyer, VADM George C., The Amphibians Came to Conquer: The Story of Admiral Richmond Kelly Turner, vol. II, FMFRP 12-109 (Washington: Headquarters, U.S. Marine Corps, 1991), pp. 969-1051.
- 3. Isely and Crowl, The U.S. Marines and Amphibious War (Princeton, NJ: Princeton University Press, 1951), pp. 432-530.
- 4. Morison, S.E., The Two-Ocean War (New York: Ballantine Books, 1974), pp. 434-444.
- 5. Potter, E.B., Sea Power: A Naval History (Annapolis, MD: Naval Institute Press, 1981), pp. 348-349.

B. Student text/resource textbook

1. Isely and Crowl, The U.S. Marines and Amphibious War (Princeton, NJ: Princeton University Press, 1951), pp. 432-530 (student resource textbook, 3-5 per unit).
2. Potter, E.B., Sea Power: A Naval History (Annapolis, MD: Naval Institute Press, 1981), pp. 348-349.

III. Instructional Aids - Maps

- A. Instructional Aid II-20-A. Map: "Iwo Jima: Progress of Battle," from Morison, The Two-Ocean War, p. 439.
- B. Instructional Aid II-20-B. Map: "Nanpo Shoto Group," from Dyer, The Amphibians Came to Conquer, vol. II, p. 988.
- C. Instructional Aid II-20-C. Map: "Iwo Jima (Sulphur) Island," from Bartley, Iwo Jima: Amphibious Epic, Map II, end pages.
- D. Instructional Aid II-20-D. Map: "Japanese Defense Sectors," ibid., p. 10.
- E. Instructional Aid II-20-E. Map: "Naval Gunfire Areas of Responsibility: D-1," ibid., p.46.
- F. Instructional Aid II-20-F. Map: "Landing Plan: Iwo Jima," from Garand and Strobridge, Western Pacific Operations: History of U.S. Marine Corps Operations in World War II, vol. IV, p. 470.
- G. Instructional Aid II-20-G. Map: "Strategic Situation, Central and Western Pacific," ibid., p. 53.
- H. Instructional Aid II-20-H. Map: "VAC Front Lines: D-Day," from Bartley, Iwo Jima: Amphibious Epic, p. 66.
- I. Instructional Aid II-20-I. Map: "Hill 362A," ibid., p. 130.
- J. Instructional Aid II-20-J. Presentation. Additional presentation about the battle exclusively.

IV. Suggested Methods and Procedures

- A. Method options in recommended order
 1. Seminar discussion
 2. Lecture and discussion

3. Lecture

- B. Procedural and student activity: Read assignment prior to class and discuss according to the "levels of war" construct.

V. Presentation. "Among the men who fought on Iwo Jima, uncommon valor was a common virtue." C. W. Nimitz: Pacific Fleet communiqué, 16 March 1945

A. General significance

1. Iwo Jima was the first and only such large scale Marine Corps operation in the Pacific campaign. It involved an entire Marine Amphibious Corps (three divisions in the attack).
2. This battle represented the pinnacle of the amphibious assault in skill and in cost!
3. Nimitz coined the above phrase which immortalized Marine valor to the American public. Seventy-five Medals of Honor were issued for heroism on Iwo Jima. It was a shining example of the courage and esprit de corps characteristic of Marines.
4. Forrestal (Secretary of the Navy) believed that the raising of the flag on Suribachi meant there would be a Marine Corps for the next 500 years

B. Factual background

1. Key personnel

- a. Admiral Spruance (5th Fleet, TF 50)
- b. Vice Admiral Turner (TF51, Joint Expeditionary Forces)
- c. Lieutenant General Smith (Commander, Expeditionary Troops)
- d. Major General Schmidt (Fifth Amphibious Corps)
- e. Admiral Hill (Attack Force Commander)

2. Chronology

- a. October 1944: JCS orders Nimitz to mount the invasion of Iwo Jima; Code named "Detachment".
- b. 11-18 January 1945: 4th and 5th Divisions conduct rehearsals in Hawaii.

- c. 11-13 February: TG 51-52 and 3rd Marine Div. rehearse in the Saipan/Tinian area with UDT, ships, and landing craft; not NGFS.
- d. 19 February: Main landings at Iwo Jima
- e. 23 February: U.S. flag is raised at Suribachi.
- f. 25 March: Iwo Jima is finally secured by the Marines.

C. Political considerations

- 1. America is getting tired of the war, but strongly supporting the effort with men and the industrial backup.
- 2. The continued deterioration of the Japanese inner defense ring is evident; Iwo Jima is another stepping stone to complete the thrust to Japan.
- 3. Japan's will to fight/resist is turning, but many loyal troops, such as those under General Kuribayashi, will fight to the death to protect the homeland.

D. Strategic considerations

- 1. Iwo Jima is needed for its proximity to Japan and the Marianas Islands (approximately 650 miles to each).
- 2. Taking the two airfields would deny the Japanese this forward air base for fighter or attack aircraft.
- 3. This island was the only suitable island in the region to provide an airstrip for U.S. fighter bases (aircraft to escort bombers to Japan).
- 4. Additionally, this would provide a location for crippled bombers to conduct emergency landings after bombing runs.

E. Operational considerations

- 1. Another reason for the selection of Iwo Jima was its favorable beaches for an amphibious assault.
- 2. Except for weather and a few Japanese kamikaze attacks on 21 February, the landing and NGFS were unhindered.
- 3. A new type of warfare was introduced to the

Marines fighting which needed new capabilities
...it was cave warfare.

4. Several months of high altitude B-24 bombing raids were used to slow down the use of the Japanese airfields.
5. Naval air and gunfire destroyed many heavy Japanese guns and many positions close to the landing beach. NGFS sectors of fire were quite improved and refined.

F. Tactical considerations

1. The main tactical objectives were Mt. Suribachi and the two airfields.
2. Intelligence estimated approximately 13,000 Japanese defending the island. Leaders advised not to presume this to be true. There were actually about 21,000 Japanese defenders on the island who had taken about 8 months to establish a defense. Many bunkers were built with concrete emplacements.
3. The island was only 7.5 square miles in size with volcanic ash and many hills, wadis, and tunnels to clear.
4. Japanese defenders had more than 16 miles of tunnels on the island with registered artillery, rocket launchers, and mortars. The indirect fire weapons would use a hide-fire-hide technique.
5. The Japanese commander's guidance was to kill as many Marines as possible and die in place! At times, the Japanese were known to fight with sabers and bamboo spears and even land mines strapped to their bodies.
6. The ship-to-shore movement did not meet serious resistance and forces got ashore rapidly. There was some artillery fire to deal with. "Monstrous mortars" and "Bubbly Wubblies" (8" rockets).
7. 75,000 Marines took 36 days to completely capture the island with 25,851 American casualties (6,821 were killed). Of the 24 infantry battalion commanders, 19 fell. Officers and NCOs went quickly. In the first 18 hours, there were 5,312 casualties meaning nearly a casualty nearly every 50 seconds.
8. A little over 1,000 Japanese remained with nearly 20,000 killed.

G. Technical considerations

1. Detailed planning for medevacs was refined in the face of high corpsmen attrition.
2. Assault platoons effectively used bazookas, flame throwers, demolition (satchel) charges, and grenades to clear the enemy.
3. There was an increased number and use of tanks with flame throwers.
4. Fire support coordination was greatly refined with FSCCs at Corps and Division levels. This provided for close coordination of CAS, NGFS, and artillery. Control of CAS went to air liaison parties, not headquarters.
5. Communications with wire and radio was excellent; Navajo talkers were used.
6. Aerial spotting for artillery was used because of poor ground forward observation.
7. LVTs were helpful to get Marines and supplies to the beach, but not beyond.

H. Conclusions

1. Iwo Jima served to raise the nation's morale and support for the war even though the San Francisco Examiner (the Hearst newspaper chain) criticized Marine tactics. Marines later stormed the office for an official apology.
2. Amphibious assault skill and cost were the highest for any battle in the Pacific campaign.
3. The airstrips gained did, in fact, serve to save several crippled aircraft from the over 2,500 sorties flown over the island later.
4. Where jungle warfare was practiced at Guadalcanal, atoll warfare was practiced at Tarawa, and mobile warfare was practiced at Saipan; cave warfare was practiced on Iwo Jima.

**NAVAL RESERVE OFFICERS TRAINING CORPS
AMPHIBIOUS WARFARE**

MODULE II, LESSON: 21

HOURS: 1

CASE STUDY: Okinawa, 1945

I. Learning Objectives

- A. The student will comprehend/explain the political and strategic considerations, significance, and consequences of the Okinawa campaign.
- B. The student will comprehend/explain the key operational factors in planning the Iwo Jima invasion.
- C. The student will comprehend/explain the conduct of the landings and subsequent operations ashore.
- D. The student will comprehend/explain the small-unit tactics employed by Marines and Japanese during the battle ashore.

II. References and Texts

A. Instructor references

1. Dupuy and Dupuy, Encyclopedia of Military History, 2nd rev. ed. (New York: Harper & Row, 1986), pp. 1192-1195.
2. Dyer, VADM George C., The Amphibians Came to Conquer: The Story of Admiral Richmond Kelly Turner, vol. II, FMFRP 12-109 (Washington: Headquarters, U.S. Marine Corps, 1991), pp. 1053-1111.
3. Isely and Crowl, U.S. Marines and Amphibious War (Princeton, NJ: Princeton University Press, 1951), pp. 531-579.
4. Morison, S.E., The Two-Ocean War (New York: Ballantine Books, 1974), pp. 444-471.
5. Potter, E.B., Sea Power: A Naval History (Annapolis, MD: Naval Institute Press, 1981), pp. 349-350.

B. Student text/resource textbooks

1. Isely and Crowl, U.S. Marines and Amphibious War (Princeton, NJ: Princeton University Press,

1951), pp. 531-579 (student resource textbook, 3-5 per unit).

2. Potter, E.B., Sea Power: A Naval History (Annapolis, MD: Naval Institute Press, 1981), pp. 349-350.

III. Instructional Aids - Maps

- A. Instructional Aid II-21-A. Map: "Okinawa Landings," from Morison, The Two-Ocean War, p. 451.
- B. Instructional Aid II-21-B. Map: "Okinawa Shima," from Nichols and Shaw, Okinawa: Victory in the Pacific, p. 5.
- C. Instructional Aid II-21-C. Map: "Seizure of Kerama Retto," ibid., p. 39.
- D. Instructional Aid II-21-D. Map: "Sketch Map of Japanese Defensive Dispositions," ibid., p. 61.
- E. Instructional Aid II-21-E. Map: "Schematic Sketch of Preferred Troop Tactical Plan: Phase I - Iceberg," ibid., p. 22.
- F. Instructional Aid II-21-F. Map: "Schematic Sketch of Alternate Troop Tactical Plan: Phase I - Iceberg," ibid., p. 24.
- G. Instructional Aid II-21-G. Map: "Landing Plan - 1 April 1945: Hagushi Beaches," ibid., p. 65.
- H. Instructional Aid II-21-H. Map: "Severing the Island: Tenth Army Progress," ibid., p. 75.
- I. Instructional Aid II-21-I. Diagram: "Typical hill-cave defense position as set up by subordinate Japanese unit on Okinawa," from Williams, Marine Corps Gazette, Oct 1945, p. 45.
- J. Instructional Aid II-21-J. Reading: "Jap Tactics on Okinawa," from Williams, Marine Corps Gazette, Oct 1945, p. 43-46.

IV. Suggested Methods and Procedures

- A. Method options in recommended order
 1. Seminar discussion
 2. Lecture and discussion
 3. Lecture

- B. Procedural and student activity: Read assignment prior to class and discuss according to the "levels of war" construct.

V. Presentation

- A. General significance. This was the largest joint amphibious operation of the Pacific theater in World War II. Total troops committed, including the 2d Marine Division, came to 541,866! This includes all services represented. There were 1,213 ships in support of the landing.
- B. Factual background
 - 1. Key personnel
 - a. Admiral Spruance (OIC of entire Ryukyu campaign)
 - b. Vice Admiral Turner (Commander Joint Expeditionary Force)
 - c. Lieutenant General Buckner (Commander Expeditionary Troops)
 - d. Major General Geiger (3d Amphibious Corps)
 - e. Major General Hodge (24th Army Corps)
 - 2. Chronology
 - a. 3 October 1944: JCS direct Admiral Nimitz to invade Ryukyus (Operation Iceberg) two months following Iwo Jima operation.
 - b. 26-31 March 1945: 77th Infantry Division assaults and captures Kerema Retto and Keise Shima.
 - c. 1 April: Tenth Army, comprised of III Amphibious Corps and XXIV Corps, makes unopposed landing on Okinawa; Yonton and Kadena airfields secured.
 - d. 11 April: Heavy Kamikaze attacks mounted against TF 58.
 - e. 22 April: Phase II of Iceberg completed with end of all organized major resistance in northern Okinawa and Ie Shima. Phase I continues.

- f. 25 May: JCS directs the invasion of Japan, Operation Olympic, with a target date of 1 November 1945.
 - g. 18 June: General Buckner killed in action; General Geiger assumes command of the Tenth Army.
 - h. 21 June: Organized resistance ends on Okinawa.
- C. Political considerations. This is hopefully the last island for U.S. troops to take in order for Japan to surrender. If Okinawa is unsuccessful, Operation Olympic is being planned for the invasion of Japan.
- D. Strategic considerations
- 1. The strategic objectives were numerous sites for airfields from which planes of almost any type could easily reach the industrial areas of southern Japan.
 - 2. The indented coastline offered some of the best fleet anchorages in the western Pacific.
 - 3. The size and location of Okinawa would make an excellent staging base for further operations against the Japanese homeland.
 - 4. Okinawa was situated as to permit American naval and air power to control the East China Sea and its adjoining waters, which include approaches to Korea, Manchuria, Formosa, and the North China coast.
 - 5. Strategic bombing is possible from air bases established on Iwo Jima and in the Marianas.
- E. Operational considerations. Adjacent islands to Okinawa (Kerama Retto and Keise Shima) are captured to place supporting artillery and protect the flanks of the landing assault forces.
- F. Tactical considerations
- 1. Okinawa was the largest and most costly amphibious operation in the Pacific campaign. There were 110,000 enemy troops, over 100,000 were killed; 7,830 Japanese planes were lost.
 - 2. Total American battle casualties were over 49,000 (13,000 Marines) of which 12,500 were killed or missing. Thirty-six American ships were sunk and

368 damaged. A total of 763 planes were lost.

3. Although supporting arms helped, the key value to victory on Okinawa was the infantryman working with his supporting tanks.

G. Technical considerations

1. Okinawa proved to be the largest amphibious operation of the Pacific which could be completed only because of superior logistical support. The logistics program was almost twice that of the Marianas campaign.
2. Tanks proved to be the weapon of choice to support the infantry.
3. Cave warfare was once seen again, as on Iwo Jima; blast and burn techniques proved again, successful.

H. Conclusions

1. Okinawa was an amphibious operation of the grandest scale which proved the value of joint operations more than any operation in the Pacific. Army and Marines worked successfully side by side to defeat the Japanese.
2. With the capture and the development of airfields on Okinawa, Army, Navy, and Marine Corps bombers and fighters were brought within easy range of the China coast, Korea, Shikoku, Kysushu, and Honshu which brought the Japanese shipping in these waters to a standstill.

**NAVAL RESERVE OFFICERS TRAINING CORPS
AMPHIBIOUS WARFARE**

MODULE II, LESSON: 22

HOURS: 1

CASE STUDY: Lessons of World War II

I. Learning Objectives

- A. The student will comprehend/explain the significance of amphibious warfare in the outcome of the war.
- B. The student will comprehend/compare and contrast the use of amphibious operations as an element of military strategy in both main theaters, with special regard to the specific strategic characteristics and requirements of each theater.
- C. The student will comprehend/compare and contrast the conduct of amphibious warfare in the two main theaters operationally and tactically.
- D. The student will comprehend/describe technical developments in aviation and NGFS with respect to amphibious operations.
- E. The student will comprehend/describe advancements in specialized amphibious organization and equipment during the war.

II. References and Texts

A. Instructor references

- 1. Bartlett, M.L., Assault From the Sea (Annapolis, MD: Naval Institute Press, 1983), pp. 331-333, 386-395.
- 2. Clifford, K.J., Progress and Purpose: A Developmental History of the United States Marine Corps 1900-1970, pp. 65-71.
- 3. Isely and Crowl, U.S. Marines and Amphibious War (Princeton, NJ: Princeton University Press, 1951), pp. 580-590.
- 4. Millett, A.R., Semper Fidelis: The History of the United States Marine Corps (New York: MacMillan, 1980), pp. 445-452.

B. Student texts/resource textbook

- 1. Bartlett, M.L., Assault From the Sea (Annapolis, MD: Naval Institute Press, 1983), pp. 331-333,

386-395.

2. Clifford, K.J., Progress and Purpose: A Developmental History of the United States Marine Corps 1900-1970, pp. 65-71.
3. Isely and Crowl, U.S. Marines and Amphibious War (Princeton, NJ: Princeton University Press, 1951), pp. 580-590 (student resource textbook, 3-5 per unit).

III. Instructional Aids. None.

IV. Suggested Methods and Procedures

A. Method options

1. Seminar discussion
2. Lecture and discussion
3. Lecture

B. Procedural and student activity. Read assignment prior to class and discuss according to the "levels of war" construct.

V. Presentation

A. General significance

1. The Allies could not have won the war, in either theater, without amphibious warfare.
2. The three most significant military developments during the war:
 - a. Carrier aviation
 - b. Submarine warfare
 - c. Amphibious operations
3. Institutionally important for U.S. Marine Corps. Millett, Semper Fidelis
 - a. "[T]he Marine Corps emerged from World War II with an institutionalized sense of self-importance that affected its highest generals and its greenest privates. The Corps had made a major contribution (perhaps the major contribution) to creating an essential Allied military specialty - the amphibious assault against a hostile shore." [p. 439]

- b. "By V-J Day the ground elements of the FMF were an amphibious assault force without peer, and the Marine divisions had gone through four basic organizational changes to find the right mix of men and weapons for each succeeding campaign." [p. 440]

B. Strategic considerations

1. Europe principally a land war; naval warfare clearly a supporting component. But even so, amphibious warfare was essential for forcibly reentering Europe.
 - a. Unlike in WWI in which Allies maintained foothold in Western Europe, in WWII Allies had been ejected.
 - b. Amphibious landing was but the first phase of a larger land campaign.
 - c. Amphibious operations allowed Allies to open new fronts, envelop enemy strategically, and take pressure off main continental army (Russia).
 - d. Even the Normandy landing and subsequent campaign was a supporting effort; the brunt of the fighting in Europe by far was done by the Russians in the East.
2. Pacific essentially a maritime theater: each new offensive required an amphibious landing. Amphibious operations were the means for assailing the eastern flank of Japanese empire, threatening SLOCs from SRA to Japan.
3. In both theaters, naval/amphibious capability forced Axis to spread out forces while allowing Allies to concentrate where desired. Especially in Pacific, where enemy garrisons could be isolated by Allied naval power, this allowed Allies to bypass enemy forces altogether.
4. Lost opportunities: Were there opportunities for strategic maneuver by amphibious landings open to the allies (or axis for that matter) which were not exploited? Where? How might they have changed the war?
5. In retrospect, what was the wisdom of the allied amphibious offensive through the Mediterranean? Should the allies have made the cross-channel

invasion sooner?

6. What was the wisdom of the allied compromise strategy in the Pacific? Should the allies have chosen one strategy or the other and prosecuted it fully? What other options were available?

C. Operational considerations

1. Importance of air cover

- a. Ike's decisions on where to make landings were based in large part on supporting distance from near airfields; preferred not to move outside own air umbrella.
- b. Started out with same restraints in Pacific, but as carrier air continued to grow in strength and demonstrate capabilities, willing to make longer amphibious "leaps" (e.g., 1,000 miles from Marshalls to Marianas).

2. Importance of sea control

- a. In Pacific, sea control in latter stages of war allowed Allies to isolate objectives. Operational surprise was not as important; permitted long preparatory bombardments.
- b. In Europe, could not isolate by sea. Consequently greater need to achieve operational surprise. Greater emphasis on use of air to interdict enemy reinforcements.

3. Where to land?

- a. In Europe, more coastline meant often much broader choice of where to land; often allowed for less opposition to actual landing (e.g., Torch).
- b. In Pacific, often fewer choices (e.g., no alternative to Iwo Jima). Necessitated assault landings. In Pacific, objective based largely on suitability for airfields.
- c. In addition to range of air cover, landing sites also determined by availability of ports, especially in early phases. More beaching craft (LSTs, etc.) and inventions like Gooseberries/Mulberries lessened this requirement in later phases.

4. Lost opportunities: Were there opportunities for

operational maneuver by amphibious landings open to the allies (or axis for that matter) which were not exploited? Where? How might they have changed the war?

- a. Wisdom of U.S. decision to bypass Carolines, parts of Marshall, for example?
- b. Was Tarawa operation necessary? (Afterwards, H. M. Smith said: "Tarawa was a mistake.")

D. Tactical considerations

1. Surprise and NGFS
 - a. In Europe, Army early on preferred night landings, no NGFS preparation for sake of surprise. By Normandy, had learned lesson.
 - b. In Pacific, Marines favored NGFS preparation, day landings.
2. Tactical schemes of maneuver
 - a. Ike preferred to land some distance from objective where less resistance was expected and envelop by land (e.g., Operation Torch).
 - b. Marines did same where possible (e.g., Operation Watchtower). More often, due to island geography, Marines forced into direct assaults with little option for tactical maneuver (e.g., Tarawa, Iwo Jima).
3. In Europe, the landing was usually conducted as a means to an end: launching the land campaign. In the Pacific, the amphibious assault, by capturing the island, was often an end in itself.
4. There was little use of amphibious capability for tactical envelopment in Europe (Anzio). In the Pacific, MacArthur used amphibious operations frequently to flank enemy positions in New Guinea. Any other opportunities for tactical maneuver by amphibious landing which were not exploited?

E. Technical considerations

1. In general, amphibious techniques and technology come into own in WWII.
2. Ship-to-shore movement, beach organization, shore party operations down to a science.

3. NGFS and CAS developed to high level of effectiveness by end of war.
4. Beach reconnaissance, demolition of surf obstacles developed by UDTs.
5. Specialized amphibious equipment produced en masse
 - a. LVTs in several different versions, armored and armed
 - b. LSTs (including hospital variant)
 - c. LCIs (used mostly as gunboats)
 - d. Amphibious command ships
 - e. DUKWs
6. Infantry equipment and techniques for assaulting fortified beaches at small-unit level
 - a. Flame throwers
 - b. Grenades
 - c. Tank-infantry operations
 - d. Focus on squad operations (13-man squad)
7. Continued evolution of amphibious doctrine (command relationships, planning steps, etc.) based on pre-war developments.

**NAVAL RESERVE OFFICERS TRAINING CORPS
AMPHIBIOUS WARFARE**

MODULE II, LESSON: 23

HOURS: 2

CASE STUDY: Korean War, Inchon, 1950

I. Learning Objectives

- A. The student will comprehend/explain the institutional struggles of the U.S. Marine Corps during Defense reorganization after World War II.
- B. The student will comprehend/explain the Marine Corps Reserve and its mobilization for the Korean War.
- C. The student will comprehend/explain the events from the beginning of the North Korean invasion to the establishment of the Pusan perimeter.
- D. The student will comprehend/explain considerations behind General MacArthur's decision to conduct an amphibious landing at Inchon.
- E. The student will comprehend/explain the planning for the Inchon landing.
- F. The student will comprehend/explain the salient considerations in the conduct of the operation.

II. References and Texts

A. Instructor references

- 1. Bartlett, M.L., Assault from the Sea (Annapolis, MD: Naval Institute Press, 1983), pp. 337-353.
- 2. Cagle, Malcolm W., "Inchon--The Analysis of a Gamble," U.S. Naval Institute Proceedings, Jan. 1954, pp. 47-51 (Instructional Aid II-23-A).
- 3. Dupuy and Dupuy, Encyclopedia of Military History, 2nd rev. ed. (New York: Harper & Row, 1986), pp. 1199-1204, 1240-1246.
- 4. Heinl, R.D., Victory at High Tide: The Inchon-Seoul Campaign (Annapolis, MD: Nautical & Aviation Publishing Co., 1979).
- 5. Millett, Allan R., Semper Fidelis: The History of the United States Marine Corps (New York: MacMillan, 1980), pp. 475-517.
- 6. Potter, E.B., Sea Power: A Naval History, 2nd ed.

(Annapolis, MD: Naval Institute Press, 1981), pp. 363-369.

B. Student texts/resource textbook

1. Bartlett, M.L., Assault from the Sea (Annapolis, MD: Naval Institute Press, 1983), pp. 337-353.
2. Cagle, Malcolm W., "Inchon--The Analysis of a Gamble," U.S. Naval Institute Proceedings, Jan. 1954, pp. 47-51 (Instructional Aid II-23-A).
3. Millett, Allan R., Semper Fidelis: The History of the United States Marine Corps (New York: MacMillan, 1980), pp. 475-517 (student resource textbook - 3-5 per unit).

III. Instructional Aids

- A. Instructional Aid II-23-A. Reading: Cagle, Malcolm W., "Inchon--The Analysis of a Gamble," U.S. Naval Institute Proceedings, Jan. 1954, pp. 47-51.
- B. Instructional Aid II-23-B. Handout: "Korean War, 1-Page Summary," Source unknown.
- C. Instructional Aid II-23-C. Map: "Korea," from Potter, Sea Power, 2nd ed., p. 364
- D. Instructional Aid II-23-D. Map: "The Approaches to Inchon," ibid., p. 366.
- E. Instructional Aid II-23-E. Map: "United Nations Defensive," from Dupuy and Dupuy, Encyclopedia, p. 1241.
- F. Instructional Aid II-23-F. Map: Instructional Aid II-23-A. Map: "United Nations Offensive," ibid., p. 1243.
- G. Instructional Aid II-23-G. Map: "Korea: August, 1950," from Heinl, Victory At High Tide, inside front cover.
- H. Instructional Aid II-23-H. Map: "The Inchon Approaches," ibid.
- I. Instructional Aid II-23-I. Map: "The Inchon Assault," ibid., inside back cover.
- J. Instructional Aid II-23-J. Map: "Seizure of Wolmi Do," ibid., p. 91.
- K. Instructional Aid II-23-K. Map: "Red Beach Assault,"

ibid., p. 101.

- L. Instructional Aid II-23-L. Map: "Blue Beach Assault," ibid., p. 111.
- M. Instructional Aid II-23-M. Map: "X Corps Scheme of Maneuver," ibid., p. 152.
- N. Instructional Aid II-23-N. Diagram: "Tidal Diagram," ibid., p. 26.
- O. Instructional Aid II-23-O. Diagram: "Major Forces and Command Relations," ibid., p. 53.

IV. Suggested Methods and Procedures

A. Method options in recommended order

1. Seminar discussion
2. Lecture and discussion
3. Lecture

B. Procedural and student activity: Read assignment prior to class and discuss according to the "levels of war" construct.

V. Presentation

A. General significance

1. Classic example of an amphibious envelopment.
2. Highwater mark of amphibious execution.
3. Illustrates the capabilities of the Marine Corps Reserve.
4. Shows the benefits of aggressive action once ashore.
5. To complete the Inchon-Seoul campaign, the USMC in less than 60 days assembled a wartime division, moved it to the Amphibious Objective Area (AOA), made an assault landing under adverse conditions, and seized a communication center 30 miles inland.

B. Factual background

1. Key personalities
 - a. President Truman

- b. General MacArthur (CINC)
- c. Admiral Sherman (CNO)
- d. General Almond (X Corps)
- e. Rear Admiral Doyle (Commander Amphibious TF)
- f. Major General O. P. Smith (1st Marine Division)

2. Chronology

- a. 25 June 1950: North Korea attacks and overwhelms Republic of Korea (ROK) forces. USSR boycotts U.N. Security Council emergency session. Joint U.N. force established. President Truman authorizes air, naval, and ground support for ROK.
- b. 28 June: Reds enter Seoul.
- c. 7 July: MacArthur named CINC U.N. Command.
- d. 5 August: Pusan perimeter
- e. 20 August: JCS approves Operation Chromite.
- f. 15 September: Inchon landing
- g. 26 September: Seoul recaptured.
- h. 1 October: Advance to Yalu begins.

3. Forces

- a. X Corps (71,000)
 - (1) 1st Marine Div. (with four battalions of ROK Marines)
 - (2) 7th U.S. Infantry Div. (with 5,000 ROK troops)
- b. 230 ships

C. Policy considerations

- 1. Korea was the focal point of the Strategic Triangle formed by China, Russia, and Japan. Yalta conference concessions stipulated the 38th parallel as the dividing line between Soviet and American occupation troops in Korea. An artificial boundary with no natural or political

rationale. The Soviet Union refused any initiative for reunification.

2. USMC fighting for existence in DOD reorganization.
 - a. General Bradley, Chairman JCS, 1949, predicted that large-scale amphibious operations would never occur again.
 - b. Secretary of Defense Louis Johnson in 1949, believed there was no reason for having a Navy and Marine Corps. General Bradley had told him that amphibious operations were a thing of the past. He thought that there would never be any more amphibious operations, which would do away with the Marine Corps. He also felt that the Air Force could do anything the Navy could do, so that would do away with the Navy.
 - c. President Truman stated that when Roosevelt was in the White House it resembled a wardroom, and that as long as he was President, the admiral would never get in again.
 - d. Cutbacks
 - (1) Amphibious ships: 610 in 1945; 91 in 1949
 - (2) FMF: 35,000 in 1948; 23,000 by 1949; only 6 infantry battalions planned by 1950
3. Reserves mobilized, triples strength of the Marine Corps.
4. U.S. policy of "containment"
5. Proxy struggle between U.S. and USSR

D. Strategic considerations

1. North Korean objective to wage blitzkrieg, reunify Korea by force before U.S. and ROK can react and present West with fait accompli.
2. U.S. forces unprepared and ill equipped, only barely able to conduct delaying action.
3. Imperative to relieve pressure on Pusan perimeter, or Korea will fall.
4. West coast of Korea contains main lines of communication and resupply to North Korea People's Army forces around Pusan. Inchon key hub and chokepoint along these LOCs.

5. MacArthur's two-prong plan to sever enemy LOC with amphibious assault by X Corps while 8th Army simultaneously attacks north from Pusan.

E. Operational consideration

1. Amphibious envelopment

- a. Advantages

- (1) Relieve pressure on Pusan
 - (2) Cut off enemy forces
 - (3) Daring; possibility of major victory

- b. Disadvantages

- (1) Lack of troops trained in amphibious operations
 - (2) Cannot spare troops from Pusan defenses
 - (3) Risky; invites decisive defeat

2. Why Inchon? Strategically and operationally very advantageous, but tactically very difficult--some believe impossible.

- a. Advantages

- (1) Proximity to Seoul: recapture capital.
 - (2) Sever enemy LOC.
 - (3) Proximity to Kimpo airfield
 - (4) Surprise, daring - psychological impact on enemy forces
 - (5) Force Reds to fight on two fronts.
 - (6) Intelligence indicates light resistance.
 - (7) Good port facilities would support a large force.
 - (8) MacArthur compared Inchon to Wolfe's capture of Quebec--considered impossible--in 1759: "Like Montcalm, the North Koreans would regard an Inchon landing as impossible. Like Wolfe, I could take them by surprise" [Heinl, p. 41].

- (9) Good rail and road connections to interior
- b. Disadvantages: Distant from Pusan - mutual support difficult; risks piecemeal defeat of both forces.
- c. When?
 - (1) Tide high enough only twice a day, 5 days each lunar month
 - (2) Had to be 15 or 16 September or delayed a full month which approached bitter cold weather.

3. Other options

- a. Kunsan: Best landing site, but according to General Wright, MacArthur's G-3: "really had little to offer".
- b. Pyongyang: Too deep in enemy territory and too close to Manchuria.
- c. Posun-Myong, south of Incheon: Less risky but less to gain.
- d. Chumunjin, east coast

4. Extensive intelligence gathered before landing; Japanese maps reprinted, aerial photos obtained, South Koreans interrogated, and a Navy lieutenant posted on coastal island to make observations.

F. Tactical considerations

- 1. Incheon an "impossible" tactical problem
 - a. Difficult approaches
 - b. Tides a major problem - 30-ft range. During favorable times of month, tides high enough only two short periods each day, early morning and evening.
 - c. No beaches; assault forces must scale sea wall. Good cover for defenders.
 - d. Incheon protected by fortified island Wolmi Do, minefields.
 - e. General Almond: Incheon "the worst possible place we could bring in an amphibious assault"

- f. Admiral Doyle, CATF: "We drew up a list of every natural and geographic handicap--and Inchon had 'em all".
 - (1) Admiral Sherman, CNO, replied: "I wouldn't hesitate to take a ship up there".
 - (2) To which MacArthur responded: "Spoken like a true Farragut!" [Bartlett, p. 346]

- 2. Extensive planning of scheme of maneuver ashore
 - a. One Battalion Landing Team (BLT) to secure Wolmi Do in a.m.
 - b. Two Regimental Landing Teams (RLTs) land north (Red) and south (Blue) of city in p.m.
 - c. 1st Marine Div. to push inland immediately, seize Kimpo and Seoul in order to sever enemy LOC. ROK Marines follow to mop up.
- 3. Stiff city fighting, but North Korean forces too few
- 4. Inchon isolated by air/NGF support, allowing 1st Marine Div. to come ashore against only limited resistance.
- 5. By end of D-day
 - a. 13,000 troops landed.
 - b. 19 transports/cargo ships, 8 LSTs landed on schedule and unload.
 - c. Both assault regiments had seized objectives.
 - d. 1st Marine Div. casualties during assault: 21 KIA, 186 WIA

G. Technical considerations

- 1. Landing thoroughly organized.
- 2. Marines used craft and equipment salvaged from Marine and Army operations in the Pacific during WWII.
- 3. Scaling ladder, demolitions used to breach seawalls.

4. Air/NGF support coordination very efficient.
5. Landing ships brought in during high tide, beached during low tide.

H. Different Amphibious Operations:

1. Amphibious raid on Wolmi-Do Island on the morning of 15 September 1950, in support of the amphibious assault on Inchon. As stated above, one Battalion Landing Team secured Wolmi-Do Island in the morning before the main Inchon landing.
2. Amphibious assault on the port city of Inchon on 15 September 1950, using amphibious operations to maneuver around the strength of the enemy at the Pusan perimeter and strike then enemy in a vulnerability.
3. Amphibious assault at Wonson on 20 October 1950 was only a moderately opposed landing. Wonson is a port city on the Eastern coast of North Korea. This was using amphibious operations as a form of maneuver as the U.S. forces pressed their offense north following the success of the Inchon landings.
4. Amphibious withdrawal out of Hungnam, a port city about 50 miles north of Wonson, on 11 December 1950. As the U.S. forces pressed north, the Chinese army attacked across the Yalu River (Manchuria/N. Korean border) into North Korea. Eight Chinese Divisions surrounded the 1st Marine Division at the Chosin Reservoir (the "frozen" Chosin) on 6 December 1950. The 1st Marine Division was forced to attack in a new direction, as General O.P. Smith stated, "Retreat, Hell, we're just attacking in another direction." The 1st Marine Division attacked south to the port city of Hungnam where they (as part of X Corps) conducted an amphibious withdrawal.

I. Conclusions

1. Success due to effective doctrine and planning and aggressiveness of Marines ashore.
2. Major General O. P. Smith, 1st Marine Div., believed that the reason it looked simple was that professionals did it.
3. Excellent coordination of air/NGF support allowed resistance to be destroyed rapidly.

4. The Marine Corps' ability to mobilize and equip large numbers of reserves in short time made the operation possible.
5. Tribute to genius of MacArthur.
6. No assault should be jeopardized by lack of preparations or necessity of speed.
7. Site and timing of assault should be joint USN/USMC decision.
8. Basic premise: Any beach can be seized by properly trained landing forces, provided first it can be isolated by air power, neutralized by sea power and surprise achieved.

**NAVAL RESERVE OFFICERS TRAINING CORPS
AMPHIBIOUS WARFARE**

MODULE II, LESSON: 24

HOURS: 1

CASE STUDY: Vietnam, Operation Starlight, 1965

I. Learning Objectives

- A. The student will comprehend/explain the events and circumstances surrounding the commitment of United States ground forces in Vietnam.
- B. The student will comprehend/explain the political and strategic situation facing United States forces in Vietnam.
- C. The student will comprehend/explain the use of heliborne troops in coordination with an amphibious landing.
- D. The student will comprehend/explain the tactics employed by the Viet Cong.
- E. The student will comprehend/explain the importance of doctrine in the planning and conduct of an amphibious operation.

II. References and Texts

A. Instructor references

- 1. Dupuy and Dupuy, Encyclopedia of Military History 2nd rev. ed. (New York: Harper & Row, 1986), pp. 1209-1213.
- 2. Hilgartner, LtCol. P.L., "Amphibious Doctrine in Vietnam," Marine Corps Gazette, January 1969, pp. 28-31 (Instructional Aid II-24-A).
- 4. Millett, Allan, Semper Fidelis: The History of the United States Marine Corps (New York: MacMillan, 1980), pp. 565-577.
- 5. Peatross, O.F., "Application of Doctrine: Victory at Van Tuong Village," Naval Review 1967 (Annapolis, MD: Naval Institute Press, 1966), pp. 3-13 (Instructional Aid II-24-B).
- 6. Shulimson, Jack and Maj Charles M. Johnson, USMC, "Starlite: The First Big Battle," U.S. Marines in Vietnam: The Landing and the Buildup, 1965 (Washington: History and Museums Division, Headquarters, U.S. Marine Corps, 1978), pp. 69-83.*

B. Student texts

1. Peatross, O.F., "Application of Doctrine: Victory at Van Tuong Village," Naval Review 1967 (Annapolis, MD: Naval Institute Press, 1966), pp. 2-13 (Instructional Aid II-24-B).
2. Shulimson, Jack and Maj Charles M. Johnson, USMC, "Starlite: The First Big Battle," U.S. Marines in Vietnam: The Landing and the Buildup, 1965 (Washington: History and Museums Division, Headquarters, U.S. Marine Corps, 1978), pp. 69-83 (Instructional Aid II-24-C).

III. Instructional Aids

- A. Instructional Aid II-24-A. Reading: Hilgartner, LtCol. P.L., "Amphibious Doctrine in Vietnam," Marine Corps Gazette, January 1969, pp. 28-31. *
- B. Instructional Aid II-24-B. Reading: Peatross, O.F., "Application of Doctrine: Victory at Van Tuong Village," Naval Review 1967 (Annapolis, MD: Naval Institute Press, 1966), pp. 2-13. *
- C. Instructional Aid II-24-C. Reading: Shulimson, Jack and Maj Charles M. Johnson, USMC, "Starlite: The First Big Battle," U.S. Marines in Vietnam: The Landing and the Buildup, 1965 (Washington: History and Museums Division, Headquarters, U.S. Marine Corps, 1978), pp. 69-83. *
- D. Instructional Aid II-24-D. Map: "Operation Starlite," from Naval Review 1967 (Annapolis, MD: Naval Institute Press, 1966), facing p. 3. *
- E. Instructional Aid II-24-E. Map: "Operation Starlite, 18-19 August 1965", from Shulimson and Johnson, U.S. Marines in Vietnam: The Landing and the Buildup, 1965, p. 74. *
- F. Instructional Aid II-24-F. Map: "Operation Starlite, H-Hour on D-Day," from Naval Review 1967 (Annapolis, MD: Naval Institute Press, 1966), facing p. 3. *
- G. Instructional Aid II-24-G. Map: "Operation Starlite, Noon on D-Day," ibid., p. 11. *

IV. Suggested Methods and Procedures

- A. Method options in recommended order
 1. Seminar discussion

2. Lecture and discussion
 3. Lecture
- B. Procedural and student activity: Read assignment prior to class and discuss according to the "levels of war" construct.
- V. Presentation
- A. General significance
1. First major U.S. offensive operation in Vietnam; first important U.S. tactical victory.
 2. Entire operation conceived, planned, and launched within 3 days.
 3. Use of heliborne ship-to-shore assault in a combat environment.
 4. Attempt at envelopment using ground, air, and amphibious operations in combination.
 5. The significance of planning, intelligence, and doctrine in an amphibious operation.
- B. Factual background
1. Key personalities
 - a. General Walt (III Marine Amphibious Force (MAF))
 - b. Admiral Sharp (Commander Amphibious TF)
 - c. Colonel Peatross (7th Marines)
 - d. Lieutenant Colonel Fisher (2/4)
 - e. Lieutenant Colonel Muir (3/3)
 - f. Lieutenant Colonel Kelley
 2. Forces
 - a. Amphibious Squadron (PHIBRON) 7 (Captain McKinney)
 - b. 7th Marines (Colonel Peatross)
 - (1) 2/4 (Lieutenant Colonel Fisher)

- (2) 3/3 (Lieutenant Colonel Muir)
- c. Reserve afloat: Special Landing Force 3/7
(Lieutenant Colonel Bodley)
- d. Fire support ships: USS Orleck, USS Prichett,
USS Galveston
- e. Air support: Marine Air Group (MAG) 11, MAG-12
- f. Vietcong (VC): 1st VC Regiment (1,500)
 - (1) 60th Battalion
 - (2) 80th Battalion
 - (3) 52d VC Company
 - (4) Co., 45th Weapons Battalion

3. Chronology

- a. 7 February 1965: VC attack on U.S. support installations near Pleiku Air Base. In response, U.S. begins air war.
- b. 8 March: First U.S. ground combat unit, 9th Marine Amphibious Brigade (MAB), arrives at Danang.
- c. 6 May: Letter of Instruction (LOI) from General Westmoreland restricts III MAF to reserve/reaction missions in support of Army of the Republic of Vietnam (ARVN).
- d. July: Intelligence reports VC buildup (1st VC Regiment) and operations in southern I Corps, indicating likely attack on U.S. enclave at Chu Lai.
- e. 30 July: General Westmoreland instructs General Walt to undertake offensive operations in I Corps.
- f. 8 August: RLT-7 embarks for Chu Lai.
- g. 14 August: RLT-7 arrives Chu Lai.
- h. 15 August: Intelligence locates 1st VC Regiment at Van Tuong Village, 12 miles south of Chu Lai.
- i. 16 August: Units at Chu Lai alerted.

- j. 17 August: Co. M leaves Chu Lai to establish blocking position.
- k. 18 August: Main assault
- l. 19 August: Area around Landing Zone (LZ) Blue secured.
- m. 20 August: Operation begins final sweep.
- n. 24 August: Operation terminated.

4. Losses

- a. U.S. - 45 KIA, 203 WIA
- b. VC - 645 confirmed KIA, 1,000 estimated

C. Political considerations

- 1. U.S. to support democratic RVN from Communist aggression after defeat and withdrawal of French.
- 2. U.S. increases commitment of troops, but intends to minimize combat operations. Restraints on military operations (6 May LOI).
- 3. Morale factor if the U.S. suffers a serious loss to the VC, such as the loss of Chu Lai.

D. Strategic considerations

- 1. Limitations on Marine Corps manpower in the region.
- 2. Massing of VC forces (1st VC Regiment) in the region surrounding Chu Lai indicates attack imminent.
- 3. General Westmoreland orders operations to destroy VC forces in region.

E. Operational considerations

- 1. III MAF options
 - a. Await and prepare for VC attack on Chu Lai.
 - b. Spoiling attack: requires additional forces to defend Chu Lai.
- 2. Arrival of 7th Marines on PHIBRON 7 ships provides:
 - a. Needed additional forces

- b. Shipping which allows for amphibious option in conjunction with ground attack
- 3. Benefits of amphibious option
 - a. Allows attack from multiple directions.
 - b. Amphibious landing allows all the heavy equipment to be brought into the engagement.
 - c. Logistical support easier and more secure over the beach as well as secure at sea.
 - d. Chance for surprise
 - e. Avoids the difficulties in moving overland on difficult terrain.
 - f. Improved operational mobility by sea.
- 4. Intelligence
 - a. Beach reconnaissance done by UDTs in May when Chu Lai base was established identifies two possible locations.
 - (1) Northern (Nho Na Bay): Good beach, but location poor for cooperation with the heliborne assault.
 - (2) Southern (vicinity: An Cuong Village): Good beach; location beneficial for the overall assault plan; allows for cutting off enemy escape to south.
 - b. Personal helicopter reconnaissance by Colonel Peatross, battalion commanders.
- 5. Availability of necessary ships and helicopters for assault forces.
- 6. Command relations: The various individuals had worked together in past training exercises.
- 7. Surprise
 - a. Immediate departure of PHIBRON 7 ships after disembarking 7th Marines did not arouse enemy suspicion.
 - b. Ships head east over horizon before turning south toward objective area.

F. Tactical considerations

1. Terrain in the region
 - a. Flat, few wooded knolls
 - b. Many streams
 - c. Many hamlets surrounded by rice paddies.
 - d. Little to no infrastructure besides river systems
2. VC tactics
3. Use of helicopters in assaults and as weapons platforms
4. Three-prong scheme of maneuver to trap enemy against coast; vicinity of Van Tuong village
 - a. 3/3 by amphibious landing to south
 - b. 2/4 by helo from west
 - c. 1 co. (M/3/3) south from Chu Lai by land
5. Base at Chu Lai allows for use of artillery in support of operation.

G. Technical considerations

1. Standardized doctrine for the conduct of amphibious operations available to all services.
2. Speed, flexibility of helicopters for ship-to-shore movement.
3. Availability of specialized reconnaissance forces and information in planning.
4. Use of specialized amphibious and armored vehicles.

H. Conclusions

1. Operation spoiled the planned VC attack on the Marine Base at Chu Lai.
2. Illustrates the ability to act quickly and effectively on good intelligence.
3. Doctrine allowed for rapid planning and execution; content unique to "in-country" fighting.

4. Navy-Marine command relations were very important in ensuring a successful mission.
5. Operation was successful, but the area was soon reoccupied by the VC.
6. Became the model for a series of similar amphibious attacks against VC positions along coast.
7. Tank and engineer regiments especially effective against enemy fortifications.
8. Firepower superiority a definite factor (artillery, NGFS, and CAS).
9. Continuous, consistent logistics support critical.
10. Civilian factor must be considered, to avoid casualties in the private sector.
11. Press coverage also a factor in subsequent modern-day operations.

**NAVAL RESERVE OFFICERS TRAINING CORPS
AMPHIBIOUS WARFARE**

MODULE II, LESSON: 25

HOURS: 2

CASE STUDY: THE FALKLANDS, 1982

I. Learning Objectives

- A. The student will comprehend/explain the political factors behind the Falklands conflict from both the British and Argentine points of view.
- B. The student will comprehend/explain strategic considerations from both British and Argentine perspectives.
- C. The student will comprehend/explain the considerations behind the decision to land at San Carlos.
- D. The student will comprehend/explain the operational and logistical problems the British faced in mounting the expedition.
- E. The student will comprehend/explain the tactical conduct of the landing and subsequent operations ashore.
- F. The student will comprehend/explain key technological developments which influenced the conduct of hostilities.

II. References and Texts

A. Instructor references

- 1. Bartlett, M.L., Assault From the Sea (Annapolis, MD: Naval Institute Press, 1983), pp. 429-436.
- 2. Dupuy & Dupuy, Encyclopedia of Military History, 2nd rev. ed. (New York: Harper & Row, 1986), pp. 1353-1356.
- 3. Hastings, Max and Simon Jenkins, The Battle for the Falklands (New York: W.W. Norton & Co., 1983).
- 4. Nott, John, "The Falklands Campaign," Naval Institute Proceedings, May 1983, pp. 118-139 (Instructional Aid II-25-A).

B. Student texts

- 1. Bartlett, M.L., Assault From the Sea (Annapolis, MD: Naval Institute Press, 1983), pp. 429-436.

2. Nott, John, "The Falklands Campaign," Naval Institute Proceedings, May 1983, pp. 118-139 (Instructional Aid II-25-A).

III. Instructional Aids

- A. Instructional Aid II-25-A. Map: "Falkland Islands," from Dupuy & Dupuy, Encyclopedia of Military History, p. 1354.
- B. Instructional Aid II-25-B. Map "The Task Force Sails," Hastings & Jenkins, The Battle for the Falklands, p. 95.
- C. Instructional Aid II-25-C. Map "The Landing at Port San Carlos," ibid., p. 201.
- D. Instructional Aid II-25-D. Map "The Battle for Stanley," ibid., p. 302.

IV. Suggested Methods and Procedures

- A. Method options in recommended order
 1. Seminar discussion
 2. Lecture and discussion
 3. Lecture
- B. Procedural and student activity: Read assignment prior to class and discuss according to the "levels of war" construct.

V. Presentation

- A. General significance
 1. Throwback to British imperial policing actions of 19th century
 2. Classic example of amphibious assault
 3. Importance of well-trained troops
 4. Importance of command of sea to successful amphibious operations
- B. Factual background
 1. Key personalities
 - a. Rear Admiral Woodward (CTF)

- b. Brigadier General Thompson (3 Commando Brigades)

2. Forces

a. British (Falkland Islands TF)

- (1) 3 Commando Brigades (2,000 troops)
 - (a) 40th, 42nd, and 45th Commandos
 - (b) 2d and 3d Paratrooper Battalions
 - (c) 29th Commando Regiment, Royal Army
 - (d) Other supporting elements
- (2) 5th British Army Brigade (Welsh Guards, Scots Guards, 7th Gurkhas)
- (3) 110+ ships: 44 warships, 22 Royal Fleet auxiliary vessels, 45 merchant ships

b. Argentine troops (2,000 initially, increased to 15,000)

- (1) 25th, 3d and 9th Infantry Regiments with reinforcements
- (2) Headquarters, main body at Port Stanley; 2 battalions at Goose Green; 1 at Port Howard; 2 at Fox Bay; scattered detachments

3. Chronology

- a. 2 April 1982: Argentina seizes Falklands.
- b. 3 April: Argentina seizes South Georgia. U.N. passes Resolution 502, naming Argentina aggressor.
- c. 5 April: TF (HMS Hermes, HMS Invincible, plus 28 other ships) departs England for Ascension Island.
- d. 8-28 April: U.S. attempts diplomatic solution.
- e. 12 April: Britain announces Exclusion Zone.
- f. 18 April: SAS/SBS begin reconnaissance of islands.

- g. 25-26 April: British retake South Georgia.
- h. 30 April: Britain announces Total Exclusion Zone; amounts to blockade.
- i. 2 May: HMS Conqueror (nuclear submarine) sinks Belgrano (368 lost).
- j. 14-15 May: SAS raid on Pebble Island
- k. 21 May: Main landings, San Carlos
- l. 28-29 May: British take Port Darwin/Goose Green.
- m. 14 Jun: Argentine surrender

4. Losses (estimated)

a. British

- (1) Troops: 256 KIA, 673 WIA
- (2) Ships: 5 sunk, 12 damaged
- (3) 4 helicopters

b. Argentine

- (1) Troops: 1,798 KIA/WIA, 3,300
"unaccounted" for, 11,000 taken prisoner
- (2) 34 aircraft, 53 pilots

C. Political considerations

- 1. Why this conflict? What is politically important about Falklands to either side?
 - a. Falklands of little economic, strategic interest to either side.
 - b. Both sides claim rightful possession, although British claim more recent and internationally recognized.
 - c. U.S. efforts to mediate followed by open declaration of support for Britain.
 - d. U.N. resolution confirms international support for Britain.
 - e. Key: Both governments use crisis to rally popular support at home, take minds off

domestic woes.

D. Strategic considerations

1. Since neither government willing to back down, British forced to take offensive to regain Falklands.
2. Falklands 8,000 miles from England, only 400 miles from Argentina.
3. Nearest location for British advance base is Ascension Island, midway between.
4. Capture of South Georgia important to British as staging area for main assault against Falklands.
5. British ability to gain and maintain command of the sea at such a distance from home ports to be stressed.
6. Poor quality, morale of many Argentinean troops is a decisive factor.

E. Operational considerations

1. Logistics extreme problem
 - a. 8,000-mile LOC
 - b. Ascension main base: fly in, ship out
 - c. C-130 aerial resupply from Ascension with aerial refueling (25-hour flight)
 - d. Merchant shipping alone carries
 - (1) 9,000 people
 - (2) 110,000 tons of freight
 - (3) 95 aircraft
 - (4) 400,000 tons of fuel
2. Intelligence extremely important
 - a. British start with little information of Argentine dispositions.
 - b. Reconnaissance units operating ashore full month before landing to develop intelligence.
 - c. Brigadier General Thompson started with a blank

map of the Falklands and sent out Special Forces' units across the island in a "shot gun" manner to gather intelligence.

3. Threat of land-based Argentine air power
4. Where to land?
 - a. East Falklands was more populated, significantly more than West Falklands. Port Stanley by far most important city.
 - b. Considerations
 - (1) Unopposed or lightly opposed/landing
 - (2) Relatively accessible to Port Stanley. Due to poor roads, however, troops will have to march cross-country.
 - (3) But not so close that enemy can quickly reinforce
 - c. Berkeley Sound
 - (1) Easy access to Port Stanley
 - (2) But in close range of enemy reinforcements
 - d. Teal Inlet
 - (1) Relatively accessible to Port Stanley
 - (2) Restricted waters
 - e. Cow Bay: little protection for fleet against enemy submarines or aircraft
 - f. San Carlos
 - (1) Weakly defended
 - (2) Narrow waters offer protection against enemy submarines.
 - (3) San Carlos water surrounded by hills on all sides, offering protection against enemy Exocet missiles.

F. Tactical considerations

1. Tactical plan ashore: two-prong attack
 - a. 3d Paratrooper Battalion, 42nd Commando units

east to Stanley via Douglas, Teal Inlet.

- b. 2d Paratrooper Battalion, 40th and 45th Commando units south to attack enemy garrison at Darwin/Goose Green in order to protect southern flank, then east to Stanley via Fitzroy.

2. Conduct of landing

- a. Two landings (San Carlos and Port San Carlos) to support scheme ashore
- b. 3d Commando Brigade followed by 5th Infantry Brigade
- c. Dawn landings
- d. No NGFD preparation
- e. Surprise achieved
- f. 3,000 troops ashore by end of D-day; by D+3, 5,000 troops, 5,000 tons supplies; by D+5, 32,000 tons of ammunition and supplies
- g. Proceeds as planned

- 3. Main Argentine resistance in form of air power: while ground forces crumble, Argentineans launch continuous air attacks.

- 4. Important factor: mobility of British troops, marching cross-country, carrying 120-lb. packs.

G. Technical considerations

- 1. High-tech weapons a key characteristic of fighting, especially air-to-surface and surface-to-air missiles.
- 2. Use of Harrier "Jump-Jets" to support operations ashore.
- 3. Lacking amphibious shipping assets, British use passenger ships as transports.

H. Conclusions

- 1. A textbook operation by the British.
- 2. Demonstrated the effectiveness and lethality of high-tech weaponry.

3. Vulnerability of amphibious shipping to modern air attack.
4. Dupuy & Dupuy: "The British successfully carried out a very difficult operation on short notice over very long lines of communication (over 8,000 miles). The war was an excellent proving ground for modern, high technology weaponry. However, the principal lesson was that wars are still won by well-trained, determined soldiers, sailors and airmen" [p. 1356].
5. British able to achieve tactical/operational surprise in age of electronic sensors.
6. Due to poor quality of roads and in spite of operating on exterior lines, British enjoyed and exploited superior tactical and operational mobility by sea.
7. International support a growing concern in operation of this nature.
8. Effective political control required good communications with parent country (satellite).
9. Crisis management: coordination/liaison essential.
10. Maritime operations: containment, defense-in-depth, initiative.
11. Nuclear submarines now a threat.
12. Special Forces played key role.
13. Changes in warship design (construction) and materials scrutinized after tragic loss of five ships to high-tech missiles.
14. Deterrent posture of NATO Alliance strengthened.

**NAVAL RESERVE OFFICERS TRAINING CORPS
AMPHIBIOUS WARFARE**

MODULE II, LESSON: 26

HOURS: 1

CASE STUDY: Grenada, 1983

I. Learning Objectives

- A. The student will comprehend/explain the political circumstances which led to and influenced the conduct of the U.S. intervention.
- B. The student will comprehend/explain the organization and planning of the operation.
- C. The student will comprehend/explain the amphibious characteristics of the conduct of the operation.

II. References and Texts

A. Instructor references

- 1. Byron, M.J., "Fury from the Sea: Marines in Grenada," Naval Institute Proceedings, May 1984, pp. 119-131 (Instructional Aid II-26-A).
- 2. Spector, Ronald H., U.S. Marines in Grenada 1983 (Washington: Headquarters, U.S. Marine Corps, 1987).

- B. Student texts: Byron, M.J., "Fury from the Sea: Marines in Grenada," Naval Institute Proceedings, May 1984, pp. 119-131 (Instructional Aid II-26-A).

III. Instructional Aids

- A. Instructional Aid II-26-A. Reading: Byron, M.J., "Fury from the Sea: Marines in Grenada," Naval Institute Proceedings, May 1984, pp. 119-131. *
- B. Instructional Aid II-26-B. Map: "U.S. D-Day Plan," from Adkin, Urgent Fury, p. 142.
- C. Instructional Aid II-26-C. Map: "U.S. Strategic Plan," ibid., p. 144.
- D. Instructional Aid II-26-D. Map: "Change of Plan at 1:00 P.M., October 25," ibid., p. 247.

IV. Suggested Methods and Procedures

- A. Method options in recommended order

1. Seminar discussion
 2. Lecture and discussion
 3. Lecture
- B. Procedural and student activity: Read assignment prior to class and discuss according to the "levels of war" construct.
- V. Presentation
- A. General significance
1. Example of modern Marine amphibious operation
 2. Example of problems faced in the era of joint operations
 3. Good example of type of current contingency missions the Marine Corps may expect to receive
 4. Good example of amphibious operations as planned and conducted at Marine Amphibious Unit (MAU)/battalion level
- B. Factual background
1. Grenada smallest independent nation in western hemisphere, off the coast of Venezuela
 2. Spice Island, supplying 1/3 of world nutmeg supply
 3. Population of 90,000
 4. Key personalities
 - a. Bishop
 - b. Coard
 - c. Governor Scoon
 - d. Admiral Metcalf
 - e. General Schwartzkopf
 - f. Colonel Faulkner
 - g. Lieutenant Colonel Smith
 5. Chronology

- a. 1803: Grenada under British control.
- b. 1974: Grenada independent, member of British Commonwealth.
- c. 1979: Eric Gairy ousted by Maurice Bishop and the New Jewel Movement; creates People's Revolutionary Government. Bishop makes treaties for arms through advisors with the Soviet Union, North Korea, and Cuba - gains munitions enough to arm 10,000.
- d. 1983: Bishop leans toward warmer relations with U.S. Opposed by Coard.
- e. 12 October: Coard resigns; first move in bid for power.
- f. 13 October: Bishop arrested by Austin, commander of People's Revolutionary Army (PRA); rioting erupts in support of Bishop.
- g. 19 October: "Bloody Wednesday" - Bishop and supporters executed.
- h. 20 October: U.S. carrier group and MAU diverted to Grenada.
- i. 21 October: Organization of Eastern Caribbean States (OECS) decides action necessary.
- j. 22 October: OECS requests military intervention from U.S..
- k. 25 October: U.S. invades Grenada.
- l. 28 October: Island secured.
- m. 1 November: Landing to secure Carriacou Island.
- n. 2 November: 22d MAU re-embarks for Lebanon.

6. Forces

- a. U.S.
 - (1) TF 120: PHIBRON 4, 22d MAU
 - (2) TF 121: 2 Ranger battalions (75th Ranger Regiment) reinforced by 82d Airborne Div. (-)

- (3) SEALs
- (4) Delta Team
- b. Grenadian
 - (1) 450-475 regular PRA
 - (2) 250 militia
 - (3) 635 Cubans
 - (4) 43 foreign military specialists
 - (5) ZU-23s: 6 at Salines, 2 at Ft. Frederick,
2 at Ft. Rupert

C. Political considerations

- 1. Stated reasons for intervention:
 - a. Protect American citizens, eliminate hostage potential.
 - b. Restore order.
 - c. Requested by OECS.
- 2. Potential problem: Act fast with surprise and present world with fait accompli. If not, world opinion of U.S. invasion of tiny country will be critical. So:
 - a. Get OECS to request action.
 - b. Get Governor Scoon to request action.
 - c. Emphasize students-in-danger aspect.
- 3. Exploit political opportunities created by death of Bishop
 - a. Grenada in process of building military airfield
 - b. Grenada has long been pro-USSR
 - c. Chance to eliminate Communist regime and replace with pro-U.S. government
- 4. Demonstrate U.S. military capabilities
 - a. After-action report: "The outcome of this military mission reaffirmed the outstanding

professionalism, dedication and flexibility of all the forces involved in this effort".

b. President Reagan commented that the United States' days of weakness were over, and that the military forces were back on their feet and standing tall.

5. Medical school official: "Our safety was never in danger. We were used as an excuse by this government to invade Grenada. They needed a reason to go in and we were it".

6. JCS makes decision to use all U.S. services.

7. Grenada athwart Panama Canal SLOC.

8. Grenada well positioned for exporting revolution in Caribbean.

D. Strategic considerations

1. At 1654, 22 October 1983, JCS issued execute order: "Conduct military operations to protect and evacuate U.S. and designated foreign nationals from Grenada, neutralize Grenadian forces, stabilize the internal situation, and maintain the peace. In conjunction with OECS/friendly government participants, assist in the restoration of a democratic government in Grenada".

2. Naval force, including 22d MAU, enroute from east coast to Lebanon for peacekeeping duty; diverted to Grenada.

3. Proximity to U.S. makes for ease of forces deployment.

E. Operational considerations

1. Complex plan, in that it must incorporate

a. All services

b. Caribbean forces

c. State Department

d. CIA

2. Proximity of U.S. base at Roosevelt Roads, Puerto Rico and access to facilities in Barbados

3. Lack of intelligence

- a. Geography, enemy strength unknown
 - b. Using tourist maps
 - c. Relied on Navy commander who had sailed the area for geographic/hydrographic information.
4. Coordination difficult: As of 22 October, Marines, Rangers, 82d Airborne all planning to take same objectives.
 5. Conceived, planned, and launched in four days.
 6. Contingency Plan 2360 in existence calling for Southern Commander (SOUTHCOM) operation with Commanding General (CG), XVIII Airborne Corps commanding - 2360 not used; mission given to Atlantic Commander (LANTCOM).
 7. Operational mobility of sea power as demonstrated by movement of Golf Company, 2nd Battalion, 8th Marines from northeast side of island to southwest side for landing at Grand Mal at 2000, D-day.

F. Tactical considerations

1. Plan
 - a. Phase I
 - (1) Army to take south 1/2 (Salinas, True Blue, Calivigny)
 - (2) MAU to take north 1/2
 - (3) SEALs, Delta Force to take St. Georges
 - b. Phase II: Arrival of 82d Airborne (D+1)
2. Change of plans
 - a. SEALs inserted D-1, report beaches inadequate for Assault Amphibian Vehicles (AAVs), LC. Becomes heliborne operation, with AAV company now in reserve.
 - b. E Co. LZ moved 700 meters from Pearls Airfield to racecourse due to enemy AAV position overlooking airfield.
3. One of three SEAL teams discovered and driven back by Cubans with 4 KIA, 2 WIA; another lost at sea. SEAL team secures British governor's mansion on

second attempt, but pinned down by Grenadian forces. G Co. relieves SEAL team at mansion.

4. Rangers unable to land at Salinas so airdropped from 500 feet to avoid antiaircraft (AA) guns.
5. Students at True Blue campus rescued without incident.
6. Grenadian defenders at Grand Anse campus driven off.
7. Fort Rupert reduced by helicopter gunship attack.
8. Fort Frederick taken D+1.
9. Richmond Hill prison stormed, Delta Force driven off, and then Grenadian defenders abandon position.
10. Calivigny Barracks taken after overcoming light resistance.
11. Three helicopters lost.
12. Mental hospital bombed and 24 patients killed.
13. Large amounts of Eastern Bloc arms captured.

G. Technical considerations

1. Extensive use of helicopters for troop movement and close air support
2. Air Force AC-130s provide valuable close air support
3. Army deployment by air from U.S. is not an amphibious operation: range of modern aircraft offers new option
4. Use of credit card to call for fire by phone

H. Conclusions

1. Human intelligence necessary for successful operation.
2. Special forces used in wrong missions.
3. Paratroop operations still necessary.
4. Poor communications between services.
5. Importance of unity of command and

interoperability.

6. Operational and strategic mobility of amphibious forces.
7. Favorable geographic and logistic circumstances helped.
8. Importance of flexibility, both in ability to plan quickly and to change plan as situation warrants.
9. Precursor of conflicts in the Third World in coming years.
10. Ready availability of standing amphibious forces provide national command authority with more options for crisis resolution.

**NAVAL RESERVE OFFICERS TRAINING CORPS
AMPHIBIOUS WARFARE**

MODULE II, LESSON: 27

HOURS: 1

CASE STUDY: Mogadishu, Somalia, 1991

I. Learning Objectives

- A. The student will comprehend/explain the general political and strategic situations, the result of which U.S. forces were deployed to the Persian Gulf.
- B. The student will comprehend/explain the political situation in Somalia which necessitated the amphibious operation.
- C. The student will comprehend/explain the chain of command and organization for the operation, including the relations between military and State Department.
- D. The student will comprehend/explain the operational considerations in planning the mission.
- E. The student will comprehend/explain the conduct of the mission.
- F. The student will comprehend/explain key technical and technological factors.

II. References and Texts

A. Instructor references

1. Siegel, Adam B., Eastern Exit: The Noncombatant Evacuation Operation (NEO) From Mogadishu, Somalia, in January 1991 (Alexandria, VA: Center for Naval Analyses, 1991) (Instructional Aid II-27-A).
2. Siegel, Adam B. "Lessons Learned From Operation Eastern Exit," Marine Corps Gazette, June 1992, pp. 75-81 (Instructional Aid II-27-B).

B. Student texts

1. Siegel, Adam B., Eastern Exit: The Noncombatant Evacuation Operation (NEO) From Mogadishu, Somalia, in January 1991 (Alexandria, VA: Center for Naval Analyses, 1991) (Instructional Aid II-27-A).
2. Siegel, Adam B., "Lessons Learned From Operation

Eastern Exit," Marine Corps Gazette, June 1992,
pp. 75-81 (Instructional Aid II-27-B).

III. Instructional Aids

- A. Instructional Aid II-27-A. Reading: Siegel, Adam B., Eastern Exit: The Noncombatant Evacuation Operation (NEO) From Mogadishu, Somalia, in January 1991 (Alexandria, VA: Center for Naval Analyses, 1991).
- B. Instructional Aid II-27-B. Reading: Siegel, Adam B. "Lessons Learned From Operation Eastern Exit," Marine Corps Gazette, June 1992, pp. 75-81.
- C. Instructional Aid II-27-C. Map: Theater map from Siegel, "Lessons From Operation Eastern Exit," Marine Corps Gazette, June 1992, p. 77.
- D. Instructional Aid II-27-D. Map: Embassy compound map, ibid.
- E. Instructional Aid II-27-E. Diagram: "Operation Eastern Exit Command Relationships," from Siegel, Eastern Exit, p. 21.

IV. Suggested Methods and Procedures

- A. Method options in recommended order
 - 1. Seminar discussion
 - 2. Lecture and discussion
 - 3. Lecture
- B. Procedural and Student Activity: Read assignment prior to class and discuss according to "levels of war" construct.

V. Presentation

- A. General significance
 - 1. Example of noncombatant evacuation operation (NEO) by amphibious means
 - 2. Example of amphibious operation other than assault
 - 3. Example of successful operation planned and conducted rapidly
- B. Factual background
 - 1. Key personalities

- a. Ambassador Bishop
 - b. Vice Admiral Arthur, Commander of U.S. Navy Forces Central (COMUSNAVCENT)
 - c. Captain Moser (CATF/COMPHIBRON 6)
 - d. Colonel Doyle (CLF/CO BSSG-4)
 - e. Lieutenant Colonel McAleer (GCE/CO BLT 1/2)
2. Chronology: See Table 1, Siegel, Eastern Exit, p. 2
 3. Forces
 - a. USS Guam (LPH 9) and USS Trenton (LPD 14)
 - b. Contingency MAGTF formed: See Figure 2, Siegel, "Lessons Learned From Operation Eastern Exit," p. 76
 - c. One Air Force AC-130 to provide intelligence and fire support if needed
 4. Evacuees: 31 U.S.; 281 foreign nationals

C. Political considerations

1. NEO a politically sensitive mission; more political than military. Primary objective: safeguard U.S. citizens.
2. Ambassador makes decision: mission is to evacuate embassy rather than reinforce and protect.
3. Ambassador ultimate authority on the scene
 - a. Experienced; had been ambassador in Liberia when embassy evacuated in 1990.
 - b. Gave very clear and specific guidance to military forces.
4. Desired to avoid at all costs appearance of U.S. intervention in Somali internal affairs.
 - a. Minimal evacuation force
 - b. Strict Rules of Engagement (ROE)
5. Evacuated citizens of 31 different nations (in addition to U.S.), whose countries were unable to

evacuate them.

D. Strategic considerations

1. Numerous forces deployed to Persian Gulf for Operation Desert Shield.
2. Amphibious forces preparing for possible landing against Iraq.
3. Commander of U.S. Naval Forces Central reluctant to detach forces for NEO for fear they would be lost for protracted period (as had been forces for Operation Sharp Edge in Liberia).
4. Evacuation mission assigned by JCS to Commander in Chief Central (CINCCENT).

E. Operational considerations

1. Three options
 - a. Air option: Central Air Force (CENTAF) uses three C-130s, one AC-130 to evacuate in permissive environment from Mogadishu airport. Army Central (ARCENT) to provide one military police platoon as security. Problem: Bishop unsure he can get Americans safely to airport.
 - b. Amphibious option: Navy Central (NAVCENT) sends ATF and Contingency Marine Air/Ground Task Force (MAGTF) to conduct NEO by sea.
 - c. Special operations option: Special Operations Commander, Central Command sends special forces with six MH-53s to evacuate embassy. This option considered infeasible and not pursued.
2. Thus, with airport unusable, amphibious NEO only viable option.
3. Amphibious Group-2 (PHIBGRU-2) and 4th MEB tasked to provide forces.
 - a. Contingency MAGTF formed.
 - b. CATF/CLF designated, both board USS Guam.
 - c. COMPHIBGRU-2 recommends 4 ships (LPD, LPH, LSD, LST); VADM Arthur approves only 2 (LPD, LPH), leaving MAGTF without surface borne option.
4. Speed of essence: situation in Mogadishu deteriorating

5. Coordination and chain of command sometimes confused during planning

F. Tactical considerations

1. Two CH-53Es launch at distance of 466 nautical miles (nm), carrying security element of 46 Marines, 9 SEALs.
 - a. Aerial refuel twice enroute
 - b. Faulty information on location of embassy, spend 15-20 mins. Flying over city in search
 - c. Disembark security force, evacuate 61
 - d. On ground for 1 hour
 - e. Aerial refuel once during 350nm return flight
2. SEALs protect ambassador; Marines secure embassy perimeter, experience only sporadic firing.
3. Convoy to escort personnel from Office of Military Cooperation (OMC) to embassy
4. Four waves of five CH-46s evacuate remainder.
 - a. Ambassador and staff scheduled for 3rd wave.
 - b. Security force scheduled for 4th wave
5. Somali officer arrives with military forces, threatens to shoot down helicopters; ambassador bribes.

G. Technical considerations

1. CH-46 waves at night, using night vision goggles.
2. Aerial refueling of CH-53Es allowed long-distance launch.
3. Terminal guidance at embassy consisted of man waving a bed sheet.
4. CH-53 navigational system inadequate
5. Inadequate Evacuation Control Center (ECC); eliminated from plan in effort to limit size of force.

H. Conclusions

1. Highly successful operation
2. Ambassador in control; gave effective guidance to military personnel.
3. Existence of SOPs facilitated rapid planning.
4. Effective coordination between CATF/CLF and staffs.
5. Troops in high state of readiness due to Desert Shield training.
6. Importance of technology: aerial refueling, night vision devices.
7. Good example of contingency MAGTF.
8. Clarification of chain of command a necessity, to preclude confusion amongst staffs.
9. Peacetime flight restrictions need to be waived in advance of actual contingency operations.
10. Marking equipment for embassies in Third World countries a prudent request.
11. Adequate NEO packages with updated information required.
12. State Department needs to alert area CINC when such threats arise.
13. Definitive signal for last wave/force recall required.
14. Importance of fire discipline stressed.

**NAVAL RESERVE OFFICERS TRAINING CORPS
AMPHIBIOUS WARFARE**

MODULE III, LESSON: 1

HOURS: 2

TITLE: Marine Air-Ground Task Force (MAGTF)

I. Learning Objectives

- A. The students will understand the basic structure of the MAGTF.
- B. The students will comprehend the four types of MAGTFs and their capabilities.
- C. The students will understand the relative employment conditions for each MAGTF.

II. References and Texts

A. Instructor references:

- 1. Clancy, Tom. Marine, A Guided Tour of a Marine Expeditionary Unit. New York: Berkley Publishing Group, 1996.
- 2. Department of the Navy, Headquarters United States Marine Corps, Expeditionary Operations, Marine Corps Doctrinal Publication (MCDP) 3, Government Printing Office, Washington, D.C., 1998.
- 3. Mill, Mark and Mamikonian, Alex. Strategy and Tactics. Annapolis, MD: Naval Institute Press.
- 4. Department of the Navy, Headquarters United States Marine Corps, Marine Corps Operations, Marine Corps Doctrinal Publication (MCDP) 1-0, Government Printing Office, Washington, D.C., 1998.

B. Student texts: None

III. Instructional Aids.

- A. Instructional Aid III-1-A. Reading - Marines and Strategy by Capt B. H. Liddell Hart, USMC. This provides insight into the modern day Marine amphibious force based on historical lessons.
- B. Instructional Aid III-1-B. Handout - MAGTF Organizational Chart from the School of MAGTF

Logistics. A quick reference for the structure, manpower, and equipment of a MEU, MEB, and MEF.

- C. Instructional Aid III-1-C. Handout - MAGTF chapter from MCDP 1-0.

IV. Suggested Methods and Procedures

- A. Method options (in recommended order)
 - 1. Seminar discussion
 - 2. Lecture and discussion
 - 3. Lecture
- B. There are several MAGTF deployments in recent years that can be discussed. The lesson below provides some examples of MAGTFs to assist the instructor but is by no means inclusive. It is strongly recommended that the instructor discuss any MAGTF operations he/she personally participated in.

V. Presentation

- A. Definition: a balanced, air-ground combined arms task organization of Marine Corps forces under a single commander, structured to accomplish a specific mission.
 - 1. Task-organized to accomplish specific missions with maximum flexibility.
 - 2. Fully integrated expeditionary air-ground-logistics systems
 - 3. Self-sustaining, through organic and pre-positioned supplies and equipment.
 - 4. Strategically mobile by a combination of sealift and/or airlift.
 - 5. All assets of the MAGTF work together toward one common objective.
- B. Organization
 - 1. Command Element (CE) - the headquarters of the MAGTF
 - 2. Ground Combat Element (GCE) - includes all ground combat units to include infantry, artillery, tanks, amphibious assault vehicles, light armored reconnaissance vehicles, combat engineers, and

reconnaissance teams.

3. Air Combat Element (ACE) - includes all fixed wing, rotary wing (helicopters), and aviation support and logistics.
4. Combat Service Support Element (CSSE) - includes the logistical and administrative sustainment of the MAGTF to include supply, maintenance, engineering, transportation, medical, and administrative services

C. Type

1. Marine Expeditionary Force (MEF)
 - a. CE: MEF Headquarters Group
 - b. GCE: one or more Marine Divisions (MARDIV)
 - c. ACE: one or more Marine aircraft wings (MAW)
 - d. CSSE: one or more Marine Logistic Group (MLG)
 - e. A MEF is the largest MAGTF:
 - (1) Commanded by a Lieutenant General
 - (2) Consists of 30-55,000 Marines & sailors
 - (3) There are 3 MEFs in the Marine Corps:
 - (a) I MEF in Camp Pendleton, CA
 - (b) II MEF in Camp Lejuene, NC
 - (c) III MEF in Okinawa, Japan
 - f. Capabilities: A MEF is capable of significant and sustained land combat operations. Examples include:
 - (1) Desert Shield/Desert Storm Aug 1990-Mar 1991. I MEF was deploy to Saudi Arabia to for Task Force Ripper (centered around the 1st Marine Division) for the attack into Kuwait.
 - (2) Operation Iraqi Freedom Mar 2003. I MEF and major elements of II MEF deployed to Kuwait. In March 2003, I MEF (centered around the 1st Marine

Division) attacked across the border into Iraqi.

2. Marine Expeditionary Brigade (MEB)
 - a. CE: MEB Headquarters
 - b. GCE: Marine Regiment (reinforced)
 - c. ACE: one or more Marine aircraft squadrons
 - d. CSSE: Brigade Logistics Group (BLG)
 - e. The MEB is the medium sized MAGTF:
 - (1) Commanded by a Brigadier General
 - (2) 3-10,000 Marines & sailors
 - (3) A MEB can embark aboard an Amphibious Task Force (ATF) along with their equipment to become a Regimental Landing Team. This provides significant amphibious combat power aboard ship.
 - (4) A MEB can be associated with a Maritime Prepositioned Squadron (MPS) for offload of a MEB's worth of equipment at a secure port while the MEB personnel are flown into a nearby secure airfield. This permits rapid deployment of significant combat power.
 - f. Capabilities: The MEB is capable of deploying significant combat power rapidly, by amphibious shipping or Maritime Prepositioned Forces. Once in theater, the MEB is capable of a wide array of operations, from ground combat, security and stabilization operations, and humanitarian operations.
 - g. Examples of MEBs:
 - (1) 7th Marines formed the GCE of 1st MEB deployed to Somalia through MPF ships in 1993 to conduct security and stabilization, and humanitarian assistance operations.
 - (2) 7th Marines formed the GCE of 1st MEB and was among the first units to deploy to Operation Desert Shield in August 1990,

in order to provide security operations in Saudi Arabia while additional forces deployed over the next 6 months.

- (3) 4th MEB was created in 2001 as a specialized Anti-Terrorism MEB containing an Anti-Terrorism Battalion, Chemical Biological Incident Response Force (CBIRF), Marine Security Guard Battalion, and Marine Corps Security Forces Battalion.

3. Marine Expeditionary Unit (MEU)

- a. CE: MEU Headquarters
- b. GCE: reinforced infantry battalion
- c. ACE: composite helicopter squadron
- d. CSSE: MEU Logistics Group (MEULG)
- e. A MEU is the smallest MAGTF:
 - (1) Commanded by a Colonel
 - (2) Small, fast, flexible
 - (3) Typically 2,200 Marines
 - (4) MEU (SOC): A MEU can earn a special designation as Special Operations Capable (SOC), through a series of training evaluations.
 - (5) At least two MEUs are always forward deployed aboard amphibious ships (ARG - Amphibious Ready Group), specifically designed to support amphibious operations, which provides them a rapid response time to any crisis in the littorals (coastal areas).
 - (a) 75% of the earth's surface is water
 - (b) 80% of the world's population and nation's capitals are in the littorals (coast areas).
- f. Locations of the MEUs. The MEU's are components of a MEF; however, once they deploy, they typically attach to a geographical CINC.

- (1) I MEF:
 - (a) 11th MEU, 13th MEU, 15 MEU
 - (b) Area of operation: Pacific Ocean, Indian Ocean, Persian Gulf
 - (c) Typically, one of these MEUs is deployed at a time, on an 18-month rotation (6-month deployments).
- (2) II MEF:
 - (a) 22nd MEU, 24th MEU, 26th MEU
 - (b) Typical area of operation: Mediterranean Sea, Atlantic, Persian Gulf
 - (c) Typically, one of these MEUs is deployed at a time, on an 18-month rotation (6-month deployments).
- (3) III MEF:
 - (a) 31st MEU
 - (b) Area of operation: Western Pacific
 - (c) Conducts deployments on a different cycle than the other MEUs, based on its location and unit availability.

g. Capabilities of a MEU. A MEU are trained and equipped to handle a wide range of missions to include (but not limited to):

- (1) Forcible entry - amphibious operations
- (2) Deterrence
- (3) Amphibious Raids
- (4) Limited objective attacks (MEU)
- (5) Humanitarian Operations
- (6) Disaster Relief
- (7) Evacuation
- (8) Seizure of terrain, bases, territory

- (9) Security and Stability Operations (SASO)
- (10) TRAP - Tactical Recovery of Aircraft, Equipment and Personnel (MEU)
- (11) MEU(SOC) are capable of conducting Special Operations.

h. Examples of MEUs in recent years:

- (1) June 1995, 24th MEU sent a TRAP mission into Bosnia to recover Capt Scott O'Grady, USAF, whose plane was shot down.
- (2) November 1999, 11th MEU(SOC) upon return from the Persian Gulf, provided humanitarian assistance to East Timor, a small island North of Australia. Violence erupted in East Timor in August 1999 following a vote for independence.
- (3) November 2001, General Mattis combined the 15th MEU and 26th MEU, both forward deployed at the time, into Task Force-58 (a SPMAGTF). TF-58 launches an amphibious operation from the Indian Ocean, over and through Pakistan, to secure Kandahar Airfield in Afghanistan. This was the initial assault into Afghanistan to dismantle the Al Qaida and Taliban leadership following the September 11th, 2001, attacks in the United States. While this operation was well outside the range of a MEU, the Marine Corps used their forward presence to respond quickly when the U.S. Army was unable to deploy that quickly.
- (4) September 2003, the forward deployed 26th MEU, returning through the Mediterranean from a combat deployment in Iraq, landed Marines in Liberia as a show of force, force protection, and peace-keeping operations in the civil war-torn country of Liberia on the western coast of Africa.

4. Special Purpose MAGTF (SP-MAGTF)

- a. When planning time permits, a SPMAGTF is structured according to mission need.
- b. Size and capabilities are mission dependent. The SP-MAGTF uses the basic MAGTF structure: CE, GCE, ACE, CSSE. The focus of effort can be either command, ground, air, or logistics.
- c. Location: SPMAGTFs can be assembled within any MEF at anytime to meet the needs of the mission.
- d. Capabilities include (but are not limited to) noncombatant evacuation, disaster relief, and humanitarian assistance.
- e. Examples:
 - (1) SPMAGTF Los Angeles was assembled in Camp Pendleton, California in April 1992 to assist with security and stabilization operations in Los Angeles due to the Rodney King riots.
 - (2) A SPMAGTF (in conjunction with JTF 535) was assembled to provide humanitarian assistance to Malaysia following the December 2004 Tsunami that killed over 100,000 people and destroyed the infrastructure of many nations.
 - (3) SPMAGTF Katrina was created in II MEF in September 2004 to provide disaster relief and humanitarian aid to the Gulf Coast area of the U.S., which was devastated by Hurricane Katrina.

5. MAGTF Relative Employment Conditions.

- a. MEU(SOC) - Promote peace and stability
- b. MEB - Respond to crises
- c. MEF - Win the nation's battles

IV. Discussion Questions:

- A. Why is it necessary for the United States to have a specialized amphibious force?
- B. How does the structure of the MAGTF compliment the ability to conduct amphibious operations?

- C. What makes the MAGTF unique compared to other services?
- D. What is the capability of a MEU and how is it relevant to national security?
- E. Compare the force structure and capabilities of the MAGTF as it relates to MCDP1.

**NAVAL RESERVE OFFICERS TRAINING CORPS
AMPHIBIOUS WARFARE**

MODULE III, LESSON: 2

HOURS: 1-2

TITLE: MCDP 3 - Expeditionary Operations.

- I. Learning Objectives
 - A. The students will understand the fundamental concepts of MCDP-3 Expeditionary Operations.
- II. References and Texts
 - A. Instructor references
 - 1. *MCDP-3, Expeditionary Operations (1998)*. Headquarters, U.S. Marine Corps
 - B. Student text
 - 1. *MCDP-3, Expeditionary Operations (1998)*. Headquarters, U.S. Marine Corps
- III. Instructional Aids
 - A. None.
- IV. Suggested Methods and Procedures
 - A. Method options in recommended order
 - 1. Seminar discussion
 - 2. Lecture and discussion
 - 3. Lecture
 - B. Procedural and student activity. Read assignment prior to class.
- V. Presentation
 - A. Chapter One. The Landscape: Chaos in the Littorals
 - 1. Historical relevance.
 - a. Open with a discussion regarding the following subjects:
 - (1) Discuss the change of the geo-political landscape from the Cold War Era through the 1990s to the current Global War on Terrorism?

(2) What makes expeditionary operations relevant?

2. Disasters:
 - a. Accidents or calamities—complex human emergencies—that cause suffering on a massive scale.
 - b. Create societal and political instability as well as physical devastation.
 - c. May be natural or manmade.
3. Disruption:
 - a. Intentionally disorderly activities that cause internal commotion on a scale sufficient to interfere with a government's ability to perform its functions.
 - b. Result of human intent.
 - c. Internal to the country in question, although the disruptive element itself may originate externally or receive external support.
 - d. Disasters can lead to disruption if there is widespread dissatisfaction with the government response to the disaster.
4. Dispute
 - a. A clash between two political groups.
 - b. A disruption may escalate to a dispute when the disruptive element becomes powerful enough to openly challenge the established government rather than to merely subvert its authority.
 - c. May be internal or external.
5. Fragmentation and Integration
 - a. Fragmentation: the breakup of multinational states into smaller, more natural national groups with narrower communities of interest.
 - b. Integration: At the same time that the world is fragmenting politically, it is becoming increasingly connected economically through the rise in global markets.

6. Discuss
 - a. How can the world be simultaneously fragmenting and integrating?
 - b. What is the effect on the global political landscape of such a condition?
 - c. Why is that relevant to the Marine Corps as the nation's force in readiness?
7. Major Regional Contingency
 - a. Currently, the United States remains the global superpower.
 - b. History will demonstrate this will not last.
 - c. Regional powers can challenge our global supremacy.
 - d. Discuss:
 - (1) Who are the current regional powers that can challenge our supremacy?
 - (2) Given the on-going campaigns in Iraq and Afghanistan what are the implications of other regional powers challenging us - politically? Economically? Militarily?
8. Small Scale Contingencies
 - a. While major state actors are not currently prepared to challenge us as a true superpower, many organizations or states will challenge us on smaller scales.
 - b. Discuss:
 - (1) What are some likely scenarios?
 - (2) Which is more dangerous to US interests - major or small scale contingencies?
9. Non-state actors
 - a. Although the state remains the predominant entity in global politics, its preeminence in the use of organized political violence has declined.
 - b. Trend of modern conflict is the rise of powerful non-state groups who are able and

willing to apply force on a scale sufficient to have noticeable political effect.

- c. What are the inherent challenges with fighting non-state actors?

10. Other considerations:

- a. The Developing World
- b. Population Factors
- c. Urbanized Terrain
- d. Discuss: Where are these three considerations mostly concentrated?

11. The Importance of the Sea and the Littoral Regions

- a. Littorals: Where sea and land come together.
- b. Discuss:
 - (1) Discuss the importance and relevance of this key terrain.
 - (2) What is the advantage of dominating the littorals vice establishing a permanent land based presence?

B. Chapter Two: The Nature of Expeditionary Operations

1. National Interests, Crisis Prevention and Crisis Response.

- a. The national security strategy places the interests of the United States into three categories:
 - (1) Vital interests of broad, overriding importance to the survival, safety, and vitality of the United States.
 - (2) Important interests that affect national well-being.
 - (3) Humanitarian interests.
- b. Crisis Prevention:
 - (1) Peacetime deterrence is one of the military's most important roles in shaping the international environment.

(2) A capable military and the resolve to use it against a potential adversary are key to effective deterrence.

c. Crisis Response

(1) Not always military but a necessary capability.

(2) A military intervention is the deliberate act of a nation or group of nations to introduce its military forces into the course of an existing controversy in order to influence events.

(3) A military interposition is the deliberate act of a nation to introduce military forces into a foreign country during a crisis to protect its citizens from harm without otherwise becoming involved in the course of the crisis.

(4) An expeditionary crisis response force must possess the full gamut of capabilities across the warfighting spectrum.

2. Expeditionary Operations Defined and Discussed

a. *An expedition is a military operation conducted by an armed force to accomplish a specific objective in a foreign country.*

b. From humanitarian assistance to destroying an enemy government by defeating its armed forces in combat.

c. The defining characteristic of expeditionary operations is *the projection of force into a foreign setting.*

d. Must be task organized to meet the crisis.

e. Expeditionary operations involve the establishment of forward bases, land or sea, from which *military power can be brought to bear on the situation.*

f. An expeditionary operation thus requires the temporary creation of a support apparatus necessary to sustain the operation to its conclusion.

g. *Logistics is thus a central consideration in*

the conduct of expeditionary operations.

- h. The term "expeditionary" implies a *temporary duration* with the intention to withdraw from foreign soil after the accomplishment of the specified mission.
- i. The term "expeditionary" also implies *austere conditions and support*. Supplies, equipment, and infrastructure are limited to operational necessities.
- j. Amenities are strictly minimized.

3. The Sequence of Expeditionary Operations

- a. The projection of an expeditionary force generally occurs in the following sequence:
 - Predeployment actions
 - Deployment
 - Entry
 - Enabling actions
 - Decisive actions
 - Redeployment

4. Expeditionary Mindset

- a. Being expeditionary is a matter of training and institutional culture.
- b. Discuss:
 - Discuss how being "expeditionary" is a mindset not a force structure or tactic?

How does the MAGTF embrace this mindset?

5. Other considerations

- a. Naval Character
- b. Mobility - tactical, operational and strategic
- c. Competence and adaptability.
- d. Reconstitution
- e. Discuss:
 - How do these considerations all factor into the necessary synergy of the Navy-Marine Corps

team?

C. Chapter Three. Expeditionary Organizations

1. Naval Expeditionary Forces.

- a. A joint force organized to accomplish a specific mission.
- b. They are designed to project military power ashore from the sea, to include the establishment of a landing force on foreign soil if needed, and thus to operate in the littoral regions.
- c. Naval expeditionary forces combine the complementary but distinct capabilities of the Navy and Marine Corps.

2. Topics excluded from this class.

- a. Marine Corps Commands and Component Commands.
 - Exceeds requirements for this course.
- b. MAGTF - covered in the previous lesson.
- c. MPF - covered in the next lesson.

D. Chapter Four. Expeditionary Concepts

1. Operational Maneuver From The Sea (OMFTS)

- a. The Capstone operating concept.
 - Describes the maneuver of naval forces at the operational level in a maritime implementation of Marine Corps maneuver warfare doctrine across the range of military operations—from major theater war to military operations other than war.
 - Operational maneuver from the sea is an amphibious operation that seeks to use the sea as an avenue for maneuvering against some operational-level objective.
- b. The entry phase of an expeditionary operation.
 - May include enabling or decisive actions.
 - Used to attack a center of gravity or critical vulnerability (not merely to introduce forces).

- Includes the implementing concept - Ship to Objective Maneuver (STOM).

2. Ship to Objective Maneuver (STOM)

- a. Generates tempo by using the beach head line as a phase line as opposed to historical amphibious operations which necessitated the build up of combat power ashore before attacking an objective.

3. Sea Basing

- a. As the name implies, as opposed to historical necessity of introducing and developing an enormous forward logistics and operation base, all of the fire power, command and control and supporting requirements remain based at sea.

E. Conclusions:

- a. Discuss:

Concepts introduced in this lesson will be more explored during the lesson on Expeditionary Maneuver Warfare.

The difference between amphibious and expeditionary.

Is this evolutionary or revolutionary?

**NAVAL RESERVE OFFICERS TRAINING CORPS
AMPHIBIOUS WARFARE**

MODULE III, LESSON: 3

HOURS: 1

TITLE: Maritime Pre-Positioned Forces (MPF)

I. Learning Objectives

- A. The student will comprehend/discuss the use of Maritime Pre-Positioned Forces to rapidly deploy large forces.
- B. The student will understand the capabilities and methods of implementing a Maritime Pre-Positioned Forces deployment.

II. References and Texts

- A. Instructor references: "Maritime Prepositioned Force Document," Expeditionary Maneuver Warfare, Concept Overview, 2004 (CD-ROM)
- B. Student texts: MCWP 3-32: Maritime Prepositioning Force Operations.

III. Instructional Aids.

- A. Instructional Aid III-2-A. Reading: *MCWP 3-32 Maritime Prepositioning Forces Operations*. An 8-page overview of MPF Operations.
- B. Instructional Aid III-2-B. Video: MPF Overview. This video provides the instructor and student with a visual overview of MPF operations.

IV. Suggested Methods and Procedures

- A. Method options (in recommended order)
 - 1. Lecture and discussion
 - 2. Lecture
 - 3. Seminar discussion
- B. Note: This lesson introduces the student to MPF operations, as they exist today, which tie directly into the Marine Corps ability to provide rapid force closure of combat power in the area of operations. In addition, a basic understanding of current MPF procedures is important for the next lesson on Expeditionary Maneuver Warfare. In the future, MPF

Operations will undergo significant changes to support the tenants of Expeditionary Maneuver Warfare.

V. Presentation

A. Significance

1. Maritime Prepositioned Forces (MPF) allow the rapid deployment of a Marine Expeditionary Brigade (MEB).
2. MPF ships are forward based merchant ships that contain equipment for a MEB. The MPF ships travel to the area operation to marry up the equipment with troops that are flown into the area. The troops and equipment can be linked up in about 10 days.
3. This is a logistically intensive operation to put the troops and equipment together in theater.
4. Approximately 80-90% of the MEB's equipment is aboard the MPF ships, which reduces the amount of equipment a force must ship or fly into the area of operation.
5. The ships are able to sustain the MEB for 30 days. This includes food, fuel, water, ammunition, and supplies.
6. Offload of equipment from the MPF ships is typically done at a secure (friendly) port, but can be offloaded at sea and ferried to a beachhead.
7. Prior to MPF Operations, typically a Marine Expeditionary Unit (MEU) has conducted an amphibious operation to provide security or establish a beachhead.

B. Structure

1. Maritime Prepositioned Squadrons (MPSRON). Three MPSRONS, each containing 4-5 merchant style ships, exist to support a MEB-sized unit from each Marine Expeditionary Force:
 - a. MPSRON-1 belongs to II MEF, Camp Lejeune, NC. The four merchant-style ships are stationed in the Mediterranean.
 - b. MPSRON-2 belongs to I MEF, Camp Pendleton, CA. The five merchant-style ships are

stationed at Diego Garcia in the Indian Ocean.

c. MPSRON-3 belongs to III MEF, Okinawa, Japan. The four merchant-style ships are stationed at Guam in the Pacific Ocean.

2. Marine Expeditionary Brigade. A Marine Air-Ground Task Force (MAGTF) that is structured around an Infantry Regiment.

a. A Command Element (CE) is in charge of the MEB.

b. A Ground Combat Element (GCE) contains 3 infantry battalions, 1 artillery battalion, 1 tank battalion, 2 AAV companies, 1 light armored reconnaissance vehicle company, and 1 combat engineer company.

c. An Air Combat Element (ACE) contains a mixture of fixed wing, rotary wing, and aviation support assets. Most aviation assets are flown into theater, but the support equipment comes from the MPSRON.

d. A Combat Service Support Detachment (CSSD) contains the logistics assets to support the MEB.

3. MPF Echelons

a. Advanced Party. Logistics teams that arrive in theater first to link up with the MPF ships, offload the equipment, and distribute it to the units (Day 1 to 10).

b. Main Body. The troops within the MEB that fly into theater to meet up with the offloaded equipment (Day 5 to 10).

c. Follow-on Echelon. The troops and equipment that arrive in theater to supplement existing units (Day 10+).

C. MPF Operational Phases

1. Phase 1: Planning. Plan the rapid deployment of the advance party and main body, so that all pieces link up in the timeline appropriate to support the operation plan (O-Plan).

2. Phase 2: Marshaling. Direct the MPSRON to the

area of operation. Designate a port for the offload of equipment. Move troops to the aerial ports of debarkation (airports).

3. Phase 3: Movement. The actual movement of forces by air and sea to the area of operations.
4. Phase 4: Arrival and Assembly. The actual offload of the MPSRON in theater and the link up of equipment with the incoming main body. The main body prepares itself for the military operations.
5. Phase 5: Regeneration. Once military actions in the area of operation are concluded, the equipment must be regenerated, repaired, re-equipped, and placed back on the MPF ships to be ready to support follow-on operations. Personnel are returned to their home base, to be ready to support follow-on or future operations.

D. Historical Examples of MPF Operations

1. Persian Gulf War, 1991
 - a. 2 MPSRONs (approximately 9 ships) were offloaded in the secure ports of Saudi Arabia.
 - b. The main body flew into Saudi Arabian airfields.
 - c. Within thirty days, 2 MEBs were in Saudi Arabia, prepared for combat operations, while the remainder of Marine and Army forces moved into the area of operation over the next several months.
 - d. This was a logistically difficult and cumbersome operation.
2. Somalia, 1993
 - a. A MEU conducted an amphibious operation into Mogadishu, Somalia to secure a port and airfield for follow-on forces. The MEU initiated limited humanitarian operations.
 - b. 1 MPSRON (approximately 4 ships) was offloaded at a port in Mogadishu, 1 ship at a time (limited pier space).
 - c. The main body flew from the United States to

Mogadishu, to marry up with the equipment.

- d. The MEB moved from Mombassa, Kenya, into Somalia to support the humanitarian operation.
- e. This was another logistically difficult operation due to limited port availability, difficulty conducting the offload, and the large logistical footprint put on the deck.
- f. Everything on the MPF Ships had to be offloaded in order to reach the materials needed for humanitarian and security missions, therefore a lot of unnecessary equipment sat in a staging lot for the duration of the operation.
- g. It took 3 months to organize, clean, repair, and regenerate the MPSRON for possible follow-on missions.

3. Operation Iraqi Freedom, 2003

- a. January 13, Advance Parties from California deployed to Kuwait.
- b. By the end of January, 10 MPF ships had been offloaded and the equipment distributed to 2 MEB positioned near the Iraqi border.
- c. By early February, the MEBs were training and preparing for combat operations.
- d. By the end of February through early March, the follow-on echelons of the Marine Corps and Army arrived in Kuwait.
- e. On March 20, 2003, the U.S. military attacked into Iraq.
- f. The MPSRON provided the CINC CENT with rapid force build up as a show of force. This provided the CINC CENT with a number of options for initiating offensive or defensive combat operations.

**NAVAL RESERVE OFFICERS TRAINING CORPS
AMPHIBIOUS WARFARE**

MODULE III, LESSON GUIDE: 4

HOURS: 3-4

TITLE: Expeditionary Maneuver Warfare (EMW)

I. Learning Objectives

- A. Comprehend the fundamental concept of Expeditionary Maneuver Warfare and its role on the modern day battlefield.
- B. Comprehend the use of sea basing to support ship to objective maneuvering (STOM).
- C. Comprehend the technological developments necessary to support Expeditionary Maneuver Warfare, sea basing, over the horizon, and ship to objective maneuvering.
- D. Comprehend, understand and differentiate family of concepts within Expeditionary Maneuver Warfare.
- E. Apply the Themes of Amphibious Warfare to Expeditionary Maneuver Warfare.
- F. Apply MCDP1 and MCDP3 to Expeditionary Maneuver Warfare.

II. References and Texts

A. Instructor references

- 1. Expeditionary Maneuver Warfare, Concept Overview, 2004 (CD-ROM).
- 2. Mill, Mark and Mamikonian, Alex. Strategy and Tactics. Annapolis, MD: Naval Institute Press.
- 3. Office of the CNO, Expeditionary Warfare Division (N75). Naval Amphibious Warfare Plan, Seabasing, Speed, Access, Persistence, 2005. On-line copy at: <http://www.exwar.org/htm/7000popb.htm>.
- 4. Speller, Ian and Tuck, Christopher. Strategy and Tactics, Amphibious Warfare. St. Paul, MN: MBI Publishing Co, 2001.

B. Student texts:

1. Instructional Aid III-3-A. "Expeditionary Maneuver Warfare".
2. Instructional Aid III-3-B. "Ship to Objective Maneuver (STOM)".
3. Instructional Aid III-3-C. "Operational Maneuver From the Sea".
4. Instructional Aid III-3-D. "Marine Strategy 21".
5. Instructional Aid III-3-E. "MPF 2010".
6. Instructional Aid III-3-F. "MCDP 3 - Expeditionary Operations".

III. Instructional Aids

A. Instructional Aids from the Expeditionary Maneuver Warfare, Concepts Overview 2004 (CD-ROM)

1. Readings:
 - a. Instructional Aid III-3-A. "Expeditionary Maneuver Warfare".
 - b. Instructional Aid III-3-B. "Ship to Objective Maneuver (STOM)".
 - c. Instructional Aid III-3-C. "Operational Maneuver From the Sea".
 - d. Instructional Aid III-3-D. "Marine Strategy 21".
 - e. Instructional Aid III-3-E. "MPF 2010".
 - f. Instructional Aid III-3-F. "MCDP 3 - Expeditionary Operations".
2. Presentation:
 - g. Presentation. Expeditionary Maneuver Warfare. (Supports the lesson.)
 - h. Presentation. Somalia Case Study. (Demonstrates how EMW would be conducted based on a historical but recent amphibious operation.)
3. Videos:
 - i. Instructional Aid III-3-G. "Introduction to

Sea Basing".

- j. Instructional Aid III-3-H. "Ship to Objective Maneuver (STOM)".

IV. Suggested Methods and Procedures

A. Method options (in recommended order)

1. Seminar discussion
2. Lecture and discussion
3. Lecture

B. Recommended Instructional Strategies

1. Electronically distribute copies of Instructional Aids Lesson III-3-A:E for the students to read prior to class.
2. Discuss the difference between attrition-style amphibious operations and maneuver expeditionary operations using the video case study on sea basing.

V. Presentation

A. Expeditionary Maneuver Warfare (EMW)

1. EMW is the Marine Corps Capstone Concept for the 21st Century.
2. EMW supports the path outlined in Marine Corps Strategy 21 and provides the foundation for the way the Marine Corps will conduct operations within the complex environment of the 21st century.
3. EMW is the evolution of amphibious operations from an attrition-style of amphibious operations (which required seizure and build-up of a beach head prior to focusing on the objective) to a maneuver-style of expeditionary operation (which uses the sovereignty of a sea base to precisely attack objectives from over the horizon, using the sea and air as maneuver space).
4. This will allow the Marine Corps to:
 - a. Quickly respond to threats in littoral areas around the world.
 - b. Provide robust forcible entry capabilities

without the reliance on host-nation support.

- c. Provide powerful and precise projection of power ashore without the vulnerable build-up of command and control and logistics posture ashore.

B. Key concepts

1. Sea Basing

- a. Use the sea as a forward-deployed operating base.
- b. Navy provides the security and defense.
- c. Sea-based command and control and logistics capabilities.
- d. Use the sea as a maneuver space.
- e. The stand off distance of the naval ships allows for over the horizon operations and surprise.

2. Ship-to-Objective Maneuvering (STOM)

- a. Launch precise attacks on objectives directly from the sea base. No need to seize or build-up a beachhead.
- b. Use the sea and air as a maneuver space.
- c. Exploit enemy weakness and gaps through the use of up-to-date intelligence and maneuver.
- d. Support maneuver to objectives with fires from naval gun fire support and close air support.

3. Over the Horizon

- a. Security of forces - out of enemy line of sight.
- b. Surprise enemy forces with the size and location of the assault.
- c. Use the sea as maneuver space.

C. Technologies

- 1. Technologies to support EMW will require:

- a. Speed - of transport assets (land, air, and sea)
 - b. Range - of transport assets (land, air, and sea)
 - c. Communication and real-time information sharing
 - d. Intelligence (up-to-date and rapid dissemination to battlefield commanders)
2. Technologies to meet these requirements:
- a. Advanced Amphibious Assault Vehicle (AAAV)
 - (1) Mission - A combat support platform designed to maneuver from ship to shore and on land.
 - (2) Designed to replace the aging and slow AAV.
 - (3) Max Speed - 25 knots on water (AAV = 8 knots); 45 MPH on land.
 - (4) Range - 65nm on water; 300 miles on land.
 - b. MV-22 Osprey
 - (1) Mission - Amphibious assault transport of troops, equipment and supplies from assault ships and land bases.
 - (2) Replaces the CH-46 and CH-53 medium lift helicopters.
 - (3) Speed: 240 knots - Almost 100knots faster than the medium lift helicopters.
 - (4) Range: 200nm combat load (round trip), 2100nm self-deploying (empty) with 1 aerial refueling.
 - (5) Uses tilt-rotor, prop plane design.
 - c. High Speed Vessel (HSV)
 - (1) Mission - Rapid movement of troops and equipment on water to and from ports or other ships.
 - (2) Catamaran design with 290 Marine

passenger area, vehicle/equipment cargo hold, side-loading/offloading ramp, 2 aircraft flight deck, 15 foot (shallow) draft (increase accessible ports).

(3) Speed - 42 Knots in sea state 3.

(4) Range - 3000nm light load, 1200nm full load. Capable of traveling 600nm in under 17 hours.

d. Joint Strike Fighter (JSF) - Short Take-Off and Vertical Landing (STOVL)

(1) Mission - Air to ground multi-role fighter.

(2) STOVL - Allows the use of short runways or landing platforms.

(3) Designed to replace the AV-8B Harrier and F/A-18 Hornet.

(4) Technologically advanced with improved survivability and precision engagement capability.

e. Maritime Preposition Force - Future (MPF-F)

(1) Specific shipping designed to meet the versatile needs of EMW, by reducing or eliminating the need for ports for the massive offload of equipment and supplies.

(2) Selective offload capability to tailor the equipment package to the mission and units without having to offload all equipment.

(3) Capable of offloading onto temporary sea platforms through extensive offload equipment and side ramps, thus reducing the need for host nation ports and allows offload within the sea base.

(4) Sea-based logistics support.

D. Case Study: Somalia 1994 versus Somalia 2015. Compare and contrast the style of operation in 1994 with the same operation using the EMW concepts and technologies. (Refer to the Instructional Aids and EMW CD-ROM video for information.)

**NAVAL RESERVE OFFICERS TRAINING CORPS
AMPHIBIOUS WARFARE**

PART III, LESSON: 5 (OPTIONAL)

HOURS: 1

TITLE: Expeditionary Strike Group (ESG)

I. Learning Objectives

- A. The students will understand the basic structure of the Expeditionary Strike Group (ESG).
- B. The students will understand the additional capabilities of the ESG over the older Amphibious Ready Group (ARG).

II. References and Texts

A. Instructor references:

- 1. Mill, Mark and Mamikonian, Alex. Strategy and Tactics. Annapolis, MD: Naval Institute Press. Pages 9-19.
- 2. Office of the CNO, Expeditionary Warfare Division (N75). Naval Amphibious Warfare Plan, Seabasing, Speed, Access, Persistence, 2005. Pages 45-46 (Chapt 4). On-line copy at:
<http://www.exwar.org/htm/7000popb.htm>.

B. Student texts: None

III. Instructional Aids.

- A. Instructional Aid III-4-A. Diagram: Expeditionary Strike Group.
- B. Instructional Aid III-4-B. Reading: Mullen, Mike. *Proceedings* (2003). Sea Power 21 Series-Part VI, Global Concept of Operations. Electronic copy at
<http://www.usni.org/proceedings/Articles03/PROmullen04.htm>.

IV. Suggested Methods and Procedures

- A. Method options (in recommended order)
 - 1. Seminar discussion
 - 2. Lecture and discussion
 - 3. Lecture

V. Presentation

- A. In the 1980s and 1990s, the U.S. Marine Corps deployed Marine Expeditionary Units (MEU) aboard three amphibious ships called the Amphibious Ready Group (ARG).
 1. The ARG typically consisted of:
 - a. Amphibious Assault Ship (LHA or LHD)
 - b. Amphibious Transport Dock (LPD)
 - c. Dock Landing Ship (LSD)
 - d. Embarked MEU/MEU(SOC): 2,200 Marines on a Marine Air-Ground Task Force (MAGTF) centered around a combined arms Battalion Landing Team (BLT) with internal air support and combat service support.
 2. The ARG conducted independent deployments; however, it lacked certain capabilities that would make it a truly autonomous fighting force.
- B. The Expeditionary Strike Group (ESG) was established in 2002.
 1. The base of the ESG was the ARG with an embarked MEU.
 2. The ESG added a cruiser, destroyer, frigate, fast attack submarine, and P-3 Orion (land based).
 3. This provided the amphibious force with:
 - a. The ability to operate in low and medium threat areas.
 - b. Creates a sea-shield for the sea-base, providing protection from air, surface, and subsurface to the amphibious force. The SM2 Surface to Air or Anti Ship Missile can be launched up to 80 miles. The combatant ships and submarine are capable of launching ASROC torpedoes. The combatant ships have a 5" gun and Close-In Weapons System (CIWS).
 - c. Provide significant Intelligence, Surveillance, and Reconnaissance (ISR) capabilities with the phased-array radar on the cruiser/destroyer and the P-3 Orion.

- d. Provide significant deep strike capabilities with the Tomahawk Land Attack Missile (TLAM). The combatant ships bring over 200 missile cells, which can fire the TLAM, SM2 Surface to Air missile, and ASROC torpedoes (typically about ½ of the available cells will have the TLAM)
 - e. Provide imbedded Naval Gun Fire Support (NGFS) with the 5" guns (4 - 5" guns).
- C. There are 7 core capabilities for the ESG:
 - 1. Power Projection
 - 2. Battle Space Superiority (air, surface, and subsurface)
 - 3. Maritime Special Operations
 - 4. Amphibious Operations
 - 5. Military Operations Other Than War (MOOTW)
 - 6. Enabling Operations
 - 7. Supporting Operations
- D. The ESG is normally commanded by a Navy Rear Admiral Lower Half or a Marine Brigadier General.
- E. In addition to the Expeditionary Strike Group, the U.S. Navy is organized as follows:
 - 1. Carrier Strike Groups (CSG). CSG's are centered around an aircraft carrier and remain the core of the Navy's warfighting strength. The CSG includes an aircraft carrier with embarked squadrons, 6 surface combatant ships, and two fast attack submarines, and 1 replenishment/supply ship. The wide array of weapon systems and radar create a lethal and versatile force on the seas.
 - 2. Surface Action Groups (SAG). SAG consist of 2-3 surface combatant ships with missile striking power and defensive capabilities. The SAGs provide precision-attack capabilities as an independent crisis-response force.
 - 3. Combat Logistics Force (CLF). Manned by the Military Sealift Command (Mariners) with Navy liaisons aboard, the CLF provide forward underway replenishment and sustainment of fuel,

ammunition, and dry stores (food and other materials).

4. Expeditionary Strike Force (ESF). Mission dependant, one or more Carrier Strike Groups can be combined with one or more Expeditionary Strike Groups to create an ESF to create unparalleled combat power on the seas and projected ashore.