

VOLUME II
TABLE OF CONTENTS

<u>Lesson Number</u>	<u>Title</u>	<u>Page</u>
THE NATURE OF WAR		
1	Definitions of War	1
2	Principles of War	6
CLASSICAL WARFARE		
3	From Meggido to Assyria	16
4	Persian and Greek Ascendancy (600-400 B.C.)	22
5	Graeco-Persian Wars (600-479 B.C.)	28
6	The Peloponnesian Wars (460-404 B.C.)	34
7	Philip and the Macedonian Phalanx (362-336 B.C.) ..	38
8	Alexander the Great	42
9	The Siege of Tyre (332 B.C.)	50
10	Review - From Meggido to Alexander	53
11	The Legion and the First Punic War	60
12	Hannibal and the Second Punic War	64
13	Post-Third Punic War Legion Reorganization	74
14	The Rise of Julius Caesar (60-44 B.C.)	77
15	Caesar Augustus and the Pax Romana (29 B.C. - A.D. 378)	83
BYZANTINE AND FEUDAL WARFARE		
16	Byzantium: From Constantine to Justinian (A.D. 330-565)	93
17	Post-Justinian Byzantium and Maurice (A.D. 565-602)	102
18	The Decline of Byzantium	107
19	The Franks and the Battle of Tours (A.D. 732)	110
20	Charlemagne (Charles the Great) (A.D. 768-814)	113
21	William the Conqueror and the Battle of Hastings (A.D. 1066)	116
22	The Crusades (A.D. 1077-1187)	120
23	Review: Byzantium to the Hundred Years' War (A.D. 330-1227)	125
24	Mongol Warfare	132
THE AGE OF TRANSITION		
25	Contributions of Machiavelli on Military Thought ..	140
26	Cordoba and the Spanish Square	142
27	Lepanto to the Defeat of the Spanish Armada (1570-1609)	147
28	Review of the 15th and 16th Centuries	152
29	Gustavus Aldolfus and the Thirty Years' War	160
30	Cromwell's Army and the English Civil War (1642) ..	169
31	Review of the 16th and 17th Centuries	172
32	Frederick, the Austrian Succession and the Seven Years' War	178

THE REVOLUTIONARY PERIOD

33	The American Revolution	183
34	The 18th Century	195
35	The French Revolution (1789-1815)	204
36	Napoleon	213
37	Austerlitz (1805)	230
38	Waterloo (1805)	237
39	Clausewitz and Jomini	243
40	The Age of Steam and Alfred Mahan	252

AMERICAN CIVIL WAR

41	The American Civil War	261
42	Northern Attempts at Richmond (1861-1862)	267
43	Lee Moves North (1862-1863)	273
44	Gettysburg (1863)	281
45	Grant Takes Charge (1864-1865)	284
46	Ulysses S. Grant - Great Military Captain	288
47	Robert E. Lee - Great Military Captain	292
48	Review - The American Civil War (1861-1865)	297

PAX BRITANNICA AND THE PRUSSIAN INFLUENCE

49	Pax Britannica and the Race for Empires	302
50	The Prussian Influence	307
51	The German General Staff	314
52	The Drift Towards Total War in Europe	319

WORLD WAR I

53	World War I (1914)	330
54	World War I - Allied Victory	337

INTERWAR YEARS

55	Adolf Hitler	348
56	The Interwar Years	351

WORLD WAR II

57	The Second World War: An Overview	360
58	World War II: Blitzkrieg	366
59	World War II: North Africa to Normandy	376
60	World War II in the Pacific (Overview)	384

POST-WORLD WAR II

61	Post-World War II Development	392
62	Korea	402
63	Vietnam	410

WAR TODAY

64	Low Intensity Conflict	423
65	The Middle East	437

66	The Gulf War (Desert Storm)	444
67	Future Warfare and Terrorism	451

TRANSPARENCIES

Transparencies have been prepared for many of the lessons in Volume II. Paper copies are provided by CNET. Transparencies were produced using Harvard Graphics 3.0 and are available on disc from the course coordinator to facilitate altering by the instructor. Instructors are encouraged to produce their own visual aids for those lessons that do not have transparencies provided.

Each transparency has a four digit number representing the lesson number and number within the lesson. The first two digits represent the lesson number, and the second pair represent the number within the lesson (e.g., 2207 stands for the 7th transparency in lesson 22).

The list below represents the number of transparencies that are included for each lesson in Volume II.

<u>LESSON</u>	<u>#</u>	<u>LESSON</u>	<u>#</u>
1	15	35	None
2	7	36	None
3	9	37	None
4	6	38	None
5	9	39	18
6	3	40	12
7	7	41	6
8	14	42	8
9	None	43	7
10	16	44	2
11	8	45	2
12	10	46	None
13	5	47	None
14	8	48	5
15	11	49	5
16	6	50	8
17	12	51	2
18	5	52	14
19	3	53	10
20	5	54	9
21	3	55	None
22	9	56	17
23	23	57	11
24	5	58	11
25	6	59	11
26	9	60	10
27	8	61	16
28	None	62	8
29	7	63	None
30	2	64	None
31	None	65	None
32	3	66	4
33	None	67	None
34	None		

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 1

HOURS: 1

TITLE: Definitions of War

- I. Learning Objectives
 - A.The student will know and identify the major elements of the definition of war
 - B.The student will comprehend the difference between strategy and tactics
 - C.The student will know and discuss the relevance of the threads of continuity, political, and strategic considerations as they apply to warfare and how/where operations and tactics fit in
 - D.The student will know, list, and discuss the six causes of international conflict as defined by Jomini
- II. References and Texts
 - A.Instructor references
 - 1."Fundamental Concepts, History of the Military Art"
(Found in Evolution of Warfare - Introduction)
 - 2.Luvaas, "Military History: Is It Still Practical?"
(Found in Evolution of Warfare - Introduction)
 - B.Student text - The above handouts should be distributed and discussed at the first opportunity, prior to the course lessons being taught
- III. Instructional Aids
 - A.Chalkboard
 - B. Overhead projector
 - C.Locally reproduced transparencies (15 transparencies provided)
- IV. Suggested Methods and Procedures
 - A. Lecture
 - B. Lecture and discussion
- V. Presentation
 - A. Definitions of war

1. Solicit samples from students and place on chalkboard/easel
2. Instructor definitions of war (TP #1)
 - a. Conflict carried on by force of arms, as between nations or states
 - b. "Any conflict between rival groups by force of arms or other means, ... recognized as a legal conflict" (Preston and Wise, p. 5)
 - c. "An act of force to compel the enemy to do our will" (Clausewitz, On War 1832 from Heinl, Dictionary of Military and Naval Quotations, p. 345)
 - d. Common threads of all definitions (TP #2)
 - (1) Armed conflict - the duel
 - (2) Force - the means
 - (3) Impulse over will - the object conflict is common denominator
3. Definitions/comparisons of STRATEGY & TACTICS. Both necessary to wage war (TP #3)
 - a. STRATEGY (Greek = Generalship)
 - (1) "The science and art of employing the political, economic, psychological and military forces of adopted policies in peace or war" (Webster)
 - (2) "The science & art of military command exercised to meet the enemy in conflict under advantageous conditions" (Webster - 2nd definition)
 - (3) "The art of distributing and applying military means to fulfill the aims of policy" (Hart, Strategy, p. 335)
 - b. TACTICS (TP #4) (Greek = to arrange, place in battle formation)
 - (1) "The science and art of disposing and maneuvering forces in combat." (Webster)
 - (2) "When the application of the military instrument merges into actual fighting, the dispositions for and the control of such direct actions are termed tactics" (Hart, Strategy, p. 335)
 - (3) The art of disposing military forces in the

presence of, or with reference to, the enemy. It takes care of the method, conducts the marches, and fights the battles

c. Comparison of strategy and tactics (TP #5)

(1) Think of on different planes or levels

(a) Grand strategy

(b) Strategy

(c) Tactics

(2) The terms merge and cannot be separated in reality - causes problems in definition/application

4. Types of conflict (TP #6)

a. Military - building an empire (Romans)

b. Political - balance of power (Vietnam)

c. Economic (Anglo-Dutch wars)

d. Religious/moral (crusades)

e. Ideological (cold war)

f. Psychological (terrorism)

g. Most wars do not neatly fit into one of above - cover two or more types of conflict

5. Framework for studying warfare and military history.

Each framework can help in giving some structure to an analysis. This framework includes (TP #7)

a. Threads of continuity - used by USMA West Point in study of warfare. Divides war into four general areas of

(1) Strategy

(2) Tactics

(3) Logistics & administration

(4) Military professionalism

(a) Each of these four areas is affected by the external environment, including (TP #8)

1. Political factors

2. Social factors

3. Economic factors

4. Technology

(b) Certain areas, such as generalship and military thought and doctrine, impact on more than one of the four general areas. Successful generalship, for example, involves command of not only strategy and tactics, but logistics, administration, and military professionalism

b. The framework for comparison of military organizations looks at the following factors when analyzing the military in a given age (TP #9)

(1) General technology

(a) Food

(b) Materials

(c) Power

(d) Transport (TP #10)

(2) Social cohesion

(a) Class system

(b) Nationalism (TP #11)

(3) Political organization

(a) Oligarchy

(b) Monarchy

(c) Parliamentary

(d) Totalitarianism

(e) Democracy (TP #12)

(4) Manpower

(a) Military/population ratio

(b) Percentage bearing arms
Professional army = 1%
Conscription = 10%

(5) Military discipline and subordination
(TP #13)

(a) Level of discipline in military - how
this discipline is maintained

(b) Level of subordination of military to
civilian (look especially at early
times when king was general, compared
to democratic subordination of
military to civilian)

(6) Military technology (TP #14)

(a) Weapons

(b) Other equipment

B. Causes of international conflict - Antoine Henry Jomini
was a Swiss officer in French service who served with
the French in the French revolution as a supply
officer. He studied and analyzed Napoleon's military
methods and his reasons for waging war, which included
(TP #15)

1. To reclaim certain rights or to defend them

2. To protect and maintain the great interests of the
state

3. To maintain the balance of power

4. To propagate, crush or defend political or religious
theories

5. To increase the influence and power of the state by
acquisitions of territory

6. To gratify a desire for conquest (or glory)

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 2

HOURS: 1

TITLE: Principles of War

I. Learning Objective - The student will know, list, and explain the nine principles of war as presented in class

II. References and Texts

A. Instructor references

1. Keegan, The Face of Battle, pp. 13-78
2. Preston and Wise, Men in Arms, pp. 5-14
3. Ropp, War in the Modern World, pp. 11-15

B. Student texts

1. Keegan, The Face of Battle, pp. 15-78
2. Preston and Wise, Men in Arms, pp. 5-14

C. Other references

1. Burn, Art of War on Land, Ch. 1-3
2. Instructor Resource Manual

D. Handout - "Fundamental Concepts - History of the Military Art" (Found in Evolution of Warfare - Introduction)

III. Instructional Aids

A. Chalkboard

B. Overhead projector

C. Locally reproduced transparencies (7 transparencies provided)

IV. Suggested Methods and Procedures

A. Lecture

B. Lecture and discussion

V. Presentation

A. Principles of war and a description of each (TP #1)

1. Mass - Combat power and its concentration at the decisive point and time

a. This principle can be paraphrased as, "be stronger than the enemy at the decisive point"

b. Napoleon said, "God is on the side of the biggest battalions." (Napoleon, Maxims of War) Although numbers are important, that isn't all there is to "mass." Mass includes not only troops and material, but leadership, morale - everything that influences the action at the decisive point

c. Frederick the Great, operating on interior lines, was able to mass his troops against his enemies one by one, always achieving local superiority in mass. He accomplished this, although in actual numbers he was far inferior to his many enemies. "Stonewall" Jackson managed to place equal or superior numbers on the actual battlefields in the Shenandoah Valley, yet he accomplished this against Union forces potentially four times as large as his own

d. Committing force by "dribblets" is the opposite to good employment of mass. The Japanese did this at Guadalcanal. First, they attacked in battalion strength; then in regimental strength; and then in division strength. Rommel, the German desert fighter, often had the same tendency to commit his forces piecemeal. He did it in Africa and again while defending Normandy. Both the Japanese and the Germans failed to build up their forces and then deliver the blow in sufficient strength

2. Objective - General areas or points of strategic or tactical value (including the enemy force itself), destruction of which is the ultimate end of military operations

a. The nation and the commander must decide what is the most important thing to do and then all operations should keep that objective in view. That objective should be the destruction of the armed forces of the enemy. Clausewitz sets this forth as his principle tenet. When Eisenhower unleashed the Allied forces on Germany, his directive was to "destroy the

armed forces of the enemy." Prior to Napoleon, the lack of mobility tended to force the armies of Europe into the limited objectives of geographical areas. Prior to

Frederick the Great, it was considered

excellent strategy to avoid battle, if possible, and occupy territory ("war of position"). The Germans in their movement into Poland in 1939 followed Clausewitz exactly. They eschewed the tempting geographical objective, Warsaw; and, acting under the principle that when the armed forces fall, all other objectives will fall, sought the true objective: the enemy's armed forces

b. In order to eventually eliminate the enemy's principal force, minor objectives may be attempted -- certain enemy strongholds, a railroad center, or a mountain pass. But these lesser objectives should be analyzed beforehand to determine if the lesser objective contributes decisively in the attainment of the overall objective

c. It should be noted before we leave the principles of the objective that Clausewitz mentioned two other main objectives of warfare, in addition to the prime one of destruction of the enemy armed forces. The objectives are

(1) To take possession of his material and other sources of strength

(2) To gain public opinion

d. The decision as to the relative importance of these objectives is for the policy makers to decide. To defeat the enemy, it may be expedient to use all three methods. In World War II much of our action against Italy by bombing and by propaganda was an effort to so influence Italian public opinion as to; first, reduce their efficiency as allies of Germany, and second, instill in the Italian people a desire to capitulate. Italy eventually did surrender prior to the destruction of its armed forces

3. Offensive - Use of initiative in combat to set the time, place, strength, type, and direction of attack

a. The side which attacks has that great advantage of INITIATIVE. It decides what to do and the defense has to conform -- an act that consumes time. The attendant morale effect of the attack is of benefit to the forces that carry the battle to the enemy's homeland

- b. The offensive is admittedly an expensive game, usually costing many troops while overcoming the initial objectives. There are the additional disadvantages of fighting on unknown terrain with extended communications that may grow longer. Yet in refutation of the argument of casualties it may be said that a sharp engagement that carries its objective in a hurry is oftentimes more economical of men and material than the slow attack of attrition
- c. There are times that the defensive must be assumed by the attacker in order to prepare for his own offensive. These delaying tactics should be employed only on a temporary basis while preparing for one's own offensive
- d. When Lee crossed the Potomac in his first invasion of the North, he was on the "strategic offensive"; but in the course of the same campaign, he was forced into the "tactical defensive" by McClellan at Antietam. Lee did not at this time have enough strength to seize the offensive again, and he was forced to fall back into Virginia

4. Surprise - Psychological weapon applied by action that cannot reasonably be expected

- a. Surprise can be achieved in many ways - the most usual and obvious is to strike by a sudden, unexpected movement in a place unforeseen by the enemy. This surprise as to "point of attack" can be supplemented by attacking in unexpected strength. When the American forces were hit by the Germans in the attack that is now called the "Battle of the Bulge," the point of the attack was no surprise. The Ardennes was a probable point of attack; and, furthermore, the Germans had many times attacked through the Ardennes. The surprise was gained by the Germans' "timing" and "strength." Allied intelligence, knowing that the Germans did not like winter campaigns, did not take the evidence of troop movements seriously. It was not believed by Supreme Headquarters Allied Expeditionary Force (SHAEF) that the Germans could mount an attack at that time and in that strength (two Panzer armies and the Seventh Army -- three armies in all)
- b. To achieve surprise, "deception" must be practiced. Deception is gained by false moves, by disseminating false information, by building up false fronts, by propaganda. Before the Allied forces landed in North Africa for the

operation known as "Torch," most of these elements were used to deceive the enemy as to time and point of attack. The obvious plan was to prevent the Germans from anticipating any form of attack. In case secrecy was compromised, the expedition was made to appear as an ambitious attempt to reinforce Malta

c. Surprise of a different type is that provided by new methods and new weapons. The effectiveness of the "Blitzkrieg" was a surprise to Hitler's opponents. The use of gas by the Germans and the employment of the tank by the British in World War I are examples of the use of new weapons to achieve surprise. Both of those weapons failed to attain a decisive military advantage. In the case of gas, the Germans failed to follow up their gas attack with others on a large scale. As for the tank, the British failed to mass enough tanks initially when the weapon was new. The atomic bomb achieved surprise to a marked degree and was a decisive weapon, although probably not the only decisive factor in winning World War II

5. Economy of Force - Distributing available forces in the most advantageous manner; corollary of mass (TP #2)

a. This principle is a corollary of mass. To the last principle on mass, which teaches having "a superior strength at the decisive spot," we can add, "economize elsewhere." By withdrawing as much force as possible from secondary objectives, best use is made of available strength, and it can be employed for the decisive blow. The strength of the forces watching the enemy in the "thin" areas should not be so reduced as to endanger the security of the army

b. It was this principle that was employed by General Omar Bradley along the front of the 12th Army Group during the movement toward the Rhine River in 1944. The VIII Corps was spread thinly through the Ardennes to permit concentration to the North near the Roer Dams.

This was theoretically sound because a commander knows he can achieve only one major objective at a time. Unfortunately for Bradley, and particularly for the troops of the 4th, 28th, and 106th Divisions, other principles were violated by the Americans. The Germans had in the meantime employed economy force all along their lines except

opposite the VIII Corps. Here they massed, and then drove forward. The Germans were stopped only after a penetration of 50 miles

6. Movement - Maneuvering forces in the execution of a scheme of maneuver

a. This principle means nothing more than "keep moving." As Napoleon expressed it, "The force of an army, like the quantity of momentum in physics, is evaluated in terms of mass multiplied by velocity." (Napoleon, Maxim of War) This "mobility" can be achieved by a fast-moving force, either fast marching, fast driving, or fast flying and by the use of reserves. Many an opportunity has been lost due to a reserve inadequate to maintain momentum. Many battles have been lost because the commander didn't use his reserves or other forces that were available

b. Two instances where the principle of movement was violated were at Gettysburg and on the Western Front during World War I. Meade, the Union commander at Gettysburg, had adequate troops to throw in against the numerically inferior and badly shaken Confederates. Swept back by the North after the failure of "Pickett's Charge," General Lee's men probably could not have withstood a determined counter-attack by the Northern reserves. But the attack was never made, the momentum was lost, and Lee was allowed to escape from

Pennsylvania back to Virginia

c. In World War I, momentum was lost for a different reason during the period of the static front. In order to gain a penetration against the elaborated trench system facing them, both sides never attempted to advance unless after a long, continuous artillery barrage. When at last it was believed that the enemy was neutralized -- i.e., so shaken that the assault forces had reasonable assurance of being able to move without being subjected to fire from every trench -- the infantry would "go over the top." Attacks of this type eventually bogged down and failed short of the main objective, (i.e., "Pickett's Charge"). Momentum was lost as assault and supporting elements crossed the shell-torn terrain -- ground so pulverized by the intense artillery preparation as to be almost impassable. Most attacks on the Western Front resulted in terrific losses and

very limited gains. The lessons learned during the American Civil War were ignored by WWI commanders

d. In any battle the commander must be prepared to "seize the initiative" if the opportunity presents itself. If the enemy's attack has stalled, then maybe it is time to grasp the offensive and move steadily in the decisive direction (i.e., Meade's failure to counter-attack on the third day of the Battle of Gettysburg)

7. Unity of Command - Cooperation; teamwork

- a. This principle teaches that there must be teamwork. This cooperation should extend from the lowest level - the rifle squad - to cooperation between the nations formed in an alliance
- b. As mechanics of war have grown more complicated, this teamwork has become increasingly vital. Amphibious operations with its hundreds of ships and thousands of men and units of material, need to be coordinated to a remarkable degree. The individual, the tank crew, the ship, the army, the fleet, and the allies, must be a team. Everyone must be a player
- c. The Revolutionary War in this country found little cooperation by anybody. General Gates was telling the Continental Congress that George Washington should be relieved of his command; Congress was tardy in supplying the troops with food and arms; the troops wanted to go home and plow their fields. Without "team play," America was indeed fortunate to have achieved its independence. The failure of the British to cooperate with each other and seek out and destroy the American armed forces enabled the Americans to hold together an army and to eventually win their independence
- d. Failure to establish unity of command early had its evil effects during the Civil War. The North, until Grant was made Commander in Chief, was grouped in several separate armies with separate objectives, each trying to obtain troops and material from Washington in order to fight its own private campaign. World War I found no unity of command on the Allied side until the German drive in the Spring of 1918 forced this unity upon the Allied powers. In World War II these mistakes were not repeated - at least not in the invasion of Fortress Europe by the

Western Allies. Eisenhower was made Supreme Commander many months before the landings and, subject

only to the veto power of the combined Chiefs of Staff, was given absolute freedom of command

8. Security - Never being surprised

a. Security is the opposite of surprise. To prevent being surprised, the able commander takes every possible precaution to guarantee the security of his troops, his base, his lines of communication, and his plans. Providing for security includes the taking of such diverse precautions as keeping codes in a secure place to ensuring that a vulnerable flank is protected from surprise by outposts

b. During the Civil War, McClellan, abetted by the security-conscious lawmakers in Washington, was so concerned with the security of his troops and with that of the District of Columbia that he was afraid to move. Grant, on the other hand, often neglected the most elementary precautions and as a result was almost pushed into the Tennessee River at Shiloh. The Confederates frequently disregarded security, divided their forces in the presence of an enemy in superior force, and took many risks. But Lee and Jackson took these risks knowingly and took them because they knew their opponents: Union generals unable to take advantage of their opportunities

c. In spite of historical examples of commanders who flaunted security, the principle remains that assuming an alert enemy - and that must be assumed - the able commander will take no unnecessary risk to compromise his security

9. Simplicity - The acid test of the soundness of any plan for a military operation and of the orders issued for its execution

a. There generally cannot be simplicity if there is not "unity of command." Napoleon considered this to be the first requirement of war. This unity was easily achieved when the ancient "Teutonic chief" gathered his retainers together and charged the warriors from another village. As armies grew in size, many sub-commanders were placed in the line of command. In addition, the time and space factors grew immeasurably as armies spread out across miles and miles of terrain; and lines of communication extended across hundreds of land miles and thousands of

sea miles

b. But the principle is the same - simplicity and unity of command. There should be one commander and one basic plan. There are assistants, of course - leaders who make decisions by the thousands - and there are alternate sub-plans; but the underlying chain of authority and the ultimate objective must be established. There should be a direct chain of command, a definite object, and a simple plan for achieving the objective

c. Simplicity also implies that as much freedom as possible be allowed to sub-commanders operating under the general plan. The Combined Chiefs of Staff instructed General Eisenhower as follows: "You will enter the continent of Europe, and in conjunction with the other Allied Nations, undertake operations aimed at the heart of Germany and the destruction of her Armed Forces." (Crusade in Europe, p. 225) There were further instructions in this directive, but the quotation above illustrated the freedom of action that was delegated

d. A complicated plan that misfires or is poorly timed causes mass confusion and perhaps failure. The simple plan is more flexible and can be adjusted to meet the unforeseen that always arises in war

B. Military terms. In discussion of coursework, it is necessary to understand the "language" of the military profession. The language includes the following terms (TP #3)

1. Base of operations - Seat of military power from which action is initiated
2. On the field - Operations or movement of troops and supplies on the battlefield
3. Off the field - Operations or movement of troops and supplies before advancing toward the foe
4. Frontal attack - An assault directly upon the enemy - not generally desirable (TP #4)
5. Secondary attack - An attack that seeks to fix the enemy in position - often to cover a maneuver at another point
6. Penetration - An attack driving through the enemy's front

7. Envelopment - Striking the flank or rear of an enemy
8. Double envelopment - Striking both flanks of the enemy to surround and destroy him (TP #5)
9. Turning movement - A maneuver that is broader than an envelopment and does not anticipate direct contact with the enemy. It aims at lines of communication and the vitals well to the enemy's rear and endeavors to render his position untenable, obliging him to retreat
10. Strategic envelopment - A movement that is the highest goal of the strategic and is a very broad maneuver in space aimed at sealing off the entire zone of operations from the enemy's home base
11. Withdrawal - A voluntary endeavor to break contact with the enemy in order to retain freedom of action (TP #6)
12. Retirement - Seeking to avoid decisive action or defeat by marching away under pressure. A retreat
13. Rout - A retreat in which the commander loses control and his forces disintegrate
14. Delaying or Fabian action - A fighting retirement over successive positions (TP #7)
15. Direct pursuit - Advances along the same lines the opponent has chosen to retreat
16. Encircling pursuit - A type of envelopment aimed at getting behind the enemy and forcing him to accept surrender, or a last-ditch engagement under unfavorable conditions after he has already been defeated

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 3

HOURS: 1

TITLE: From Meggido to Assyria

- I. Learning Objectives
 - A.The student will know and trace the evolution of weaponry from rudimentary to the Assyrian Iron Age
 - B.The student will know and describe the Assyrian military system, to include military organization, siege tactics, and the use of terror
- II. References and Texts
 - A.Instructor references
 - 1.Dupuy and Dupuy, Encyclopedia of Military History
 - 2.Jones, The Art of War in the Western World, pp. 1-21
 - 3.Montross, War Through the Ages, pp. 3-15
 - B.Student text - Jones, The Art of War in the Western World, pp. 1-21
 - C.Other reference - Instructor Resource Manual
- III. Instructional Aids
 - A.Chalkboard
 - B. Overhead projector
 - C.Locally reproduced transparencies (9 transparencies provided)
- IV. Suggested Methods and Procedures
 - A. Lecture
 - B. Lecture and discussion
- V.Presentation
 - A.Early developments in weapons and armor
 - 1.The dawn of history and the beginning of organized warfare went hand in hand. Most primitive societies learned the use of metals and developed a system of writing at the same time. This phenomenon appeared almost simultaneously in Mesopotamia

and Egypt sometime around 3500 B.C. with the use of copper weapons. Several hundred years later, man learned to harden copper into bronze by mixing tin with it. About 100 B.C., iron began to replace bronze in the Middle East, soon in Europe and a few centuries later in China and India

(TP #1)

2. Four broad general trends in early warfare can be discerned:

a. The introduction of military transport, on land and on water

b. The introduction and relatively early decline of the chariot

c. Increasing ascendancy of the horseman

d. The introduction of iron and steel (TP #2)

3. Weapons fell into two major categories: shock and missile

a. The original shock weapon was the club, but over time the club evolved into the axe, the pike, and the sword

b. The first missile weapon was the rock. The next important development was the leather sling for hurling small rocks with greater force over longer distances. In some regions, the rock was displaced by a light club, or throwing stick, which evolved into darts, javelins, and the boomerang. The development of the bow and arrow further increased the range of missile weapons

c. The most important weapons improvement during the early period was the adaptation of metal for the points, edges, or smashing surfaces in the Bronze and Iron Ages

4. The most important form of protective armor devised by primitive man was the shield, made of wood or a leather hide stretched over a wooden frame

a. Other types of protective covering for the head, torso, and legs appeared before the Bronze Age. These were made of leather, wicker, or wood

b. Armor was greatly improved during the Bronze Age. Although leather remained the basic and most common material, this was often reinforced with metal; some helmets, breastplates, and greaves were made entirely of metal (TP

#3)

5.3100-600 B.C. armies

- a. Mass infantry
- b. No standing armies
- c. Spear and shield
- d. No armor
- e. Chariots - elites
- f. 1800 B.C. - Hyksos introduced the horse while invading Egypt
- g. 1496 Meggido

B. First great military power (1161-612 B.C.)

1. The first detailed accounts of a strong military power are of the Assyrians, who were dominant for five centuries
2. Located in the upland plains of northeastern Mesopotamia with no natural frontiers, Assyria was constantly threatened by migrating and invading neighbors
3. Between 1116-1093 B.C., under the reign of Tiglath-pileser I, Assyria became the dominant power of the Middle East. He expanded Assyrian power into the heart of Anatolia (modern Turkey) and across northern Syria to the Mediterranean
4. Assyria continued to fight off or absorb many migrating tribes
5. The Assyrians were the first to recognize fully the advantage of iron over bronze. As early as 1000 B.C. their militia armies had been completely equipped with weapons, chariots, and armor made of iron
6. Assyria reached its zenith under Tiglath-pileser III (745-727 B.C.). He firmly reestablished internal order throughout the empire, then undertook a systematic series of military expeditions around the periphery of Assyria's borders. Before his death he expanded Assyrian control into Syria, Palestine, and Babylonia
7. Tiglath-pileser III established the most efficient military, financial, and administrative system the world had yet seen. He saw to it that Assyria's technical superiority was maintained by constant and systematic improvement of weapons, and by the

careful training of the soldiers in the use of their arms

8. Organization. The army was the heart of Assyrian society. It was divided into separate branches (TP #4)

a. The bulk of the army was composed of spearmen. Their advance was the culminating phase of a typical Assyrian battle plan

b. The archers were more highly organized than in other nations, had stronger bows, and fired iron-tipped arrows. Their mission was to create confusion in the enemy ranks in preparation for a closely coordinated chariot and cavalry charge

c. The main striking force of the Assyrian Army was the corps of horse-drawn, two-wheeled chariots. Their mission was to smash their way through the ranks of enemy infantry

d. The cavalry was the smallest element of the army, but probably the best trained and equipped. Only the cavalry could be employed in the occasional maneuvers attempted in battle

e. The Assyrian Army was the only one of its time to coordinate all arms in battle

9. Tactics (TP #5)

a. First to use cavalry

b. May have borrowed siege methods from the Sumerians, but the Assyrians greatly improved the techniques of siegecraft and the attack of fortifications

c. Used terror to intimidate enemies. Theirs was a calculated policy of terror - possibly the earliest example of organized psychological warfare. It was not unusual for them to kill every person in captured cities. Sometimes they would carry away entire populations into captivity and slavery. (The beginning of the movie Conan the Barbarian exemplifies terror very well)

10. The Assyrians brought no benefits to their subject peoples. On the contrary, they pillaged every land, and cruelty and mass deportations to swell the population of Assyria were regular policies

11. End of Assyria

a. Assyria fell in 612 B.C. to a coalition of Babylonians and Medes

b. Defeat and subsequent enslavement and deportation was so thorough that Assyria, as a separate nation, disappeared

C. Summary of Assyria

1. Politics

- a. First military society
- b. Militia abolished
- c. Standing army established
- d. Wealth established by booty
- e. First use of iron over bronze (TP #6)

2. Army organization

a. Bulk was mass spearmen

- (1) Slow but faster than enemies
- (2) Culminated the attack

b. Archers

- (1) Better organized
- (2) Iron tips
- (3) Stronger bows
- (4) Created confusion for cavalry and chariots (TP #7)

c. Chariots

- (1) 2 wheeled
- (2) Shock force
- (3) Smashed into infantry
- (4) Larger numbers than enemies

(TP #8)

d. Siege trains

- (1) Battering rams
- (2) Towers

#9)

(3) Sumarian-borrowed

(TP

e. Psychological use of terror

(1) Calculated cruelty

(2) Many times killed everyone

(3) Enslaved whole populations

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 4

HOURS: 1

TITLE: Persian and Greek Ascendancy (600-400 B.C.)

I. Learning Objectives

- A. The student will know and describe the Persian military ascendancy under Cyrus and Darius, with emphasis on methods used to consolidate their conquests
- B. The student will know and trace the development of the Greek military system, with emphasis on Spartan training and the phalanx
- C. The student will know and recall the characteristic elements of warfare during this age

II. References and Texts

A. Instructor references

- 1. Dupuy and Dupuy, Encyclopedia of Military History
- 2. Jones, The Art of War in the Western World, pp. 1-21
- 3. Montross, War Through the Ages, pp. 3-15
- 4. Preston and Wise, Men in Arms, pp. 15-27

- B. Other reference - Starr, Chester G., "The Athenian Century," Military History Quarterly, Vol. 1, No. 2, Winter 1989, pp. 31-37 (Instructor Resource Manual)

III. Instructional Aids

- A. Chalkboard
- B. Overhead projector
- C. Locally reproduced transparencies (6 transparencies provided)
- D. Maps

IV. Suggested Methods and Procedures

- A. Lecture
- B. Lecture and discussion

V. Presentation

A.Persian Ascendancy

1. During the 50 years following the collapse of Assyria, discord led to the collapse of the coalition that had defeated Assyria. In 559 B.C. the Persians, an Aryan race closely related to the Medes, were led by Cyrus in a revolt against Media, during which Cyrus deposed the ruler of Media

2. Battle of Thymbra (TP #1)

- a. This battle initiated Persia's rise to power
- b. Croesus, King of Lydia, moved to defeat Cyrus on the Plain of Thymbra (about 8 miles SE of Kum Kale in modern Turkey)
- c. Badly outnumbered, Cyrus deployed his troops with flanks refused in a great square formation, the first recorded deviation from the normal parallel order of combat. The flanks were covered by chariots, cavalry, his best infantry, and a newly-devised camel corps
- d. As Cyrus expected, the wings of the Lydian Army wheeled inward to envelop this novel formation. Disorder was increased by effective overhead fire of Persian archers and dart throwers stationed within the square (TP #2)
- e. Cyrus then gave the order to attack
 - (1) His flank units smashed the disorganized wings of the Lydian Army
 - (2) The cavalry smashed through the gaps at the "hinges"
 - (3) The Lydian Army was soon routed
- f. Cyrus stormed and captured Sardis, capital of Lydia. He treated the captured with magnanimity rare for the age

3. Cyrus is considered the first Great Captain in history. His conquests were more extensive than those of any earlier conqueror, and proved to be more permanent. This was largely due to his administrative genius and his ability to win the confidence of the conquered peoples

4. After Cyrus' death in 530, his son Cambyses assumed the throne. He was an inadequate ruler, and there was much internal turmoil

5. Darius, cousin of Cyrus, was successful in putting down the revolts (521-519), after which he spent the remainder of his reign in consolidation

a. He continued Cyrus' enlightened policies, securing a surprisingly high standard of loyalty from the diverse groups in the empire

b. He made the first attempt to reach Greece in 492 B.C.

B. Early Hindu military organization

1. Knowledge of the period of military art gleaned from earliest classical literature of India - particularly the Rigveda and the Mahabharata

2. Armies were made up almost entirely of footmen. The bow was the principal weapon. Warriors were the most honored and leading class of society after priests or the "Brahmins." Iron weapons did not appear in India until the 5th century B.C., which would indicate that military techniques were probably less advanced than in the Middle East

C. Early Chinese military organization

1. The art of warfare in China, by about 600 B.C., was apparently as well advanced as that of the Middle East. Chinese weapons, however, were not as good as those of the Assyrians; both their bronze and iron metallurgy lagged several centuries behind the Middle East. The bronze workmanship of that period, however, was perhaps superior to that which could be found further west

2. From earliest times, the Chinese appear to have relied upon the bow as their principal hand weapon. Apparently the bow was always of the reflex variety, constructed of wood, horn, and sinew, and considerably longer and more powerful than those normally found in the West. Arrows were probably always made of bamboo, with metal heads appearing in historical times

3. Bronze helmets appeared in China during the time of the Shang and armor development, despite a slower start than in the Middle East, had probably caught up by about 600 B.C.

4. Cavalry apparently was not used by the Shang or early Chou. Chariots, however, were in use as early as 1400 B.C. and became increasingly important. Initially only the principal leaders rode and fought in chariots, which seem to have been used primarily as mobile command posts by the king or

general, who was accompanied by a drummer-signaler, and also by a driver and one or more archers. But as time went on, greater advantage was taken of the shock-action capabilities of the chariot, and it became the primary instrument of war. The very strength of a state was estimated in terms of the number of chariots it could assemble

D. Greek military development

1. The topography of Greece, a small country split by numerous mountain ranges and possessing few land communications, led to the creation of separate city-states. Each city-state was a sovereign power, having its own king, its own laws, gods, and field lands. Hundreds of city-states arose. Self-interest and jealousy of each other had them constantly at war
2. The two dominant city-states to arise were Athens and Sparta
3. Phalanx
 - a. As the mountainous terrain of Greece was unfavorable to cavalry movements, the Greeks in general neglected that arm, relying chiefly on the steadily improving phalanx
 - b. This body of heavy infantry formed for battle in long lines which varied in depth from 8 to 16 men
 - (1) The individual soldier of the phalanx was called a hoplite - a well-trained, disciplined soldier kept in excellent physical condition by sport or combat
 - (2) The hoplite's major weapon was an 8- to 10-foot pike. He also carried a short cut-and-thrust sword
 - (3) In battle, the hoplites in the front ranks pointed their spears (pikes) toward the enemy; those in the rear rested theirs on the shoulders of the men in front, forming a type of hedge to break up flights of enemy arrows
 - (4) A hoplite could afford his own arms and armor and was the most respected of society (Aristocrats and middle class only)
 - c. The virtue of the phalanx was its solidarity - both moral and physical. The ranks were deep enough so that individuals could see comrades ahead of and behind them. The files were

close enough so that they could feel the reassuring touch of the shield on their right and the spear on their left

4.The Spartan System

- a.About 700 B.C., under the leadership of Lycurgus, Sparta became and remained a completely military society, always maintained on a war footing
- b.From his earliest years the Spartan citizen had only one mission in life - military service. The result was the development of the best individual soldiers in Greece and the creation of what was, for its size and time, probably the best small army in the history of the world
- c.The Spartan army was not significantly different from those of other Greek city-states in composition, armament, or tactics. The principal distinguishing characteristics were the more thoroughly developed individual military skills, superior organization, higher order of unit maneuverability, and the iron discipline for which the Spartans became renowned
- d.All Spartans, male and female, were screened and trained in military matters from age 7 to 60

E.Summary

1.Persia (TP #3)

- a.Empire run by monarchy
- b.Wide open desert geography
- c.Massive army of infantry and cavalry
 - (1)Infantry was light and armed with bow
 - (2)Cavalry used on open terrain to fix the enemy (TP #4)

2. Greece

- a.Conglomeration of individual city-states
- b.Mountainous country (TP #5)
- c.Phalanx
 - (1)Hoplite

- (a) Heavy infantry
 - (b) Pike, sword, and bow
 - (c) Aristocrats and middle class
 - (d) Honored to fight in front rank
- (2) Light troops on flanks (lower classes)
- (3) Paradox - phalanx in mountainous country
(TP #6)

3. Warfare

- a. Mass against mass
- b. Envelopment not planned (except Sparta)
- c. One-on-one
- d. No generalship required

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 5

HOURS: 1

TITLE: Graeco-Persian Wars (600-479 B.C.)

I. Learning Objectives

- A. The student will know, identify, and discuss Graeco-Persian conflicts, with emphasis on Marathon, Thermopyale, and Salamis
- B. The student will know and trace the development of the Greek military system, with emphasis on Spartan training and the phalanx

II. References and Texts

A. Instructor references

- 1. Dupuy, The Evolution of Weapons and Warfare, ch. I, pp. 1-15
- 2. Dupuy and Dupuy, The Encyclopedia of Military History, pp. 22-29
- 3. Fuller, A Military History of the Western World, Vol. I, pp. 81-114

B. Other references

- 1. Bernard and Brodie, From Crossbow to H-bomb, ch. I, pp. 14-27
- 2. Hart, Strategy, ch. II, pp. 27-31

III. Instructional Aids

- A. Chalkboard
- B. Overhead projector
- C. Locally reproduced transparencies (9 transparencies provided)
- D. Maps

IV. Suggested Methods and Procedures

- A. Lecture
- B. Lecture and discussion

V. Presentation

A. Graeco - Persian conflicts

1. Economic and logistical considerations played a particularly important part in the major wars of the 5th century B.C. (TP #1)

a. For Persia, the great land power, the problem were lines of communications thousands of miles long, vulnerable to harassment and interruption by sea and by land

b. For the smaller Greek states, particularly in their wars against Persia and among themselves, there were two main problems

(1) Their relatively complex societies were not self-sufficient, and in many instances were dependent upon distant, overwater sources of supply to maintain both peacetime and wartime economics

(2) The military security of several Greek states was based upon an extremely expensive and relatively sophisticated weapon system (the trireme fleet), which could be maintained and operated only at great cost in treasure, and in highly trained, skilled manpower

2. Causes of the Graeco-Persian wars (TP #2)

a. In 550 B.C., some of the Greek cities on the coast of Asia Minor were annexed by Lydia

b. About 512 B.C., the free Greek states urged revolt in Ionia

c. 510 B.C., the Ionian cities revolted, but were quickly brought back under control by Darius

d. In 499 B.C., the Ionians again revolted, supported by Athens, but by 494 B.C. the revolt had collapsed

e. In 493 B.C., Darius began preparations to conquer Greece. In particular, he wanted to punish Athens for having supported the Ionian revolt

3. Marathon, 490 B.C. (TP #3)

a. Background.

(1) In 507 B.C., the Athenian tyrant Hippias had been ousted from Athens, after which he fled to Darius' court

(2) After the Ionian revolt had been put down, Hippias urged Darius to move on to Athens and reinstate him

(3) Darius determined that he would subdue Athens and restore Hippias to power as his vassal, then proceeded to conquer the

remainder of Greece

(4) Darius learned, through Hippias, that there was a substantial element in Athens which favored Persia

(5) If the Athenian army could be lured away from Athens, and simultaneously a Persian force landed at Phalerum (3 miles SE of Athens) to support the Athenian rebels, Athens could be carried by revolt instead of by battle

(6) How to reinforce the morale of the conspirators in Athens, and how to entice from Athens the Athenian army were the two main problems Darius had to solve

(a) The solution of the former was sought in first subduing Eretria, because its reduction would strike terror into the Athenians and drive them into the conspirators' arms

(b) The solution of the latter problem was to land an army in the Bay of Marathon and threaten a land advance on Athens to draw the Athenian army out of the city (TP #4)

b. At the outset of the campaign the chronic handicap of Greek generalship became apparent in the lack of unified command. Even in the emergency, with independence at stake, 10 generals divided the leadership of the Athenian army. Only after long persuasion could the general Miltiades gain approval of his plan for meeting the Persian invaders on the seacoast instead of awaiting their thrust at Athens (TP #5)

c. Miltiades took a position on a height sloping gently down to the Persian Army, about a mile away. Miltiades surmised that since the Persians had not seized the passes leading from the Marathon Plain to Athens, they did not intend to make an overland advance to Athens

- d. When Eretria fell, it became imperative for the Athenians to take action, for if they waited, the Persian force at Eretria could sail to undefended Athens
- e. Miltiades had thinned his center in order that the Greek line might have more width against a numerically superior enemy. He rested his flanks on a hill and a stream
- f. Tactically, Miltiades was faced with a difficult problem - it was that the bulk of Persian infantry consisted of archers. At close quarters, the hoplites would break the Persian front; but the assault would have to be rapid once arrow range was reached (TP #6)
- g. The Athenian army began to advance at a fast walk. As they entered the "beaten zone" of the Persian archers, they began to run toward the Persians
- h. At contact, the Athenian wings crushed the more lightly armored Persians, but the thinned Greek center had been pushed back almost to its starting point
- i. Miltiades took advantage of the situation, ordering the flanks to wheel inward
- j. Hemmed in on both flanks, the Persians retreated to their fleet
- k. Greek losses - 192; Persian losses - 6,400
- l. For the first time in their history the Greeks had beaten the Persians on their own element - the land - and Marathon endowed the victors with a faith in their destiny which was to endure for three centuries, during which western culture was born. Marathon was the birth cry of Europe

4. Thermopylae and Salamis, 480 B.C. (TP #7)

- a. Infuriated, Darius began elaborate preparations for the complete subjugation of Greece. Darius died in 486, but by 481 B.C., Xerxes had gathered a force of 200,000 men for the task

- b. In Greece there was debate on the strategy to meet the expected invasion

(1) Spartans urged the abandonment of all of Greece north of the Isthmus of Corinth;

they felt this 4 1/2 mile corridor could easily be defended

(2) Athenians refused to abandon their city. Themistocles, an Athenian leader, pointed out the vulnerability of the Peloponnesus to Persian sea power, and insisted that the Persian advance could be successfully disputed on land and on sea much farther north

(3) The Spartans, recognizing the value of the Athenian navy, reluctantly agreed to Themistocles' strategy

(4) The Greek Congress sent the allied fleet (about 335 ships) to Artemisium (NW coast of Euboea) and an army of about 8,000 hoplites, under King Leonidas of Sparta, to Thermopylae (Milian Gulf)

(5) Although the disproportion between the sea and land forces indicates that the primary object was a naval battle, the holding of Thermopylae was of equal importance, because the halting of the Persian Army was the most likely operation to compel the Persian fleet to fight

c. Thermopylae (TP #8)

(1) Leonidas had carefully prepared for the defense. With his main body he held the Middle Gate. He posted a force of 1,000 in the mountains to cover the one forest track which led around the defile

(2) Xerxes entered the Milian plain, where he encamped for 4 days - perhaps hoping that the size of his army would frighten the Greeks away, or perhaps waiting to give his fleet time to win a naval battle

(3) On the fifth and sixth days, Xerxes launched assaults, only to have his more lightly armored troops driven back

(4) Then a Greek traitor told Xerxes of the forest track, over which Xerxes dispatched his "Immortals"

(5) The Greek force was surprised and Leonidas soon found himself surrounded. Many of the Greeks surrendered, but Leonidas and his 300 Spartans fought to the death

d. Salamis (TP #9)

- (1) The disaster at Thermopylae threw the burden of defense on the fleet
- (2) The Greek fleet withdrew to Salamis. Themistocles had successfully argued against fighting the Persians on the open sea
- (3) Meanwhile, Xerxes had marched on Athens, capturing the city and killing the defenders. News of this nearly sent the Greek fleet into panic
- (4) Themistocles sent a message (a feint) to Xerxes which said that if Xerxes' fleet were to attack immediately the Greeks would not be able to offer much resistance
- (5) The Persian ships moved into the restricted waters near Salamis where their superiority in numbers and seamanship were of little value
- (6) A melee followed, during which the stronger Greek ships won a 7-hour battle
- (7) Tactically, the Battle of Salamis was unremarkable, but its strategic importance was enormous. Xerxes dared leave only a small army in Greece, as he now had no fleet to provide transport or secure his communications. Thus the Greeks were able to defeat this army of occupation at Plataea in 479. Greece was not again invaded from Asia until the 15th century A.D.
- (8) At least 40,000 men, or nearly every able-bodied citizen, must have been recruited for the ships of Athens alone. Hence, the impending sea battle promised to be even more decisive than Marathon in shaping the future of Greek civilization
- (9) Salamis ranks as the world's first decisive naval engagement

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 6

HOURS: 1

TITLE: The Peloponnesian Wars (460-404 B.C.)

I. Learning Objective - The student will comprehend the nature of the Peloponnesian War (land power versus sea power) and the resolution of that conflict

II. References and Texts

A. Instructor references

1. Dupuy, The Evolution of Weapons and Warfare, ch. I, pp. 1-15

2. Dupuy and Dupuy, The Encyclopedia of Military History, pp. 29-33

3. Fuller, A Military History of the Western World, Vol. I, pp. 81-114

B. Other references

1. Bernard and Brodie, From Crossbow to H-bomb, ch. I, pp. 14-27

2. Hart, Strategy, ch. II, pp. 31-32, 162

III. Instructional Aids

A. Chalkboard

B. Overhead projector

C. Locally reproduced transparencies (3 transparencies provided)

D. Map

IV. Suggested Methods and Procedures

A. Lecture

B. Lecture and discussion

V. Presentation (TP #1)

A. Peloponnesian Wars (460-445 B.C. and 432-404 B.C.)

1. Having freed themselves of the Persian menace, the Greeks once again began to fight among themselves

2.Sparta was jealous of Athen's growing prosperity and power. Like other Greeks, the Spartans also abhorred Athen's increasingly autocratic leadership of the Delian League (explain Delian League, if necessary). Athenian distaste for the military regimentation of Spartan society was equally strong. Thus the paradox: a democratic state suppressing the freedom of its allies, while a militaristic oligarchy became the champion of self-determination

3.The primary antagonists were Athens and Sparta, each with their camp of allies (show map of Greece)

a.Athens, primarily a sea power, won most of the sea battles and had a defensive attitude toward land battles

b.Sparta, primarily a land power, was generally victorious in land battles

4.413 B.C. - Athenian disaster at Syracuse

a.In 415 B.C., an Athenian fleet and army besieged Syracuse (show map)

b.414 B.C., Sparta sent aid to Syracuse

c.413 B.C., Demosthenes arrived from Athens with reinforcements. Realizing that Athenian morale and health were at a low ebb, he urged immediate withdrawal. While the Athenian commander, Nicias, procrastinated, the Syracusans and their allies blockaded and then annihilated the Athenian fleet

5.Aegospotami - 405 B.C.

a.Sparta received funds and materials from Persia and built a strong fleet

b.When the Athenian admiral relaxed his guard, the Spartan admiral attacked. The fleet of 200 Athenian vessels was completely destroyed

c.Thus Sparta, the land power, adapted to sea power and was able to defeat Athens

B.The Battle of Leuctra - Epaminondas of Thebes (TP #2)

1.Background - After the Peloponnesian Wars, Spartan hegemony in Greece continued to be ruthless. Between 379-371 B.C., Thebes led a revolt against Sparta. Sparta assumed that the impending battle against Epaminondas of Thebes would be the blow to crush the revolt. Eleven thousand Spartans met 6,000

Thebans (including allies) near Leuctra

2.Spartan Plan

- a.The Spartans drew up for battle in the conventional phalangial line, the best troops on the right, a few cavalrymen and light troops covering the flanks. They expected Thebes to form in similar fashion
- b.In such a battle the Spartans, superior both in numbers and in fighting quality, would unquestionably be victorious

3.Epaminondas' Plan

- a.Refused to fight on Spartan terms
- b.He formed his troops in oblique order to the Spartans
 - (1)Quadrupled the depth of his left wing, forming a column 48-men-wide, 32-deep
 - (2)The remainder of his army, covered by a cavalry screen, was echeloned to his right rear in thin lines facing the left and center of the Spartan army
- c. His object was to meet shock by supershock and simultaneously to have enough reserve force in hand to envelope the Spartan right wing
- d.This is the first known example in history of the deep column of attack and of a refused flank, a prototype of the holding attack and main effort of more modern times

4.The Battle

- a.The battle opened with a brief cavalry clash won by the better trained Theban horses
- b.Epaminondas personally led his left wing column in a vigorous charge against the Spartan right
- c.His center and right advanced slowly, occupying the attention of the Spartans to their front, but without engaging them
- d.The weight of the Theban left soon crushed the Spartan right, then Epaminondas wheeled right against the exposed flank of the Spartans, who promptly fled when simultaneously engaged by the Theban center and right (TP #3)

5.The Spartans lost over 2,000 men; Theban casualties

were negligible

6. The victory owed to moral rather than physical pressure as the demoralization of the shattered right wing soon spread to the Spartan center and left, which had hardly struck a blow

C. Thebes now rose in the ascendant, and between 369-362 B.C., had the chance of accomplishing what both Athens and Sparta had failed to do - namely, to weld the Greek states into a nation. But her supremacy hung on the life of one man - Epaminondas. When he was killed in battle in 362 B.C., Thebes' power began to collapse. Thus Athens, Sparta, and Thebes each in turn had failed to establish a federated Hellenic world, and Hellas was ready to fall before a conqueror from the outside. That conqueror was Philip of Macedon

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 7

HOURS: 1

TITLE: Philip and the Macedonian Phalanx (362-336 B.C.)

I. Learning Objectives

- A. The student will know and briefly discuss the continuing strategic and tactical innovations of Sparta, Epaminondas of Thebes, and Philip of Macedon
- B. The student will know and discuss the organizational and tactical improvements of the Macedonian military system 350-320 B.C.

II. References and Texts

A. Instructor references

- 1. Dupuy, The Evolution of Weapons and Warfare, pp. 11-17, 20-21, 36-37
 - 2. Dupuy and Dupuy, The Encyclopedia of Military History, pp. 41-87
 - 3. Fuller, A Military History of the Western World, Vol. I, pp. 81-114
 - 4. Jones, The Art of War in the Western World, pp. 21-54
- B. Student text - Jones, The Art of War in the Western World, pp. 21-54
- C. Other reference - Bernard and Brodie, From Crossbow to H-bomb, pp. 14-27

III. Instructional Aids

- A. Chalkboard
- B. Overhead projector
- C. Locally reproduced transparencies (7 transparencies provided)
- D. Map

IV. Suggested Methods and Procedures

- A. Lecture
- B. Lecture and discussion

V. Presentation - Put Hoplite transparency (TP #1) on and ask the following questions

- What were the tactical strengths of the phalanx of this time?
- What were the tactical weaknesses of the phalanx of this time?
- How was the Hoplite equipped?
- What improvements would you make to remedy the problems or make this organization better?

A. The Macedonian Army

1. Philip built the first scientifically organized army on the continent of Europe (TP #1)

2. Realizing the tactical weaknesses (i.e., maneuver) of the phalanx, Philip converted it from a shock force to a holding force by the introduction of heavy cavalry, to be used as the offensive or shock wing

3. Infantry

a. Improved the phalanx by providing a longer spear (sarissa) about 21 feet long and increasing the depth from 8 to 16 ranks

b. In battle formation the sarissas of the first five ranks protruded into an impenetrable hedge, while the remaining ranks grounded or carried their sarissa at a 45 degree angle to deflect missiles from overhead

c. On level ground this mobile human fortress was invincible when it bore down with locked shields and bristling points, but the formation had weaknesses. Its flanks and rear were open to attack, but it was better able to maneuver over rough terrain than previous phalanxes (TP #2)

d. As a remedy for both defects he built up a supporting light infantry

(1) Protected the wings of the phalanx, lending mobility as well as defense

(2) Consisted mainly of peltasts (lightly armored pikemen), but also included archers, slingers, and javelin men

e. The light infantry served as a link between the slower moving phalanx and the faster moving

cavalry

- f. This "hinge" was essential to an advance in oblique order, for without it contact between the cavalry and phalanx would almost certainly be lost (TP #3)

4. Cavalry

- a. The cavalry having been the weakness of Greek arms, Philip made it the strength of his army. He organized his nobles into a bodyguard called the Companions which became the "hammer" of Macedonian battle tactics
- b. In support, he formed troops of light horsemen trained for scouting, skirmishing, and screening

- 5. The organization of the phalanx was remarkably like that of a modern army

- a. Tetrarchia (platoon) - 64 men
- b. Taxiarchia (company) - 128 men
- c. Syntagma (battalion) - 256 men
- d. Chiliarchia (regiment) - 1,024 men (TP #4)

- 6. Philip also developed the first artillery arm of the ancient world. The use of "engines of war" had been confined to siegecraft until the Macedonian king saw larger possibilities (TP #5)

- a. These "war engines" fell into two categories

- (1) Ballista, or ancient fieldpiece, operated on the principle of tension. Simply a magnified crossbow stretched by a windlass. The projectile was usually a spear (TP #6)

- (2) Catapult, or howitzer, operated by means of torsion. Its long upright arm terminated in a "spoon" or "cup". The opposite end was entwined in heavy cords secured to posts. These cords were twisted by winches until the arm was at the desired angle. The catapult was used to hurl a missile high in the air for purposes of clearing a wall or hill

- b. Philip also originated the idea of carrying only the essential parts on the march, depending on trees to supply the timbers (which made up most of the bulk) (TP #7)

7. The details of the Macedonian staff system are not well-known, but must have been quite thorough and extensive
 - a. Command was exercised by voice, by trumpet, and by spear movements
 - b. Long-range communications were accomplished by smoke signals or fire beacons
8. Philip had formed the first national standing army, its strength was made up of
 - a. Citizens owing military service
 - b. Volunteers from the nobility
 - c. Auxiliary troops from tributary states
 - d. Mercenaries employed for some special skills

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 8

HOURS: 1

TITLE: Alexander the Great

I. Learning Objectives

- A. The student will know and describe Alexander's unique resolution of the land power/sea power dichotomy
- B. The student will know and trace Alexander's route of conquest, with emphasis on his use of tactical concentration in striking at the decisive point at the decisive time

II. References and Texts

A. Instructor references

- 1. Dupuy and Dupuy, The Encyclopedia of Military History, pp. 37-57, 71-82, 321
- 2. Fuller, A Military History of the Western World, Vol. I, pp. 81-114
- 3. Jones, The Art of War in the Western World, pp. 57-62
- 4. Preston and Wise, Men in Arms, pp. 27-31

B. Student texts

- 1. Jones, The Art of War in the Western World, pp. 57-62
- 2. Preston and Wise, Men in Arms, pp. 27-31

C. Other references

- 1. Bernard and Brodie, From Crossbow to H-bomb, pp. 14-27
- 2. Hart, Strategy, pp. 39-42, 161-164
- 3. Instructor Resource Manual

III. Instructional Aids

A. Chalkboard

B. Overhead projector

C. Locally reproduced transparencies (14 transparencies provided)

IV. Suggested Methods and Procedures

- A. Lecture
- B. Lecture and discussion

V. Presentation

A. Alexander's strategy against Persian sea power

1. When Philip was assassinated in 336, many of the Greek states assumed that his son (only 20) would not be a formidable leader. Aroused by Darius III of Persia, who feared a strong Macedonia, many Greek states and separate tribes revolted against Alexander and Macedonian rule
2. In less than two years, Alexander had punished the recalcitrants and reestablished unquestioned Macedonian rule in the area
3. Having assured the security of the Hellenic base, Alexander now determined to conquer Persia
4. To maintain the security of his base, and to ensure communications, Alexander knew he must destroy the Persian fleet which dominated the Aegean and eastern Mediterranean
 - a. The Persian fleet could cut his line of communication at the Hellespont (Dardanelles)
 - b. The Persian fleet could also support dissident uprisings in Greece
5. Alexander decided to wrest the command of the sea from the Persians - not by destroying their fleet - for he hadn't the means, but by occupying all of its ports and bases on the shores of the eastern Mediterranean. This would secure a two-fold purpose
 - a. Assure the security of his base
 - b. Force the surrender of the Persian fleet
6. Between June 334 B.C. and August 332 B.C., he moved from the River Granicus to Tyre, securing all Persian ports. He now had absolute command of the eastern Mediterranean and Macedonia was the greatest naval power in the world

B. Alexander the Great

1. Battle of Issus (TP #1)

a. Background

- (1) Darius had assembled an army to the east of the Amanus Mountains
- (2) Upon learning that Alexander was advancing southward along the coast, Darius crossed the Amanus range, came down to Issus, and cut Alexander's line of communication
- (3) As soon as Alexander learned of this, he doubled back to battle the Persians
- (4) Alexander's army of 30,000 now faced Darius with 100,000 on a narrow coastal plain (TP #2)

b. Alexander's plan

- (1) Because of the tremendous discrepancy in numbers, Alexander planned to attack the Persian left with his Companion cavalry and Hypaspists (light infantry)
- (2) The remainder of his forces would be echeloned to his left rear
- (3) The Thessalian cavalry would guard his left flank against the Persian cavalry (TP #3)

c. The battle

- (1) In a preliminary action, he drove back a strong Persian covering force in the foothills
- (2) The leading echelons of the phalanx were briefly in trouble when the Persian center counterattacked while they were crossing the stream
- (3) Alexander's cavalry assault smashed the Persian left. Then, with the Hypaspists, he wheeled westward into the exposed Persian center
- (4) The Macedonian center renewed their effort
- (5) The Persian cavalry on Darius' right had crossed the Pinarus river, only to be repulsed by the Thessalians and the left of the phalanx (TP #4)
- (6) As his center crumbled, Darius fled, immediately followed by his panic-stricken survivors

(7) Alexander pursued briefly, then returned to his original plan of securing the seacoast

d. Losses

(1) Persian - in excess of 50,000

(2) Macedonian - less than 1,000

2. Battle of Arbela (Guagamela) (TP #5)

a. Background

(1) After seizing Tyre, Alexander moved south and west, seizing Egypt and completing his control of the eastern Mediterranean seaboard

(2) Learning that Darius was assembling a vast army in Mesopotamia, he rapidly marched east and north, locating the Persians near ancient Nineveh, about 70 miles west of Arbela

b. Forces

(1) Darius - about 200,000

(2) Alexander - about 47,000

c. Plans/precautions (TP #6)

(1) Darius

(a) His best troops, the Greek mercenaries, had been almost destroyed at Issus. He was now relying mainly on his cavalry, chariots, and elephants

(b) He drew his forces up in two long, deep lines, with cavalry on each flank

(c) Numerous scythe chariots lined the front of the entire army, with 15 elephants in front of the center

(d) Darius had the plain to his front leveled, in order that his chariots might maneuver more easily

(2) Alexander (TP #7)

(a) Halted 7 miles from the Persians to reconnoiter and rest his troops. During the reconnaissance, the ground work was noted; Alexander deduced the reason for it, and planned to reduce that Persian advantage

(b) One of his generals recommended a night attack. Alexander, apparently aware of the difficulties concerned, refused

(c) Reserves

1. Behind each flank of the Macedonian line moved a column of light horse and foot, prepared to either prevent envelopment or reinforce where necessary

2. Behind the center, and covering the camp, was a thin phalanx of Thessalian infantry

3. These elements comprised what was probably the first recorded battle field use of a tactical reserve

d. Alexander's advance

(1) At Issus, he advanced "en echelon" from the right

(2) To take away the "chariots' playground," he drifted right, removing the Companions from in front of the chariots

e. The battle (TP #8)

(1) Darius attempted to shift his forces to the left, at the same time launching some of his cavalry. This move created some gaps in the Persian line

(2) The Persian wings swept in to envelop the Macedonian flanks, but were met and repulsed by Alexander's flank reserves

(3) Alexander noticed a gap near the left center of the Persian line and led his Companions in a charge, followed by his Hypaspists. He smashed through the Persian line. Darius, in the path of Alexander's charge, fled (TP #9)

(4) Panic spread from the Persian center all along the left, and these forces crumpled and gave way

(5) The commander of Alexander's left flank forces was being hard pressed, so he sent

a request for aid to Alexander. Alexander immediately returned to the scene and routed the Persian forces

(6) Alexander now led his forces in a vigorous pursuit of the fleeing Persians

(7) Alexander's losses - 500 killed, and about 5,000 wounded. Persian casualties were at least 50,000

f. Decisive factors (TP #10)

(1) Alexander's victory

(a) Providing flank security

(b) Oblique to the right until Darius exposed his center, accomplishing the additional advantage of fighting on ground more to his choosing

(c) Exploiting the gap in the enemy line

(d) Unity and cohesive actions of his forces as evidenced throughout the battle

(2) Darius' defeat (TP #11)

(a) Disorganization through haste in forming his army

(b) Lack of discipline in the army

(c) Inflexibility of his plan of battle

3. Crossing the Jaxartes River

a. Following the Battle of Arbela, Alexander continued into Asia in pursuit of Darius

b. Crossing the Oxus River, he was forced to fight several small but hard battles in the mountains against the Scythian tribesmen

c. Reaching the Jaxartes River in 329 B.C., he found it swollen by heavy rains

d. The Scythians held the opposite bank in force and had destroyed all the boats

e. Alexander ordered the tents of the entire army filled with straw and stitched watertight to serve as rafts for his army

f. Alexander's war engines then put down a tremendous fire into the Scythian ranks on the

far bank, putting them to flight. Alexander's army crossed unmolested and inflicted a crushing defeat on the Scythians

4. Battle of the Hydaspes (TP #12)

- a. As Alexander turned south and east toward India, the King of Taxala requested his assistance against Porus, the leading monarch of the Punjab
- b. Pleased to have an excuse to invade central India, Alexander marched eastward until he was stopped at the unfordable Hydaspes river
- c. By laying in stores of corn, and by distributing his army widely along the western bank, he mystified Porus as to his intentions (TP #13)
- d. Repeated marches and countermarches of Alexander's cavalry first kept Porus nervous then, through repetition, dulled his reaction
- e. Having thus fixed Porus to a static position, Alexander left the bulk of his army in position and with a picked force made a night crossing at a point 18 miles upstream (TP #14)
- f. By the surprise of this indirect approach he dislocated the mental and moral balance of Porus, as well as the moral and physical balance of Porus' army
- g. In the ensuing battle Alexander, with a fraction of his own army, was able to defeat nearly all of Porus' army

C. Alexander's Success

1. Strategy and the principles of war - discuss Alexander's application of
 - a. Mass
 - b. Objective
 - c. Offensive
 - d. Security
 - e. Economy of force
 - f. Movement
 - g. Unity of command
 - h. Simplicity

i. Surprise

2. The man

a. The ingredients of Alexander's success were his bold and imaginative leadership, the courage and technical quality of his army, and the systematic development of his strategy over 2 million square miles

b. Alexander was among the first to recognize that a commander's proper function is not to fight himself, but to direct the fighting of others

3. Human resources

a. Alexander had a keen sense of how to motivate people and how to obtain their loyalty and respect

b. He appointed his garrison commanders and ordered them to allow the governors to rule their respective districts according to ancient custom

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 9

HOURS: 1

TITLE: The Siege of Tyre (332 B.C.)

- I. Learning Objectives
 - A. The student will comprehend and explain the importance of Tyre to Alexander's advance
 - B. The student will comprehend and explain the various technological advances made that assisted Alexander in his attack of Tyre
- II. References and Texts
 - A. Instructor references
 - 1. Dupuy and Dupuy, The Encyclopedia of Military History, pp. 48-49
 - 2. Fuller, A Military History of the Western World, Vol. I, pp. 81-114
 - 3. Dupuy, The Evolution of Weapons and Warfare, pp. 33-35
 - B. Student text - Dupuy, The Evolution of Weapons and Warfare, pp. 33-35
 - C. Other references
 - 1. Bernard and Brodie, From Crossbow to H-Bomb, pp. 14-27
 - 2. Hart, Strategy, p. 41
- III. Instructional Aids
 - A. Chalkboard
 - B. Overhead projector
 - C. Instructor-produced transparencies
- IV. Suggested Methods and Procedure - Lecture
- V. Presentation
 - A. Tyre
 - 1. Background (TP #1)
 - a. The principal Phoenician seaport of Tyre was situated on an island less than half a mile

off the mainland

- b. The main base of the Persian navy, Tyre's capture was essential to Alexander's plan

2. The siege (TP #2)

- a. To get to the main city, Alexander built a mole 200 feet wide from the mainland out to the island
- b. The Tyrians, using fire ships and divers, several times interrupted Alexander's work, burning down part of the mole and the besieging towers on it
- c. Redoubling his efforts on land, Alexander also gathered a fleet from previously captured port cities. After winning a sea battle, he blockaded the harbors of Tyre (TP #3)
- d. Using specially designed ramming ships, and with the aid of war engines from ships and the mole, a breach of the walls was finally made, and the city was stormed

3. It took 7 months to capture Tyre. As an example to other towns, Alexander treated the survivors harshly

- a. The city was practically destroyed
- b. Most inhabitants were scattered as slaves
- c. 2,000 were crucified

B. Alexander's siegecraft

- a. Ram - hewn from the trunk of a tree and wielded by men grasping thongs - used for battering walls
- b. Bore - similar to the ram, except metal-pointed for seeking out weak points in the masonry of walls
- c. Penthouse (tower) - built to shield the ram or bore crews
- d. Mantelets - great wicker or wooden shields, sometimes mounted on wheels, used as shelter for outpost guards and operators of siege

engines (TP #8)

e. Siege tunnels - begun from hidden points, dug toward the objective. Mines were located by digging under the wall, shoring up the cavern with timbers, and filling it with combustibles. After a fire had burned out the supports the masonry collapsed and opened a breach

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 10

HOURS: 1

TITLE: Review - From Meggido to Alexander

- I. Learning Objectives - Review of lessons 3 through 9
 - A.The student will know and trace the evolution of weaponry from rudimentary to the Assyrian Iron Age
 - B.The student will know and describe the Assyrian military system, to include military organization, siege tactics, and the use of terror
 - C.The student will know and describe the Persian military ascendancy under Cyrus and Darius, with emphasis on methods used to consolidate their conquests
 - D.The student will know and trace the development of the Greek military system, with emphasis on Spartan training and the phalanx
 - E.The student will know and recall the characteristic elements of warfare during this age
 - F.The student will know, identify, and discuss Graeco-Persian conflicts, with emphasis on Marathon, Thermopyale, and Salamis
 - G.The student will know and trace the development of the Greek military system, with emphasis on Spartan training and the phalanx
 - H.The student will comprehend the nature of the Peloponnesian War (land power versus sea power) and the resolution of that conflict
 - I.The student will know and briefly discuss the continuing strategic and tactical innovations of Sparta, Epaminondas of Thebes, and Philip of Macedon
 - J.The student will know and discuss the organizational and tactical improvements of the Macedonian military system 350-320 B.C.
 - K.The student will know and describe Alexander's unique resolution of the land power-sea power dichotomy
 - L.The student will know and trace Alexander's route of conquest, with emphasis on his use of tactical concentration in striking at the decisive point at the decisive time

M.The student will comprehend and explain the importance of Tyre to Alexander's advance

N.The student will comprehend and explain the various technological advances made that assisted Alexander in his attack of Tyre

II. References and Texts

A. Instructor references

1.Dupuy and Dupuy, The Encyclopedia of Military History, pp. 48-49

2.Dupuy, The Evolution of Weapons and Warfare, pp. 33-34

3.Fuller, A Military History of the Western World, Vol. I, pp. 81-114

B.Student text - Review all from lessons 3 through 9 as necessary

C. Other references

1.Bernard and Brodie, From Crossbow to H-Bomb, pp. 14-27

2.Hart, Strategy, p. 41

III. Instructional Aids

A.Chalkboard

B. Overhead projector

C.Locally reproduced transparencies (16 transparencies provided)

D. Maps

IV. Suggested Methods and Procedures

A. Lecture

B. Lecture and discussion

V. Presentation

A.First great military power - Assyria 1100-612 B.C. - contributions to military history (TP #1)

1. Used cavalry for movement

2. Used terror as an instrument of psychological war

3. Trained and organized army (TP #2)
 - a. Spearmen - bulk
 - b. Archers - steel tips
 - c. Chariots - shock
 - d. Cavalry - movement
- B. Persian rise 559-492 B.C. (TP #3)
 1. Cyrus at Thymbrae vs. Hydia
 2. Attacked with refused flanks - first deviation from parallel line
 3. Contribution
 - a. Echelon attack at Thymbrae
 - b. Massed archers and use of bow
 - c. Improved cavalry
 - d. Massed light infantry (TP #4)
- C. Graeco-Persian wars
 1. Darius vs. Greece 492-460 B.C.
 - a. City-states - Sparta and Athens
 - b. Key battles - Marathon (Athens vs. Persia) and Eritria (TP #5)
 2. Xerxes vs. Greece 493-480 B.C. - Thermopylae and Salamis (TP 6)
 3. Value of key battles
 - a. Marathon - heavy infantry vs. light
 - b. Thermopylae - heavy infantry vs. light
 - c. Salamis - naval power and luck
 4. Contributions of Greek warfare (TP #7)
 - a. Armored Hoplite - heavy infantry with 10-foot pike and sword
 - b. Rise of naval power (TP #8)
- D. Peloponnesian wars 460-445 B.C. and 432-404 B.C.

1. Contributions - none
 2. Learning points
 - a. Sparta's adaptability to the sea at Syracuse
 - b. All military and no politics led to defeat (TP #9)
 3. Epaminondas of Thebes 369-362 B.C.
 - a. Battle of Leuctra
 - b. Contributions
 - (1) Intentionally attacked against the Spartan right
 - (2) First use of main and supportive attacks
 - (3) Victory of the mind - broke Spartan will (TP #10)
- E. Philip of Macedon 362 B.C.
1. Studied under Thebes in house of Epaminondas as a hostage
 2. Studied the weaknesses of the phalanx and built the first scientifically organized army
 - a. Realized the phalanx was not maneuverable. He converted it from a shock force to a holding force
 - b. Organized in platoons (64), companies (128), battalions (256), and regiments (1024)
 - c. Improved the 10-foot pike with an 18-21-foot sarissa - thrusting and 45 degree angle
 - d. Increased armor of the Hypaspists (Macedonion)
 - e. Although more maneuverable, the phalanx was still weak in maneuver and the flanks were weak. So he used light infantry for mobility (Peltasts - pikemen, archers, slingers, and javelin throwers - "Mercenaries")
 - f. Used heavy cavalry for shock power. Tied to the Phalanx with the peltasts. Companions became the strength of the army
 - g. Developed engines of war (artillery)
 - (1) Ballista - large bow

(2) Catapult

h. Carried only what was needed to fight (example - depended on local trees for rams)

i. Used flags and smoke for signals

j. Formed the first national standing army which allowed for an all-year army with conscripted service times (Europe)

k. Army trained year-round and was kept in the field

l. Balanced and could fight offensively and defensively

NOTE: Philip controlled Greece and wanted to attack Persia but was assassinated in 336 B.C. (TP #11)

F. Alexander 20 years old, 336-323 B.C. (2 years of consolidation)

1. Why attack Persia?

a. Greek race was superior, according to Isocratis

b. Traditional enemy

c. Aristotle's influences on Alexander concerning value of Greek life and a hellenic mankind (TP #12)

2. The army

a. Six 2,000-horse squadrons - Companions - Heavy

b. Three 1,000-man battalions of Hypaspists

c. Six 1,500-man regiments of Hoplites (TP #13)

3. Infantry with 14-foot sarissas and formed 16-deep

a. Misc. - allies for infantry and cavalry

b. Mercenary specialists - archers, slingmen, and javelin men

c. Siege train and artillery

d. Engineering Corps

e. Medical Service

f. Service/supply unit (first) (TP #14)

4. Persia (Darius the Idiot)

- a.No Xerxes
- b.No archers
- c.Lots of cavalry from landowners
- d.Light infantry
- e.Fleet

5.334 B.C., Alexander set out for Persia

- a.Objective - rule Persia
- b.Limited objective - resources
- c.Concerns - Persian fleet
 - (1)LOCs
 - (2)Support insurrections
- d.Plan - take ports by land
- e.Battle of Issus (TP #15)
 - (1)Darius tried to cut LOC
 - (2)Alexander outnumbered, turned and attacked
- 30,000 vs. 100,000
 - (3)Plan - Alexander attacked in en echelon
(left)
 - (4)As Companions crashed left, he threw in the
Hypaspists for victory
 - (5)Darius fled - 50,000 killed vs. 1,000
- f.Tyre - main naval base
 - (1)7-month siege
 - (2)Results
 - (a)Home base LOC protected
 - (b>Inherited #1 navy in the world
 - (c)Controlled Eastern Mediterranean by 332
B.C.
- g.Egypt - indirect approach
- h.Arbela, 331 B.C.

- (1) Fresh - 40,000 troops and 7,000 Companions vs. over 200,000 in cavalry - and tired and untrained infantry and chariots
- (2) Alexander led his Companions through the gap - Darius fled and the Persians crumbled
- (3) Pursuit until dark
- (4) Midnight - again pursuit
- (5) Destruction of Persia
- (6) Results - 50,000 Persians killed vs. 500 Macedonians
- (7) 330 B.C., Darius murdered
- (8) Alexander continued on into India until forced to turn back by mutiny (TP #16)

i. Results of Alexander's rule

- (1) He ruled over 2-million square miles
- (2) Fulfilled Aristotle's dream of Hellenic mankind

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 11

HOURS: 1

TITLE: The Legion and the First Punic War

- I. Learning Objectives
 - A. The student will comprehend, know, and explain the organization of the Roman army, with emphasis on the legionary system
 - B. The student will know/describe the First Punic War, with emphasis on the campaigns against King Pyrrhus
- II. References and Texts
 - A. Instructor references
 - 1. Dupuy, The Evolution of Weapons and Warfare, pp. 18-22
 - 2. Fuller, A Military History of the Western World, Vol. I, ch. 3-4, pp. 115-145
 - B. Student text - Dupuy, The Evolution of Weapons and Warfare, pp. 18-22
 - C. Other references
 - 1. Hart, Strategy, pp. 44-53, 63-64
 - 2. Instructor Resource Manual
- III. Instructional Aids
 - A. Chalkboard
 - B. Overhead projector
 - C. Locally reproduced transparencies (8 transparencies provided)
- IV. Suggested Methods and Procedures
 - A. Lecture
 - B. Lecture and discussion
- V. Presentation
 - A. Roman military organization (TP #1)
 - 1. Legion composition - the legion was a citizen army in which males from ages 17-60 served (20% served

during Punic Wars)

a. Three lines

b. First two lines were composed of 20 maniples, each a separate little phalanx of 12 files and 10 ranks, with a front of 60 feet and a depth of 45 feet

c. Maniples were spaced, checkerboard fashion, allowing maneuver over rough ground and also permitting front line to move back or rear line to move forward, thereby presenting a solid line (TP #2)

d. First line - Hastati - soldiers of 20-30 years old, armed with javelins (7 feet long) and a broad-bladed sword (2 feet long)

e. Second line - Principes - seasoned troops, 30-40 years old, armed like Hastati

f. The third line consisted of 120- and 60-man maniples

g. Tactical concept would be comparable to modern bayonet attacks preceded by rifle fire. The javelins were usually thrown at the enemy just before contact with the sword being wielded at close quarters

h. Third line

(1) Triarii - veteran reserves. Armed with a 12-foot pike and 2-foot sword

(2) Velites - youths, 17-20 years old. Armed with javelins and darts (TP #3)

i. One maniple of each classification, from front to rear, formed a cohort; 10 cohorts formed a legion

j. A legion was customarily supported by cavalry, and often by mercenary slingers and bowmen (TP #4)

2. There were four major factors in the strength and success of Roman armies

a. The moral strength of an army composed of free, intensely patriotic citizens

b. The development of the legion - a new type of military organization superior to any previously seen on the battlefield

c. Maintenance of a high order of military competence, resulting in particular from insistence on constant training and enforcement of severe discipline

d. A traditional, intense, but intelligent reliance upon bold, aggressive doctrine - even in adversity (TP #5)

3. Leadership

a. If the early Romans lacked a Philip or Alexander, they made it plain that they wanted neither. Like the Greeks, they preferred the risk of defeat to the danger of a commander seeking total military and political power

b. Armies were commanded by two consuls, elected annually, each commanding on alternate days. This annual change made continuity of policy difficult, and the daily change resulted in deadlock when consuls disagreed

c. There was no aristocratic officer class. The maniples - the essential tactical units - were each led by two centurions who were experienced soldiers (TP #6)

4. Tactics

a. The agile Velites opened the engagement by pouring in a volley of javelins and darts before retiring to the rear to await their duty of caring for the wounded

b. Then the Hastati went into action, hurling their javelins and rushing in with their short swords before the enemy had time to recover

c. They were followed in rapid succession by the Principes, who added a second shock to the enemy's demoralization

d. Cavalry was used for scouting and pursuit, but had no part in tactics during the early years (TP #7)

B. First Punic War

1. The antagonists

a. Carthage, the Mediterranean sea power

b. Rome, a land power with virtually no navy

2. Cause of the war - warring factions on Sicily. One asked Carthage for aid, the other asked Rome. Not wanting such a strong power so close to Rome, the Romans sent forces to Sicily to battle Carthaginian forces
3. Realizing that victory over Carthage could not be realized without a navy, Rome set to work building one
 - a. The Romans used a Carthaginian ship as a model
 - b. They were not adept at shiphandling, nor knowledgeable seafarers. Rome adapted her navy to make use of her soldiers' skills (i.e., adapted the corvus for grappling and boarding)
4. Rome won major victories at Mylae (260 B.C.) and Cape Ecnomus (256 B.C.), after which Carthage sued for peace. The terms were so harsh that Carthage decided to continue the war and hired Xanthippus, a Spartan soldier of fortune, to train their army
5. The Carthaginian army improved; Rome lost many ships and men to storms, so a stalemate ensued
6. Finally, in 241 B.C., the Carthaginian fleet was destroyed at the Battle of Aegusa, and Carthage sued for peace

C. Summary

1. A centurion controlled a unit of 100 men (later 60-80)
2. Two centuries formed a maniple
3. A cohort = a maniple from each of the three lines, plus the Velites, plus Turma
4. Ten cohorts formed a legion
5. Each Roman legion had a sister legion and formed a corps
6. Two corps formed a consular army
7. Consular army = 20,000 men on a 2,500 meter front and covered 600,000 square meters (3 times that of a phalangial army)

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 12

HOURS: 1

TITLE: Hannibal and the Second Punic War

I. Learning Objectives

- A. The student will know/describe the First Punic War, with emphasis on the campaigns against King Pyrrhus
- B. The student will know and recount the major battles of the Second Punic War, to include the battles of Trebia, Lake Trasimene, and Cannae
- C. The student will know and evaluate Hannibal as a Great Captain
- D. The student will comprehend and explain Hannibal's failure to gain strategic victory despite tactical success
- E. The student will know and review the Battle of Zama and Scipio's impact on the outcome

II. References and Texts. NOTE: This timeframe is a good opportunity to introduce FM1-1 "Campaigning"

A. Instructor references

- 1. Dupuy and Dupuy, The Encyclopedia of Military History, pp. 37-41, 61-71
- 2. Fuller, A Military History of the Western World, Vol. I, ch. 3-4, pp. 115-145
- 3. Dupuy, The Evolution of Weapons and Warfare, pp. 16-36, 316

B. Student text - Dupuy, The Evolution of Weapons and Warfare, pp. 16-36, 316

C. Other references

- 1. Hart, Strategy, pp. 44-53
- 2. Instructor Resource Manual

III. Instructional Aids

- A. Chalkboard
- B. Overhead projector
- C. Locally reproduced transparencies (10 transparencies provided)

- D. Maps
- IV. Suggested Methods and Procedures
 - A. Lecture
 - B. Lecture and discussion
- C. This class is a good opportunity to introduce FMFM 1-1 Campaigning
- V. Presentation
 - A. Second Punic War
 - 1.Origins (TP #1)
 - a.Carthage, to make up for her losses to Rome (Sicily and Sardinia), had sent Hamilcar Barca to Spain to extend her control over that country. Hamilcar was killed in battle in 229 B.C. and his son-in-law Hasdrubal assumed command in Spain
 - b.In answer to this extension of Carthaginian power, Rome made an alliance with the Greek city of Saguntum. Busy with the Gauls and not desiring a war with Carthage, Rome secured a treaty with Hasdrubal which fixed the Ebro River as the boundary between the Carthaginian and Roman interests in Spain. The exclusive factors of these treaties soon led to problems
 - c.Hasdrubal was assassinated in 221 B.C. and Hannibal, son of Hamilcar, assumed command. He immediately began to overstep treaty limits, and in 219 B.C. took Saguntum by siege
 - (1)Rome demanded that these acts be disavowed and that Hannibal surrender
 - (2)Carthage refused and Rome declared war (TP #2)
 - 2.Hannibal's campaigns
 - a.Move to Italy
 - (1)To circumvent Roman control of the sea, Hannibal planned to take a large army overland from Spain, through southern Gaul, across the Alps to the Po Valley
 - (2)He had already sent agents to secure allies along the way, thus assuring a line of communication back to Spain and a

secure advanced base in northern Italy

(3) He had also opened communications with Philip V of Macedon with a view to forcing Rome into a two-front war

(4) In the Spring of 281 B.C., he crossed the Ebro with about 90,000 men and subdued the country south of the Pyrennes. He left a strong garrison there and eliminated from his army all men unfit for the field. He entered Gaul with less than 50,000 infantry, 9,000 cavalry, and about 80 elephants

(5) In October, he crossed the Alps. Having lost some men and animals to battles and weather, he reached the Po Valley with 20,000 infantry, 6,000 cavalry, and a few elephants

b. Trebia, December, 218 B.C.

(1) Having learned of Hannibal's arrival, Consul Titus Sempronius took most of his army from Sicily by sea to join Consul Publius Cornelius Scipio

(2) Hannibal, who had increased his army to over 30,000 by recruiting Gauls, enticed Sempronius to attack across the Trebia River (Against Scipios' advice)

(3) While Hannibal counterattacked the wet, cold Romans, a small force of infantry and cavalry under his brother Mago, concealed in a ravine upstream, struck the Roman flank and rear (double envelopment)

(4) Of the Roman army of 40,000 only 10,000 exceeded 5,000

c. Lake Trasimene, April, 217 B.C.

(1) In the first conscious turning movement of history, Hannibal with about 40,000 men made a surprise winter movement, reaching the Rome-Arretium road near Clusium, thus placing himself between the Roman armies and their capital

(2) Gaius Flaminius, one of Rome's two newly elected consuls, realizing that his line of communications had been cut, marched southward, sacrificing security for speed

(3) Hannibal set up an ambush with his entire army where the main road passed Lake Trasimene in a narrow defile between the lake and the mountains

(a) His heavy infantry blocked the road at the southern end of the defile

(b) His light infantry was under cover on the mountainside

(c) His cavalry was just to the north of the light infantry

(4) As the Roman column moved through the defile, the head of the column was halted by Hannibal's heavy infantry. As the Roman column closed up, Hannibal's cavalry sealed the northern end of the defile, and the light infantry struck the Roman flank

(a) The result was surprise, panic, and slaughter

(b) About 30,000 Romans were killed or captured; 10,000 in scattered groups escaped and fled towards Rome

(5) This was the greatest ambush in military history. The primary reasons for the decisive defeat were

(a) Hannibal's knowledge of Roman practice and the nature of his opponent

(b) Flaminius' neglect of intelligence, reconnaissance, and security (TP #3)

d. Campaigns against Fabius

(1) In Rome, Quintus Fabius was made dictator. Realizing that his raw troops stood little chance against a veteran army with such a leader, he contented himself with harassing the enemy and affording such protection as he could to the country

(2) For months, Fabius risked only such operations as cutting off stragglers, attacking foraging parties, or destroying supplies. He resisted every attempt of Hannibal to lead him into ambush or general engagement

(3) During this period, Rome gathered an army of 85,000. Roman sentiment soon pushed for offensive activity, so in early 216

B.C., two new consuls, Aemilius Paulus and Terentius Varro were elected to seek battle with Hannibal (TP #4)

e. Cannae, August, 216 B.C.

(1) In an effort to force the Romans to battle, Hannibal made a night march to Cannae where he captured a Roman supply depot and gained control of the nearby grain country. The Roman army followed

(2) Hannibal's plan and dispositions

(a) He placed his flanks on the river to secure against envelopment by the larger Roman army

(b) In the center, he had 25,000 Spanish and Gallic infantry, spread out in a thin line

(c) Each wing had a deep phalanx of heavy, reliable African infantry

(d) Left - 8,000 heavy cavalry under Hasdrubal

(e) Right - 2,000 Numidian light cavalry

(f) About 8,000 left to guard the camp

(3) Roman plan and dispositions (TP #5)

(a) Paulus urged caution, but today was Varro's command

(b) Sent 11,000 men to attack the Carthaginian camp

(c) Perceiving that he could not envelop the Carthaginian flanks, Varro decided to crush Hannibal by weight of numbers

1. Doubled the depth of each maniple and greatly reduced the interval, so that his infantry front (about 65,000) corresponded with

Hannibal's 32,000

2. 2,400 Roman cavalry on right, 4,800 allied cavalry on left

(4)The battle (TP #6)

(a)Under the cover of the preliminary skirmishing of light troops, Hannibal personally advanced the thin central portion of his line until it formed a convex shape (salient) toward the Romans. His heavy infantry wings stood fast

(b)The battle was opened on the left by a charge of the heavy cavalry which crushed the Roman cavalry, then swung completely around the rear of the Roman army to smash the rear of the allied cavalry, then engaged in combat with the Numidians

(c)Having removed the Roman cavalry threat, Hannibal's heavy cavalry turned to strike the rear of the Roman infantry, while the Numidian cavalry prevented any Roman horse from returning

(d)Hannibal's salient had slowly withdrawn under fierce Roman pressure

(TP #7)

(e)Varro then ordered the maniples of his second line into the intervals of the first, then ordered his Triarii and Velites to add their weight

(f)Hannibal then gave the order to strike

1. The wings - thus far hardly engaged - advanced, wheeling inwards against the Romans

2. At this time the Carthaginian heavy cavalry struck the rear of the Roman infantry

(g)The Romans were virtually disarmed, being so crowded together that few men had the free use of their weapons

(h)Of the Roman army of 85,000, only about 15,000 managed to escape. Hannibal's losses were about 6,000

f.Battle of the Metaurus, 207 B.C.

- (1)After Cannae, Hannibal continued to move freely throughout southern Italy. Rome continued to raise armies, but continued to lose most of the battles. After a few years, though, Hannibal's strength began to lessen, and he was forced to adopt Fabian tactics more often
- (2)In 208 B.C., Hannibal sent word to Hasdrubal, then in Spain, to bring reinforcements to Italy
- (3)Early in 207 B.C., Hasdrubal pushed over the Alps, arriving in the Po Valley with about 50,000 men. He sent messengers to Hannibal to report his arrival, then began to advance slowly toward central Italy
- (4)The messengers were captured and the plans fell into Roman hands
- (5)Consul Caius Claudius Nero, who was facing Hannibal, took the best troops of his army and marched quickly and secretly north to join Consul M. Livius Salinator, who was facing Hasdrubal near the Metcurus River
- (6)The Roman force soundly defeated Hasdrubal's army, after which Nero returned to his main force, marching 250 miles in 6 days
- (7)The first news Hannibal received of his brother's defeat was when Hasdrubal's head was thrown over the ramparts of his camp
- (8)Giving up all hope of victory, Hannibal withdrew into Bruttium, seeking only to maintain a foothold in Italy
- (9)This is the first recorded example in interior lines (i.e., an operation in which a commander takes advantage of his position between two enemies to attack one before the other can come to the rescue)

3.Resolution

- a.Late in 210 B.C., Publius Cornelius Scipio - known as Scipio Africanus - landed in Spain, and by 205 B.C., had completely eliminated Carthage's influence and power there
- b.Carthage had now lost Spain, Sicily, and Sardinia. Macedonia had made peace with Rome, and Hannibal was

contained in lower Italy
c. The Roman Senate intended to strangle Hannibal and his army where it was, but Scipio proposed a different strategy

(1) Keep Hannibal where he was

(2) Strike at Carthage

d. Scipio landed in Africa in 204 B.C., and by 203 B.C. forced Carthage to sue for peace

e. During the ensuing armistice, Hannibal sailed to Africa with 18,000 men. Upon his return, the Carthaginian Senate broke off negotiations and decided to continue the war, which was finally decided at the Battle of Zama

f. Zama, 202 B.C. (TP #8)

(1) Each army was about 40,000 strong

(a) Hannibal was much weaker in cavalry, which had always been his arm of victory

(b) His infantry was of poor quality

1. Few real veterans could have been left after years of campaigning in Italy

2. His Italian remnants had been hastily combined with the "military debris" from the recent defeats in Africa (TP #9)

(2) Hannibal's disposition

(a) 80 elephants in front of his army

(b) Infantry in three lines

1. First line - heavy and light infantry, some slingers

2. Second line - troops in whom he had the least trust - the new levies

3. Third line - veterans from Italy, held about 200 yards behind the second, so that it should not get involved before it could deliver the decisive blow

(c) Cavalry

1. 1,000 Numidian on the left wing

2. 1,000 Carthaginian on the right
wing

(3) Scipio's dispositions. Adopted the normal dispositions of the legion to deal with the elephants and to exploit his cavalry superiority

(a) Disposed the maniples in column, leaving gaps so that the elephants could pass through and be dealt with by the Velites in the lanes

(b) Numidian cavalry on the right, Italian cavalry on the left

(4) The battle

(a) The elephants charged, but panicked when Scipio ordered a blast of trumpets and horns all along his line. A few elephants were herded through the lanes in Scipio's army, but most panicked and fled back among Hannibal's ranks, causing much confusion

(b) Seeing the confusion, both of Scipio's cavalry forces attacked Hannibal's cavalry, routing them and exposing Hannibal's flanks

(c) The infantry forces clashed; after a tough battle, Hannibal's two front lines began to retreat. Hannibal, refusing to allow fresh and disciplined troops to get involved with defeated ones, ordered his third line to level their spears against his retreating forces, forcing them to flee to the flanks

(d) The Roman army, now outnumbering Hannibal's forces, engaged his reserve which was fresh. The battle remained in doubt until the Roman cavalry forces returned to strike Hannibal's force in the rear

(e) Hannibal lost 20,000 dead and 15,000 prisoners. Scipio's losses were about 1,500 dead and 4,000 wounded

D. Evaluation of Hannibal (TP #10)

1. Many tactical victories, but none were operational

or strategic

a. Was accused of knowing how to win victories but not how to use the victories toward the success of the operation

b. No siege capability

c. Misjudged the attitude of Roman allies; thought they would break with Rome once he entered Italy

2. Accomplishments particularly noteworthy

a. Long supply lines

b. Diverse elements in his army - language, customs, etc.

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 13

HOURS: 1

TITLE: Post-Third Punic War Legion Reorganization

I. Learning Objective - The student will know and identify the changes made in the Roman military organization after the Third Punic War and the causes of these changes

II. References and Texts

A. Instructor references

1. Dupuy and Dupuy, The Encyclopedia of Military History, pp. 69-76

2. Dupuy, The Evolution of Weapons and Warfare, pp. 16-26

3. Fuller, A Military History of the Western World, Vol. I, Chronicles 3-8; ch. 4, 6, 7, 9

4. Jones, The Art of War in the Western World, pp. 72-86

B. Student text - Jones, The Art of War in the Western World, pp. 72-86

C. Other reference - Hart, Strategy, pp. 44-58

III. Instructional Aids

A. Chalkboard

B. Overhead projector

C. Locally reproduced transparencies (5 transparencies provided)

D. Maps

IV. Suggested Methods and Procedures

A. Lecture

B. Lecture and discussion

V. Presentation

A. Changes in Roman military organization after The Third Punic War

1. Legions' composition changed (TP #1)

- a. As Roman wealth grew, a profound change took place - the rich increasingly avoided military services, with the result that by about 104 B.C., Consul Caius Marius threw the army open to volunteers outside the propertied classes
 - b. Voluntary enlistment replaced the compulsory levy, and all free-born Romans gained the right to serve in the army
 - c. Before long, even slaves, criminals, and aliens were recruited to fill the ever-increasing need for soldiers
 - d. The practice of combining a Roman with an Italian legion fell into decline, and both classes of citizens mingled in the ranks
 - e. The old distinctions between Triarii, Principes, and Hostati were abolished, and legion infantry consisted simply of heavy or light troops (TP #2)
2. Enlistments were no longer "for the duration," but for a term of 16 years, and the soldier now swore loyalty to his general, not to Rome
3. Proconsuls - governors of territories - gained greater power: head of army, only nominally answerable to the Senate
4. With the reduced "admission standards", the quality of the legionnaire declined. To offset this, Marius made the cohort his major tactical organization (previously, the maniple had been). The maniple remained merely an administrative element within the cohort (TP #3)
- a. The interval between cohorts was decreased to the point where a cohort resembled a phalanx
 - b. Ten cohorts continued to comprise a legion (TP #4)
5. Perhaps because it could be trusted less, the legion, by Caesar's time, was led with more foresight on the march
- a. Preceded by a vanguard of cavalry and heavy foot
 - b. Main body plus baggage in the center
 - c. Rear guard disposed for immediate action
 - d. Light infantry flank guards

B. Caesar (TP #5)

1. Julius Caesar was neither the first nor the last of the self-made dictators of the ancient world, but he was one of the most talented. At the age of 40, he set out to learn the art of war
 - a. Between 61-60 B.C., as proconsul of Spain, he suppressed uprisings of unruly barbarians
 - b. In 60 B.C., he formed the First Triumvirate along with Pompey and Crassus
 - c. By agreement of the triumvirate, he was appointed proconsul of the Roman provinces of Gaul in 58 B.C.
 - d. By 51 B.C., he had expanded Roman power in Gaul and quelled all revolts

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 14

HOURS: 1

TITLE: The Rise of Julius Caesar (60-44 B.C.)

I. Learning Objective - The student will know and describe the civil wars between Caesar and Pompey, with emphasis on the reasons for Caesar's success militarily

II. References and Texts

A. Instructor references

1. Dupuy and Dupuy, Encyclopedia of Military History, pp. 96-113

2. Fuller, A Military History of the Western World, Vol. I, Chronicles 3-8; ch. 4, 6, 7, 9

3. Preston and Wise, Men in Arms, pp. 39-49

B. Student text - Preston and Wise, Men in Arms, pp. 39-49

C. Other reference - Hart, Strategy, pp. 53-58

III. Instructional Aids

A. Chalkboard

B. Overhead projector

C. Locally reproduced transparencies (8 transparencies provided)

D. Maps

IV. Suggested Methods and Procedures

A. Lecture

B. Lecture and discussion

V. Presentation

A. Changes in Roman military organization after the Third Punic War

1. The Civil War (TP #1)

a. Background

(1) Crassus was killed in battle in 53 B.C.

(2) Pompey, increasingly jealous of the growing

fame of Caesar, had himself elected sole consul and became virtual dictator

(3) The Senate, supporting Pompey, passes laws which would cause Caesar's political and military power to lapse on 1 March, 49 B.C.

(4) Refusing to accept this, Caesar "crossed the Rubicon" in December, 50 B.C. or January, 49 B.C. with his 13th Legion

(a) This was an act of war. Under Roman Law, a general was forbidden to bring his forces into Italy proper without consent of the Senate. The Rubicon was the northern boundary

(b) Previously, Caesar had fought barbarians - poorly organized, often poorly led and poorly equipped. Now he would be fighting Roman legions

b. Popular sympathy was with Caesar (partly because of his Conquest of Gaul). Within two months Pompey and the Senate had abandoned Rome and fled to Epirus (west coast of modern Greece) and Caesar was in Rome, master of all Italy

c. It took Caesar 5 years to defeat Pompey and his supporters (TP #2)

d. Ilerda Campaign

(1) Spain was held by Pompeian forces, while Pompey was in Greece. Caesar decided first to fight the "army without a general," then turn against the "general without an army," so he started for Spain

(2) Caesar first confronted Pompey's forces at Ilerda, where he attempted to defeat them by frontal assaults on their camp. Two such assaults were repulsed with heavy losses, whereupon Caesar began a series of marches and countermarches, continually keeping the enemy from securing food, safety, and then water

(a) Caesar forces the enemy to take a weak defensive stand, then declines an almost certain victory

(b) Caesar pursues his opponents, harassing their flanks and rear without ever coming to grips

(c) Caesar makes a rapid countermarch and cuts the enemy off from a retreat to Ebro defiles

(d) Caesar again takes the opposing legions at a disadvantage - and again refuses a battle which obviously would have resulted in the destruction of the other army

(e) Caesar makes another countermarch and heads off his faltering enemy from obtaining water at the Sigoris

(f) Caesar cuts off his foes from their last resort of regaining the fortified camp at Ilerda

(g) Caesar gains the complete surrender of an army outmaneuvered at every turn and twice spared from a bloody defeat. The entire campaign was designed to undermine the loyalty and resolution of legions which were serving Pompey rather than Rome. Caesar added to the moral effect by encouraging his troops to fraternize with the enemy, knowing that the outcome would be in his favor. By sparing fellow Romans from slaughter, he not only won credit for magnanimity, but also for expert generalship which could not fail to appeal to professional soldiers. Finally, he made the dramatic gesture of offering his 70,000 prisoners their liberty and a safe escort to Rome, with the result that most of them immediately enlisted in his ranks
(TP #3)

e. Dyrrhachium

(1) In December, 49 B.C., he assembled 12 legions at Brundisium (Brindisi) and prepared to seek out Pompey

(2) In spite of difficulties, he sailed for Greece

(a) Ships were scarce, and he could only carry seven legions initially.
(Purposely violating the principle of mass?)

(b) Pompey's fleets controlled the sea, making transport hazardous

(c) It was midwinter, but he chose his time and his weather, and he rightly calculated that the hostile fleet

would be less vigilant than if he waited until spring

(3) He avoided the large ports and eluded the hostile fleet, landing at Palaeste. His ships went back for Marcus Antonius (Mark Anthony), and the remaining 20,000 men of his army (TP #4)

(4) Caesar and Pompey made contact near the Apsus River

(a) Pompey was superior in force, but his troops were inferior in quality

(b) Neither wished to take the offensive

1. Caesar preferred to wait for Anthony and the rest of his troops

2. Pompey hoped that his fleet could prevent Anthony from sailing and that ultimately Caesar would have to yield (TP #5)

(5) Anthony succeeded in crossing and landed north of Dyrrhachium

(6) Pompey moved to prevent the juncture of Anthony with Caesar, but Anthony avoided the ambush and effected the linkup, after which Pompey fell back to Dyrrhachium

(7) Caesar decided to contain Pompey with the bulk of his force, and sent three legions into the interior to seek alliances and supplies, and to stop reinforcements from arriving

(8) Both generals built lines (embankments) facing one another

(a) Caesar could not establish a total blockade, as Pompey controlled the sea; his main goal was to gain a moral advantage by making it appear that Pompey dare not fight

(b) Finally Pompey, using his interior lines and control of the sea, concentrated a superior force at the point where Caesar's left touched the shore

(9) Pompey's forces won the ensuing engagements and Caesar retreated to safety, marching three days over difficult country with a victorious enemy at his heels. History

may have been different had Pompey pursued
with more vigor (TP #6)

f. Pharsalus

- (1) Caesar regrouped in Thessaly, having with him about 30,000 infantry and 1,000 cavalry
- (2) Pompey, with a decidedly superior force - 2:1 in infantry, 3 or 4:1 in cavalry - met Caesar on the Plain of Pharsalus
- (3) Pompey's plan was to secure his right flank on the Enipeus River, and with his vastly superior cavalry outflank Caesar's right, sweep around it, and attack him in the rear
- (4) As Pompey marshalled his line of battle, Caesar grasped what his opponent's intentions were
 - (a) He brought up his 1,000 cavalry, supported by the light infantry on his right, to face Pompey's cavalry
 - (b) Then "fearing lest his right wing should be surrounded by the multitude of cavalry, he hastily withdrew individual cohorts from his third line" (Fuller, Vol. 1, p. 195) and formed them into a fourth line, obliquely to his front and immediately behind his cavalry, so that Pompey was unaware of the movement of forces
- (5) Pompey left the initiative with Caesar (TP #7)
 - (a) Caesar launched his attack, as Pompey did not advance to meet it. When his men had covered about half the distance between the armies, Caesar halted them that they might regain their breath
 - (b) He renewed his advance, and Pompey then launched his cavalry, archers, and slingers
 - (c) As this force was about to outflank Caesar's right, Caesar gave the signal to his fourth rank to attack. They advanced rapidly, attacking with such fury that Pompey's cavalry quickly took to the hills

(d)The infantry forces were now fully engaged; Caesar's fourth line now moved around Pompey's left and Caesar ordered his third line to move up to engage the enemy (timely use of reserves!)

(e)Pompey fled and his forces broke for the hills, where they were soon surrounded and forced to surrender

(TP #8)

g. Ruspina

(1)Caesar landed in Africa in October, 47 B.C., and soon encountered a much stronger foe near Ruspina (east coast of Tunisia)

(2)Having no fears of a frontal attack, but apprehensive for his flanks, he formed his cohorts into a single line

(3)The enemy quickly surrounded him, driving his cavalry into the intervals between his cohorts

(4)Seeing that his men were being crowded into a helpless mass, he faced each alternate cohort to the rear. He then formed two lines back to back and pushed in both directions. His cavalry guarded the intervals, and he soon broke out and was able to retreat to his camp near Ruspina. Imaginative action salvaged a defeat

h.Further operations in Africa and Spain saw Caesar victorious. He had little time to enjoy the fruits of victory, as he was assassinated 15 March, 44 B.C.

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 15

HOURS: 1

TITLE: Caesar Augustus and the Pax Romana (29 B.C. - A.D. 378)

I. Learning Objectives

- A. The student will comprehend and explain the power struggle after the death of Caesar, with emphasis on the Battle of Actium
- B. The student will know and recall the key changes in the Roman military system from Actium to Adrianople and the causes of these changes
- C. The student will comprehend and explain the concept of Pax Romana

II. References and Texts

A. Instructor references

1. Dupuy and Dupuy, Encyclopedia of Military History, pp. 112-147

2. Fuller, A Military History of the Western World, Vol. I, Chronicles 3-8; ch. 4, 6, 7, 9

B. Other reference - O'Connell, Robert L., "The Roman Killing Machine," Military History Quarterly, Vol. 1, No. 1, Autumn 1988, pp. 36-47 (Instructor Resource Manual)

III. Instructional Aids

A. Chalkboard

B. Overhead projector

C. Locally reproduced transparencies (11 transparencies provided)

IV. Suggested Methods and Procedures

A. Lecture

B. Lecture and discussion

V. Presentation

A. Caesar's lieutenants

1. After Julius Caesar's assassination, intermittent civil conflict broke out between his lieutenant, Mark Anthony, and his designated heir and grand nephew, Gaius Julius Caesar Octavianus (Octavian)
2. After years of intrigue, alliances made and broken, and battles fought, the contest appeared to be between East and West, for eventually Anthony ruled in Egypt with Cleopatra, while Octavian ruled from Rome
3. In 33 B.C., Anthony's repudiation of his marriage to Octavia (sister of Octavian), and his subsequent marriage to Cleopatra, hastened the inevitable break
4. 32 B.C., the Roman Senate declared war against Cleopatra, and stripped Anthony of his title as triumvire
5. April - May, 32 B.C., Anthony and Cleopatra moved to Greece with an army and a powerful fleet
 - a. Octavian convinced the Romans that this was preparatory to an invasion of Rome
 - b. Actually, Anthony's objective was to discourage an Octavian invasion of the east. He could not invade Italy with or without Cleopatra. To invade Italy without her was impossible, for to repudiate her would have disrupted his army and fleet
6. In 31 B.C., Octavian landed in Greece with over 90,000 troops and moved to seize and fortify a strong position 5 miles north of Actium. He also seized islands and key points along the Greek coast, breaking Anthony's supply line to Egypt and Asia
7. Anthony and Cleopatra decided that their best hope would be a naval battle. In the event of defeat they could out sail the ships of Octavian's fleet
8. The Battle of Actium, September, 31 B.C. (TP #1)
 - a. Anthony and Cleopatra had 200 or so ships typical of the fleets of the previous 2 centuries with from 4 to 10 banks of oars. Turrets were added for artillery and the sides armored against ramming by belts of timber bound with iron
 - b. Octavian also had about 200 ships, but his were of the type used recently by the Mediterranean pirates; light and swift, with only 2 banks of oars

- c. While Anthony's ships would rely on artillery to hurl stones and arrows in showers, and the harpago (a flying grappling hook attached to a winch) Octavian's would use maneuver, flaming arrows, and ramming
- d. Anthony knew that on the coast at that time of year the wind in the morning usually came in from the sea, but about midday shifted to the northwest and blew with some force
 - (1) He planned to use the shift in the wind to turn the enemy's left and drive them southward, away from their camp
 - (2) In case his plan miscarried, he would then break through to Egypt with what ships he could
 - (3) Accordingly, Anthony ordered that many of his ships carry their sails, an unusual course for such a battle (TP #2)
- e. When deserters informed Octavian of Anthony's plan to break out, he ordered his fleet formed up to meet Anthony upon his exit from the sheltered bay
- f. Anthony's fleet sailed out, formed up, and waited for the wind to shift
- g. Agrippa, Octavian's fleet commander, had formed up seaward of Anthony's position and was also waiting for the wind to shift,

intending to turn Anthony's right
- h. About noon the wind shifted and the northern squadrons of each fleet raced to turn each others flank. This separated both squadrons from their main body
- i. While these forces were thus engaged, Anthony's center and left units back-watered and returned to the harbor. The left two-thirds of Anthony's wing tried the same but, finding their way blocked by Cleopatra's squadron, raised their oars in token of surrender
- j. This defection left Anthony no alternative but flight. He signaled to Cleopatra, who ordered sails raised, and such ships as had not deserted Anthony fled to Egypt
- k. The commander of Anthony's army ashore attempted to withdraw his army, but his men refused to march, instead surrendering to Octavian

1. Octavian landed in Egypt in the summer of 30 B.C. In August, after Anthony's troops had deserted, he committed suicide believing that Cleopatra was dead. Learning of his death, and also learning that Octavian planned to parade her through Rome, Cleopatra also committed suicide

m. Octavian annexed Egypt and three years later outwardly restored the Republic, taking the title of Augustus - the Consecrated ("Sacred")

D. Development of great empires in the East - At the same time the Roman Empire of the Mediterranean was developing, the Han Empire of China developed as the great power of the East. Unlike the Roman Empire, in which infantry was the prevalent combat arm, in the East cavalry predominated

E. The Pax Romana and changes to the Roman military system (TP #3)

1. "Pax Romana" refers to the period from Caesar Augustus (27 B.C.) to the Battle of Adrianople (A.D. 378)

2. The empire which Octavian won at Actium stretched from the Atlantic to the Euphrates and from the North Sea to the Sahara Desert, including within it all the states which fringed the Mediterranean. It had grown by chance and not by design, and to consolidate it and transform its diverse peoples into a single Roman nation demanded two things

a. Internal pacification

b. Establishment of secure frontiers (TP #4)

3. Augustus instituted several changes

a. In 13 B.C., he reduced the army of the Roman Empire to 25 legions (about 300,000 soldiers) and made them swear loyalty to him alone. Gradually increasing barbarian pressure, however, caused this number to climb to perhaps 400,000 over the years

b. In A.D. 6, he established a permanent fund which would pay retirement benefits to the soldiers

c. He encouraged retired soldiers to settle in the provinces near their former legion

d. He increased enlistments to 20 years, and standardized the pay for all soldiers, based upon length of service (TP #5)

4. The army was now oriented to defense, and by the

time of Pablius Aelius Hadrianus (Hadrian), who reigned between 117 and 138, the army was strictly defensive

5. Each legion of 5,000 to 6,000 heavy infantry was supported, as in the republican past, by at least equal numbers of archers, slingers, light foot, and cavalry serving as auxiliaries. The only tactical changes of note were to be found in an increased emphasis upon cavalry and war engines
 - a. Cavalry (mobility for frontier patrols) - in the early days of the republic the proportion of cavalry to infantry was at most one-tenth, rising to one-seventh during the civil wars. Now the numbers had grown to one-fourth as the legion faced the problem of mounted barbarian raiders able to elude the heavy infantry
 - b. The use of war engines had formerly been confined to siegecraft, but the empire found them valuable for the defense of border castella
 - (1) By the 4th century, 10 catapults and 60 ballistae were assigned to each legion
 - (2) This is one of the highest ratios of "guns" to soldiers in history
6. Other than that, there were no startling or significant developments in the design or employment of weapons, either on land or on sea
 - a. The Romans, with unchallengeable superiority in all aspects of warfare, had no incentive to modify or improve
 - b. In fact, the scientific knowledge and technology of the times had not advanced sufficiently in this period to provide a real basis for major changes
7. Because the policy was now security and not conquest, the legions and the auxiliary were distributed in groups to hold the frontiers, each group based on a defended military center called a castellum. This policy, together with new recruiting policies, had potential (sometimes actual) problems
 - a. This policy of containment, as contrasted to expansion and conquest, had a profound effect on the legions

(1)As their purpose was now to maintain peace and not to make war; their valor, which formerly had been stimulated by patriotism or plunder, gradually deteriorated

(2)The growth of pacifism, through loss of fear, led to the recruitment of fewer and fewer citizens and more and more barbarians in order to keep the legions up to strength

b.Legions soon became responsible for their own recruiting which, quite naturally, occurred in the local area. While it was in some ways an advantage to defend areas on the frontiers with troops familiar with the district, there were three dangers to this policy

(1)The idea of imperial unity could be lost, as the troops on one frontier had no contact with those on another

(2)It could happen that the garrison forces would degenerate into a local militia of rather idle and inefficient peasants, confident in the imperial peace and reclining on an easy life

(3)As more and more recruits came from the barbarian tribes across the frontier, the danger of defection in battle increased

8.The Pax Romana reached its zenith under the emperor Antoninus Pius (138-161) and Marcus Aurelius (161-180). There had grown up a Mediterranean nation, with Italy merely a province

a.A common law was established throughout the empire, based on fairness and reason

b.Good system of roads which linked the empire culturally, commercially, and strategically

c.Common currency, weights, and measures

d.Establishment of banks and bank drafts

e.Expansion of trade as far as India and China

E. Battle of Adrianople (TP #6)

1. Decay of Rome

a.Besides external dangers to the empire, internal rot was accelerated by the decline in farming

- (1) The small farms were increasingly swallowed by the large. These "villas" had at first been worked by slaves (soldiers captured in battle; citizens of captured cities, etc.), but as Rome expansion ceased, the source of labor dried up
 - (a) Free peasants were forced to become coloni, virtually serfs tied to the land
 - (b) When they proved insufficient, barbarians were invited to work
- (2) A further cause was the progressive exhaustion of the soil. The amount of land under cultivation continually decreased until the empire could no longer feed its millions
- (3) Lack of agriculture led to the decline of industry
 - (a) More people drifted into the cities, adding to the already great financial burden
 - (b) When the country communities became too poor to purchase the products of the cities, the unemployment ranks were further increased as the city industrial workers were laid off
- (4) Coincident with this decline in production, the coinage was debased increasingly in order to keep enough money in circulation for business and trade
 - (a) Augustus' time (27 B.C. - A.D. 14) - pure silver
 - (b) Aurelius' time (161-180) - 25% alloy
 - (c) By 220 - 95% alloy
- (5) The more economic resources dried up, the higher taxation rose, and the more the state preyed upon the weak
 - (a) Prices rose and the population fell
 - (b) To make good this loss in men, all classes not belonging to the privileged governing caste were forced to become state-employed workers tied to their occupations. Private economy was replaced by forced labor

b. Another cause of decline was the rapid decay of classical religion and its steady replacement by new creeds

(1) More educated turned to philosophy

(2) Less educated turned to Oriental cults

(3) In the 2nd century, Christianity was both rapidly ousting and absorbing all the other new cults. Its followers persistently undermined the order of things

(a) Shunned the festivals

(b) Refused military service

(c) Openly prophesied the downfall of the empire

2. Decline of the army (TP #7)

a. Professional politicians, eschewing the hardships of campaigns as legionnaires and junior officers, were frequently thrust into positions of military command for which they had little background, experience, or inclination

b. The general lack of trustworthiness of troops recruited reduced discipline and training

c. Increasing lack of confidence between commanders and troops created a tendency to reduce the intervals between units of the legion. This in turn decreased the inherent superiority of the Roman formation over those of its enemies, and contributed to a number of Roman defeats

d. One of the major causes of disorganization was the system of sending units from one portion of the frontier to reinforce units engaged elsewhere

(1) Since to send an entire legion would have left a dangerous gap in the defenses, portions of several different legions would be sent to reinforce units engaged elsewhere

(2) These temporary groupments, or task forces, were called vexillations

(3) The vexillation system had initially been satisfactory. As soon as the threat was taken care of, the vexillation was dissolved, and the detachments returned to their parent legions

(a) But during the turbulent period between A.D. 235 and 290, detachments and whole vexillations were shifted so rapidly from one frontier to another that units became hopelessly mixed up

(b) The tradition of the legion, and its impact on esprit de corps, almost disappeared (TP #8)

3. The Battle of Adrianople (140 miles west-northwest of Constantinople)

a. The Visigoths

(1) The Visigoths were a border tribe, friendly to the empire. When they were attacked by the Huns in A.D. 376, they asked permission to move inside the Roman frontier. This was granted on the severe condition that they give hostages and be disarmed

(2) The local Roman officials allowed the Visigoths to retain their weapons in return for certain "favours"

(3) For over a year the Roman officials abused the Goths, profiteering on their food supplies. Finally the Visigoths, now supported by the Ostrogoths, rose in revolt against the empire and pillaged the countryside

b. The Emperor Valens sent troops to crush the revolt, himself leading an army of about 60,000 to Adrianople

c. The battle (TP #9)

(1) Valens came upon the Gothion camped in a great wagon laager

(a) He drew up his army in the historic Roman fashion - legions massed in the center, cavalry on the wings

(b) Believing that all the enemy were inside the laager, he attacked (TP #10)

(2) The bulk of the Gothic horsemen were in fact out foraging; they were quickly recalled and formed together

(3)As the battle raged, the Gothic horsemen charged down on the Roman left

(4)The Roman cavalry disintegrated quickly, and the Goths crashed against the infantry

(5)The Roman right fled, and the infantry, left alone and in a mass such that most of the soldiers could not effectively wield their weapons, were slaughtered

d.The first victory of cavalry over infantry (TP #11)

e.The importance of the campaign of Adrianople is twofold

(1)The impending collapse of history's greatest empire at the hands of Gothic barbarians

(2)A revolution in tactics. A relation between cavalry and infantry was now established

(a)Cavalry was now the chief arm

(b)Light infantry would prepare and support the attack by their fire

(c)Heavy infantry

1. Expected normally to stand firm behind their shields, their immovable mass forming the pivot of defensive action

2. On the offensive, their role was now virtually limited to standing in reserve ready to repel hostile counterattacks should the cavalry be repulsed

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 16

HOURS: 1

**TITLE: Byzantium: From Constantine to Justinian
(A.D. 330 - 565)**

I. Learning Objectives

A.The student will know and recall the attempt by Justinian to reunite the old empire and his use of the tactical genius of his commanders, Belisarius and Narses

B.The student will know and discuss the Byzantine military philosophy

II. References and Texts

A.Instructor references

1.Fuller, A Military History of the Western World, Vol. I, Chronicle 11; ch. 11 and 14

2.Jones, The Art of War in the Western World, pp. 92-109

B.Student text - Jones, The Art of War in the Western World, pp. 92-109

C.Other reference - Hart, Strategy, ch. IV, pp. 59-74

III. Instructional Aids

A.Chalkboard

B. Overhead projector

C.Locally reproduced transparencies (6 transparencies provided)

IV. Suggested Methods and Procedures

A. Lecture

B. Lecture and discussion

V. Presentation

A.Byzantium - origin and philosophy

1.Five hundred years passed between Caesar's triumph and the final collapse of Rome. And even then a "Roman Empire" continued for another thousand years in a different location. This was due first to Constantine the Great's transfer of the capital from Rome to Constantinople in A.D. 330; second to

the definite division in A.D. 364 of the Roman world into an Eastern and Western Empire

2. Because of its location, Constantinople became dominant in the commerce between East and West. As a result, it became one of the wealthiest cities of the time

3. Because of that wealth and its strategic location, Constantinople and the Byzantine Empire became the objective of many invasion attempts

4. While the Western Roman Empire was being divided, the Eastern Roman Empire continued to survive for hundreds of years, because of several reasons

(TP #1)

a. The Church had close ties with the state

b. Byzantium was economically prosperous

c. A centralized, autocratic rule was maintained

d. There was wise leadership over the long term

e. A sensible military organization and philosophy prevailed

5. Military organization and philosophy (TP #2)

a. The empire was survival-oriented, its rulers realizing the folly and expense of an expansionist policy

b. Although the Byzantine emperors were forced to use foreign mercenaries in the army, they strongly encouraged the recruitment of native-born soldiers, and in fact, had a much smaller percentage of non-citizens in the army than was found in the west

c. Army commanders relied heavily on ruses, not worrying about "morality in war"

d. Warfare was carefully studied and analyzed (TP #3)

e. The basic military strength of the empire lay in its disciplined heavy cavalry. The cataphract (heavy cavalryman) of the Byzantine Empire symbolized the power of Constantinople in the same way that the legionary had represented the might of Rome. Men and horses were superbly trained and capable of complex evolutions on the drill field and the battle-field. There was great emphasis on archery marksmanship and on constant practice in the use of other weapons

f. Because of Byzantines' approach toward war and also because of the scarcity of resources with which to make war (especially soldiers), there was great emphasis placed on good "generalship" (TP #4)

B. Justinian

1. Justinian was ruler of the Byzantine Empire from A.D. 527 to 565. He looked upon himself not only as heir to the Caesars, but also as the supreme head of the Church, and throughout his reign he held two fixed ideas

a. Restoration of the Western Empire

b. Suppression of the Arian heresy which denies that Christ was one substance with the father. Hence, all his wars took on the character of crusades, for he felt that his mission was to lead the heathen peoples into the Christian fold

2. Undertaking the reconquest of the Western Roman Empire, he was successful in Africa and Italy due to the excellent weaponry, mobility, and shock value of his horse archers and to the brilliant generalship of Belisarius and Narses (TP #5)

3. Belisarius

a. A young officer (27 years old) of Justinian's bodyguard. Belisarius was selected in 529 to lead the main army, which he did for 20 years, winning many important battles for the Empire. Daras, Ad Decium and Tricamcron will be discussed

b. Daras (A.D. 530)

(1) The Byzantine Empire was in a precarious position - its forces having suffered a number of defeats on the Persian frontier

(2) In A.D. 530, a Persian army of about 40,000 advanced upon the fortress of Daras. Belisarius had a force there of about 25,000 mostly newly arrived recruits

(3) Rather than stand a siege, Belisarius decided to risk a battle, but on ground he had carefully prepared for offensive-defensive tactics

(a) He could count on the Persians' contempt for the Byzantines,

as well as their superiority in numbers, to make them take the lead in the attack

(b) He dug a wide and deep ditch in front of Daras, but near enough to the walls to allow support by overhead fire from the battlements. Behind this main trench, he placed his less reliable infantry

(c) Cross trenches ran out at right angles from the ends of the main ditch, and from each of these ran another trench to the hills on either side of the valley. Along these flanking extensions, which had passages at wide intervals, bodies of heavy cavalry were posted. Light cavalry units were posted at the two inner corners to harass the enemy's rear should the heavy cavalry be forced back

(4) The Persians were baffled by these dispositions and spent the first day in exploratory skirmishing

(5) The battle

(a) The Persians were careful not to push into the obvious trap in the center, thereby playing into Belisarius' hand

1. Their effort was split (on the flanks)

2. The fighting was confined to the cavalry - the arm in which Belisarius was least outnumbered and upon which he could best rely

3. At the same time, Belisarius' infantry were able to contribute by their archery fire

a. The Byzantine bow outranged the Persians'

b. The Persian armor was a poor defense against the Byzantine arrow

(b) On the Byzantine left, the Persian cavalry at first made progress, only to be attacked to their rear by a small cavalry detachment that had been

hidden in the hills. This, coupled with the appearance of the light cavalry on their left flank, caused the Persians to retreat

(c) On the Byzantine right, the Persian cavalry pressed up to the walls of the city, only to produce a gap between them and the static center. Into this gap Belisarius threw all his available cavalry

1. This drove the Persian cavalry away from the battlefield

2. Then the Byzantine cavalry turned on the exposed flank of the Persian infantry in the center

(d) The battle ended in the decisive defeat of the Persians; the first they had suffered at Byzantine hands for several generations

c. Ad Decimum (September, A.D. 533)

(1) Justinian decided, for political and religious reasons, to reconquer Africa from the Vandals

(2) On 22 June, Belisarius set sail with an army of 10,000 infantry and 5,000 cavalry and landed at Cape Vada, 130 miles south of Cape Bon, and immediately marched north toward Carthage

(3) After he built a fortified camp, he set out for Carthage

(a) Preceded by an advanced guard of 300 horses

(b) 600 Huns covered his left flank

(c) His entire fleet (nearly 600 ships) followed the coast on his right

(4) When he heard of Belisarius' landing, the Vandal King Gelimer attempted to ambush him at the 10th milestone (Ad Decimum) from Carthage. His plan was an over-complicated one

(a) His brother would engage Belisarius' vanguard

(b) He, with his main body, would attack Belisarius' main body in the rear

(c) His nephew would move over the hills and attack Belisarius' left flank

(d) These were to be simultaneous attacks.
(Rather difficult in an age of no clocks?!)

(5) The battle - 13 September

(a) Gelimer's brother attacked prematurely, was mortally wounded, and his troops panicked and fled

(b) His nephew was routed by Belisarius' flank guard

(c) Gelimer, misled by the terrain, came upon the lead unit of Belisarius' main body, which was far ahead of those behind, and routed it. Rather than exploiting his success, he fell back. Finding the mutilated body of his brother, he abandoned further attack until a proper burial could be held

(6) Belisarius rallied his troops, and a little before nightfall he counterattacked and dispersed the Vandals

(7) On 15 September, he entered Carthage

d. Tricameron (A.D. 533)

(1) Gelimer collected his shattered forces at Bulla Regia and sent for his brother Tzazan, then in Sardinia with 5,000 troops. When Tzazan arrived, Gelimer had a force of 50,000. In December, he moved to Carthage

(2) After harassing Belisarius for a short while, Gelimer retired to Tricameron, 18 miles west of Carthage, and built a fortified camp

(3) About mid-December Belisarius set out in two groups, all but 500 of his cavalry leading by a day, for Tricameron

(4) When Gelimer heard of Belisarius' approach, he led his army out. Shortly he came upon the cavalry who were preparing their noon meal. Instead of exploiting the situation and attacking before the enemy could form up, Gelimer halted and awaited attack

- (5) When Belisarius was informed by messenger of the situation, he immediately set out with his remaining 500 cavalry to join his advance guard, a few miles ahead of him at that time
- (6) Gelimer was overcautious, again leaving the initiative with his enemy. In a cavalry battle that lasted for about an hour, Belisarius won a minor victory, driving the Vandals back to their camp. However, without infantry, he could not storm the camp
- (7) When the Byzantine infantry arrived late in the afternoon, Belisarius moved them up
- (8) Upon seeing this, Gelimer leapt on his horse and fled, whereupon his men followed suit
- e. In March, A.D. 534, Gelimer surrendered to Belisarius, bringing the Vandal kingdom to an end
- f. Jealous of Belisarius' success, Justinian recalled him to Constantinople
- g. In A.D. 535, Belisarius was ordered to Sicily, which he quickly brought under control. In A.D. 536, he invaded Italy. He campaigned very successfully for 5 years with an army of only 8,000 troops. Again, fearing and suspecting the ambition of Belisarius, Justinian called him home in A.D. 541
- h. Within two years, the Goths had reconquered most of Italy, so in 544, Justinian decided to send Belisarius back to Italy, this time with an army of 4,000!
- i. The four following years were reminiscent of the operations of Hannibal in Italy. The Goths were unable to oppose Belisarius in the field; he was able to move through Italy at his will, but was unable to obtain sufficient forces from the jealous Justinian to permit him to accomplish anything
- j. Finally, in A.D. 549, Belisarius requested to return home
- k. Belisarius had developed new tactics with which he could count on beating a force of superior

numbers, provided that he could induce his opponents to attack him under conditions that suited these tactics

(1) His lack of numbers (when not too marked) was an asset, especially when coupled with an audacious attack

(2) His strategy was more psychological than logistical

(a) He knew how to provoke the barbarian armies of the West into indulging their natural instinct for direct assault

(b) With the more skillful Persians he was able to take advantage of their feeling of superiority

4. Narses (TP #6)

a. After Belisarius left Italy in A.D. 549, the Goths wasted little time in recovering their losses. In A.D. 551, Justinian finally realized that he could not succeed in Italy without a major effort, in which an able general would have to be placed in command of adequate forces. He selected Narses, then 73 years old, to command in Italy

b. Taginae (A.D. 552)

(1) Arriving in Italy with an army of about 20,000, Narses avoided a combined Frank-Gothic force of 50,000 which was blocking the main route into the Po Valley. He advanced toward Rome

(2) Crossing the Apennines, he met Totila, King of the Goths, who had about 15,000 men deployed in a position which Narses could not bypass (at that point the Flaminian Way was blocked by rugged hills)

(3) The lines of battle

(a) As was customary with the Goths, Totila ranged his cavalry in front, his infantry (mostly archers) behind. His idea was to win the battle by a single charge which would break his enemy's center

(b) Narses adopted a novel order of battle

1. He dismounted 8,000 cavalry and

formed them up in a solid phalanx
in the center

2. On each flank he drew up 4,000 foot-archers; each wing was thrown forward "so that an enemy advancing against the center would find himself in an empty space, half circled by the bowmen and exposed to a rain of arrows from both sides" (Fuller, Vol. I, pp. 325-6)

3. To protect the archers, Narses drew up behind them 500 mounted cavalry on each wing

(4) The battle

(a) Narses left the initiative to the enemy to attack

(b) About midday the Gothic cavalry, taking no notice (or no heed) of Narses' formation, charged straight toward the "phalanx"

(c) The phalanx could not be broken, and the Gothic cavalry was raked by Narses' archers on the flanks

(d) Gothic infantry advanced more slowly than usual because they were being harassed on their right flank, and consequently could not support their cavalry forces

(e) Before long, the devastating fire drove the Gothic cavalry back on their infantry. Here all coordination and control in the Gothic army became lost, as infantry and cavalry fled, fighting with one another in their efforts to escape death at Byzantine hands

(f) More than 6,000 Goths perished in the battle

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 17

HOURS: 1

TITLE: Post-Justinian Byzantium and Maurice (A.D. 565-602)

- I. Learning Objectives
 - A. The student will know and outline the Byzantine military system
 - B. The student will know and identify the tactical and philosophical innovations of the Byzantines (i.e., cavalry, stirrup, and greek fire)
- II. References and Texts
 - A. Instructor references
 - 1. Dupuy, The Evolution of Weapons and Warfare, pp. 48-61
 - 2. Fuller, A Military History of the Western World, Vol. I, Chronicle 11; ch. 11 and 14
 - 3. Preston and Wise, Men in Arms, pp. 50-63
 - B. Student text - Preston and Wise, Men in Arms, pp. 50-63
 - C. Other references
 - 1. Zook, A Short History of Warfare, pp. 61-64
 - 2. Hart, Strategy, ch. IV, pp. 59-74
- III. Instructional Aids
 - A. Chalkboard
 - B. Overhead projector
 - C. Locally reproduced transparencies (12 transparencies provided)
 - D. Map
- IV. Suggested Methods and Procedures
 - A. Lecture
 - B. Lecture and discussion
- V. Presentation
 - A. Post-Justinian Byzantium (TP #1)

1. After the death of Justinian in A.D. 565, all thought of reconquering the West was set aside
 - a. Threatened on the lower Danube by the Avars and Slavs, and on the upper Euphrates by the Persians, the emperor was confronted by impossible forces
 - b. The outcome was an unceasing shuttling of armies from one front to another - a condition Byzantine's enemies were quick to exploit
- (TP #2)

2. Maurice (Emperor, A.D. 582-602)

- a. Having distinguished himself in earlier wars, Maurice was selected by the dying emperor to succeed to the throne
- b. Prior to ascending the throne, he had written an encyclopedic work on the science of war - "Strategicon" (TP #3)
- c. Military reforms
 - (1) Under Justinian, the largest tactical unit had been the numerous of 300 to 400 troops resembling a modern battalion. Maurice reformed the organization such that
 - (a) Six to eight numeri were grouped into the equivalent of a brigade
 - (b) Three such brigades formed a small "division" of 6,000 to 8,000 troops
 - (c) Maurice also recommended that the higher units be unequal in strength so as to make it harder for the enemy to calculate the numbers of a whole army (TP #4)
 - (2) No longer were troops to pledge obedience to their officers instead of the realm
 - (3) He took away from the generals their power of patronage by retaining in the hands of the emperor himself the appointment of all officers above the rank of Centurion (a Centurion commanded a numerus) (TP #5)

3. Theme system

- a. Maurice cut the size of the standing army, deploying it into a central reserve and units for the frontier provinces

b.To make this a viable force, Maurice added to the frontier fortresses already in existence

c.Once Maurice had reorganized the army, he divided the empire for purposes of recruiting and defense into military provinces known as themes (TP #6)

(1)The themes varied in numerical military strength, based upon strategic demands

(a)A frontier theme usually had between 8,000 and 12,000 troops

(b)An inland theme might have only half that number

(2)The themes were subdivided into districts called turmae

(3)Turmae were broken down into small defense stations called clissurae. Each clissurae consisted of some important outpost, such as a ford or a mountain pass

d.In the event of attack, a theme could fight a Fabian action until the armies of neighboring themes could rally to its aid

e.The defense system utilized border fortifications but preserved elasticity through highly developed communications

4. Naval affairs (TP #7)

a.The empire's location and the importance of trade required a strong navy, whose mission it was to control Byzantine trading centers and sea routes

b.By the 8th century, the Byzantine Empire had organized five permanent fleets (TP #8)

c.Most of the navy ships were relatively small, fast galleys, with two banks of oars, two masts and two sails

necessary (1)The oarsman were trained to fight, if

marines (2)Each vessel carried a small force of

(3)Larger ships had revolving turrets, mounting war engines

(4)Ships also had bow tubes for dispensing

"Greek fire" (TP #9)

d. The principal base of Byzantine sea power was the theme of Cibyrrhaeots, providing nearly half the manpower of the empire's navy

5. The Army

a. Cavalry was the main arm of the military system

(1) Arms: usually carried a bow, quiver of arrows, long lance, broadsword, dagger, and sometimes an ax

(2) Armor: conical helmet, chain mail shirt (covered him from neck to thighs), gauntlets (heavy gloves with flared wrist extensions), small round shield strapped to left arm, steel shoes with leather boots or greaves. Some horses (those normally deployed in front rank positions) wore armor on their heads, necks, and chests

(3) The training exercise to improve the skill of the horseman was to gallop towards a stuffed dummy hanging from a gallows. The rider had to string his bow as he approached, fire three arrows at the swaying figure, and finish the charge with the lance

(4) The numeri of the cavalry usually formed in lines of 8 to 10 horsemen in depth. The Byzantines acknowledged that this was perhaps more cumbersome than an optimum formation, but were willing to accept a slight decrease in flexibility in exchange for the greater feeling of security the men derived from the deep formation

(5) Sometime during the 5th or 6th century stirrups appeared, having been introduced initially from China. The tactical importance of the stirrup is self-evident. Without them the ancient horseman was always liable to be pulled off his horse (or to fall off!). With stirrups, cavalry were more formidable. This also allowed the horseman to put more force into his close-in blows (lance, sword, etc.)

(TP #10)

b. The infantry ranked as a secondary arm. Almost equally divided into two classes: heavy and light

(1) Heavy - equipped much like the cavalry

(2) Light

(a) Most were archers, though some were javelin throwers

(b) For mobility, they carried little armor and few, if any, additional weapons other than a short sword

(3) The infantry's organization, discipline, and training was high. There are records of their delivering night attacks (TP #11)

c. Tactics. As outlined by Leo in his *Tactica*

d. In addition to the fighters, the Byzantine army contained

(1) Engineers - bridges, palisades, etc.

(2) Medical - each numerus usually had a doctor and a surgeon, plus 8 to 10 stretcher bearers

(3) Signal service

(a) Messengers

(b) Signal fires

(4) Chaplains - priests and monks (TP #12)

e. The training of an officer began early - as a youth (usually from a noble family), one would be enlisted in the cadet corps

(1) Peacetime - training similar to today

(2) Wartime - clerks, messengers, staff officer assistant (OJT)

f. Strategi, commanders of the themes, were rotated. This kept them from getting either too entrenched politically or too settled from the standpoint of personal attitude toward the rigors of combat

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 18

HOURS: 1

TITLE: The Decline of Byzantium

I. Learning Objective - The student will know and trace the succession of battles which culminated in the fall of Constantinople

II. References and Texts

A. Instructor reference - Fuller, A Military History of the Western World, Vol. I, Chronicle 11; ch. 11 and 14

B. Other references

1. Hart, Strategy, ch. IV, pp. 59-74

2. Parker, Geoffrey, "Why the Armada Failed," Military History Quarterly, Vol. 1, No. 1, Autumn 1988, pp. 18-27 (Instructor Resource Manual)

III. Instructional Aids

A. Chalkboard

B. Overhead projector

C. Locally reproduced transparencies (5 transparencies provided)

IV. Suggested Methods and Procedures

A. Lecture

B. Lecture and discussion

V. Presentation

A. The Decline of the Empire (TP #1)

1. Persians and Slavs - 7th century. Early in the 7th century the empire faced pressure on two fronts from two different enemies

a. In the east were the Persians, eager to gain control of the trade routes. Since they used means in keeping with their limited expectations, the Byzantines responded with limited, sensible counterforce

b. On the northern frontier no such moderation existed. The Slavs threatened to overrun the empire's holdings in the Balkans. Because of the vast numbers of enemy encountered, the Byzantines responded with a strategy of annihilation

c. Long-term results (TP #2)

(1) The war against the Slavs temporarily halted their push into the empire, but their ravages had nearly depopulated Thrace and Illyria, two of the Byzantine army's most dependable recruiting grounds

(2) In the long war with Persia, the empire lost about 200,000 men and untold riches spent or destroyed (TP #3)

2. Islamic invaders - 7th and 8th centuries

a. During these 2 centuries the Moslems invaded Byzantine territory in 11 wars against the empire, for a total of about 65 years

b. By the year A.D. 800, the empire had lost all its holdings in Africa, Syria, and nearly half of modern Turkey to the Moslems

c. Nonetheless, the successful defenses of Constantinople in A.D. 717 and 718 against Moslem sieges saved Christian Europe from Moslem invasion (TP #4)

3. Battle of Manzikert (A.D. 1071)

a. Background

(1) Although outlying territories had been lost in the 7th and 9th centuries, the main bastions of the empire were kept intact

(2) In fact, under the reign of Basil I (A.D. 867-886), the lost ground was slowly regained, and under Basil II (A.D. 985-1025), the empire reached the highest point of its power since Justinian

(3) Prolonged immunity from danger led to the neglect and decline of the army and the navy

(4) The resurging power of the Seljuk Turks in A.D. 1063 brought to the empire the realization of the need for "rearmament"

(5) In A.D. 1068, the Byzantine general Romanus Diogenes was made emperor. Instead of taking the time to raise and properly train an army, he prematurely set out against the Turks

(6) Encouraged by initial successes (he had, in 1069, driven the Turks out of the empire), he moved on Manzikert in A.D. 1071 to repel another Turk invasion

b. While the opposing light cavalry units were skirmishing, the Turk leader, who was impressed by the size of the Byzantine army, offered to open negotiations for a peace settlement. Breaking from Byzantine tradition, Romanus refused and formed for battle

c. Romanus launched the attack, driving the Turks back further and further. Again, breaking with tradition, he continued to pursue the enemy until at dusk he was on the verge of outdistancing his water supply

(1) Ordering a withdrawal, he headed back towards his camp

(2) The Turks immediately began a counter-attack

(3) Romanus ordered his forces to halt, and faced to meet the Turks

(4) The commander of his reserves refused to halt, thereby leaving Romanus' main body exposed to the encircling Turks, who killed or captured every man
(TP #5)

4. Constantinople falls (A.D. 1453)

a. Mohammed II led an army of 80,000 men with a siege train of 100 heavy cannons

b. To defend the city, the Emperor Constantine XI could muster only about 8,000 soldiers

c. The artillery bombardment began on 2 April

d. Despite fierce resistance by the defenders, the Turks finally captured the city on 29 May

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 19

HOURS: 1

TITLE: The Franks and the Battle of Tours (A.D. 732)

I. Learning Objective - The student will know and trace the development of the Franks, with emphasis on the Battle of Tours

II. References and Texts

A. Instructor references

1. Dupuy, The Evolution of Weapons and Warfare, pp. 41-51

2. Fuller, A Military History of the Western World, Vol. I, ch. 12, 13, 16; Chronicles 12, 14, 16

3. Jones, The Art of War in the Western World, pp. 102-122, 134-142

B. Student text - Jones, The Art of War in the Western World, pp. 102-122, 134-142

C. Other reference - Hart, Strategy, pp. 65-71

III. Instructional Aids

A. Chalkboard

B. Overhead projector

C. Locally reproduced transparencies (3 transparencies provided)

IV. Suggested Methods and Procedures

A. Lecture

B. Lecture and discussion

V. Presentation

A. Introduction

1. As the Ostrogoths disappeared from Italy, the Vandals from North Africa, and the Visigoths from Spain, the last traces of Roman military skill in the West vanished

2. The methods of warfare reverted to their crudest beginnings. The human wall, in its primitive form, again became the unit of tactics as the

Franks, the Anglos, and the Saxons extended their holdings in Britain and Central Europe

B.The Franks (TP #1)

- 1.A Germanic barbarian group of tribes that migrated into Gaul during the 5th and 6th centuries
- 2.Initially, they were a primitive, but effective, infantry force always reckoned among the most formidable of Rome's barbarian adversaries
 - a.Relied more on hard fighting than on organization or tactics
 - b.They wore no body armor
 - c.They used javelins, swords, daggers, and the francisca, a heavy, balanced battle axe which was often thrown just before contact with the enemy
- 3.Their success over most of their enemies was due in large part to their size and vitality as well as to the degeneration of the military art among their enemies
- 4.Their defeat at the hands of the Byzantines at Casilinum in A.D. 554 demonstrated the impotence of their tactics against a well-organized, disciplined cavalry force

5.Battle of Tours (A.D. 732) (TP #2)

a.Background

- (1)Moslem army of about 50,000 (mostly cavalry) moved into Aquitaine
- (2)Eudo, one of the chief rivals for Frankish supremacy, met the Moslems and was defeated at the Battle of Bordeaux
- (3)With the remnants of his army, Eudo fled, made peace, and swore loyalty to his rival, Charles Martel
- (4)The Moslems, meanwhile, had continued north and had just laid siege to Tours when they learned of the secret and rapid approach of Martel and Eudo with a slightly larger army, threatening the lines of communications
- (5)The Moslem leader hastily dispatched his great train of booty to the south, following in a slow withdrawal

(6) Since the Franks had engaged in more or less constant warfare against the Moslems for nearly two decades, Martel was aware of the respective strengths and weaknesses of his own and the Moslem forces

(a) The heavy Frank cavalry was undisciplined and sluggish in comparison with the mobile light Moslem cavalry

(b) The Moslems were effective only in attacking, but they lacked the weight to deliver an effective blow by shock action against a strong defensive force. Also, they had no defensive staying power

b. For six days, Martel kept constant pressure on the retreating Moslems. Finally the Moslem leader decided to accept battle in order to cover the withdrawal of his train

c. Martel dismounted his cavalry (about half his army - consistent with the increasing trend toward cavalry) and formed his army into a solid phalanx (TP #3)

d. Repeated and violent cavalry attacks were repulsed in fighting that lasted until night-fall

e. The exhausted Moslems withdrew to their camp; learning that their leader had been killed, they panicked. Abandoning their train, they fled south

f. The next morning, when Martel learned of the enemy's flight, he refused to pursue, knowing full well that in pursuit his troops would be at their weakest - vulnerable to the Arab tactic in such instances

g. The Battle of Tours is generally considered by historians to have been one of the decisive battles of history

(1) The tide of Moslem expansion had been thrown back. Christian Europe was thereby assured of several centuries of growth and development

(2) Charles became supreme in Gaul and was able to establish a dynasty, which passed to Charlemagne

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 20

HOURS: 1

TITLE: Charlemagne (Charles the Great) (A.D. 768-814)

I. Learning Objective - The student will know and discuss Charlemagne and the beginning of feudalism, and its acceleration due to the pressure of Viking raids

II. References and Texts

A. Instructor references

1. Dupuy, The Evolution of Weapons and Warfare, pp. 43-47

2. Fuller, A Military History of the Western World, Vol. I, ch. 12, 13, 16; Chronicles 12, 14, 16

B. Student resource material - Keegan, The Face of Battle, pp. 79-116

III. Instructional Aids

A. Chalkboard

B. Overhead projector

C. Locally reproduced transparencies (5 transparencies provided)

IV. Suggested Methods and Procedures

A. Lecture

B. Lecture and discussion

V. Presentation

A. Charles the Great (Charlemagne), King of the Franks (A.D. 768-814) (TP #1)

1. Charlemagne's conquests welded the Teutonic peoples of the continent into a single empire reaching from the Ebro to the Danube. His intelligent military reforms put an end to the chaos of three centuries and built up the first adequate system of defense the West had known since the fall of Rome

a. He established a logistical organization, including supply trains sufficient to maintain his troops for several weeks. Prior to this, Frankish armies had subsisted on foraging and plunder

(1) In friendly areas this had antagonized the inhabitants and contributed to local unrest

(2) In hostile territory the dispersal of forces often led to disaster

(3) Supply shortages had almost always caused the dissolution of Frankish armies after a few weeks in the field (TP #2)

b. Although he continued to employ infantry, the percentage of cavalry in the Frankish army constantly increased under Charlemagne

c. He issued a variety of edicts designed to develop the cavalry

(1) Forbade the export of armor

(2) Extended the system of Vassalage to conquered areas

(3) Developed lists of required equipment for troops, etc.

2. The origins and rise of feudalism (TP #3)

a. Members of the comitatus, the bodyguard for a tribal chief or king, learned through contact with others (especially enemies) the value of the horse and body armor. The comitatus evolved into the core of the Frankish nobility

b. Vassalage - the system of land surrendered in return for protection or service

(1) Used by Charles Martel as a solution to the problem of lack of revenue

(2) Expanded by Charlemagne to include conquered areas; that is, he required newly conquered subjects to provide soldiers based upon the size of land held (TP #4)

c. Charlemagne reformed the infantry levy. While this improved the arms and armor of soldiers reporting for duty, it severely narrowed the social bounds within which the military art was practiced

d.Charlemagne's empire began to fall apart soon after his death. This was partly because of civil war, but above all it was due to the combined effect of simultaneous raids from three directions during the 9th and 10th centuries - by the Arabs, the Magyars, and the Vikings (TP #5)

e.Viking raids

- (1)The first recorded Viking raid occurred in A.D. 799, but it wasn't until the middle of the 9th century that they became serious
- (2)Europe had no adequate defenses for decades. The old Frankish general levy was too slow to cope with this elusive foe; the peasantry was too poorly trained and armed
- (3)Unorganized, the inhabitants could not withstand the Vikings. This gave greater impetus to the system of Vassalage
- (4)The only sound military remedies were to be found in fortification, armored cavalry, and better soldiers

f.Feudal warfare signified the supremacy of cavalry over infantry and replacement of foot by the castle as the base for cavalry operations

g.The Vikings (Norsemen) were eventually assimilated into Frankish society. They settled mostly in northern Gaul and became known as Normans

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 21

HOURS: 1

**TITLE: William the Conqueror and the Battle of Hastings
(A.D. 1066)**

I. Learning Objectives

A.The student will comprehend and analyze the Battle of Hastings and its impact on the armored rider becoming the preeminent instrument of medieval warfare

B.The student will know and trace the decline of mounted knights, cavalry and crossbow, and the emergence of the longbow, pike, and gunpowder

II. References and Texts

A. Instructor references

1.Dupuy, The Evolution of Weapons and Warfare, pp. 61-70

2.Fuller, A Military History of the Western World, Vol. I, ch. 12, 13, 16; Chronicles 12, 14, 16

3.Preston and Wise, Men in Arms, pp. 65-97

B.Student text - Preston and Wise, Men in Arms, pp. 65-97

C.Other reference - Hart, Strategy, pp. 75-82

III. Instructional Aids

A.Chalkboard

B. Overhead projector

C.Locally reproduced transparencies (3 transparencies provided)

IV. Suggested Methods and Procedures

A. Lecture

B. Lecture and discussion

V. Presentation

A.Battle of Hastings (1066) (TP #1)

1. The adversaries

a. The Norman army (Duke William of Normandy - Wm. the Conqueror) had a weak claim to the throne of England

(1) By now they were considered the best horsemen in France

(2) Had probably 12,000 cavalry, 20,000

infantry

b. The English Army (Harold - Earl of Wessex)

(1) England was the last stronghold of the national levy of foot. Isolation had permitted the islanders to cling to their old military customs

(2) Probably about 25,000 strong (TP #2)

2. The strategies

a. William

(1) Landed unopposed at Pavensey Bay on 27 September and marched to Hastings the next day

(2) Had known Harold personally for some time, and estimated that he would be most likely to adopt an impetuous course of action

(3) He devastated Sussex, which was part of Harold's earldom, in a calculated attempt to force Harold to act

(4) He knew he had to fight Harold quickly or face a major disaster

Channel

(a) The English fleet now patrolled the

larger army

(b) With time, Harold could muster a

(c) He hadn't enough supplies for a protracted campaign

b. Harold (TP #3)

(1) Had been guarding the south coast, expecting William's arrival. Also had the fleet guarding the Channel

(2) On 8 September, the fleet had to put in for resupply and repairs. A week later Harold had to march to York to repel an invasion by the Norse

(3) Harold returned to London to await the arrival of his army plus new levies

(4) He left London when only about a third of his forces were in order and marched into Hastings

3. The battle

a. Believing (probably correctly) that he was outnumbered and that his troops were neither as well trained nor as well armed as the Norman mercenaries, Harold decided to fight on the defensive. He dismounted his housecarls (similar to comitatus) and placed them in the center of his line on a ridge. The remainder of his army stretched out on both sides, probably in 20 ranks

b. William drew his army up in three divisions of three ranks each - archers, heavy infantry, knights - in that order

c. William opened the battle with his archers and infantry, only to be driven back with some of Harold's new troops in pursuit

d. William then led an attack by his knights - again to no avail

e. In the afternoon he tried a ruse. He ordered an assault and feigned retreat, in an attempt to get the English to pursue as earlier in the day

(1) The English left did just that and were attacked violently by the Norman horsemen

(2) But the housecarls stood fast, and William could not break their line

f. Then William moved his archers up to within 100 yards of the English line and ordered them to shoot "plunging fire" into the enemy

(1) This caused many injuries and much confusion among the English

(2) The Norman cavalry attacked again

g. The English line broke and fell back in disorder, (except for the housecarls, who retreated in good order until William's knights rode in pursuit and scattered them)

4.As a military landmark, Hastings became the fore-runner of a series of battles won in later years by armored horsemen and infantry archers

5.The real lesson of the day - the power of infantry and cavalry in combination and the continuing vitality of properly massed foot - was not recognized. Instead, Hastings was erroneously regarded as proving beyond question the superiority of the cavalry. The social and political ruling class of mounted lords readily accepted and disseminated this appraisal of their superiority over the more common foot soldier. Balanced armies were in fact incompatible with the feudal social order

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 22

HOURS: 1

TITLE: The Crusades (A.D. 1077-1187)

I. Learning Objectives

A.The student will know and describe the influence of religious and technological factors on the Crusades, to include rudimentary mass communication and the crossbow

B.The student will know and trace the decline of mounted knights, cavalry and crossbow, and the emergence of the longbow, pike, and gunpowder

II. References and Texts

A.Instructor references

1.Fuller, A Military History of the Western World, Vol. I, ch. 12, 13, 16; Chronicles 12, 14, 16

2.Dupuy, The Evolution of Weapons and Warfare, pp. 61-70

B.Student text - Dupuy, The Evolution of Weapons and Warfare, pp. 61-70

C.Other reference - Instructor Resource Manual

III. Instructional Aids

A.Chalkboard

B. Overhead projector

C.Locally reproduced transparencies (9 transparencies provided)

IV. Suggested Methods and Procedures

A. Lecture

B. Lecture and discussion

V.Presentation (TP #1)

A.The Crusades

1.The armies of the Crusades differed from a feudal army in that they contained more volunteers, they were more incoherent because of the mixture of races, and their leaders were jealous and uncooperative with one another

2. It was not until 1095 that the Pope could divert his attention sufficiently from internal problems to respond to the Byzantine appeal
3. In an age of universal faith, the medieval church was an extraordinarily powerful and influential institution
4. But from the outset an embarrassing problem confronted the church: the Moslem custodians of the Holy Places had been comparatively tolerant and hospitable to the Christians
5. It was essential, therefore, that the Moslems be recreated into the archenemy of Christendom. Into the new creation went a pinch of fact and a wealth of imagination. Racial, religious, and economic prejudices all were invoked by means of every known medium of emotional appeal
6. By virtue of its centralized authority, the church was unique in its ability to communicate its position to the masses (TP #2)
7. Military advantages
 - a. In Europe the armored rider was supreme
 - b. The baptism of the Slavs and Magyars had opened up a land route to Jerusalem
 - c. Sea power favored the Crusaders
 - d. A potential ally in the East Roman Empire
 - e. Constantinople provided a base - both for land and water operations (TP #3)
8. To all these advantages should be added the development of an effective new weapon - the crossbow
 - a. This short, powerful bow could fire a missile with great initial speed and thus had greater range and penetration capabilities than standard bows (could penetrate chain mail)
 - b. Required various mechanical devices to draw the string back (show picture of crossbow)
 - c. Although it was a powerful weapon, the ballistics were poor (the heavy cord absorbed much of the energy that was generated)
 - d. Most feudal armies included a complement of crossbowmen, despite efforts by the church to limit its employment to wars against infidels

e.As a consequence to the power of the crossbow, chain mail began to be replaced by heavy, cumbersome, and costly armor plate

9.In contrast to the advantages of the Christians, the Moslem world was never more weak. After the battle of Manzikert, discord between Turks, Arabs, Syrians, and Egyptians was prevalent

10.The victories won by the Crusaders resulted from an intelligent use of a combined force of infantry, crossbowmen, and cavalry. Their defeats were usually due to a failure to use all arms in combination

11.Benefits from the Crusades (TP #4)

a.Although the cost in money was high, they brought into circulation wealth that otherwise would have been hoarded

b.The Italian city-states profited greatly from transporting and supplying the crusading

armies

c.They familiarized many Westerners with Eastern luxuries, thus stimulating commerce

d.This new economic activity strengthened the middle class, which helped to undermine the feudal system (TP #5)

e.Military benefits

(1)A complete revolution in castle construction and city defense in western Europe in the 12th century

(2)A regained recognition of the importance of logistics. In the protracted campaigns, the Crusaders had to learn logistical organization or perish

B.The demise of feudalism and the armored knight

1.Three independent developments signaled the beginning of the end of the dominance of armored cavalry and the castle - the very symbols of feudalism (TP #6)

a.Swiss infantry - the Swiss brought warfare full cycle

(1)The phalanx was their standard formation

- (2) They used long pikes (18'-21') to withstand a cavalry charge
- (3) Used the halberd - a spear point, an armor-cutting axe blade, and a hook - for unseating and killing horsemen
- (4) Highly trained and disciplined, they were more than a match for charging feudal cavalry
- (5) They were much sought after as mercenaries (TP #7)

b. English longbow

- (1) Had double the range of the crossbow and a higher rate of fire: 10-12 arrows a minute
- (2) More accurate than the crossbow and more easily handled
- (3) Employed with great effect at Crecy (Kra'se), Poitiers (pwa t ya'), and Agincourt (aj' in kort)

c. Gunpowder and firearms (TP #8)

- (1) The discoverer of gunpowder is unknown. As to the first people to use gunpowder, most would answer the Chinese, but that is not solidly proven
- (2) The appearance of the first firearms is also a mystery, but they may be dated to the first quarter of the 14th century
- (3) The earliest firearms were inaccurate, short of range, slow to fire, heavy, awkward, and dangerous. However, infantry levies could be trained in their use very quickly, in contrast to the months and years for effective use of the crossbow and longbow, respectively
- (4) The cost of the weapons limited their acquisition to cities and monarchs with great revenue power. This aided in the further centralization of power (TP #9)

2. The cavalryman's efforts to defend against these new and powerful weapons hastened his end

a. Chain mail was replaced by plate armor

b. The weight of a knight's armor increased to such

an extent that if knocked down or unhorsed, he could rarely rise without assistance. This put a premium on disabling the horses

c. The armor protection of horses increased

d. By the end of the 14th century the heavy cavalry horse was usually carrying a total weight of 150 pounds plus the weight of the knight

e. Mobility was sacrificed for protection, yet mobility was the essential inherent characteristic and requirement of cavalry. Thus, relative invulnerability was purchased at the expense of the quality that had made cavalry ascendant in warfare (give example of German 100-ton tank)

3. The "rules" of feudalism severely limited its effectiveness

a. The feudal army could be assembled only when a definite issue had arisen

b. Normally a vassal was required to serve only 40 days each year, and then not beyond a local area

c. The temporary character of the military service as well as the equality in standing of the fighters made strict discipline difficult if not impossible

4. The increasing wealth allowed monarchs to hire and train professional armies

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 23

HOURS: 1

**TITLE: Review - Byzantium to the Hundred Years' War
(A.D. 330-1227)**

I.Lesson Purpose - To provide students with an overview of the period from A.D. 330 to 1227 and its significance to the Evolution of Warfare. Particular attention is to be paid to a review of the learning objectives of previous lessons

II.References and Texts

A.Instructor references

- 1.Dupuy and Dupuy, Encyclopedia of Military History
- 2.Jones, The Art of War in the Western World, pp. 92-122, 134-141
- 3.Keegan, The Face of Battle, pp. 79-116
- 4.Montross, War Through the Ages, pp. 91-131
- 5.Preston and Wise, Men in Arms, pp. 50-97
- 6.Ropp, War in the Modern World, pp. 19-25

B.Student texts

- 1.Jones, The Art of War in the Western World, pp. 92-147
- 2.Notes from previous lessons of this course

C.Other reference - Instructor Resource Manual

III.Instructional Aids

A.Chalkboard

B.Overhead projector

C.Locally reproduced transparencies (23 transparencies provided)

D.Maps

IV.Suggested Methods and Procedures

A.Method options

1. Lecture and discussion

2. Guided discussion

B.Procedural and student activity options - read study assignment

V. Presentation (TP #1)

A.Five hundred years of Caesarian Rome

- 1.Constantine moves in A.D. 330
- 2.Division of West and East in A.D. 364

B.One thousand years of Byzantium

C.Dominant in commerce at Constantinople (TP #2)

D.Justinian military (A.D. 527-565)

- 1.Relied on heavy cavalry
- 2.Relied on ruse and surprise (no morality)
- 3.Warfare studied and analyzed
- 4.Armed forces disciplined
- 5.Emphasis on generalship
- 6.Believed its mission was to lead heathens to Christ
- 7.Successfully retook Africa and Italy (TP #3)

E.Maurice reforms (A.D. 582-602)

- 1.Non-expansionist
- 2.Instituted the "division" - 3 brigades, 6-8 numeri of 3-4,000 per brigade
- 3.Troop allegiance to the realm, not the generals
- 4.All officers above centurions were appointed by the Emperor - not the generals
5. Reserves called themes held the empire together from fortresses (mobile reserves)
- 6.Five permanent fleets developed (TP #4)
 - a.Sleek, fast combatants
 - b.Two rows of oars and oarsmen were trained to fight
 - c.Each ship had a marine detachment

d. Each ship had turrets for arrows and Greek Fire (TP #5)

e. Cavalry (heavy) was the main arm

f. Training was in skills - example: a horseman had to hit with arrows a hanging dummy three times at a gallop and finish with a lance charge

g. The stirrup, introduced by China, was used

h. Infantry was relegated to a secondary arm

(1) Heavy

(2) Light - bows and javelins

F. 7th and 8th centuries (TP #6) - Christian Europe vs. Moslem East

1. By A.D. 800, Byzantium had lost most of its outside empire to Moslems - all of Africa, Syria, and most of Turkey

2. The bastion was still held under Basil I and II in A.D. 1071

3. 11th to 14th century - rise of the Turks

4. A.D. 1453 - after years of Turkish war, Constantinople fell to the Turks

G. The Franks - As Western Roman culture disappeared, so did the military genius. Warfare reverted back to "human walls"

1. Franks (TP #7)

a. German barbarians that migrated to Gaul in A.D. 500 and 600

b. Formidable fighters - tough and spirited

c. Wore no body armor

d. Used javelins, swords, daggers, and the Francisca - heavy battle axe balanced to throw

e. Success was due to their physical size and the degeneration of tactics

f. Had been beaten badly at Casilinum by the Byzantines in A.D. 554 (TP #8)

2. Tours (A.D. 732)

a. Franks vs. Moslems for two decades. Martel knew of Moslem weaknesses

(1) Light cavalry could not shock heavy forces

(2) No staying power for defense

b. He had the problem of a sluggish, undisciplined heavy cavalry (TP #9)

3. The battle

a. Martel for 6 days harassed the Moslems as they fled. He coaxed the Moslems to finally attack

b. Martel dismounted his cavalry, 1/2 the army, and formed a solid phalanx

c. Repeated light cavalry charges were repulsed

d. The Moslems withdrew and found that their leader had been killed

e. They fled and Europe was saved for several centuries. Moslem expansion had been arrested

f. Charles became supreme, but could not control in Gaul (TP #10)

H. Charles the Great (Charlemagne), A.D. 768-814

1. Charlemagne rises to power

2. United Europe minus Byzantium

3. Built the first adequate defense system since the fall of Rome (for the West) (TP #11)

4. Established several weeks worth of supply trains (Franks plundered and foraged). WHY IMPORTANT?

5. Cavalry continued to increase

6. Body armor value with horse discovered (TP #12)

7. Feudalism at its peak

a. Martel's solution to revenue was Vassalage (Lord surrendered for protection)

b. Charlemagne also required those conquered to provide soldiers depending on the size of the area

8. Charlemagne's power receded when he died because of

a.Civil War

b.Simultaneous raids of the 9th and 19th centuries

(1)Arabs (Moslems)

(2)Magyars

(3)Vikings (TP #13)

I.Viking raids - 9th century

1.Resulted in more feudalism - use of the castle as the base and cavalry as the arm (castle for infantry)

2.Eventually Vikings assimilated into Frankish society in Northern Gaul (TP #14) - Hastings (A.D. 1066) - William the Conqueror of Normandy vs. English Army (Harold of Wessex) (TP #15)

J.England

1.Last levy of infantry

2.Isolation permitted old military custom

3.25,000 (TP #16)

K.Normans (Vikings settled in Northern France)

1.Best horsemen in Gaul

2.12,000 cavalry and 20,000 infantry

3.The battle resulted in a Norman victory, but was one of a number of battles where cavalry beat infantry (misjudgments)

4.Social and military classes of horsemen knew they could not be beaten by an inferior class of infantry - Wrong!

5.This, of course, fit in perfectly with the nobility and the age (TP #17)

L.Crusades

1.Differed from feudal armies in that it had more volunteers

2.Pope used propaganda to spread Christianity (rise of the church)

a.Saw Byzantium as an ally with sea lanes secure

- b. Moslems controlled the Holy Lands but were nice to Christians so the Pope developed an anti-Moslem "crusade" (TP #18)

M. Crusade advantages

- 1. Rider was supreme in Europe
- 2. Christianity spread to the baptism of the Slavs and the Magyars, which opened the road to Jerusalem
- 3. Sea power favored Crusaders
- 4. Byzantium an ally
- 5. Constantinople could serve as a base of operations
- 6. Development of the crossbow
 - a. Powerful and accurate
 - b. Range increased
 - c. Penetrated chain mail - resulted in the use of expensive and heavy, plated armor

N. Moslem discord - between the Turks, Syrians, and other Arabs

O. Crusades benefits (TP #19)

- 1. Expensive new wealth was brought into circulation
- 2. Italian city-states profited from transporting and providing for the crusaders
- 3. Eastern luxuries stimulated Western commerce
- 4. Middle class became larger and undermined the feudal system of kings and lords (TP #20)

P. Military effects: Logistics and supply - crusaders had to have it

Q. Decline of feudalism and armored knights

- 1. Swiss infantry - trained and equipped to defeat cavalry (TP #21)
 - a. Phalanx
 - b. 18-21 foot pikes to withstand cavalry charge
 - c. Halberd - axe, blade, and hook device

2. English longbow (TP #22)
 - a. Doubled the range; 10-12 shots a minute
 - b. Very accurate and easily handled
3. Gunpowder and firearms were introduced (TP #23)
4. All of these increased the requirement for armor which increased weight, which decreased mobility and flexibility. Additionally, the feudal system could not muster enough staying power in numbers to fight in the long haul

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 24

HOURS: 1

TITLE: Mongol Warfare

I. Learning Objectives

- A. The student will comprehend the origin of the Mongols
- B. The student will know and discuss the effects on the Mongol army of the invasion of North China
- C. The student will know and explain the psychological aspects of the Mongol invasions
- D. The student will comprehend and explain the advantages gained by the use of cavalry by the Mongols
- E. The student will know and discuss the training and discipline of the Mongols
- F. The student will know and discuss the campaign and results of the invasion of Persia by Genghis Khan
- G. The student will know and discuss the invasion and defeat of Russia and Central Europe
- H. The student will know and discuss the probable results of further advancement and explain the reasons for withdrawal of Mongol forces
- I. The student will know and discuss the long-term effects of the Mongol Invasion

II. References and Texts

- A. Instructor references
 - 1. Dupuy and Dupuy, The Encyclopedia of Military History, pp. 327-350
 - 2. Jones, The Art of War in the Western World, pp. 142-143
 - 3. Dupuy, The Evolution of Weapons and Warfare, pp. 71-80
- B. Student text - Dupuy, The Evolution of Weapons and Warfare, pp. 71-80
- C. Other references
 - 1. Benson, The Tartar War
 - 2. Boyle, The Mongol World Empire: 1206-137

3. Oman, History of the Arts of War in the Middle Age,
pp. 315-335

III. Instructional Aids

A. Chalkboard

B. Overhead projector

C. Locally reproduced transparencies (5 transparencies provided)

D. Maps

IV. Suggested Methods and Procedures

A. Method options

1. Lecture and discussion

2. Guided discussion

3. Lecture

B. Procedural and student activity options

1. A suggested means to accomplish the objectives of this lesson is to lead a discussion of comparisons of Medieval Europe and the Middle East with the Far East/Mongolia

2. Topics of discussion would center around geographic, political, socioeconomic, and cultural differences

V. Presentation

A. Origins (TP #1)

1. Geography

a. Nomadic barbarians of North and Central Asia were racially, culturally, linguistically and ethnically similar

b. Homeland of Mongols was inhospitable plateau region with vast, bleak distances forcing nomadic way of life to find pasturage

c. Climate had fierce extremes, producing tough horses and men

2. Culture

a. Boys took to the bow and saddle early, since riding and archery were necessary for survival

b. Hard existence led to fierce, physically tough

people

c. Asiatic horsemen were undisciplined and poverty made plunder more desirable than victory

B. Genghis Khan (A.D. 1154-1227) (TP #2)

1. Starting as a mere sub-chief, he spent 40 years fighting to unify the various tribes and make himself sole leader of the Mongols
2. Khan enforced the strictest discipline in a way no other Mongolian leader had ever done
3. He incorporated the men and ideas of the lands he conquered into his own military machine, introducing siegecraft and Chinese psychological warfare
4. He developed a vast and efficient spy network and a communication system that kept him informed of the enemy in great detail and allowed him to retain close control of his army

C. Invasion of China (TP #3)

1. Khan gained dominance over the Asian Empire of Western China, A.D. 1206-1209
2. Invaded Chinese Empire of North China
 - a. Crossed Great Wall with surprise and treachery
 - b. Frustrated by Chinese fortified cities, Khan developed siegecraft and besieged, captured, and ransacked Peking by A.D. 1215
 - c. Incorporated Chinese engineers into his army
 - d. Incorporated Chinese ideas of war (i.e., Sun Tzu) and developed siegecraft, tactics of indirect offense, and deception, and psychological warfare

D. Invasion of Persia

1. Genghis Khan turned towards Persia after a Mongol caravan was seized and destroyed by a Khwarezmian sultan
2. Extensive intelligence network allowed detailed information on Khwarezmian Empire's strengths and weaknesses
3. Mohammed, the Shah of Khwarizm, had an advantage in numbers, but reports of the speed and position of the Mongol forces - and the merciless devastation they brought - caused the Shah to exaggerate

greatly the Mongol strength

- 4.The Shah of Khwarizm panicked and withdrew his forces into the fortified cities
- 5.Because of psychological tactics such as promises of mercy and leniency, many cities surrendered and were subsequently destroyed mercilessly
- 6.Those that resisted were defeated by the now sophisticated siegecraft techniques and were killed in a horrible manner to serve as examples of the consequences of resistance
- 7.Many of the walled cities were delivered by treachery
- 8.Under the generals Chepe and Subotai, the Shah was chased to the shore of the Caspian Sea, where he died
- 9.Even today, only an arid region and a few non-descript provincial towns survive from a Moslem civilization that once supported several cities of a million people each

E.Invasion of Russia

- 1.Chepe and Subotai received permission from Khan to advance past the Caucasus Mountains into Russia
- 2.Khan died in A.D. 1227
- 3.Russian infantry was no match for Mongolian mounted bowmen
- 4.Russian log forts were easily burned down
- 5.Kiev was attacked and its prince fled, leaving the city to be sacked and the people massacred

F.Invasion of Central Europe

- 1.Led by Subotai
- 2.The Battle of Leignitz (A.D. 1241)
 - a.Prince Henry the Pious of Silesia gathers an army of 40,000, but is smashed by Kudai who leads 20,000
 - b.Kudai halts advance into Germany, turns south to join main army in Hungary
- 3.The Battle of the Sajo River
 - a.King Bela of Hungary gathers nearly 100,000 men

to repel Mongols at Sajo River

b. Bela seizes bridge, but defenders are shaken by attack of Mongols using catapults and ballistae, accompanied by terror-inspiring Chinese firecrackers

c. While enemy is confused, Mongols, led by Subotai, attack with cavalry, crumbling

European defenses

d. This was a 13th century version of artillery preparation followed by fierce assault

e. Hungarian army was cut down as it fled; between 40,000 and 70,000 were killed

f. This victory assured Mongol control of all Eastern Europe

G. Withdrawal of the Mongols (A.D. 1242)

1. Subotai consolidated control of eastern Hungary, and made plans to invade Italy, Austria, and Germany the following winter

2. On the outskirts of Vienna and Venice, word was received that Ogatai, the son and successor of Genghis Khan, was dead

3. According to Mongolian law, the offspring of the house of Genghis Khan must return to Mongolia to participate in the election of the new Khakhan

4. Reluctantly, Subotai turned back and never returned

H. Mongol organization (TP #4)

1. Mongol forces were homogenous: they consisted entirely of cavalry, with the exception of some auxiliary elements

2. Organization was based on the decimal system, with the largest independent unit being the touman, consisting of 10,000 men

3. About 40% consisted of heavy cavalry, for shock action

a. These men wore complete armor

b. The main cavalry weapon was the lance

4. Light cavalry comprised about 60%

a. These men wore no armor save a helmet

b.The chief weapons were the Asiatic bow, the javelin, and the lasso

c.The mission of the light cavalry was reconnaissance, screening, provision of firepower support to the heavy cavalry, mopping-up operations, and pursuit

5.Spare horses were brought along for rapidity

I.Training and discipline

1.Mongols were trained in riding and weapons from youth

2.The commander of each unit was selected on the basis of individual ability and valor on the field of battle

3.The commander exercised absolute authority over his unit and was subject to equally strict control by his superior

4.Leaving the field of battle, or not fighting with the spirit of one's comrades, was punished by death

J.Doctrine and tactics

1.Genghis Khan was a genius at seizing and maintaining the initiative

2.Complete information regarding enemy location, strength, and direction of movement was immediately transmitted to central headquarters, whence it was distributed to all field units

3. The vastly superior mobility of Mongol horsemen allowed for rapid concentration of superior force at decisive points

4.The Mongols would use the intense firepower of the light cavalry to shake the foe, then would use the heavy cavalry as shock troops

5.The Mongols emphasized maneuver and diversions, often using the main force to strike in the rear after a preliminary diversion

6.Unlike the armies of Europe, the Mongols preferred to travel during the winter

a.The rivers and marshes were frozen and could be crossed with ease

b.The Mongol ponies could dig under the snow for

food

- c. The enemy armies could not support themselves and had low morale during the winter months

K. Siegecraft and the attack of fortifications

1. After early frustration by Chinese fortifications, Genghis Khan employed Chinese engineers to develop sophisticated siegecraft that were used with great success
2. Psychological warfare was also of great use in attacking fortifications
3. An extensive spy network was part of a fifth column that delivered many walled cities to the Mongols

L. Supplies

1. The Mongols were a very hardy people and could live off of the country through ruthless requisitioning practices
2. The food supply was supplemented by the Mongol practice of drinking mare's milk (most of their horses were mares)

M. Communications

1. Because the later Mongol armies were largely foreign in composition, a common command language was impossible
2. For long-range communication, tactical movements were controlled by black and white signal flags
3. When the flags could not be seen because of terrain or darkness, flaming arrows were used

N. Psychological warfare and trickery

1. As opposed to the chivalrous code of the knights of western Europe, the Mongols would use any trickery that might give them an advantage, reduce their own losses, or increase those of the enemy
2. Tales of Mongol ruthlessness, barbarity, and slaughter of recalcitrant foes were widely disseminated in a deliberate propaganda campaign to discourage resistance by the next intended victim
3. Spies and representatives were sent forth to foment rebellion and fear among the targeted people
4. Deception was often used to lead foes into an

ambush, or to offer hope of escape to cause an army to flee and thus be chased down, thereby drastically reducing their own casualties while increasing those of the enemy

- 5.The legend of the Mongol Hordes stems from beliefs of the vanquished that the Mongols must have had overwhelming numbers, due to the rapidity, deception, and confusion of their attacks

O.Military government

- 1.Genghis Khan created what was probably the most carefully planned military government system to appear prior to the 20th century
- 2.A local leader acceptable to the Mongols was placed in power and supported by a Mongol occupation force
- 3.An efficient tax system was established to keep the territories from becoming a financial burden
- 4.Law and order was rigidly and ruthlessly maintained; conquered regions were usually far more peaceful under Mongol occupation than before

P.Results (TP #5)

Dynasty

- 1.China was dominated by the Mongols for more than a century, and Kubla Khan established the Yuan Dynasty
- 2.Large regions of the former Persian Empire are desolate to this day after the slaughter of millions and the destruction of cities by the Mongols
- 3.For over a century and a half, through A.D. 1400, the Mongols, known as the Golden Horde, reigned over all of Europe east of the Carpathians
- 4.This was followed by the rule of the Tartars under Tamerlane of the Mongolians
- 5.Central and Eastern Russia, and especially the steppes region of the Ukraine, still bear the mark of the Asian influence, as evidenced by the infamous Cossacks
- 6.The advantages gained by the mobile, swift attack and maintaining the offensive are strategies that are being continually rediscovered to this day
- 7.Medieval Western Europe was too isolated to learn from the successful tactics of the Mongols, though the mountainous and wooded regions were not as suited to cavalry as were the plains

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 25

HOURS: 1

TITLE: Contributions of Machiavelli on Military Thought

I.Learning Objective - The student will comprehend and explain the contribution of Machiavelli, with emphasis on his attitudes on ethical war and the Condottieri

II.References and Texts - Other references

A.Machiavelli, Niccolo The Prince, translated by Daniel Donno, Bantam Books, Toronto, 1966

B.Machiavelli, Machiavelli Casyndekan, Casyndekan Inc., 1969

III.Instructional Aids

A.Chalkboard

B.Overhead projector

C.Locally reproduced transparencies (6 transparencies provided)

IV.Suggested Methods and Procedures

A. Lecture and discussion

B. Guided discussion

V.Presentation - The motivation for a good portion of Machiavelli's work was centered around his disappointment with the military. He saw the effects of using mercenaries and the lack of unity in the commanders. This is probably what Machiavelli saw in the army that motivated his desire to change the system

A.Environment of Machiavelli in the 15th century (TP #1)

1.Machiavelli was born into a European environment that was undergoing a major evolution in the way wars were fought and politics were conducted

2.Before Machiavelli arrived on the scene, Europe was the scene of several wars - most of them crusades carried out by France and England. Feudal warfare had ended with the conclusion of the Hundred Years' War

3. While the wars did not end, the method in which they were fought evolved with the use of professional armies, tactics, gunpowder, and artillery

4. Warfare in Italy was different than the rest of the European world at this time. Instead of the domination of a centralized power, Italy was broken into many "city-states." These regions began a series of wars between themselves which were focused primarily on economic issues. Con-
scription for a professional army could not be gained because the citizens were needed to keep the state's industries prosperous. This set the stage for the use of mercenaries (TP #2)

5. Outside Italy, warfare had evolved from its feudal, localized form into warfare that would involve all of Europe

B. Niccolo Machiavelli (TP #3)

1. Machiavelli was born on 3 May 1469. Through the span of his life, Machiavelli witnessed the climax of the Italian Renaissance. The dynamic environ-ment of the Renaissance was the ground in which most of his political thought was rooted (TP #4)

2. Machiavelli gained most of his education at home and through Latin instructors. This education, which was different in respect to the Greek influence of his city, is said to have saved him from the coercion of Humanist traditions. The uniqueness gave his works the originality that made him famous

** Transparencies 2505 & 2506 are included for use in expanding this lesson

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 26

HOURS: 1

TITLE: Cordoba and the Spanish Square

I. Learning Objectives

- A. The student will know and trace Spain's tactical evolution on land with her infantry, emphasizing Cordoba and the Battle of Pavia
- B. The student will know and identify the significant developments in weaponry during the mid-6th century

II. References and Texts

A. Instructor references

- 1. Dupuy, The Evolution of Weapons and Warfare, pp. 91-129
- 2. Dupuy and Dupuy, The Encyclopedia of Military History. pp. 448-458
- 3. Fuller, A Military History of the Western World, Vol. I, chronicles 18, 19; ch. 19, 20
- 4. Paret, Makers of Modern Strategy, ch. 1
- 5. Jones, The Art of War in the Western World, pp. 195-213

B. Student text - Jones, The Art of War in the Western World, pp. 195-213

C. Other references

- 1. Montgomery, A History of Warfare, ch. 10
- 2. Spaulding et. al., Warfare: A Study of Military Methods from the Earliest Times, pp. 421-463

III. Instructional Aids

- A. Chalkboard
- B. Overhead projector
- C. Locally reproduced transparencies (9 transparencies provided)

IV. Suggested Methods and Procedures

- A. Lecture and discussion

B. Guided discussion

V. Presentation

A. Spain's tactical evolution (TP #1)

1. Conquest of Granada, May 1485 - January 1492 (TP #2)

a. Background

- (1) When Ferdinand of Aragon and Isabella of Castille married in 1469, their kingdoms became a union in name only
- (2) Their goal was to make their kingdoms a single, strong, and powerful one. They realized that to do so would require something that would draw the attention of both the Castellians and the Aragonese from their internal interests and mutual jealousies
- (3) That "something" came in December 1481, when the king of the Moorish kingdom of Granada attacked the Castellian town of Zahara, slaughtered the garrison, and sold the inhabitants into slavery
- (4) When the Marquis of Cadiz responded in kind to the Moors, Ferdinand and Isabella vowed to support him
- (5) To further "nationalize" a motive that would unite Spain, Isabella determined that this would be a religious war - one to drive the Moors out of Spain (TP #3)

b. Problems and solutions

- (1) Though Granada was not a large kingdom (200 miles east to west, 60 miles north to south), the task of conquest was formidable
 - (a) Very mountainous
 - (b) Few roads - supply problems, movement of forces, etc.
 - (c) Many castles were virtually impregnable (hilltops, precipices) until the advent of cannons. Even now, cannons were so heavy and cumbersome that good roads were a must for transport
- (2) Since cavalry would be of little use in this terrain and in siege warfare, Isabella turned her attention toartil-

lery, engineers, and infantry. She made use of three means of recruitment

(a) Feudal levies (TP #4)

(b) Converted recently created hermandad (constabulary) into the beginnings of a standing army

(c) Hired Swiss mercenaries (TP #5)

(3) To conquer Granada, Isabella had to solve three major problems

(a) The reduction of castles and fortified towns demanded an artillery train. She had assembled an artillery train "such as was probably not possessed at that time by any other European potentate" (Fuller, Vol. I, p. 536)

(b) The supply of the besieging forces - her supply train reportedly grew to 80,000 pack mules

(c) The devastation of the land adjacent to the town or castle attacked - from the second year of the war 30,000 men were reserved to be foragers only

(d) Isabella also introduced a corps of field messengers and a medical service. Many tents were equipped for the wounded - the earliest recorded case of anything resembling a modern field hospital (TP #6)

c. The Spanish strategy was one of increasing attrition based on

(1) Establishing naval bases on the southern coast of Granada

(2) Blockading Granada's coastline and cutting it off from contact with Morocco

(3) Devastation of Granada (TP #7)

d. Well planned by Ferdinand and Isabella and superbly executed against a formidable enemy, the strategy was entirely successful

e. When the war ended the Spanish soldier had become the most noted in the world, and the Spanish army one of the finest (TP #8)

2. Gonzalo de Cordoba - "el Gran Capitan" combined

infantry arms (pikes, swords, firearms) in the proper proportion to score impressive victories in Italy during the late 15th and early 16th centuries

mercenaries). a. Arriving in Italy to fight the French in May 1495, he suffered his first (and last) defeat in June (his adversary had employed Swiss mercenaries). By adopting (and adapting) Swiss armament and tactics, he was subsequently undefeated in Italy during his two tours of duty there (1495-1498 and 1502-1507)

(1) Using economy of force, permitted by holding extensive frontages with arquebusiers behind entrenchments, he was able to meet, outmaneuver and defeat much larger French forces

(2) He devised a solution to the basic infantry tactical problem of the century - protection for arquebusiers in the open while they were reloading - as he combined them in mixed units with pikemen

(a) Provided protection while reloading

(b) Also could exploit small arms firepower by offensive shock action

b. Battle of Cerignola (April 1503)

(1) Cordoba's infantry units - a few ranks of arquebusiers in front and pikemen behind them - were entrenched on the lower slopes of a hill

(2) Cordoba enticed the larger enemy force to attack by harassing them with his light cavalry

(3) The French made a headlong attack, thinking that the force of their rush would break the meager-looking Spanish line

(4) As the French lead units came within range, Cordoba's arquebusiers opened fire, devastating the enemy ranks

(5) This process was repeated until Cordoba sensed victory, at which time he ordered his men forward to complete the destruction of the enemy

(6) This is perhaps the first instance of the decisive use of small arms fire in the field (TP #9)

3. In 1505, Spain began to group four or five companies together into a colunela (column), commanded by a cabo de colunela (chief of column), or colonel
4. By 1534 the tercio was developed
 - a. Consisted of several colunelas, (finally standardized at 3), giving total strength of about 3,000
 - b. Swordsmen and halberdiers had been eliminated, leaving pikemen and arquebusiers
 - c. Commonly called a "Spanish Square"
 - (1) Pikemen massed in a formation of 3 lines, probably with a front of 50-60 men, 20 files deep
 - (2) Square clumps of arquebusiers at the four corners
 - d. The increasing proportion of shot to pike was accompanied by a tactical development of major significance - the countermarch. Allowed for essentially a "rolling barrage" of small arms fire

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 27

HOURS: 1

TITLE: Lepanto to the Defeat of the Spanish Armada (1570-1609)

I. Learning Objectives

- A. The student will know and describe the Battle of Lepanto
- B. The student will know and discuss the revolt in the Netherlands and the defeat of the Spanish Armada

II. References and Texts

A. Instructor references

- 1. Dupuy and Dupuy, The Encyclopedia of Military History. pp. 461-467, 502-503, 531-532
- 2. Dupuy, The Evolution of Weapons and Warfare, pp. 117-123
- 3. Fuller, A Military History of the Western World, Vol. II, chronicle I; ch. I; pp. 1-39
- 4. Paret, Makers of Modern Strategy, ch. 1
- 5. Preston and Wise, Men in Arms, pp. 98-109, 119-131

B. Student text - Preston and Wise, Men in Arms, pp. 98-109, 119-131

C. Other reference - Instructor Resource Manual

III. Instructional Aids

- A. Chalkboard
- B. Overhead projector
- C. Locally reproduced transparencies (8 transparencies provided)

IV. Suggested Methods and Procedures

- A. Lecture and discussion
- B. Guided discussion

V. Presentation

- A. Significant naval actions of this period (TP #1)

1. When the Turks invaded Cyprus in 1570, the Republic of Venice appealed to the Pope for assistance. Through the Pope's efforts, a Christian fleet was assembled in 1571, commanded by Don John of Austria. The Christians discovered the Turkish fleet at Lepanto in October 1571 and the stage was set for the Battle of Lepanto - the last significant battle in the Age of Galley Warfare
2. The opposing fleets were about equal, but the Christians were stronger in armor and armament
3. The two fleets formed up in a traditional battle formation which had varied little since the Battle of Actium - each in a long line of three divisions, with a reserve in the rear
4. Fighting raged for several hours, during which the superior skill of the Christian sailors and the superior armament of the Christian soldiers gradually got the better of the less-skilled, mostly unarmored Turks
 - a. The Turkish right flank which had not been able to get very far from land, was driven back against the shore and exterminated
 - b. The fighting in the center lasted somewhat longer, but here too Christian superiority won
 - c. The Turkish left, under better leadership, fared better until their leader discovered what had happened to the rest of the fleet. He disengaged and escaped with 47 of his 95 vessels (TP #2)
 - d. Losses
 - (1) Turks - 230 ships grounded, sunk, or captured; 20,000 sailors and soldiers killed/drowned
 - (2) Christians - 173 galleys lost, 7,600 killed, 8,000 wounded
5. The overwhelming Christian victory was won by hand-to-hand fighting, but the ability of the Christian forces to adapt the new gunpowder weapons to sea warfare was a contributing factor. This battle signalled (for most historians) the beginning of the decline of Turkish power (TP #3)

B. Revolt of the Netherlands; defeat of the Spanish Armada

1.The Netherlands were inherited by the Spanish branch of the Hapsburgs upon the abdication of Charles V in 1555

2.The Netherlands Revolt (1568-1609)

a.Philip II (son of Charles V) devoted himself to suppression of local liberties and the centralization of power in the crown

b.He appointed his half sister as regent. She applied pressure so clumsily that she drove the whole country into the arms of the

Reformation

(1)Catholics as well as Protestants found their rights and their property threatened

(2)Through community of interest and local loyalties, the people likewise despised the crown

(3)Even many of the clergy resented the creation of new bishoprics and the diversion of church revenues to them

c.Opposition became serious and active under the leadership of Prince William of Orange

d.In this emergency, instead of sending a tactful civil governor, the king, in 1566, sent the Duke of Alva to put down the opposition by stern military measures

e.Initial Spanish successes culminated in 1585 with the recapture of Antwerp by the Duke of Parma - the finest soldier of his age

f.Parma's achievements forced the English to intervene openly on the side of the rebels

(TP #4)

3.The Spanish Armada

a.Queen Elizabeth had pursued a policy of making privateering raids serve the purpose of an undeclared war on Philip II

(1)In the New World, Philip's commerce and treasure fleets were at the mercy of men such as Drake and Hawkins

(2)In the Netherlands, the mutinies of the king's armies might be traced to English and Dutch interception of ships bringing money lent by Italian bankers

b. It is not surprising that after a decade of this activity Philip resolved to destroy the Protestant sea power

c. Philip was persuaded to undertake a combined (albeit not truly amphibious) operation to invade England and dethrone Elizabeth (TP #5)

(1) The Spanish plan

(a) The Armada was to rendezvous with Parma's army in the vicinity of Dunkirk and escort it across the channel

(b) The Armada itself carried a subsidiary landing force

(c) The naval force was designed to be strong enough to engage the English fleet if necessary, but its principal mission was to convoy the two landing forces

(2) The English plan was to prevent the junction of the Armada with Parma's force

(TP #6)

d. The English fleet engaged the Armada off Gravelines after a week of skirmishing

(1) English ships, guns, and gunnery expertise proved decisively superior

(2) The Armada's only chance was to close and attempt to board, but the English succeeded in thwarting these efforts by keeping their distance and firing long-range broadsides which damaged Spanish hulls and rigging

(3) The junction with Parma was prevented and only a sudden squall saved the Armada from destruction

e. Shortages of provisions and bad weather resulted in additional serious personnel and ship losses to the Armada during the voyage around Scotland and back to Spain

4. The revolt lasted for another 21 years

a. Under Maurice of Nassau (son of Prince William of Orange, assassinated in 1538), the rebels succeeded in gaining control of the seven northern provinces (TP #7)

b.Reforms of Maurice of Nassau

(1)Were based on the conclusion that the tendency toward flexibility, which had been the military aim since Roman times, was good and was to be encouraged

(2)The first principle was perfection in drill

(a)Troops could change formation on any kind of ground and in the presence of the enemy

(b)In pursuing this principle he insisted that officers no longer simply be leaders, but instructors as well

(3)The second principle was organization in depth. The organizations of companies or groups of companies was not deep, but depth was attained by the "checkerboard" formation - characteristic of the early Romans (TP #8)

(4)Features of the army

(a)Long-term enlistment of regular soldiers

(b)Strictest discipline since Romans

(c)Good pay, regular professional army

(5)He made improvements in artillery guns and carriages and standardized the pieces into four calibers (ease of procurement, resupply, etc.)

(6)He attained great skill in the use of siegecraft

c.The truce of 1609 resulted in the independence of the northern provinces; the nine southern Catholic provinces remained under Hapsburg control

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 28

HOURS: 1

TITLE: Review of the 15th and 16th Centuries

I.Learning Objective - The student will know and identify significant developments in the operational art, tactics, and weaponry during the 15th and 16th centuries

II.References and Texts

A.Instructor reference - Jones, The Art of War in the Western World, pp. 148-213

B.Students texts

1.Jones, The Art of War in the Western World, pp. 148-213

2.Notes from previous lessons in this course

C.Other reference - Instructor Resource Manual

III.Instructional Aids

A.Chalkboard

B.Overhead projector

C.Instructor-produced transparencies

D.Map

IV.Suggested Methods and Procedures

A.Method options

1.Lecture and discussion

2.Guided discussion

B.Procedural and student activity options - read and study assignment

V.Presentation

A.15th century review

1.Epoch of change socially, which inspired the Renaissance

2.Overseas exploration and colonialism resulted in political change throughout the world

3. Military changes resulted in uncertainty and blundering experimentation
4. No single nation or king dominated the world
5. Signified the end of the Middle Ages with
 - a. Fall of Constantinople to revitalized Islam in 1453
 - b. End of the Hundred Years' War (1346-1445) - England vs. France
 - c. Charles VIII invasion of Italy in 1493
6. The three major contributions to the military were
 - a. Gunpowder
 - b. Return of professionalism in western warfare
 - c. Return of infantry (Crecy and Arncourt)
7. These contributions foretold the subsequent combined arms concept of cavalry, infantry, and artillery
8. Armor reached its technological peak and subsequently became obsolete - cavalry needed mobility to avoid weapons
9. By the end of the century, plate armor was important for prestige - not protection
10. The aristocracy of the superior class with armor and horse had to admit that common peasants with gunpowder and bows could fight and defeat them
11. It must be remembered, however, that powder was still very difficult to keep dry and handle safely
 - a. The two countries that would reestablish the role of infantry (English and Swiss) were the last to leave the English longbow and pike for gunpowder weapons
 - b. The French who developed the best artillerymen were slow to adopt small arms
 - c. Artillery began as siege weapons and by mid-century made medieval fortifications obsolete
 - d. By the end of the 15th century, the French had the finest "combined arms" army in the world

B. 16th century

1. Was a crucial century in history (Machiavelli) 1469-1527
 2. Beginning of the reformation - a period of bitter religious struggle which would have lasting political, military, and cultural effects on the world
 3. The most remarkable operational effect was in naval strategy
 4. By the end of the century, the galley was replaced by sailing ships with broadside cannons
- C. Land warfare - the Spanish went to great lengths to improve small arms weapons and led the world in small arms tactics and development
1. Started with Cordoba in the early 1500's - in Italy against the French
 2. Combined pikemen, swords, and firearms
 3. Used riflemen behind entrenchments to hold large areas and outmaneuvered larger French force
 4. Provided pikemen for protection of arquebusiers in the open while reloading
- D. Battle of Cerignola (1503)
1. Cordoba entrenched his infantry in front of his pikemen
 2. Harassing with light cavalry, he enticed an attack
 3. The French, thinking the meager Spanish armies would break, attacked
 4. As they came within range, the riflemen fired directly into the French formation
 5. Repeating this tactic and seeing victory close at hand, Cordoba attacked forward
 6. Cerignola marked one of, if not the first, decisive engagement of small arms fire
 7. In 1505, Spain grouped four or five companies together in column commanded by a colonel
 8. In 1534, the Tercio was developed
 - a. Three columns of 3,000 total
 - b. Swordsman were eliminated, leaving pikemen and

arquebusiers in a formation called the Spanish Square

c. The French would use this formation as well, and it would form the basis for the following two centuries of French power

E. Battle of Lepanto (1571)

1. 1570, the Turks invaded Cyprus and Venice asked the Pope for help
2. The Christians and Turks were evenly matched in numbers, but Christians had stronger armor and armament
3. The Christians won because of hand-to-hand skills and better adaptation of infantry weapons to naval warfare
4. Lepanto signified the rise of gunpowder at sea and the end of galley warfare
5. It also signified the decline of Turkish power

F. Weapons development

1. In the latter part of the 16th century, the Spanish introduced the musket with a 300-yard range

- a. Heavy
- b. Complex - "matchlock" mechanism
- c. Rate of fire - one or two in 3 minutes
- d. The arquebus was still used by skirmishers

2. Pistol for cavalry

- a. Fired one shot
- b. Had to be reloaded with both hands
- c. Cavalry carried two holstered and one in the right boot

3. Ships were built for combat

- a. Extended length-to-beam ratio enhanced maneuverability
- b. Portholes allowed for cannon
- c. Formalized sea tactics

(1) Formal formation

(2) Massing against enemy

- d. Introduction of heavy cannon broadside tactics - English vs Spanish

G. The Netherlands (1568-1609)

1. The English and Spanish competed for control of the seas
2. Phillip II of Spain, devoted to centralized power, began suppressing local liberties in the Netherlands
3. His half sister was appointed Regent, and she succeeded in alienating the people
4. In 1566, Philip sent the Duke of Parma to handle the uprising
5. England intervened on the rebels side
6. During all this, a number of other things were happening
 - a. Queen Elizabeth of England used privateers like Drake to raid Spanish possessions (undeclared war)
 - b. Spanish treasure fleets were at their mercy
 - c. Italian ships with money for the Netherlands were intercepted by the English
 - d. After a decade of this, Phillip decided to invade England and wipe out Protestant sea control

H. Spanish plan

1. Linkup the Armada with Parma's army at Dunkirk
2. Naval force designed to be strong enough to engage the English, but its primary mission was to convoy the two landing forces

I. English plan - prevent the junction of the two forces

J. Gravelines

1. After a week of skirmishing, the English attacked the Armada
2. English ships, sailors, and gunnery proved decisively superior (Spanish boarding attempts failed)

3. A squall prevented the complete annihilation of the Spanish fleet
4. The linkup was prevented
5. Weather resulted in serious danger to the fleet as well as lack of supplies
6. Spanish power declined and English power reigned supreme on the high seas
7. Revolt lasted in the Netherlands for 21 more years until Maurice of Nassau's reforms
 - a. Rebels controlled the northern provinces
 - b. He reformed the military
 - (1) The Roman system was the flexible model
 - (2) He perfected drill
 - (3) Formation could change on any kind of terrain at any time in the face of the enemy
 - (4) Flexibility was the key
 - (5) Officers were not merely leaders, but instructors as well
 - (6) Depth established by the use of the Roman "checkerboard" system of the past

K. Army reforms

1. Long-term enlistment
2. Strictest discipline since Rome
3. Good pay - regular professional army
4. Artillery improvements
 - a. Standardized pieces to four calibers
 - b. Siegecraft skills greatly improved
5. Resulted in saving nine southern provinces for Spain - northerners were granted freedom
6. The French, who were fighting the Spanish on and off during the century, were learning from their mistakes

L. Weapons development during the 16th century

1. During the latter part of the 16th century the Spanish endeavored to enhance the solidarity of their infantry tactics by the introduction of a heavier small arm - the musket - with a range of up to 300 yards

a. Because the weapon was heavy, and its operation complex, speed of fire was at best two shots in 3 minutes

b. The sacrifice of slow rate of fire was accepted, however, because the range, accuracy, and striking power of the musket was so much greater than those of the arquebus

c. Because of its convenience, however, the arquebus continued to be used by skirmishers

2. Since the use of firearms required two hands, (match, plus weapon) cavalry had been at a significant disadvantage. The invention of the "wheellock" firing mechanism in 1515 did allow the cavalryman to fire with one hand

a. To assure a modicum of sustained fire, the cavalryman carried three weapons: two in holsters and one in the right boot

b. After all three pistols had been fired, he either had to drop the last pistol and draw his sword or retire to reload - an operation requiring both hands

c. There were repeated efforts to utilize the wheellock principle for muskets or arquebuses, but the mechanism had defects

(1) The spring weakened after being wound up too long

(2) The wheel itself could easily be put out of action by rough handling

d. So the matchlock, despite its shortcomings, was to remain the prevailing weapon for another century

3. Naval technology. The prototype ship-of-the-line was developed during the reign of Henry VIII of England in the early 1500's

- a. Increased length-to-beam ratio improved the maneuverability and handling characteristics
- b. Portholes allowed heavy guns to be used on board, since they could now be maintained below the critical center of gravity
- c. Signalled the beginning of ships built specifically for combat
- d. An important technological change was the ability to harness a gun's recoil in such a way that, after firing, it would be inboard enough to permit reloading. This gave England great power in naval battles due to "broad-side" technique of firing
- e. Formulation of naval tactics in "Permanent Fighting Instructions." Development of two schools of naval thought. Both desired to enter combat in the "line-ahead" formation. The "Formal School" held that this formation should be adhered to at all costs. The "Melee School" felt that once battle was engaged, individual ships should be allowed to mass against the enemy
- f. Formalized tactics at sea would both help and hinder the British for the next 200 years

H. Summary

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 29

HOURS: 1

TITLE: Gustavus Adolphus and the Thirty Years' War

I. Learning Objectives

- A. The student will know and discuss the continuing religious strife which led to the Thirty Years' War, and the total nature of such ideological struggles
- B. The student will know and describe the Thirty Years' War from the standpoint of Gustavus' strategy and tactics
- C. The student will know and review the military innovations introduced by Gustavus Adolphus
- D. The student will know and describe the growth of defensive fortifications during the reign of Louis XIV
- E. The student will know and recall the development of the law of nations in reaction to the unlimited warfare of the Thirty Years' War

II. References and Texts

A. Instructor references

- 1. Dupuy and Dupuy, The Encyclopedia of Military History, pp. 522-546
- 2. Dupuy, The Evolution of Weapons and Warfare, pp. 130-142
- 3. Fuller, A Military History of the Western World, Vol. II, pp. 40-75
- 4. Jones, The Art of War in the Western World, pp. 225, 227, 228, 229

B. Student text - Jones, The Art of War in the Western World, pp. 225, 227, 228, 229

C. Other references

- 1. Earle, Makers of Modern Strategy, ch. 2
- 2. Hart, Strategy, ch. VI
- 3. Zook, A Short History of Warfare, ch. VII

III. Instructional Aids

- A.Chalkboard
- B.Overhead projector
- C.Locally reproduced transparencies (7 transparencies provided)
- D.Map
- E.Jones, The Art of War in the Western World, pp. 225, 227, 228, 229 (Maps)

IV.Suggested Methods and Procedures

- A.Method options
 - 1.Lecture and discussion
 - 2.Guided discussion
- B.Procedural and student activity options - read and study assignment

V.Presentation

- A.Introduction. The military transition from the Middle Ages to the modern era was completed during the 17th century. The musket replaced the pike; the heavy armored horseman was modified and finally became outmoded; the basic phalangeal battle formation became linear and the immobile artillery of siege warfare was transformed into massed mobile artillery that was used as a combat arm in coordination with infantry and cavalry
- B.Conflicts of the 16th century
 - 1.The Protestant Reformation and the Catholic Counter-Reformation resulted in innumerable conflicts
 - a.Spain's war with England and the Netherlands
 - b.Spain was also involved in attempts to suppress the Huguenot uprisings in France
 - c.Since both sides felt they were defending the "true faith", these wars were fought ferociously
 - 2.The Thirty Years' War (1618-1648)
 - a.The Thirty Years' War started as a religious war - a product of the struggle between Catholics and Protestants in Germany

- (1) Although the religious problem was always present, economics and politics were also manifest in the struggles
- (2) As the war progressed, it became a power struggle between monarchs. Catholic France was ultimately allied with Protestant Sweden and Germany against the Catholic Holy Roman Emperor
- b. The physical devastation of this war, and the loss of life among civilians, were the most severe in Europe since the Mongol invasions
 - (1) In Germany, plague and famine claimed thousands every month
 - (2) Cannibalism grew so rife that bodies were torn from the gallows by hunger-maddened people; throughout Germany, graveyards had to be guarded
 - (3) The Swedes were charged with destroying 1,500 towns and 18,000 villages
 - (4) Bavaria estimated that 80,000 families had been wiped out
 - (5) In Germany, 8 million people (1/3 of the population) perished during the war
- c. Was this perhaps the warfare without morality envisioned by Machiavelli?

C. Gustavus Adolphus, King of Sweden - the "Great Captain" of the Thirty Years' War

1. Strategy (TP #1)

- a. The twin objects in the foreign policy of Gustavus were the strengthening of Swedish power and the defense of Protestantism
- b. By 1630, he had to enter the Thirty Years' War, for Catholic armies now occupied all Germany up to the Baltic, and savage measures were being taken against the Protestants
- c. He decided to take the offensive in order to carry the war away from Sweden. He did this because
 - (1) Sweden's long coasts would be difficult to defend
 - (2) In the greater expanses of Germany, the

numerical superiority of the enemy would count for less (TP #2)

d. He secured and developed a firm base of operations on the Baltic Coast prior to commencing active campaigning

e. The Protestant princes in Germany remained too pessimistic to help him, so Gustavus' strategy was to progress cautiously and methodically - adjusting his strategy to his resources

f. His marches and countermarches and attacks were made with a view toward future operations

g. The mobility of his forces served him well strategically as well as tactically

2. Battle of Breitenfeld - perhaps the clearest example of Gustavus' tactical skill

a. Gustavus' forces - 47,000 troops

(1) Saxons on the left (formation unknown)

(2) Swedish left (Horn)

(a) Three regiments of cavalry, interspersed with musketeers

(b) Two regiments of cavalry in the second line

(3) Swedish center (Gustavus)

(a) Four infantry brigades in front

(b) Two infantry brigades and one cavalry regiment in the second line

(c) Three infantry brigades in the third line, with two cavalry regiments behind them

(4) Swedish right (Baner)

(a) Six regiments of cavalry, interspersed with musketeers in the front line

(b) One cavalry regiment in the second line

(c) Four cavalry regiments in the third line

(5) Every regiment had two regimental 4-pounder guns in front

(6)The heavier field artillery (Torstensson) was massed in front of the center

b.Count Johann T. Tilly (Germany) - 40,000 troops

(1)Having learned his trade under the Duke of Parma, he drew his infantry squares up in 17 Spanish squares

(2)His cavalry was on the wings - (Pappenheim and Furstenberg)

(3)Artillery was massed in front (only about half the number of artillery pieces that Gustavus had)

c.The battle

(1)The outcome of the battle would depend upon which of two different tactical systems proved the superior. One relied on mass, the other on mobility. (Once again, the phalanx was challenged by the legion)

(2>About noon the artillery duel began. The Swedish artillery fired about three shots for every one of Tilly's (actually about 6:1 shot ratio because of the disparity in weapons)

(3)Pappenheim took his 5,000 cavalry around to the left in an attack on the Swedish right flank

(a)Gustavus wheeled up his reserve line of cavalry to form a right angle with the front line

(b)Pappenheim led seven charges - all easily repulsed

(c)After the seventh charge, Baner counterattacked, driving Pappenheim's remnants from the field of battle

(4)Furstenberg's cavalry attacked and within a half hour had put the 16,000 Saxons to flight. The remaining Swedes were now outnumbered and their left exposed

(5)Tilly now ordered his right to move around and attack the Swedish rear, while his center of heavy infantry moved to their right to attack the Swedish left flank

(6) Gustavus ordered Horn to wheel his men left to face Tilly's new front; he also brought across two brigades of infantry from the second line in the center to reinforce the left. Since his small units maneuvered much faster than Tilly's squares, Tilly lost what had momentarily been an advantage

(7) The fighting was hard and undecided when Gustavus brought across four cavalry regiments from the right to attack up the slope towards Tilly's artillery. Capturing the guns, he had them turned against Tilly, who now was receiving converging artillery fire

(8) Assailed on their front and on their left simultaneously by infantry, artillery, and cavalry, the close-packed mass of Tilly's force finally broke

d. The results

(1) Tilly lost 7,000 killed and 6,000 prisoners

(2) Gustavus lost 2,100 killed and wounded

D. Military innovations of Gustavus Adolphus

1. Gustavus was able to build a fine fighting army

2. Sweden could not afford a mercenary army (and Gustavus was aware of the pitfalls of mercenary armies) large enough to face the combined strength of her enemies, so Gustavus introduced a system of conscription

a. All males between 15-60 with no settled dwelling owed military duty

b. Of the remainder, 1 out of 10 was chosen by drawing lots

c. Certain tradesmen were exempted

d. Tax reductions were granted to nobles who became officers

e. Lutheran clergymen served as recruiters

f. In practice, however, Sweden was unable to meet all of the manpower needs and the

national army was supplemented by mercenary units

3. By reducing the weight of the weapons and equipment carried by the individual soldier, he enhanced the army's mobility

a. Musketeers ceased wearing armor (except for the helmet)

b. By reducing the size of the musket, he enabled the musketeers to rid themselves of the cumbersome rest and to arm themselves with a sword

4. Gustavus does not appear to have been the inventor of paper cartridges, but he was probably first to use them as standard equipment

a. With the powder carefully measured, ballistic uniformity was a result

b. Also improved safety for individual soldiers

5. Artillery - The father of "modern" field artillery (TP #3)

a. Gustavus made his most important technical changes in artillery

b. His objective was to increase the effectiveness of his artillery in combination with infantry and cavalry

c. He reduced the calibers to three: 24-pounder, 12-pounder, and 3-pounder

d. He improved the quality of the powder, thereby standardizing pressures in the barrel, which permitted reductions in the thickness of the barrel

e. He made the 3-pounder his regimental gun

(1) 625 pounds - about 1,000 pounds lighter than those used in other armies

(2) For years, his was the only army with artillery capable of accompanying the infantry

f. He introduced the powder cartridge, which gave his artillery a much faster rate of fire

g. In 1623, he formed an artillery company and in 1629 an artillery regiment of six companies

- (1) Three companies of guns and crews
- (2) One company of sappers
- (3) One company of men trained to handle special explosive devices
- (4) For the first time, artillery was organized as a distinct and regular branch of the army (TP #4)

6. Tactics

a. Infantry

- (1) Introduced a three-rank formation in which all ranks could fire together
- (2) Developed more of a linear formation which could make better use of the improved firepower
 - (a) Used a T-formation in which musketeers and pikemen were most economically used
 - (b) The advanced central block of pikemen formed a front in defense and a spearhead in the attack, while the other units of pikemen covered the flanks of the musketeers
 - (c) The musketeers could assail the enemy front with volleys at any point, and bring fire to bear from different

angles (TP #5)

b. Cavalry

- (1) Discarded the caracole and deep formation
- (2) Formed cavalry in six ranks (later in three)
- (3) Brought "shock" action back
 - (a) The first rank fired when close to the enemy
 - (b) The other two held fire, keeping the pistol for emergency use
 - (c) The sabre became the shock weapon
- (4) Detached musketeers stationed between cavalry squadrons provided firepower support to cover the cavalry's advance or

retreat

(5)Dragoons - "mobile infantry" - fought as light horse in the attack, dismounted infantry in the defense (TP #6)

7.Administration

a.Merit gained promotion more often than seniority or nobility

b.Composed Articles of War

(1)Forbade drunkenness, whoring, profanity

(2)Punishments for small offenses were humane

(3)Pillage, rape, and "despising divine service" were punishable by death

8.Drill

a.He provided for continuous training of new recruits from the moment of their entry into the army

b.Maneuvers were held frequently, by small and large units (TP #7)

9.Operations

a.Improved mobility by severely reducing the numbers (and types) of camp followers

b.Improved the system of requisitioning, which reduced the need for foraging

10.The effect of all these reforms was to fashion an instrument that won consistently on the battle-field. His reforms were designed to improve the quality of infantry, cavalry, and artillery; to gain greater firepower in all three arms; and then to make effective use of all of them in combination

E.Summary - tactics

1.Fired cannon into the enemy ranks, which created confusion and put smoke on the field

2.Charged the cavalry to the smoke-filled melee

3.Brought up infantry to consolidate his cavalry gains and decimated the enemy by volley fire

4.Cavalry then swept the flanks

5. Reserves were held to be used as needed

6. Cavalry scouts kept the enemy always under surveillance

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 30

HOURS: 1

TITLE: Cromwell's Army and the English Civil War (1642)

I.Learning Objective - The student will relate/apply the development of Cromwell's New Model Army to the changes in civil-military relationships in 17th century England

II.References and Texts

A.Instructor references

- 1.Dupuy and Dupuy, The Encyclopedia of Military History, pp. 550-556
- 2.Dupuy, The Evolution of Weapons and Warfare, pp. 142-144
- 3.Fuller, A Military History of the Western World, Vol. II, pp. 76-117

4.Jones, The Art of War in the Western World, pp. 221-266

B.Student text - Jones, The Art of War in the Western World, pp. 221-266

C.Other references

- 1.Earle, Makers of Modern Strategy, ch. 2
- 2.Hart, Strategy, ch. VI, pp. 83-93
- 3.Montgomery, A History of Warfare, ch. 12
- 4.Zook, A Short History of Warfare, ch. VII
- 5.Instructor Resource Manual

III.Instructional Aids

A.Chalkboard

B. Overhead projector

C.Locally reproduced transparencies (2 transparencies provided)

IV.Suggested Methods and Procedures

A.Method options

- 1.Lecture and discussion

2.Guided discussion

B.Procedural and student activity options - read and study assignment

V.Presentation

A.Oliver Cromwell and the New Model Army (TP #1)

- 1.At the outbreak of the Civil War in England in 1642, the militia of both sides was a home defense force - a paper organization without training or discipline
- 2.After the Royalist victory at Edgehill, Cromwell recognized the importance of raising a disciplined and well-trained force. The results of his efforts toward that goal was the New Model Army
 - a.This army eventually defeated the Royalists and then the Scots, as Cromwell became the first ruler in England to conquer the whole of the British Isles
 - b.Ultimately, however, the New Model Army became the instrument of Cromwell's military dictatorship
 - (1)With victory assured, Parliament attempted to disband the army. The soldiers refused to go home, purged parliament, defeated all of Cromwell's opponents and executed the King
 - (2)Troops were quartered in private homes to prevent revolt
 - (3)A secret police was formed for internal spying
 - (4)Taxes to support Cromwell's army became intolerable
 - (5)The entire nation was divided into 11 districts under Major Generals supported by cavalry and militia. Police, public order, taxation, and enforcement of morality were their duties
- 3.Cromwell's legacy was remembered by the American founding fathers and is reflected in the Constitution of the United States; it continues to influence civil-military relations in English-speaking countries

B.Summary (TP #2)

1. In the 17th century we see the rise of standing armies, the enhancement and development of standing navies, and an increase in the power of the state. What effect did these developments have on the evolution of warfare?

2. What were the economic implications of warfare during this time?

3. Was this a period of total war, with the ends justifying the means - as Machiavelli had expounded?

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 31

HOURS: 1

TITLE: Review of the 16th and 17th Centuries

I. Learning Objectives.

- A. The student will know and discuss the continuing religious strife which led to the Thirty Years' War, and the total nature of such ideological struggles
- B. The student will know and describe the Thirty Years' War from the standpoint of Gustavus' strategy and tactics
- C. The student will know and review the military innovations introduced by Gustavus Adolphus
- D. The student will know and describe the growth of defensive fortifications during the reign of Louis XIV
- E. The student will know and recall the development of the law of nations in reaction to the unlimited warfare of the Thirty Years' War
- F. The student will relate/apply the development of Cromwell's New Model Army to the changes in civil-military relationships in 17th century England

II. References and Texts

A. Instructor references

- 1. Dupuy and Dupuy, The Encyclopedia of Military History, pp. 461-556
- 2. Fuller, A Military History of the Western World, Vol. II, pp. 1-39, 40-75, 76-117
- 3. Montross, War Through the Ages, pp. 262-310
- 4. Paret, Makers of Modern Strategy, ch. 2

B. Other reference - Hart, Strategy, ch. VI

III. Instructional Aids

- A. Chalkboard
- B. Overhead projector
- C. Instructor-produced transparencies

IV. Suggested Methods and Procedures

A. Lecture and discussion

B.Guided discussion

V.Presentation

A.Background

1.Social diversities

a.Italy was still city-states

b.France, Germany, Portugal, and Holland had medieval monarchies which evolved into pure monarchies

2.Results

a.Powerful kings

b.Power to tax

c.Power to raise armies

d.Centralized control

e.Sea power shifted the world's wealth from Italy to Portugal and Spain and later to France, England, and Holland

3.1494 - King Charles VII of France invaded Italy

4.1519 - King Charles VIII had alienated Austria (Northern Italy claims) and Spain (Naples claims)

B.Differences of 15th vs. 16th century conflict

1.15th century saw limited armies fighting limited battles throughout Europe

a.16th century saw Europe at war

b.Charles wanted to unite all of Europe under one church

c.Gunpowder led to the major question of the century (see below)

2.How to use gunpowder most effectively?

a.Had potential, but was cumbersome and inaccurate

b.Pike only could stop infantry

c.Most preferred the arquebus, but a mix was needed

d.Cordoba would answer the question

- (1)Massed pikes with arquebus on the flanks
- (2)Counter marching
- (3)Spanish square
- (4)Cavalry shock charges were stopped by Swiss pikes

C.Mid-16th century

- 1.Religious wars broke out all over Europe
- 2.Machiavellis' thoughts on warfare led to ruthless and unlimited destruction
- 3.Citizen-soldiers fought for the cause of God
- 4.Mercenaries then filled the ranks

D.End of 16th century

- 1.First muskets with 50-100 yard accuracy were introduced
- 2.Two rounds every 3 minutes
- 3.Artillery was improving dramatically
- 4.Cavalry - which had been stopped by the Swiss infantry tactics - began a comeback
- 5.Cavalry gave up the lance and used the pistol and sword
- 6.Cavalry, no longer the shock weapon because of the pike-musket mix, now fought in line like the infantry
- 7.Cavalry was now utilized for auxiliary and reconnaissance
- 8.Officer ranks and chain of command reestablished (Roman Legion)

E.17th century

- 1.Mercenaries filled the ranks
 - a.Kings hesitated to arm subjects
 - b.Kings believed only mercenaries understood new tactics and weapons
 - c.Problems

(1) Money to pay

(2) Loyalty to whom?

2. Firepower now required small numbers across larger areas which required

a. Tactical skills

b. Initiative

c. Junior leaders

3. A new ethos or ethical leader was needed - unlike the reckless knight or selfish mercenary

4. A new "combat leader" began to emerge

a. Socially and ethically disciplined

b. Tactically a student

c. Drill and training responsibilities

(Discipline - not gunpowder - initiated this transformation of the military)

F. Maurice of Netherlands

1. Developed the Dutch Army model

a. Disciplined (unquestionable obedience)

b. Loyal to the unit

c. Year-round pay

d. Drill, Drill, Drill!

e. Still mostly foreigners

2. Officer Corps

a. Public trust

b. Commissioned not because of nobility but by deeds

c. Commissioned by the state

d. Unquestionable obedience

G. 1618 (Thirty Years' War)

1. France allied with Germany against the Holy Roman Empire

- a. Significance of the war was that it threatened the Baltic states - one of which was Sweden and resulted in the rise of Gustavus Adolphus
- b. The Machiavellian ethics of total war and no morals devastated Germany and Europe during the Thirty Years' War
- c. Germany - the battleground - would not recover until the 19th century

2. England

- a. Insolation created no need for standing armies
- b. All men remained on call but not at arms
- c. Unlike continental monarchs with standing armies, the English king could not bring pressure to bear on Parliament
- d. Earlier raids on Spanish treasure ships supported the king
- e. Now the kings and Parliament saw things differently and when Henry the VIII came to power he separated the two
 - (1) Parliament had religious ties to Rome
 - (2) He separated from the Church of Rome and created the Church of England
 - (3) Civil War followed

H. The conflict

- 1. Nobility vs. middle class (king vs. Parliament)
- 2. Parliament raised an army and placed Cromwell in charge
- 3. He recruited citizens who believed in the parliamentary system
- 4. 22,000 (1/2 cavalry; 1/2 infantry) troops
- 5. Disciplined followers
- 6. Cavalry was under his personal command
- 7. Cavalry was used as the decisive army
- 8. Cavalry used pistol and sword - no pikes

9. Infantry was 1/3 pike and 2/3 musket (100-yard range)
10. Army was attired in red coats
11. Cromwell's army defeated the king and death was the sentence

I. Post-Civil War

1. Parliament refused to back pay the army
2. Parliament tried to disband the army
3. The army revolted and took power by taking the king's head
4. Cromwell was now in charge
 - a. He divided the country into military regions
 - b. Established a "police state"
 - c. Organized a secret police to spy on the nation
 - d. Pursued an aggressive foreign policy
 - e. Had a true standing army of 70,000

J. After Cromwell's death

1. A new Parliament and king were reestablished
2. Conflict between the two arose again
3. King James was dethroned
4. William of Orange took over
5. Needing men to fight France, he accepted parliamentary restrictions
 - a. No peacetime army without parliamentary

approval

- b. Protestant citizens had a right to bear arms

(Cromwell's legacy had become a part of America and other English-speaking countries)

- (1) The constitution provides the military with civilian rule
- (2) Distrust of the "professional officer" has resulted in our historical unpreparedness for war

K. Summary

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 32

HOURS: 1

TITLE: Frederick, the Austrian Succession and the Seven Years' War

I. Learning Objectives.

- A. The student will comprehend and explain the resurrection of mobility and the offensive by Marlborough
- B. The student will know and trace the emergence of limited war, international law, and the tight professional armies of kings
- C. The student will know and describe strategy, tactics, and the means of limited warfare
- D. The student will comprehend and explain the emergence of Great Britain as the dominant maritime and colonial power by the end of the 18th century

II. References and Texts

A. Instructor references

- 1. Dupuy and Dupuy, The Encyclopedia of Military History, pp. 630-637, 664-678
- 2. Dupuy, The Evolution of Weapons and Warfare, pp. 147-154
- 3. Paret, Makers of Modern Strategy, pp. 91-119
- 4. Jones, The Art of War in the Western World, pp. 289-309, 314-319

B. Student text - Jones, The Art of War in the Western World, pp. 289-309, 314-319

C. Other references

- 1. Fuller, The Conduct of War 1789-1961, ch. I
- 2. Rothenberg, The Art of Warfare in the Ages of Napoleon, ch. 1
- 3. Instructor Resource Manual

III. Instructional Aids

- A. Chalkboard
- B. Overhead projector

C. Locally reproduced transparencies (3 transparencies provided)

IV. Suggested Methods and Procedures

A. Method options

1. Lecture and discussion
2. Guided discussion

B. Procedural and student activity options - read and study assignment

V. Presentation

A. War of Austrian succession (1740-48) (TP #1)

1. Upon ascension to the Austrian throne by Maria Theresa, Frederick II of Prussia made demands that Maria refused (Silesia)
2. The main foes were France, Prussia, and Spain vs. Austria and England
3. England provided money only, and took advantage of France's continental preoccupation to seize French territories in the New World and in India

B. Seven Years' War (1756-63) (TP #2)

1. Alarmed by Prussia's growing power and territorial expansion, Austria, France, Russia, and Sweden joined forces
2. England, already involved in colonial and maritime war with France, aided Prussia—mostly with money
3. Frederick's position, attitude, and strategy
 - a. Frederick had so many enemies in this war that if he waited for them all to attack him in concert, he was likely to be ruined
 - b. Having the advantage of interior lines, his method was to move fast and strike hard at one enemy and then move quickly to strike another
 - c. He counted on the discipline and training of his army to allow him to defeat his more

numerous enemies

- d. Unlike most of his contemporaries, he believed that the aim of strategy was the destruction of the forces of the enemy, not just the occupation or defense of a piece of territory

e. Military power out of proportion to size and wealth (army 3-4% of population)

f. Officer Corps-Junkers-poor nobility, professional, dedicated - compare to French nobility

4. Tactics (see below)

C. Battle of Leuthen (December, 1757)

1. The Austrian army (about 80,000) lay in a 5-mile long line of battle in undulating country

a. The right flank lay on a marsh

b. The reserves lay behind the partially entrenched left wing in anticipation that

Frederick would attempt his favorite enveloping maneuver

2. Frederick moved toward the enemy with an army of 36,000. When near and hidden by the hills, he changed direction obliquely to the right, leaving a small force behind to begin a demonstration against the Austrian right

3. The Austrian reserves were moved to bolster the apparently threatened right flank

4. When Frederick's columns - still concealed - began to overlap the Austrian left, he faced the infantry to the left and attacked in two lines echeloned from the right

5. With a local superiority of about 4 to 1, Frederick's forces bore down on the Austrian flank - each battalion increasing the total weight of force and adding the firepower of its 7-pounders

6. Frederick captured 20,000 prisoners, 115 guns, and killed or wounded 6,800 of the enemy. His own losses were 6,200

D. Frederick's "oblique order" (TP #3)

1. READ: Dupuy & Dupuy, p. 643

2. READ: Montross, pp. 397-398

E. Results

1. Decided nothing politically

2. Militarily, it proved that loosely knit coalitions, regardless of superiority of numbers, are at a disadvantage when waging war against a determined,

disciplined, capably led enemy with a singleness of purpose

3. Frederick placed his country in the ranks of the great powers, and laid the foundation for a united Germany

4. The Royal Navy firmly established the British Empire at the expense of France and Spain

F. Emergence of Great Britain

1. Defeat of Spanish Armada - 1588 - difference in tactics

2. Anglo-Dutch Wars

a. English motivated by need to increase trade - jealous of Dutch situation

b. Ended in 1674 with the English victorious. English able to quickly overtake the Dutch as a commercial and maritime power

3. Defeat of the French

a. French ships were better

b. English seamanship was better

c. England had more ships

d. These factors influenced tactics and strategies

(1) French: avoid battle while protecting their commerce and extending colonial possessions

(2) English: destroy the enemy's fleets and sever his lines of communications

4. By the latter half of the 18th century the English had gained

a. Gibraltar and Majorca - keys to the Mediterranean

b. Nova Scotia and Newfoundland

c. Control of the seas

G. Mes Reveries (French developments in military thought)

1. Marshall Maurice de Saxe, a general in the French Army, became the leading French commander during

the War of the Austrian Succession

2. He is best known, however, for his Mes Reveries, published in 1747 - 7 years after his death
3. At the time he wrote Mes Reveries, many of his ideas were extraordinary; now, many of them are commonplace practices
 - a. He desired breechloading guns and muskets, functional uniforms, company messes, and expert riflemen
 - b. Urged an end to volley firing in favor of aimed fire
 - c. Advocated 5-year conscription
 - d. Stressed strong points as preferable to trenches in the defense
 - e. Urged determined pursuit of a beaten enemy
 - f. Had a keen appreciation of the morale factor in war, and urged that simple things could be great aids to morale: music, badges, the naming of regiments after something permanent (rather than the colonel at the time). Also, national service and promotion by merit

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 33

HOURS: 1

TITLE: The American Revolution

I. Learning Objectives

- A. The student will comprehend and contrast/compare the expressions "strategy of attrition" and "partisan warfare," and apply them to the American Revolution
- B. The student will know and discuss British and American strategy and objectives, and note how they changed during the course of the American Revolution
- C. The student will comprehend and contrast the Continental Army with the professional armies of the 18th century and show how this difference dictated Washington's strategy
- D. The student will comprehend and explain how French intervention tipped the balance in favor of America in the War for Independence

II. References and Texts

A. Instructor references

- 1. Dupuy and Dupuy, The Encyclopedia of Military History, pp. 708-725
- 2. Fuller, A Military History of the Western World, Vol. II, Chronicles 9, 10; ch. 9, 10; pp. 271-340
- 3. Preston and Wise, Men in Arms, pp. 164-178
- 4. Weigley, The American Way of War, pp. 3-39

B. Student texts

- 1. Preston and Wise, Men in Arms, pp. 164-178
- 2. Weigley, The American Way of War, pp. 3-39

- C. Other reference - Zook, A Short History of Warfare, ch. IX, pp. 117-128

III. Instructional Aids

- A. Chalkboard
- B. Overhead projector
- C. Instructor-produced transparencies

IV. Suggested Methods and Procedures

A. Method options

1. Lecture and discussion
2. Guided discussion

B. Procedural and student activity options - read and study assignment

V. Presentation

A. Introduction

1. The causes of the American Revolution. The relations between England and the American colonies grew more and more strained during the period following the close of the French and Indian Wars in 1763. Fuller analyzes the causes of outright revolution somewhat as follows: There were two primary causes of the Revolutionary War that climaxed the dispute - taxation and the quartering of troops for protection from Indian forays after the expulsion of the French. As this cost money, the English deemed it proper that the colonists contribute toward the cost of security. The means proposed was the enforcement of the Acts of Trade and Navigation, which were being systematically disregarded by the colonists through smuggling; and the passage of a succession of Acts (Stamp Act and Revenue Act) designated to raise revenue. Colonial objection, in principle, to these laws was strengthened by the passage of the Quartering Act which required them to provide barracks and supplies for the troops. Besides these obvious causes of perpetual friction, there were deeper and more obscure reasons for the Revolutionary War: first, the colonists were intellectually of the Stuart period rather than Georgian and believed that the king rather than Parliament had the right to make laws for the colonies; secondly, by reason of their life on the frontier, they had become imbued with the spirit of self-independence; and thirdly, they believed in a democratic form of government rather than the oligarchy that was England. It was these three causes, stimulated and irritated by the Trade Acts and Quartering Act, that precipitated the rebellion and rendered war inevitable

2. The American Revolution came about, fundamentally, because by 1763 the English-speaking communities on this side of the Atlantic had matured to an extent that their interests and goals were distinct from those of the ruling classes in the mother country

- a. According to the English, the colonies were little more than overseas investments
 - b. According to the colonists, theirs and the newly acquired territories were potential homelands of their own
3. British victory in the Seven Years' War set the stage for the revolt, for it freed the colonists from the need for British protection against a French threat on their frontiers and gave free play to the forces working for separation
 4. In 1763, the British government moved to tighten the system of imperial control and to force the colonists to contribute to imperial defense, proposing to station 10,000 soldiers along the American frontiers and to have the colonies pay part of the bill

B. Definition of terms

1. Attrition - a gradual wearing down or weakening
2. Partisan - pertaining to or carried on by partisans or "irregular" troops
3. Guerrilla warfare - a type of warfare characterized by irregular forces fighting small-scale, limited actions - generally in conjunction with a larger political-military strategy - against orthodox military forces. (The word guerrilla means "little war")

C. Application of terms

1. Strategy of attrition - the nature of the economy and the colonies' jealousies forced Washington to adopt a strategy of attrition by which he hoped to eventually defeat the British
 - a. There were reasons for hoping that this strategy would prove successful
 - (1) The extremely long lines of communication to England would make support and resupply difficult - especially if control of the seas and certain critical coastal areas could be wrested from the British
 - (2) England had many enemies in Europe and would therefore keep the bulk of her naval and military power close to home
 - (3) There was much popular support in England for the colonies. This, combined with the prospect of a long war, might force

England to abandon the war

- b. On the other hand, Washington had to have some fear about a lengthy war - there was also considerable division in the colonies

2. Partisan warfare

- a. On many occasions, local militias supported a nucleus of continental soldiers - especially at Saratoga and in the south. Victory seemed to draw more support
- b. The tactics used by the colonists were well suited to their means and background - Cowpens is a classic example (discussed later)

D. American strategy and objectives

1. Background

- a. The population was roughly 1/3 rebel, 1/3 loyalist, and 1/3 indifferent. The loyalists provided more soldiers for England's forces than the "rebel 1/3" was able to raise on a permanent basis
- b. Thus, the advocates of independence had to fight not only a foreign war against a major European power, but also a savage civil war against larger and better equipped forces of their own countrymen
- c. For most of the war, Washington was forced on a strategic defensive

2. Lexington and Bunker (Breed's) Hill

- a. Lexington gave impetus to the siege of Boston and the Battle of Bunker Hill. The results of Bunker Hill effected military policy
 - (1) It convinced the colonials that a regular military organization was unnecessary
 - (2) Its memory made an indelible impression on General Howe who henceforth failed to press his victories
 - (3) The battle cleared the air and showed to all that the colonists were determined to win
- b. The plan now was the simple defensive - to oppose the British as best they could at every point, and to hold fast the line of the Hudson

c. The offensive to Canada in 1775 had a two-fold purpose

(1) Forestall and prevent an advance of the British southward through the Hudson River Valley

(2) Incite a rebellion against the British among the French Canadians

(3) Neither goal was achieved

d. After New York, Washington was forced to turn to Fabian tactics, avoiding battle whenever he could. His first object became not the defense of a particular area, but the survival of his army!

3. Saratoga

a. The Saratoga victory was the turning point in the revolution - a moral as well as tactical victory

b. British forces were redistributed and now held only New York City, part of Rhode Island, and Philadelphia

c. France recognized the independence of the United States and on 6 February 1778 signed a treaty of alliance with the U.S. - a prelude to her active participation in the war

d. France and the colonies could now be more aggressive in their alliance

4. The Southern Campaign

a. General Greene waged a war of maneuver against Cornwallis. While he marched and counter-marched against the main armies, partisan bands led by Lee, Pickens, Sumter, and Marion harassed the flanks, cut off supplies, fell on isolated posts and put down loyalist aid

b. Greene intentionally violated the principle of mass

(1) Divided forces could live off the land much easier

(2) Provided more rallying points for local militia

(3) Tempted Cornwallis to split his force

(4) Sacrificed mass for maneuver

c. Greene's combination of regular and irregular

warfare speedily reduced the British occupation to a hollow shell
E. British strategy and objectives

1. Background

a. The general plan which the British Ministry proposed, but never could get carried out, was as follows: to occupy such portion of the territory as would effectually break up the union of the patriots and prevent intercourse among them; to blockade the coast and prevent supplies from entering by the sea; to destroy any organized armies the colonists might form; and then to suppress by degrees the guerrilla warfare into which an unsuccessful insurrection usually degenerates

(1) The strategy (of the British) as it gradually unfolded itself was, first of all, to occupy New York City and make that the headquarters of the British control. From New York City to the line of the Hudson Valley and all the way to Canada must be secured. This would immediately isolate New England - the hotbed of sedition - from the other colonies and cut off not merely the encouragement, and reinforcements of troops, but also the provisions and supplies which New England drew from the more fertile agricultural communities to the south

(2) In New England itself, they finally decided to hold only one port, Newport, because it was the most convenient harbor south of Halifax for vessels to enter and take shelter in

(3) South of New York the strategic position was the line of Chesapeake Bay, with strong positions in Maryland and Virginia, as at Alexandria and Annapolis with, perhaps, part of the Susquehanna River. This line, if well held, would isolate the middle from the southern colonies and stop communication. As for the south, the best method of controlling it was found to be by occupying Charleston and two or three points on the Santee River in South

Carolina

b. England's greatest advantage was the Royal Navy, offering freedom of maneuver against an adversary along the long coastal strip

c. Her greatest disadvantage was that nowhere in that coastal strip was there any critical

point to maneuver against

d. Unable to physically control all the territory, the British based much of their strategy on the hope of raising the loyalists against the patriot forces

e. Used economic warfare

(1) Blockade

(2) Counterfeiting - ruining the value of the continental money - while making their own purchases with gold

2. Review plan (as of Lexington)

a. The British overall plans for the suppression of the colonial uprising appear to have had four basic purposes

(1) To separate the New England colonies - the principal fomenters of the rebellion - from the other colonies by seizing the line of the Hudson River northward through Lake Champlain

(2) To isolate the food-producing central colonies by occupying the line of the Chesapeake Bay and the lower Susquehanna River

(3) To control the southern colonies by holding Charleston, Georgetown, and the line of the Santee River

(4) To maintain a naval blockade of the coast to prevent the importation of weapons and supplies

b. Since the theater of war was so large, the British decided to secure the northern areas first

(1) Politically the most important (strongest revolutionary feeling)

(2) They could use Canada as a base of operations

(3) Victory in the north would more quickly subdue all the colonies

c. The plan was to capture the line of the Hudson River by three converging columns (bad

strategy)

- (1) Two columns from Canada had long lines of march over bad roads through hostile country
- (2) Americans could use advantage of interior lines to defeat British forces
- (3) Should perhaps have used one strong force advancing up the Hudson from New York

3. After Saratoga

- a. With the French in the war, England had to look to the safety of the long ocean supply line to America and to the protection of its possessions in other parts of the world
- b. As Spain and Holland entered the war, the conflict truly became a "world war", in which England had to keep more and more forces at home, thereby weakening the effort in the colonies
- c. As soldiers were pulled from the colonies, the remaining British forces had to occupy their positions rather than pursuing the enemy

4. The Southern Campaign

- a. Late in 1778, the British began to turn their main effort to the south
 - (1) Tory strength was greater in the Carolinas and Georgia
 - (2) Set closer to the West Indies, where the British Fleet had to stand guard against the French
 - (3) They hoped to bring them (the southern colonies) into the fold one by one and use them for bases to strangle the recalcitrant north (agricultural/economic pressure)
- b. The British forces were scattered among too many outposts to restore and maintain peace (like Roman legions - Pax Romana?)
- c. Cornwallis divided his main force in answer to Greenes' moves, and won several victories, until he was eventually forced to consolidate at Yorktown

F. Opposing forces

1. British

- a. A classic 18th century European army, employing

linear tactics and well-trained soldiers

b. Loyalty and dedication was suspect in England

(1) Some sympathized with the colonists

(2) Hessians (mercenaries) employed

2. American

a. The colonies kept most of their forces at home for local defense, providing few forces for Washington's Continental Army

b. Prior to the arrival of von Steuben, there was little discipline, even in the Continental Army

(1) Steuben had served under Frederick the Great

(2) Was an able administrator and was made Inspector General of Washington's army

(3) Reduced the motions of loading the musket and prescribed uniformity of equipment

(4) Set out to standardize and train the army, and to adjust tactics to American

advantages - speed and marksmanship

(5) This, combined with the discipline and respect he put into the army, made it one that was much less prone to flee as the enemy approached on line

c. Americans used the rifle much more than the

British

(1) Most useful in guerrilla actions or in the hand of skirmishers, the rifle played no decisive role in the Revolution

(2) Of great value in wooded areas, but for open-field fighting its slow rate of fire and lack of a bayonet made it inferior to the musket

d. Length of service and training sometimes impacted on strategy and tactics

(1) The disaster suffered by Arnold and Montgomery at Quebec on the last day of 1775 was in large part due to the fact that they had been forced into a premature assault before their troops (their enlistment expired) could

leave them (1 January)

3. Morgan considered his troops' weaknesses when he fought a British force at Cowpens in January 1781

a. Numerically equal to the British force, but 3/4 militia

b. Selecting a hill as the center of his position, he placed his Continental infantry on it - leaving his flanks open

c. In front he posted militia riflemen in two lines

(1) Instructed the first line to fire two volleys then fall back on the second

(2) The combined line was then to fire until the British pressed them

(3) Then fall back to the rear of the Continentals and re-form as a reserve

d. Placed a cavalry detachment behind his position

e. Every man was informed of the plan of battle and the part he was to play in it

f. The battle

attack (1) Tarleton (British) ordered an immediate

(a) He moved forward in regular formation and was momentarily checked by the militia rifles

(b) Then, believing the retreat of the first two lines to be the beginning of a rout, he rushed headlong into the steady fire of the Continentals

re-formed, charged out from behind the hill to hit the British left (2) The American cavalry struck the British on the right flank and the militia, having

(3) Caught in a clever double envelopment, the British surrendered after heavy losses

G. Impact of the French

1. Anxious to regain her international position lost in the Seven Years' War, France entered into a military alliance with the American government

2. In three other significant ways, France helped the American cause

a. Loans of money

b. Permitting American privateers to fit out in French ports and to dispose of their prizes

c. Use of her fleet to make it difficult for the British to capture American vessels near French waters

H. Judging England's failure

1. If conducted with determination and force, the initial British plans could have been executed successfully

a. But the government and the principal military commanders hopeful of conciliatory measures, failed to act with resolution

b. Adequate forces were never provided

(1) Initially, due to poor judgment of the colonists' resolve

(2) Later, this was due to obligations elsewhere

(3) Throughout the duration, war with the colonists was unpopular in England; hence recruiting was unsuccessful (recent example - Vietnam?)

c. The long, irregular coast line was hard to block effectively

2. The British, who retained the strategic initiative most of the time, failed to use it to great advantage

a. They were uncertain about their objective; plans were laid from year-to-year and seldom coordinated even for a single year

b. Blame for this uncertain approach falls equally on the administration in England and the commanders in America

3. Lord Germain directed too much from England

a. Lacked timeliness

b.Lacked knowledge

c.Incompetent?

4.No unity of command closer than London

I.Impact of American Revolution on warfare

1.Began the democratization of warfare (again)

a.The lesson Washington drew from the Revolution was that the militia should be "well regulated", that is, trained and organized under a uniform national system in all the states and subject to recall into national service in time of war or emergency

b.The war seemed to balance the rights of freedom and equality with a corresponding obligation of all citizens for military service to the nation

c.American continentals were not professional soldiers in the European sense, and the militia were even less so. They were a people's army fighting for a cause

d.This would eventually lead to national conscription and a new concept of total war for total victory

2.Changed tactics

a.The rifle, with increased range and improved accuracy, made linear tactics difficult at best

b.The British had adopted the American tactics (skirmishes, cover, concealment) before the war was over

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 34

HOURS: 1

TITLE: The 18th Century

I. Learning Objectives

A. The student will comprehend and contrast the Continental Army with the professional armies of the 18th century and show how this difference dictated Washington's strategy

B. The student will know and discuss the difference in the strategy and tactics used in the 18th century with those used in the 16th and 17th centuries

II. References and Texts

A. Instructor references

1. Dupuy, The Evolution of Weapons and Warfare, ch. XVII, XVIII; pp. 144-168

2. Dupuy and Dupuy, The Encyclopedia of Military History, pp. 608-729

B. Other references

1. Fuller, The Conduct of War 1789-1961, ch. I

2. Rothenberg, The Art of Warfare in the Ages of Napoleon, ch. 1

III. Instructional Aids

A. Chalkboard

B. Overhead projector

C. Instructor-produced transparencies

IV. Suggested Methods and Procedures

A. Lecture and discussion

B. Guided discussion

V. Presentation

A. International law

1. The atrocities and devastation resulting from the religious wars, the plague, and the Thirty Years' War (1618-1648) precipitated a moral revulsion that soon led to efforts to limit warfare and govern the conduct of nations

2. Rights of War and Peace

a. Written by Hugo Grotius (gro' she us), a Dutch jurist and statesman, called the "father of international law"

b. In his Rights of War and Peace (pub. 1625), he recommended moderation in fighting, making conquests, despoiling the enemy's country, and in dealing with the enemy's civil population

c. Not a contention that war should be outlawed

d. Believed that states should be treated as individuals within the society of nations

3. The Law of Nations (1785)

a. Posed a question: "Since all belligerents affirm the justice of their cause, who will be judge between them?" (Law of Nations)

b. Offered an answer: "Because there is no judge, recourse must be made to rules whereby warfare may be regulated" (Law of Nations)

c. Called these rules "the voluntary law of nations" (Law of Nations)

d. Concerning proper methods to employ in war, the author says - "All damage done to the enemy unnecessarily, every act of hostility which does not tend to procure victory and bring the war to a conclusion, is a licentiousness condemned by the law of nature" (Law of Nations)

e. Said - "A treaty of peace can be no more than a compromise" (Law of Nations) [discuss "crushing" terms of peace (1918?)]

f. Contemplated that each nation would respect the rights of other nations and would honor its obligations contracted with them

4. "The legitimate object of war is a more perfect peace" (Epigram on W.T. Sherman's statue, Washington, D.C.)

5. There were no serious efforts to outlaw war completely, for war was seen as a worthwhile means of achieving political ends if violence and destruction could be moderated

B. Limited war

1. Nature of armies

- a. Although most European States had some form of conscription, economic considerations precluded the enlistment of productive and tax-producing elements; in practice, the soldiery was composed of the socially and economically least valuable

- (1) Officers came mainly from the idle nobility

- (2) Enlisted men from the "dregs" of society

- b. There was a heavy reliance on harsh discipline - to keep men in the service and to prepare them for battle

- (1) Flogging, beatings, and other physical punishments were imposed for trivial offenses and the death penalty was prescribed for a wide range of crimes - especially as a deterrent to desertion

- (2) The only escape from the lash was death or desertion. In the 18th century desertion became so prevalent that Frederick the Great drew up elaborate rules to prevent it

- (a) Troops should not camp near large woods

- (b) Rear and flanks should be watched by Hussars (light cavalry)

- (c) Night marches were to be avoided except where absolutely necessary

- (d) Men detailed to forage or sent to bathe had to be accompanied by officers

- (e) Pursuits were seldom to be made, because in the confusion men would escape

- c. The public attitude toward the soldier was fear and contempt

- (1) Civilians everywhere kept soldiers at a

distance

(2) The middle class under a mercantilist economic philosophy paid the taxes that sustained the military but devoted their attention to production rather than war. They were glad to live isolated from it

(3) Even in France, which had the most national of the large armies of Europe, cafes and other public places put up signs reading, "No dogs, lackeys, prostitutes, or soldiers"

C. Conduct of limited war

1. Strategy

a. With the increasingly technological applications to warfare, the associated costs rose tremendously. As this happened, the control of the means of waging war was more and more centralized in the hands of the nations' monarchs

b. Monarchs quickly learned that in the long run, the cheapest and most efficient armies were to be found in the form of the standing armies adopted by most countries by the mid-17th

century

c. To attain and maintain the efficiency of the army required training. Soldiers were now expensive - 2-5 years of training were required - so kings and generals were now reluctant to meet their opponents in open battle

d. Maneuver now became paramount. It was better, through movement of one's own forces, to place one's opponent into a situation where his only means of survival was surrender

e. Armies could no longer be allowed to forage off the country - not to spare the citizenry, but because the economy could not stand the ravaging and looting and the generals could not stand the inevitable desertions. Therefore, large stores of food and equipment had to be assembled at magazines (3-5 days' march apart) and ovens (smaller, one day's march) before a campaign could begin

f. Strategy became one of attrition, not annihilation

lation - to exhaust the enemy - not to kill him. Generals sought to reduce the enemy's means of existence by striking at his lines of communication and capturing stores

g.Lines of communication and magazines thus assumed a significant strategic importance

h.To safeguard these, fortifications sprouted all over Europe

(1)Became primary targets

(2)Further slowed down the conduct of operations

2.Tactics

a.Although maneuver was often more important than the battle itself, fighting was fierce once enemies engaged. The new weaponry and tactics produced massive casualties

(1)Blenheim - Winner 26%

(2)Malplaquet - Winner 33%

(3)Zorndorf - Winner 38%
Loser 50%

b.Because of the "expense" incurred, generals avoided accepting battle except under the most favorable conditions. Once engaged, it was often terminated before total victory and pursuits were seldom launched

c.Since most of the armies practiced linear tactics, battle was seldom joined on other than large, open, level areas

d.The key was to shoot second (as long as volley fire was used) - the effective range of the musket was about 40 yards - infantry troops could cover that distance in about 30 seconds

(1) SCENARIO 1

(a)Force A fires

(b)Force A commences a bayonet charge

(c)Force B calmly aims and "executes" massive parts of A

(2) SCENARIO 2

- (a) Force A fires
- (b) Force A reloads
- (c) Force B stands fast or moves slightly forward for, say 20 seconds
- (d) Force B fires on A - same results as SCENARIO 1

(Why? The average time to reload, prime, aim, etc., resulted in approximately two rounds per minute)

e. Three types of cavalry

- (1) Hussars - light cavalry used for screening
- (2) Dragoons - mounted infantry
- (3) Cuirassiers - heavy cavalry, used in the conventional manner on the flanks

f. Reemergence of light infantry

- (1) We have seen light infantry troops in the past
 - (a) Form: archers, slingers, javelin men
 - (b) Mission: opened battles, then moved aside during the main action
- (2) Because of the rigid linear tactics and the time required to form for battle, the regular infantry now were vulnerable and needed to be screened. Additionally, supply depots and convoys required protection
- (3) To perform these screening and protecting tasks
 - (a) Their principal function in battle soon became the provision of harassing and screening fire in advance or on the flanks of the main line
 - (b) In addition, they carried out operations against the enemy's line of communications, raided, and took prisoners

3. Means

a. For years after the adoption of the musket, armies continued to include pikemen for defense of the musketeers and for offensive shock action. With the invention of the socket bayonet in 1678, an infantryman became both a musketeer and a pikeman

b. Frederick's armies used an iron ramrod which, when combined with the Prussian superiority in drill, gave the Prussian armies considerably more firepower man-for-man

c. Artillery

(1) Barrels

(a) For siege and garrison artillery, where weight was not a prime consideration, iron barrels continued to be used

(b) For field artillery lighter, bronze barrels came into use

(2) In his first encounter against the Austrians, Frederick suffered many casualties to the enemy's superior artillery. To offset this advantage and to keep pace with cavalry movements, he developed horse artillery

(a) Every cannoneer and ammunition handler was individually mounted

(b) Unit carried light guns and howitzers

(3) Frequently operating in broken country against entrenched foes, Frederick noted that ordinary guns were often powerless. To fill this gap, he experimented with the howitzer

(a) Had formerly been a weapon of siegecraft

(b) Now used to search reverse slopes and to shell enemies behind fortifications

(4) Frederick's artillery tactics

(a) 500 paces from the enemy, the guns were manhandled into position and then fired on the enemy until the infantry line came abreast

(b) Using leap-frogging movements, half the guns were kept in constant support of the attacking troops

(c) Same principle used today

D. Balance of power struggles

1. War of the Spanish Succession (1701-1714)

a. The threat of the European balance of power leaning in France's favor with the prospect of a union of the French and Spanish thrones brought about the Grand Alliance and the War of the Spanish Succession

b. Primary belligerents were England, Austria, Prussia, and Holland vs. France and Spain

c. The significant battle of the war was at Blenheim, August 1713

(1) Forces

(a) Allied forces - 56,000 (Marlborough)

(b) French - Bavarian force - 60,000 (Tallard)

(2) Marlborough chose to make two holding (supporting) attacks on the flanks, with his main attack in the middle where the French and Bavarian forces joined (normally a weak point, even today)

(3) The battle

(a) Cutts attacked toward Blenheim. Although he was stalemated, he achieved his purpose of holding the enemy and in fact drew some of Tallard's reserves from the center

(b) Eugene attacked between Oberglau and Lutzingen on the right, achieving the same purpose

(c) With Tallard's center now weakened, Marlborough attacked and broke through

(4) Losses

(a) Marsin on the left managed an orderly retreat, but the losses for the French-Bavarians were heavy - 40,000 (including 14,000 prisoners) - about 70%

(b) Marlborough's losses - 4,500 killed,
7,500 wounded (26%)

(5) The major benefits to the Allies were

(a) Prestige of French arms was destroyed

(b) French armies forced to the defensive

d. The peace resulted in French and Spanish
losses and significant gains for England

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 35

HOURS: 1

TITLE: The French Revolution (1789-1815)

I. Learning Objectives

A. The student will know and trace the transition from limited war to unlimited war during the French Revolution

B. The student will comprehend the uniqueness of the Revolutionary Army, the role of ideology in the levee en masse, and the problems of controlling such an army

C. The student will comprehend and relate the rise of Napoleon to the failure of the French Revolution

D. The student will know and discuss the impact of new technology on warfare in the Napoleonic period

II. References and Texts

A. Instructor references

1. Dupuy, The Evolution of Weapons and Warfare, pp. 154-158

2. Jones, The Art of War in the Western World, pp. 320-330

3. Preston and Wise, Men in Arms, pp. 179-187

B. Student texts

1. Jones, The Art of War in the Western World, pp. 320-330

2. Preston and Wise, Men in Arms, pp. 179-187

III. Instructional Aids

A. Chalkboard

B. Overhead projector

C. Instructor-produced transparencies

IV. Suggested Methods and Procedures

A. Method options

1. Lecture and discussion

2. Guided discussion

B.Procedural and student activity options - read and study assignment

V.Presentation

A.Period of the Revolution

1.The period of the revolution and empire may be divided into the following sub-periods, distinguished by changes in the form of government

a.Estates - General and Constituent Assembly, from 5 May 1789 to 30 September 1791. Government a limited, constitutional monarchy. Dominance of the upper middle classes

b.The Legislative Assembly, from 1 October 1791 to 21 September 1792. The monarchy continued as before, until suspended. Rising power of the lower classes

c.The National Convention (Convention National), from 21 September 1792 to 25 October 1795. Height of the revolution. The convention, called to frame a new constitution, first abolished the monarchy and condemned the king to death; it supported the Reign of Terror, and then overthrew it. It led the resistance to foreign foes. War with Austria and Prussia politically ended toward democracy

d.The Directory (Directoire), from 26 October 1795 to 9 November 1799. The middle classes recovered their influence. Party divisions; the army; General Bonaparte's coup d'etat. Formed republic with Napoleon as Emperor

e.The Consulate (Consulate) - at first provisional, then definitive - from 25 December 1799 to 20 May 1804. Civil and military role, virtually of one man; progress of French Arms. Form still nominally republican

f.The First Empire, from 20 May 1804 to 22 June 1815. Napoleon I made France the controlling power on the continent, but was finally overthrown

B.Background of the Revolution

1.The spirit of the 18th century - a spirit devoted to the destruction and reformation of existing institutions. The most notable manifestations of this spirit were the attacks of French writers - the philosophes - upon church and state

2.Agrarian conditions - the peasantry was almost

wholly free (300,000 of some 20,000,000 still subject to certain servile restrictions) and in many regions, owned land. Taxation bore heavily on the peasantry - particularly the taille - a land tax from which nobles and clergy were exempt. Yet as a whole French peasants were certainly better off than most European peasants, and they took part in the revolution not because they were hopelessly downtrodden, but because they were well-off enough to wish to better themselves

3. The rise of the middle class - generally excluded from politics, but which had been growing richer with the expansion of French trade and which read and listened to the philosophies

4. An unwieldy and inefficient machinery of government - not so much tyrannical as irresponsible and unsuited to the needs of a large commercial and agricultural state. Taxation was inequitable. There was no true representative assembly. Justice was by no means arbitrary and the judges were generally competent and conscientious. The famous letters de cachet, royal orders imprisoning without benefit of habeus corpus or similar proceedings, were less important in fact than anti-governmental propaganda

5. An ever-growing deficit - which proved

impossible of reduction. France in 1789 was a fairly prosperous society with a bankrupt government. It was the bankruptcy of the government which caused Louis XVI to convene - in May 1789, at Versailles - a meeting of the archaic legislative body known as the Estates General, which was supposed to represent the three "estates" of French society - nobles, clergy, and commons. But rather than limiting themselves to devising new means for raising money, the Estates General - and in particular the third estate, which assumed the title of National Assembly - undertook to reform the government by formulating a constitution for a constitutional monarchy

C. The National Assembly

1.5 May 1789 - Meeting of the Estates General at Versailles. There arose a question as to whether the legislative body should consist of a lower house of commons and an upper house (or two houses) of nobles and clergy which would check the lower, or of one house in which the commons equaled in numbers the nobles and clergy together. The representatives of the third estate assumed the title of the National Assembly and invited the

others to join them. Many of the clergy and nobles joined the assembly

2.23 June 1789 - Fruitless royal sitting; the king ordered the assembly to meet in three houses. Principal orator of the assembly: Mirabeau (1749-1791) - a Provençal nobleman elected by the third estate. The representatives of the clergy and the nobility joined the third estate by request of the king

3.14 July 1789 - Concentration of troops near Paris. Rumors of the king's intention to dissolve the National Assembly, and the dismissal of Necker caused the storming and destruction of the Bastille

4. Necker recalled

a. Lafayette commander of the newly established National Guard

b. Rising of the peasants against feudal lords

c. Beginning of emigration of the nobles

5.4 August 1789 - Voluntary surrender by the representatives of the nobles of all feudal rights and privileges - only gradually, over a period of years

6.27 August 1789 - Declaration of the rights of man, a bill of rights compounded from English and American precedents and from political theories current with the philosophies

7.5, 6 October 1789 - Outbreak of the mob of Paris - caused by hunger and rumors of an intended reaction

a. Liberal monarchical constitution: one chamber with legislative power and the sole right of initiation. The king could not declare war and conclude peace without the consent of the chamber

b. In order to relieve the financial distress, the ecclesiastical estates were declared public property. Assignats - notes of the government having for security the public lands - the value of which was not to be exceeded by the issue of notes (a check which was inoperative). The state assumed the support of the clergy

8.14 July 1790 - National federation in Paris; the constitution accepted by the king. Among other things, abolished hereditary nobility, titles, and coats-of-arms

9. Power of clubs grow - The Jacobins under the leadership of Robespierre; the Cordeliers under the leadership of Danton, Marat, Desmoulins, Hebert; the Feuillants - moderate monarchists who had separated from the Jacobins - Lafayette and Bailly
10. September 1790 - Fall of Necker - Alliance between the court and Mirabeau, who endeavored to stem the revolution and prevent the overthrow of the throne
11. 2 April 1791 - Death of Mirabeau
12. 20-25 June 1791 - Flight of the king - His party was recognized at Varonnes and brought back to Paris
13. 14 September 1791 - The king accepts the constitution. Annexation of Avignon and Benaissin to France
14. 30 September 1791 - Dissolution of the Assembly

D. The Legislative Assembly

1. 1 October 1791 - The Legislative Assembly, composed of 745 members elected by the active citizens, still represented primarily the middle class
2. 7 February 1792 - Alliance of Austria and Prussia against France
3. 1792-1797 - War of the First Coalition against France
 - a. 20 April 1792 - France declared war against Austria. The French suffered reverses, which increased the revolutionary excitement in Paris
 - b. 10 August 1792 - Storming of the Tuileries by the mob - King suspended from his functions and confined
 - c. 20 August 1792 - Lafayette, having been impeached and proscribed, fled from his army. Verdun taken by the Prussians
 - d. 2-7 September 1792 - The September Massacres at Paris
 - e. 20 September 1792 - Battle of Valmy. The French, under Dumouriey and Kellermann, defeated the Prussians

E. The National Convention

- 1.21 September 1792 - (1) The National Convention, longest lived of the revolutionary assemblies convened; (2) Abolition of the Monarchy. France declared a Republic
2. December 1792-January 1793 - Trial of Louis XVI
- 3.21 January 1793 - Execution of Louis XVI
- 4.1 February 1793 - War declared against Great Britain, Holland, Spain
5. 1793-1794 - The Reign of Terror. Robespierre gradually came to dominate the whole government
 - a.23 August 1793 - Levy of the entire male population capable of bearing arms. Fourteen armies organized and put in the field
 - b.16 Oct 1793 - Execution of Marie Antoinette
 - c. November 1793 - Creation of the New Army under Jourdan, Hoche, and Pichegru
 - d. December 1793 - Retreat of the Allies across the Rhine. The French captured Worms and Speier, and took Toulon from the British (first appearance of Napoleon Bonaparte - a young artillery officer, closely connected with Robespierre and the Jacobins)
6. March 1794 - Robespierre succeeded in crushing rival powers
- 7.27 July 1794 - Fall of Robespierre
- 8.5 March 1795 - Treaty of Basel between France and Prussia
- 9.22 August 1795 - The Constitution of 1797 (third of the revolution): The executive power rested in a directory of five; legislative of two chambers (council of Elders or Ancients and Council of Five Hundred). For the first term, two-thirds of the members of both houses were to be taken from the rolls of the National Convention. This self-protective proviso led to opposition in Paris and the provinces. The Paris royalists instigated an outbreak of the sections; on the motion of Barras, the convention placed General Bonaparte in charge of its troops
- 10.5 October 1795 - The Day of the Sections - Bonaparte's "whiff of grapeshot" - complete victory for the convention
- 11.26 October 1795 - The convention dissolved. 1797,

Moderate legislative elected - end of war - coup d'etat

F.Impact of the French Revolution: the dramatic increase in the size of armies was the principal reason for the change to unlimited warfare. Reasons for the increased size include, but are not necessarily limited to

1. Emergence of democratic ideal with its emphasis on individual freedom, equality, and "popular" government

a. John Locke

b. Jean Jacques Rousseau - A citizen had the responsibility to fight in defense of his country. This was not a logical thought of 18th century monarchies

c. The American Revolution and its apologists

d. Conscription (i.e., levee en masse) is unthinkable without this ideology. Since the governed were now, at least ostensibly, governing, they had an affirmative obligation to defend the government

2. Larger populations, improved communications systems, beginnings of mass production, and improved agricultural methods made it possible to man, control, arm, and feed these huge new armies

3. The line formation of battle vs the column

a. The line provided more firepower (muskets)

b. But the column could break the line

4. Military theories of Comptee Jacques de Guibert

a. Ordre mixte; a combination of line and column formations

(1) Column was for approach and maneuver

(2) Line was for fighting

b. Breaking the army down into smaller, more manageable units or divisions

(1) An army could advance along several routes

(2) Mass forces at precise time and place

c. Dispersion and then concentration at the crit-

ical time and place

5.13 July 1789 - Crowd seizes 28,000 muskets and some cannon from a military storage depot

6.14 July 1789 - Bastille stormed and governor lynched

7.20 April 1792 - France declared war on Austria and ally Prussia

8. July 1792 - a Paris mob storms the palace and massacres the Swiss guard

a. Lafayette tries to get his men to save King Louis XVI, but they refuse and Lafayette goes over to the Austrians

b. Louis XVI executed in early 1793

9. Lazare Carnot succeeded in gaining control of the Revolutionary Army, which initially had been little more than undisciplined, untrained rabble

a. Elected to Committee of Public Safety (12 man Executive Committee) and placed in charge of military affairs in August 1793

b. Emphasis on the offensive in mass - enemy to be pursued until he is destroyed

c. Organized the National Army

d. Foraging enhanced mobility by divesting the army from its cumbersome baggage train

e. By 1794, the French Army was enjoying the advantages of both mass and mobility.

Napoleon and eight of his future marshals are made generals (at an average age of 33)

G. The armies which the Revolution created ultimately made Bonaparte Emperor of France, thereby turning the clock back to autocracy

1. Moderate legislature elected in 1797 was desirous of ending the war

2. Three radical directors conspired with Bonaparte to arrange a coup d'etat

3. In the ensuing coup, Carnot was fortunate to escape to Switzerland. Many of his supporters were executed or banished

H. The impact of technology

1. Gribeauval's artillery reforms

a. Interchangeable parts

b. Improved cartridges - ball and charge were packed together

c. Tangent sight

d. Ammunition wagons

e. By the time of the Revolution, French artillery was clearly superior to that of other armies as a result of constant drill

2. Mobility and communication enhanced by

a. Improved roads and maps

b. Signal telegraph

3. It should be noted that Napoleon was a conservative relative to new weapons and technology. He, for example, failed to make use of

a. Balloons

b. Shrapnel

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 36

HOURS: 1

TITLE: Napoleon

I. Learning Objectives

- A. The student will comprehend and explain how the stalemate at sea and on land in 1805 dictated a strategy of economic warfare
- B. The student will comprehend and explain how Napoleon's Russian campaign underscored his weakness as a "grand strategist"
- C. The student will know and list Napoleon's major contributions to military thought

II. References and Texts

A. Instructor references

- 1. Dupuy and Dupuy, The Encyclopedia of Military History; pp. 730-769
- 2. Dupuy, The Evolution of Weapons and Warfare, ch. VIII, pp. 154-168
- 3. Fuller, A Military History of the Western World, Vol. II, Chronicles 12, 13, 14, 15; ch. 12-15; pp. 370-542
- 4. Montross, War Through the Ages, pp. 459-554
- 5. Paret, Makers of Modern Strategy, pp. 123-142 (1986 Sequel)
- 6. Jones, The Art of War in the Western World, pp. 330-358

- B. Student text - Jones, The Art of War in the Western World, pp. 330-358

C. Other references

- 1. Rothenberg, The Art of Warfare in the Age of Napoleon, pp. 31-208
- 2. Instructor Resource Manual

III. Instructional Aids

- A. Chalkboard
- B. Overhead projector

C. Instructor-produced transparencies

IV. Suggested Methods and Procedures

A. Method options

1. Lecture and discussion
2. Guided discussion

B. Procedural and student activity options - read and study assignment

V. Presentation

A. Napoleon

1. Brief historical background

a. First gained renown at the age of 24 by his command of the artillery in the 1794 siege of Toulon. After the fall of Toulon, he was rewarded with the temporary rank of brigadier general (he had been a captain at the outset of the siege)

b. In October 1795, he saved the government of the Directory by using his guns against the Paris mob (the "whiff of grapeshot"). The Directory promoted him to General of Division and promised command of the Army of Italy during the operations planned for 1796

c. He read incessantly - Guibert, Voltaire, Rousseau, Frederick the Great

2. Rise to power

a. Italian Campaign

(1) Partly because the Directors feared his ambition, in March 1796, Napoleon received the command of the Army of Italy

(2) The army - some 45,000 ill fed, poorly clothed and equipped men - lay along the Riviera from Nice almost to Genoa. They were divided into four widely dispersed divisions and two smaller detachments

(3) British sea power blockaded the coastal ports, while beyond the hills to the north on the edge of the Lombardy Plain lay two allied armies: one of 25,000, the other of 35,000. Their widely separated disposition invited attack

(4)After rallying his men with prospects of glory and booty and having improved his logistic organization, he commenced his Italian campaign which fell into three phases

(a)First - he burst from his positions near the coast, separated the Sardinian and Austrian armies, forced the first to surrender and the second to fall back to Lombardy

(b)Second - he remained on the strategic defensive. He blockaded a large Austrian force at Mantua and, utilizing his interior position, defeated in turn several Austrian armies approaching to relieve Mantua

(c)Third - having seized Mantua, he moved east into Austria, quickly bringing Austria to terms

(5)In 12 months he won 12 victories. The elements of his success were rapid marches, flexibility in maneuver, and the ability to concentrate force and make the maximum thrust at the enemy's weakest point

b.Egyptian campaign

(1)Unable to fight England on the sea, the Directory was willing to listen to Napoleon's proposal to seize Egypt as a base for further operations against England's oriental empire and trade

(2)In May 1798, he sailed from Toulon with 35,000 selected veterans of the Italian Empire

(3)He evaded the British Mediterranean squadron, captured Malta, and arrived at Alexandria on 1 July

(4)During his march on Cairo, he encountered 60,000 Mamelukes - a superb cavalry force. (Battle of the Pyramids)

(a)Their undisciplined tactics could not prevail against the efficient volleys of the French infantry and guns drawn up in a checkerboard formation, five division squares in echelon

(b) From the inner ranks men loaded muskets and passed them up to the soldiers in front, who produced a devastating fire against the disorganized horsemen

(5) For another 12 months he fought in Egypt and Syria before returning to France

(a) Realized that further glory and conquest were unlikely without possibility of reinforcements from France

(b) Had received information that the Directory was faltering

(c) In August 1799, he relinquished command of his army and returned to France

(6) Strategically, the Egyptian expedition made no sense

(a) Any value in the victory of the Pyramids was offset by Nelson's victory at Aboukir Bay

(b) Inherent French naval weaknesses foredoomed the campaign (SLOC vulnerable)

C. Ulm and Austerlitz

1. By 1805, Napoleon was set on building an empire. By then it was clear that he could not invade England, so he turned his attention eastward

2. The Third Coalition - Britain, Austria, Russia - had been formed against him and by August vast forces were assembling against him, but they were still scattered

3. The main axis of the conflict was to be the Danube Valley, running through Austria towards Russia

4. If Napoleon did not strike first, his enemies were likely by early winter to assemble 140,000 men at Ulm pointing into France

5. He decided to strike early and fast and deal with his enemies singly - first wiping out the Austrian army at Ulm and then moving down the Danube to deal with the Russians

6. Ulm - October 1805

a. The Grand Army (some 200,000 strong) marched secretly from Boulogne in seven columns, spread over many miles

b. While a cavalry force demonstrated to the west of the Austrian army at Ulm, six columns of the Grand Army swept north and east of the Austrians in a wide, concentric arc. The Austrian general realized too late the French were behind him

c. After one futile attempt to break through the encirclement, the Austrian general surrendered 30,000 of his army

d. This campaign opened the most brilliant year of Napoleon's career. The campaign against Ulm is one of the finest historical examples of a turning movement. It was not a battle - it was a strategic victory so complete and so overwhelming that the issue was never seriously contested in tactical combat

7. Austerlitz - December 1805

a. Napoleon now marched down the Danube, entered Vienna on 15 November, then moved into Moravia and Bohemia. At this point the Grand Army was in a difficult position

(1) 90,000 of the enemy were at Olmutz with secure communications

(2) Napoleon's forces (65,000) were overextended and his corps dispersed for logistical reasons

(3) Another enemy force of 90,000 was approaching to reinforce Olmutz

b. Napoleon faced the alternatives of either retreating to Ulm or winning a decisive victory

(1) Calculating time and distance, he decided that the enemy reinforcements would arrive before the end of November

(2) He ordered all corps to join him by forced marches while he laid a trap for the Russians

c. Napoleon's plan

(1) He planned to lure the Russians into a premature attack by showing a weak front and an apparently exposed flank

(2) He stationed his forces along Goldbach

(3) He deliberately exposed his communications with Vienna and bunched his forces together on the road and at the foot of the mountains so as to increase the temptations for the allies to envelop his right with their larger forces

(4) Once they began maneuvering, he would split them and defeat their forces in detail

d. Allies' plans

(1) Approach from the northeast

(2) The head of the column would cross the Goldbach between Telnitz and Sokolnitz, then wheel in three columns to attack the French in flank from the south

(3) A fourth column was to engage the French front from the Pratzen

(4) Further north, another corps would hold the French on the line of the road

e. Napoleon's advantage - Although inferior in numbers, Napoleon's forces were soundly positioned for the coming battle, and he had the great advantage of knowing the enemy plan and knowing that it was bad because he had forced it on them

f. The battle

(1) At dawn on 2 December, the weight of the allied main effort fell upon the French right, slowly forcing it back

(2) By 9:00 a.m., one-third of the allied army was pressing against the French right, with more troops moving laterally across the French front to join in the assault

(3) Sault's corps (in the French center) then assaulted, splitting the allied front. Sault then encircled the allied left, rolled it up and assisted by Davout, drove it in retreat. French artillery fire broke ice on the frozen ponds and many Russians drowned

(4) Bernadotte then assaulted through the gap made by Sault

(5) Lannes' corps drove against the allied right, which resisted fiercely until enveloped by Bernadotte from the south

(6)By 5:00 p.m., the battle was over. Allied losses were 27,000. Napoleon lost 8,000

g.Napoleon considered Austerlitz to be his masterpiece. He gained complete local numerical superiority at the decisive point and then maneuvered to obtain victory

h.Austerlitz stands as a tactical masterpiece ranking with Arbela, Cannae, and Leuthen

D. Conflict with England

1.The victories of 1805-1807 raised Napoleon to his pinnacle. His empire encompassed half a million square miles and 44 million people. In much of that area valuable and enduring reforms were introduced, including equality before the law and abolition of serfdom, religious toleration, secular education, unified systems of justice, and road building

2.But the problem of Britain remained unsolved

3.War at sea

a.In early 1798 Napoleon - acting for the Directory - visited Dunkirk and ordered the building of a vast flotilla for the future invasion of England. As an alternative to fill the time while this task was completed, he urged that the correct course was to strike at England's eastern trade by seizing Malta, occupying Egypt, and invading India. Nelson destroyed the French fleet in the Battle of the Nile

b.Trafalgar, which was one of the last major battles of the Age of Sail, made England totally dominant at sea - thereby ensuring that her commerce was secure and furthering her ability to provide aid in the fight against Napoleon

4.Having lost his fleet at Trafalgar, Napoleon had no hope of a direct approach to England. So he chose an economic instrument, announcing the Continental System in November 1806

a.All commerce between the Continent and the British Isles was forbidden

b.He intended to so reduce England's revenues that she would be unable to even service the debt incurred during the current conflict

c.As England's wealth and credit diminished, she

Napoleon would be unable to raise enemies against

5. England immediately retaliated with an Order in Council which prohibited neutral trade with France and her allies

6. The weakness in Napoleon's grand strategy

a. A federated Europe was anathema to England, because in face of it she could not survive as the dominant maritime power

b. England had to maintain allies on the continent; no sooner had Napoleon destroyed one of her coalitions, than another arose

c. To accomplish his aim, it was necessary that Napoleon subjugate the continent without antagonizing them, or they would move readily to coalesce with England

d. This is what the Continental System led to, because not only did it deprive the continental nations of goods, which England alone could supply, but it involved every nation in his war with England

e. Portugal became the P.O.E. for English goods; French control in Spain led to revolt

E. The Spanish problem

1. Having announced the Continental System, Napoleon turned his attention in 1807 toward neutral Portugal - England's only access to Europe

2. Britain's attack on Copenhagen and seizure of the Danish fleet served as an example which caused the Portuguese to ignore Napoleon's threats

3. In October 1807, Napoleon pressured the weak Spanish government to permit a French army to cross its territory and attack Portugal

4. The French were rather successful, capturing Lisbon in December 1807

5. But to control Portugal and to prevent smuggling of English goods through Spain, Napoleon intervened in the politics of Spain and through trickery and treachery, had his brother placed on the throne

6. Revolt in Spain ensued and this provided it with better communications than the French

7. The Spanish guerrillas and the English Army mutually supported each other

- a. Without the English, the Spaniards would have been quickly dispersed or crushed
 - b. If the French had not been diverted by the guerrillas, the Anglo-Portuguese forces probably would have been unable to stand against a concentrated attack
8. In 1810, Napoleon reinforced troops in the Peninsula (Spain and Portugal) to 370,000 men
9. The continuous drain of the relentless guerrilla war was more damaging to the French, caused more casualties (about 100 daily), and loss of equipment than the intermittent defeats in battle
10. The French dilemma: two enemies - army support and supply
11. In the Peninsula, Napoleon had met his first serious reverse. The war there cost him dearly. His failure gave encouragement to others of Europe, had tremendous moral significance for his enemies, and denied him important forces in subsequent operations in Russia

F. The Russian Campaign

1. Background

- a. After the Russian setbacks at Friedland and Eylau (i-lan) in 1807, the Czar sought peace and, in fact, sought an alliance with Napoleon
- b. The alliance was short-lived, for Russia soon found it expedient to return to her traditional trade pattern with Britain
- c. In January 1812, the Czar made a "secret" agreement with London (Napoleon agents informed?)
- d. Napoleon raised an army of 680,000 from all of the allied and subject states of Europe, as well as France
 - (1) The very size of the invading army obliged a direct approach along the line of greatest expectation
 - (2) The army contained less than 200,000 Frenchmen. Napoleon was now depending upon conscripts and upon the soldiery of uneasy allies and seething nations whom he had ground under his heel

2. The campaign haltingly begins
 - a. On 24 June 1812, he crossed the River Nieman
 - b. Reached Velna on the 28th where he tarried for two weeks due to logistic problems
 - c. Reaching Vitebsk he again delayed two weeks
3. Napoleon was now in yet another dilemma
 - a. Could not go into winter quarters at Smolensk
 - (1) Inability to provision the army there
 - (2) Sweden (who had entered the war against him) threatened his rear
 - b. Therefore, the dilemma
 - (1) Retreat before winter, or
 - (2) Continue toward Moscow
4. He elected to continue, hoping that the capture of Moscow would prove politically decisive and bring peace
5. Though some of his battles were fought brilliantly, many were mere frontal assaults with no effort at maneuver. Other problems plagued his campaign
 - a. Personal illness hampered Napoleon's leadership on several occasions
 - (1) Pursuits were seldom vigorous
 - (2) On at least one occasion, he gave up personal control of the battle (Borodino)
 - b. Needless cruelty enraged and aroused the Russian population
 - c. He faced a guerrilla campaign against his communications
 - d. His system, which depended upon mass and mobility, broke down when the population was hostile and the roads poor
 - e. The scorched earth policy of the Russians meant that his armies could not live off the land
 - f. Provisions ran short and his men, weakened by hunger and fatigue, became an easy prey to disease (he lost 1/4 of his combat effectives before ever coming into contact with the

enemy)

g. The allied contingents of his army were unwilling warriors who deserted in droves

6. On September 14th, he entered Moscow - a hollow victory - for the Russians had burned the city and retreated

7. On 19 October, he began his retreat, having only about 110,000 men with him. The march out was impeded by several factors

a. Snow and bitter cold

b. Russian regular and irregular forces

c. Ineffective supply system

d. His 40,000 vehicles carried mostly loot instead of supplies - this "tail" allowed the slowly moving Russians to close with him

e. Breakdown of discipline in the rear areas, especially at Smolensk and Vilna, where the advance elements of the retreating troops wasted or destroyed the accumulated supplies

8. Weakness in grand strategy

a. Resupply - poor preparations; poor time of year

b. Timing - "ulcer" in Spain draining his resources; should tackle one major problem, not two. Again, poor time of year

G. Post-Russian campaigns

1. Considering the problems encountered, Napoleon's battles prior to his first exile were well-done

2. Napoleon - operating on interior lines - proved that his strategic brains were unimpaired, but the tactical quality of his troops was low. Except for a small proportion of veterans, the ranks had been filled with boy conscripts and untrained national guards

a. French dispositions - 1 January 1814

(1) Some 50,000 men were in German garrisons, mostly in Hamburg

(2) 100,000 were in Spain, fighting the English and Spaniards

(3) 50,000 were in northeastern Italy, facing an equal number of Austrian troops

(4) In France, Napoleon mustered nearly 118,000 men west of the Rhine, from Antwerp to Lyon

b. Allied dispositions - 1 January 1814

(1) Bernadotte, with 60,000, was moving through the Low Countries

(2) Blucher, with 75,000, was advancing up the Moselle Valley into Lorraine

(3) Schwarzenberg, with 210,000, was crossing Switzerland and moving through the Belfort Gap

(4) Their combined objective was Paris

c. Though he was crushingly defeated, Napoleon's military luster had never shone more brilliantly than in the 1814 campaign. Despite recurring bouts of illness and the poor quality of his troops, he postponed the inevitable in a series of maneuvers and battles which aroused the grudging admiration of his opponents

3. Waterloo - 18 June 1815

a. Background - On 1 March 1815, Napoleon returned from his exile on Elba and hastily raised an army to battle the allies gathering to depose him. By 1 June 1815, 95,000 Anglo-Dutch under Wellington and 124,000 Prussians with Blucher stood poised in Belgium along the French border. An additional 478,000 were moving to join this force by mid-July.

Napoleon decided to strike quickly before his opponents reached their full power

b. The campaign

(1) 16 June 1815: Napoleon initiated contact by attacking the Prussians at Ligny and sending Marshal Ney to capture Quatre-Bras from a British brigade under Wellington. Upon gaining success, Ney was to turn his forces east, flanking Blucher as Napoleon drove him back. However, the British held and Ney was counterattacked, preventing his assisting Napoleon and allowing the Prussians to retreat. That evening the Anglo-Dutch withdrew to the south of Waterloo while the Prussians consolidated at Wavre, 9 miles to their east

(2)17 June 1815: Hampered by rain and a lack of resolve, Napoleon's pursuit of the Prussians deprived him of Grovcy and 33,000 men during his final assault. Grovcy failed to reach Blucher before he had reconstituted his forces and headed west to aid Wellington

(3)18 June 1815: Napoleon's 72,000 attacked Wellington's 68,000 at noon. The Anglo-Dutch line was pushed back and at 4:00 p.m., the French cavalry attempted a breakthrough. The attempt failed because of the lack of infantry support. Napoleon had held back the Imperial Guard, worried about the Prussians nearing his flank. As Napoleon shifted his forces to meet Blucher, he again struck the Anglo-Dutch line. This time the Imperial Guard attacked without cavalry support. Wellington held and counterattacked, shattering the French and driving them into panic

(4)21 June 1815: Napoleon surrenders and is exiled to St. Helena where he dies on 5 May 1821

H.Napoleon's impact on warfare

1.Philosophy (quotes taken from Napoleon, Maxims of War)

a.Elements of Napoleonic warfare

(1)Unity of command

(a)Held unity of command to be "the first necessity in war"

(b)Said: "The government must have entire confidence in its general, allow him great latitude, and only provide him with the aim he should attain"

(c)Unity of command was the foundation of Napoleon's many victorious campaigns and, strangely, it became an element in his eventual downfall

(2)Generalship and soldiership

(a)The essential quality of a general is resolution

(b)Said: "All men who value life more than the glory of the nation and the esteem of their comrades should not be

members of the French army" (Similar: S.L.A. Marshall - Men Against Fire; et al., peer acceptance, praise, etc., is very important)

(c) Said: "It is not the number of troops that gives strength to an army, it is their loyalty and good humor"

(d) Strongly believed that an officer should know his men....

(e) Said: "If courage is the first quality of the soldier, perseverance is the second"

(f) When at St. Helena he was asked which were the best troops; he replied, "...those who win battles"

(3) Planning

(a) Napoleon's success as a planner of campaigns derived directly from his position as autocrat, which empowered him to combine in his own person the political and strategical conduct of war

(b) He entered upon each of his campaigns with a predetermined plan which allowed for variations, each of which corresponded with a hypothesis he had made on his enemy's probable and possible movements

b. Principles of Napoleonic warfare

(1) Offensive: Napoleon invariably seized the initiative

(a) "I think like Frederick - one should always be the first to attack"

(b) "It is a very great mistake to allow oneself to be attacked"

(c) "Make war offensively"

(2) Maneuver - both strategic and tactical - was Napoleon's hallmark

(a) "Marches are war...aptitude for war is aptitude for movement...victory is to the armies which maneuver"

(b) At Ulm, his troops said "The Emperor has discovered a new way of waging war, he makes use of our legs instead of our bayonets" (speed multiplies mass)

- (3)Objective: Napoleon's principal objective was always the main body of his enemy
 - (4)Simplicity: He recognized that complicated plans could be misunderstood and misinterpreted, and that they were dependent upon close timing that was rarely obtainable in military operations
 - (5)Unity of command (discussed)
 - (6)Economy of force: Counted on small numbers of troops in defensive posture to stop or delay larger numbers of enemies,
while he concentrated maximum combat power against the most critical or most vulnerable portion of the enemy's forces
 - (7)Surprise: Napoleon recognized that of all of the moral forces in war surprise is perhaps the most effective, and the greatest multiplier (Austerlitz; the Campaign of 1814)
 - (8)Mass: For the decisive battle, Napoleon cut down all subsidiary operations in order to concentrate the greatest possible numbers
 - (a)"Distribute your troops in such a way that, whatever the enemy does, you will be able to unite your forces within a few days"
 - (b)"God is on the side of the heavier battalions"
 - (9)Security: Security for the army and his plans. Security for the troops - even today, when in the defense, ensure troops know precautions taken for all-around defense. This increases their confidence and "staying power"
- c.Three major variations can be distinguished in his pattern of strategy
- (1)"Maneuver in the rear" (flanking attack and envelopment) - as at Ulm
 - (2)"The central position" (interior lines) - dividing the enemy and defeating him successfully in detail (Campaign of 1814)
 - (3)Frontal attack - Napoleon used this if time, terrain, or enemy disposition made

either (1) or (2) impossible

d.Strategy and tactics

(1)Napoleon was a master strategist whose major points of strategy can be summarized

(a)Get astride the enemy's line of communications

(b)Superiority of numbers at the crucial point

(c)Move rapidly

(d)If superior in force, envelop; if inferior, defeat the enemy in detail by use of interior lines

(e)Cooperation

(2)Napoleonic tactics generally consisted of the following

(a)Feel out the soft spot with skirmishers

(b)Concentrate artillery at that point

(c)Pour troops through that point in column

(d)Pursue with mobile forces

2.Napoleon's failure to achieve final victory - and through it, a peace - may be traced to the following

a.Due politically to his inability to make a lasting peace with England and to the fact that his armies spread revolutionary zeal through Europe

b.Due economically to his protectionist attitude (discussed in "D. Conflict with England")

c.Due militarily because of his over-centralization of command

(1)As the war lengthened, it became so wide-spread, so complex, and the forces engaged in it so considerable that, without a well-organized general staff, it was no longer possible for a single man to manage it efficiently

(2) Napoleon did not include his staff or subordinates in his planning, they were simply expected to carry out his orders

(3) Stifled subordinates; what if he had been killed in the middle of a campaign or battle?

d. If there is a single lesson to be gained from Napoleon's failure, it is that a once-successful formula must constantly be reevaluated within its societal and technological context, lest with time it be converted into a liability

NAPOLEONIC STRATEGY

1. GET ASTRIDE THE ENEMY'S LINE OF COMMUNICATIONS
2. SUPERIORITY OF NUMBERS AT THE CRUCIAL POINT
3. MOVE RAPIDLY
4. IF SUPERIOR IN FORCE, ENVELOP; IF INFERIOR, DEFEAT THE ENEMY IN DETAIL BY USE OF INTERIOR LINES
5. UNITY OF COMMAND

NAPOLEONIC TACTICS

1. FEEL OUT THE SOFT SPOT WITH SKIRMISHERS
2. CONCENTRATE ARTILLERY AT THAT POINT
3. POUR TROOPS THROUGH THAT POINT IN COLUMN
4. PURSUE WITH MOBILE FORCES

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 37

HOURS: 1

TITLE: Austerlitz - 1805

I.Learning Objective - The student will know and contrast Napoleon's victory at Austerlitz and his defeat at Waterloo

II.References and Texts

A.Student resource material - Keegan, The Face of Battle, pp. 117-128

B.Other references

1.Chandler, Austerlitz 1805 (Osprey Military Campaign Series #2), London, 1990 (ISBN 0-85045-957-5)

2.Rothenberg, The Art of Warfare in the Age of Napoleon, pp. 45-47

3.Instructor Resource Manual

III.Instructional Aids

A.Chalkboard

B.Overhead projector

C.Instructor-produced transparencies

IV.Suggested Methods and Procedures

A.Method options

1.Lecture and discussion

2.Guided discussion

B.Procedural and student activity options - read and study assignment

V.Presentation

A.Background

1.French overthrew and executed Louis XVI; surrounding countries wanted to suppress the rebellion before rebellious thoughts spread to their own country. These countries also wanted to take over French possessions. French people united to repel the invaders

2.French under Napoleon against Russia (Czar Alexander I) and Austria (Emperor Francis II)

3.Allies anxious to recapture Vienna

4.Napoleon very confident

B.Battlefield forces

1.Napoleon had at least 65,000 between Brann and Austerlitz, with Marshall Devout marching from Vienna with 8,000 troops

2.Russia and Austria had at least 89,000 troops massed near Olmutz - 35 miles north-northeast of Austerlitz

C.Battlefield layout

1.Swift-flowing Goldbach Brook formed a serious obstacle to troop movements, but shallow enough to ford at any point. The brook flowed north to south along the western edge of the plateau

2.Terrain of the area consists of rolling, open country with a plateau. The Heights of Pratzen were situated midway between Brunn and Austerlitz

3.The southern edge of the battlefield was formed by two large, ice-covered ponds

4.The Littawa River flowed southwest from Austerlitz to the frozen ponds and resulted in a ice-covered marsh upstream from the ponds

D.Allied plan

1.The Allied strategy was to attack the French right flank and sweep two forces to the northwest in two parallel left hooks

2.Allied right wing was to advance down the road toward Brunn as a holding force for Napoleon's left wing and center

3.Allied right center consisted of small, fast-moving Austrian and Russian units which would spread out to link the two wings

4.This assault on Napoleon's right wing was to cut off his lines of communication and supply from Vienna, trapping him in a "no escape" situation

E.Napoleon's plan

1. After the battle, we find out that Napoleon had predicted the allied plans almost perfectly
2. His own plans were to lure the allies into attacking his right flank by thinning it and pulling back his entire force from the plateau so that the enemy could have a better place to attack from
3. He did not care about his line of communication to Vienna because he had set up an escape route through Bohemia and Germany
4. After the initial attack on his right flank, his forces would be reinforced by Davout marching up from Vienna
5. He would then attack the allied right flank as a holding attack so that both Allied flanks would be busy
6. He then planned to concentrate his attack on the thinned allied center and separate the two flanks, then destroy them simultaneously

F.1 December 1805 - night before the battle

1. Napoleon pulls back from the plateau
2. Napoleon weakens his right flank to draw allies into attack
3. Allies move their forces onto the plateau
4. Allies shift their forces to the southwest in front of his right flank
5. Napoleon sets up headquarters on Zurlon Hill
6. Allied headquarters near Austerlitz
7. Napoleon's forces ran along Goldbach Brook
8. Napoleon's reserves consist of approximately 28,500 troops spread out behind the main force, the majority just south of Zurlon Hill
9. Davout made it to Raigern

G. Dawn, 2 December 1805 - Battle of Austerlitz

1. Davout moved out just before dawn to join Legrand on the right flank
2. Heavy fog delayed combat until approximately 0700

3. By 0730, the allied left wing (General Kienmayer's Austrian Cavalry) were crossing the Goldbach between Tellnitz and Sokolnitz, drawing fire from French forces under General Legrand. This confirmed Napoleon's prediction of the allied plan
4. Buxhowden forces began pouring down from the plateau toward Tellnitz
5. Covering their position, Russian cannon began to pound French positions
6. Legrand ordered his own artillery to concentrate on the massed Russian troops that were crossing the brook with difficulty
7. Legrand (outnumbered 4 to 1) had to give ground
8. By 0845, fresh troops of Davout appeared on Legrand's right
9. The Russians, momentarily driven back, moved forward again
10. Davout pulled back to high ground west of the Goldbach and held on with grim determination
11. By 0800, Kollowart's Corps was moving over the plateau toward Kobelnitz
12. Shortly after 0900, Napoleon ordered Soult to start the main attack
13. Some startled allied battalions broke and fled
14. Slowly, Soult pushed the allied center under Kollowart back through Prätzen
15. At the same time (0900) Bernadotte's two divisions marched toward Girschkowitz and up to the plateau
16. Met no opposition at first, but Constantine's Imperial Guard rushed forward to meet Bernadotte's force near Blasowitz
17. Liechtenstein's cavalry began to attack Bernadotte's left flank
18. Napoleon ordered Murat's cavalry to assist the left flank of Bernadotte
19. This was the critical point of Napoleon's plan - Bernadotte must hold the enemy in order for Soult to continue his main advance

20. The hardest and most intensive fighting of the day now raged briefly around Blasowitz
21. By 1000, Bernadotte's forces were in possession of Blasowitz
22. Then the Russian line broke and the horsemen fled behind Constantine's infantry
23. A violent surge of French pressure forced Constantine to give way
24. By 1100, the battle around Blasowitz and Krug was over; the Russians and Austrians retreated in great confusion toward Austerlitz
25. Simultaneously, at 0930, Lannes began to advance directly down the road toward Olmutz and met General Bagration's Russian Corps just southeast of Bosenitz -- battle raged equally for nearly an hour
26. By 1100, Bagration, seeing the allied troops to his left being pushed back, withdrew eastward toward Posorzitz
27. By this time, Soult's Corps had defeated the allied forces near Pratzen, and by noon the allied center had been pierced by Soult and the allied right wing defeated by Lannes and Bernadotte
28. This began Napoleon's second phase of the battle
29. Napoleon ordered Soult to halt and wheel to his right, which placed him behind the allied left wing
30. Napoleon ordered Bernadotte to continue his pursuit of Constantine across the Littawa River, while Murat was to follow after Liechtenstein's cavalry toward Austerlitz
31. Napoleon ordered Lannes to keep unceasing pressure against Bagration, who had pulled back behind Posorzitz
32. The French forward units were successful enough that some reserve units saw no action
33. By 1400, Davout, on the battered French right flank, saw Soult's forces on the plateau behind the allied troops -- he then ordered a counter-attack
34. 30,000 allied soldiers, attacked from the front and rear, were in complete disorder
35. Some surrendered immediately

- a. Some pulled back across the frozen marshes before Soult could complete his encirclement
 - b. The remainder rushed across the narrow dike between the two frozen ponds and some across the thin ice itself
36. French artillery began to pound the allies and broke through the ice; hundreds of men and horses drowned
 37. This led to the survivors throwing down their arms
 38. In a few minutes, 1/3 of the allied army had been destroyed
 39. By this time, Bernadotte had advanced near Krzenowitz
 40. Lannes had pushed Bagration to Posorzitz and blocked any hope of allied retreat toward Olmutz
 41. It was now 1600, and Napoleon ordered his troops to halt before it got dark
 42. Napoleon rode around and surveyed the results
 43. The emperors then agreed on a truce and sent messengers to work out a peace treaty at Pressburg

H. Results of Napoleon's victory

1. French armies losses were at 7,000 killed and wounded
2. Allied armies losses were at least 12,500 with 15,000 POWs; 133 cannon captured with 50 more fallen into the frozen ponds
3. One of four great Napoleonic victories that made Czar Alexander of Russia and King Fredrick William of Prussia disband their coalition and acknowledge French supremacy. The other three were
 - a. Jena-Auerstadt, 1806
 - b. Eylau, 1807
 - c. Friedland, 1807
4. It forced Austria to give up her possessions in Italy to French control and cede Tyrol and Vorarlburg to Bavaria, resulting in the loss of at least 3 million subjects

5. Brought about social changes that undermined the monarch's control
6. Napoleon began to be more concerned with battle than the rights of the French people -- he began to practice ruthless methods of tyranny
7. His conquest taxed the French economy and people; this led to harsh conditions for the French people
8. Led to his defeat at Waterloo

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 38

HOURS: 1

TITLE: Waterloo - 1805

I.Learning Objective - The student will know and contrast Napoleon's victory at Austerlitz and his defeat at Waterloo

II.References and Texts

A.Student text - Preston and Wise, Men in Arms, pp. 179-199

B.Other references

1.Rothenberg, The Art of Warfare in the Age of Napoleon, pp. 58-59

2.Instructor Resource Manual

III.Instructional Aids

A.Chalkboard

B.Overhead projector

C.Instructor-produced transparencies

IV.Suggested Methods and Procedures

A.Method options

1.Lecture and discussion

2.Guided discussion

B.Procedural and student activity options - read and study assignment

V.Presentation

A.Before the battle

1.Napoleon escapes from Elba

a.Reforms his army quickly

b.Gains loyal support of army

c.Starts to campaign

(1)Northeast frontier of France

(2) Prussians at Ligny, defeated and withdrew
(Blucher)

(3) British at Quarter Bras held their own, but
had to withdraw

d. British withdrew to Waterloo and Brussels --
Napoleon didn't pursue

2. Napoleon's failing physical condition

a. Suffered from acute case of the piles

b. Suffered from cystitis

c. Suffered from pituitary disorder

(1) Gained weight

(2) Effected his thought process

d. Couldn't concentrate

B. The armies

1. Duke of Wellington's army

a. Made up of British, German, Dutch, Belgium, and
later Prussians

b. 67,000 troops

c. Inexperienced

d. Different uniforms, language, techniques

2. Napoleon's army

a. All French

b. 70,000 troops

c. Experienced

d. Handed generalship to Marshal Ney

C. Dawn

1. Placement of troops

a. Wellington used ridges (high ground)

b. Spread army over 2 miles of sunken lanes and
hedges

c. Complex arrangements of divisions, regiments,

artillery, etc.

d. Protected valleys

2. Waiting

3. Napoleon moves his army to opposing high ground

a. Napoleon stays at Rossomme (about 1-1/2 miles back)

b. Relying on Ney

c. Wants flanking maneuver on Wellington's right

d. Wary about left flank because of Prussians

D. Noon

1. Decision to attack Hougoumont

a. Artillery fire

b. Followed by small infantry attack

c. British hold off initial attack

(1) Buildings burn

(2) Gates broke

d. Fighting all day

2. Exchange of artillery fire

a. Lasts about 30-60 minutes

b. British take cover

c. Belgian infantry brigade left on forward slope

(1) Terrible losses

(2) Nerves shot

3. French infantry attack

a. Huge formation with small flanking cavalry

(1) 24 ranks deep, 150 wide (3,600)

(2) Very vulnerable to cannon

b. Confronted Belgians first

c. Belgians fled -- decoyed French

- d. Crossed hedges, saw nobody
- e. British opened fire with 3,000 muskets at 40 yards
- f. French - with 5 times the men - could only bring 500 muskets to bear
- g. British charge -- hand-to-hand combat ensues
- h. French surprised and confused, paralyzed by formation

4. British cavalry charge

- a. Descended on confused French
- b. Drove them back
- c. Valley was emptied
- d. Artillery started again

E. Afternoon

1. Hougomont fought on - from burning buildings

2. On the ridge

- a. Forces moved back over the ridge for shelter
- b. Reinforcements moved up
- c. Moving of prisoners and wounded (3-4 thousand prisoners)
 - (1) Prisoners to Brussels
 - (2) Wounded to Mount St. Jean
- d. Looked like a retreat

3. Attack on La Haye Sainte

- a. Defended by KGL
- b. 200 yards from Wellington's front-line
- c. Two French columns
 - (1) One on road
 - (2) One across the field
- d. Defended at point-blank range

e. French didn't use artillery

f. French withdraw

4. French cavalry charges

a. Ordered by Ney

retreating (1) Thought British were on the point of

(2) Napoleon didn't know

b. 12,000-plus horsemen

c. Lancers and chasseurs of Imperial Guard followed on their own accord

d. 500-wide

e. Between Hougomont and La Haye Sainte

f. British formed squares to defend

g. Charged 12-plus times

h. Captured artillery each time (didn't spike them)

i. Charge was repelled

F. Evening

1. Fall of La Haye Sainte

a. Ran out of ammunition (used rifles)

b. Napoleon, "Take the farm at all cost"

c. Two fresh columns of infantry (as before)

d. Wiped out the KGL (40 of 360 escaped)

2. French follow with infantry to the center

a. French cavalry under cover

b. French of orange ordered attack in line by KGL

c. KGL attacked, wiped out, thinned center

d. Wellington couldn't resist another attack

e. Ney didn't have the means (Napoleon rejected his request)

f. Napoleon moved to La Belle Alliance with word of approaching Prussians

3. Prussians arrive

- a. Had seen the wounded also and thought British were retreating
- b. Finally came in from East
- c. Napoleon sent the rumor that Marshall Grouchy was returning from victory
- d. British line strengthened
- e. Artillery blazed in the lull

4. Attack of Garde Imperial

- a. Napoleon led to Quarry
- b. Marched over 1,000 yards - exposed to artillery
 - (1) First round shot
 - (2) Grapeshot at close range
- c. 60-yard intervals between companies
- d. British were lying down over the crest of hill
- e. Volleys exchanged (300 dead in less than 1 minute)
- f. Guard broke and started retreating
- g. British cavalry attacked (inadvertently shot by their own men)
- h. Whole allied line advanced
- i. Drove French back
- j. Prussians pursued

G. Night

1. Wounded

- a. 50,000-plus killed or wounded in 9 hours
- b. Wounded left on the field for 4 days

2. Looters

3. Surgeons

- a. Cut off limbs (easier than patching up)

b.No anesthesia

H.Summary

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 39

HOURS: 1

TITLE: Clausewitz and Jomini

I. Learning Objectives

- A. The student will comprehend Clausewitz's statement that "war is nothing but a continuation of political intercourse with an admixture of other means"
- B. The student will comprehend and contrast the present day acceptance of Clausewitz's dicta to those of Jomini's
- C. The student will know and describe the wide spectrum of the types of war which Clausewitz addressed, (e.g., People's War)
- D. The student will comprehend the importance assigned by Clausewitz to moral force vice physical force
- E. The student will know and discuss Clausewitz's impact on current communist military and political thoughts and practices
- F. The student will know and describe Jomini's contribution to the theory of warfare, especially his "discovery" of the "fundamental principles of war"

II. References and Texts

A. Instructor references

- 1. Preston and Wise, Men in Arms, pp. 207-208, 238-240, 338
- 2. Ropp, War in the Modern World, pp. 149-160
- 3. Weigley, The American Way of War, . pp. 82-83, 88-89, 210-213

B. Student texts

- 1. Preston and Wise, Men in Arms, pp. 207-208, 238-240, 338
- 2. Weigley, The American Way of War, . pp. 210-213

C. Other references

- 1. Clausewitz, On War (translated by Paret)
- 2. Earle, ed., Makers of Modern Strategy, pp 92-113, 143-213

III. Instructional Aids

A. Chalkboard

B. Overhead projector

C. Locally reproduced transparencies (18 transparencies provided. Use of TPs 15 through 18 at the discretion of the instructor)

IV. Suggested Methods and Procedures

A. Method options

1. Lecture and discussion

2. Guided discussion

B. Procedural and student activity options - read and study assignment

V. Presentation

A. Clausewitz and Jomini

1. Clausewitz and Jomini were contemporary rivals, each somewhat contemptuous of the other's ideas

2. Jomini was much more influential - at least outside Prussia

a. All of Clausewitz's major works were published posthumously, while Jomini was a "living author"

b. Jomini wrote in French - a much more international language than the German of Clausewitz

3. Now, however, Clausewitz is more widely accepted

a. His philosophy has withstood the test of time and much more of it is applicable to the modern world

b. His military writings are the accepted standard against which to measure military action

B. Clausewitz

1. Background - military experience (TP #1)

a. Born in 1780, he joined the Prussian army as an ensign in 1792

b. In 1806, while serving as aid-de-camp to the Prince of Prussia, he was wounded and taken prisoner by Napoleon's forces (Jena)

c. In 1812, with war brewing between Napoleon and Czar Alexander of Russia, King Frederick Wilhelm of Prussia opted for an alliance with Napoleon, to whom he gave an army of 20,000 (half his total force). Rather than serve Napoleon, Clausewitz left to join the Russian army, where he was posted a colonel

d. He fought the French until Napoleon abdicated in 1814 (TP #2)

e. On Napoleon's return for the "Hundred Days", Clausewitz took part (as a Prussian officer again) in the Waterloo campaign, serving as chief of staff to a Prussian corps commander

f. In 1818, he was promoted to major general and called to Berlin to become head of the Prussian War Academy - a position he held until shortly before his death

(1) His duties were limited to the administration of the school and offered little opportunity for an improvement of the curriculum

(2) Deprived of all other outlets, he turned to writing as the only means of expressing and developing his ideas (he never held a command)

g. Died of cholera in 1830 (TP #3)

2. Most quoted/famous statement: "War is nothing but a continuation of political intercourse with a mixture of other means" (Clausewitz, On War)

a. The term intermingled (or mixture, depending upon translation) is used so as to make it clear that political dialogue, though changed, does not cease

b. Communist approach - Korea, Vietnam

c. He further defines his idea: "Is not war merely another kind of writing and language for political thoughts? It has certainly a grammar of its own, but its logic is not peculiar to itself" (Clausewitz, On War)

3. Clausewitz's scope

a. His primary work is Vom Kriege (On War)

(1) The first 3 of 10 volumes of his work were published by his widow

(2) In a note discovered after his death dated 10 July 1827, he stated that only the first chapter of Book I was completed, that Books II to VII had yet to be revised and that Book VIII was merely a track, roughly cleared

b. He discussed absolute war in the opening chapter - use of unlimited force to achieve the complete and total defeat of one's enemy

(1) Uses the term "absolute war" to denote Napoleonic warfare, as well as in its philosophical sense of a "conflict of forces left to themselves and obeying no other, but their own inner laws"

(2) His concept of "perfect" or "absolute" war approaches, but is not quite the same as our modern concept of "total" war

c. The chapters of On War are devoted to many types of war - one in particular, "Arming the Nation", is a discussion of a "people's war", applicable to Vietnam and Afghanistan

d. He defined three primary objectives of war

(TP #4)

(1) To conquer and destroy the enemy's armed force

(2) To get possession of the material elements of aggression of the enemy

(3) To gain public opinion (TP #5)

e. Next, he laid down the principles which should be followed to attain those objectives

(1) To employ all the forces which we can make available with the utmost energy

(2) To concentrate our force as much as possible at the point where the decisive blows are to be struck (TP #6)

(3) Not to lose time - by rapidity many measures of the enemy are nipped in the bud and public opinion is gained in our favor - surprise is the most powerful element of victory

(4) Lastly, to follow up the success we gain with the utmost energy. The pursuit is the only means of gathering up the fruits

of victory

f. One of the most important of his theories, because it governs the grand strategical aim of a war, is that of the center of gravity. The center of gravity is that point in the enemy's organism - military, political, social, etc. - which, should he be defeated or lose it, the whole structure of national power will collapse

g. War as an instrument of policy - his viewpoint on this is one of his outstanding contributions

(1) Applied to current conditions and problems, this concept implies that a peacetime policy can be sound only insofar as it can be supported if necessary by force of arms

(2) Furthermore, a variable balanced military instrument permits a flexible foreign policy, able to cope with a variety of situations

h. Subordination of the military to the political

4. Moral force

a. A large part of On War is devoted to an evaluation of the moral factors involved in warfare

b. In contrast to the emphasis which 18th century warfare and military theory placed on material forces and mathematical calculations, he stresses the necessity of such intangible qualities as courage, audacity, and self-sacrifice

c. He agrees with Napoleon - that the morale is to the physical as 3 is to 1. He was well aware of the extreme importance of army morale and public opinion

d. Clausewitz compared physical force to the handle of a sword and moral force to the "shining blade"

6. Other quotations (TP #7)

a. "War is a trinity of violence, chance and reason" (Clausewitz, On War)

b. "As soon, therefore, as required expenditures of force exceeds the value of the political, the object must be abandoned and peace will be the result." (Why U.S. left Vietnam?)

(Clausewitz, On War)

C. Jomini

1. Brief historical background (TP 8)

- a. Swiss. Born in 1779
- b. Was working in a banking house in Paris when he succeeded in getting himself an unpaid and almost unofficial position in the French army supply service
- c. During the Peace of Amiens (1801-1802) he returned to commercial life, but with the renewal of war, he became the Chief of Staff for Marshal Ney and started his rise to fame
- d. During the Peace of Amiens, Ney had helped Jomini publish his treatise on the campaigns of Frederick the Great
 - (1) Included some generalizations in military thought
 - (2) Made some comparisons between the generalships of Frederick and Napoleon
- e. Napoleon was impressed with the work, so he gave Jomini a regular appointment as a colonel in the French army
- f. Though Jomini rose to the position of General de Brigade in the French army and Chief of Staff to Ney in Prussia, Spain, and France, he never attained independent command. (Napoleon's reluctance to recognize greater potential?)
- g. Disappointed by lack of promotion, he joined the Russian Army in August 1813. There he held the rank of general until his death
- h. By the time of his death in Paris in 1867, Jomini's books were widely used in military education all over the world, and he had the satisfaction of knowing that he was regarded as one of the foremost military minds in the world

2. Nature of approach (TP #9)

- a. He took up the study of warfare, convinced that since it was a force of human activity, it must make some sense
 - (1) His approach was that of a scientist seeking to condense his observation into a workable formula for use by those who follow

(2) He endeavored to demonstrate that there are fundamental, unchanging principles which determine war's outcome and that the only reasonable theory of war was that which admitted the existence of precepts, but still left room for natural genius

b. The broad outlines of Jomini's strategic principles are merely a generalized description of Napoleon's campaigns

(1) Bringing, by strategic measures, the major part of an army's forces successively to bear upon the decisive areas of a theater of war and as far as possible upon the enemy's communications without compromising one's own

(2) Maneuvering in such a manner as to engage one's major forces against parts of those of the enemy

(3) Furthermore, by tactical maneuvers, bringing one's major forces to bear on the decisive area of the battlefield or on that part of the enemy's lines which is important to overwhelm

(4) Arranging matters in such fashion that these masses of men be not only brought to bear at the decisive place, but that they be put into action speedily and together, so that they may make a simultaneous effort (TP #10)

c. Jomini's objective attitude toward Napoleon was that military leaders could learn a great deal about what not to do by following Napoleon's unsuccessful campaigns. Napoleon's successes indicate what results can be had from diligence and study

d. Jomini regarded warfare largely as a matter of winning territory. According to his concept (TP #11)

(1) Each military operation will take place within a definite zone of operations

(a) Regarded the zone of operations as a field with four sides

(b) Two of these sides were occupied by the opposing forces (TP #12)

(2) The task of the commanding general was, in full consideration of the natural characteristics of the zone in which he was employed, to choose the line of operations which would be most effective in dominating three sides of the zone

(a) The enemy would be crushed, or

(b) Forced to abandon the zone of operations

e. Jomini set forth a number of conditions for ideal military forces (TP #13)

(1) Leadership trained for political as well as military responsibilities

(2) A high state of readiness - both personnel and material

(3) Continued study of military science at all levels of leadership

(4) An esteemed position for the military profession

(5) Peacetime planning (TP #14)

(6) Operational planning compatible with war aims (national objectives)

(7) Contingency planning, strategic intelligence, adequate budget

f. As Ney's Chief of Staff, he personally participated in the great holocaust of death and destruction which engulfed the European continent in the wake of the Napoleonic conquests. By interpreting the Napoleonic era as the beginning of a new method of all-out wars between nations, he recognized that future wars between nations would be total wars in every sense of the word

g. Considering the impact of the Industrial Revolution, he wrote that "the means of destruction are approaching perfection with frightful rapidity"

h. Apprehensive of total war, he yearned for conflict to be limited by international law

i. Demonstrated negligible understanding of the general relationship of war and society

JOMINI

SOUND MILITARY POLICY FOLLOWS FROM THESE CONSIDERATIONS

1. LEADERSHIP TRAINED FOR POLITICAL AS WELL AS MILITARY RESPONSIBILITIES
2. A HIGH STATE OF READINESS, BOTH OF PERSONNEL AND MATERIAL
3. CONTINUED STUDY OF MILITARY SCIENCE AT ALL LEVELS OF LEADERSHIP
4. AN ESTEEMED POSITION FOR THE MILITARY PROFESSION
5. PEACETIME PLANNING
6. OPERATIONAL PLANNING COMPATIBLE WITH WAR AIMS (NATIONAL OBJECTIVES)
7. CONTINGENCY PLANNING
8. STRATEGIC INTELLIGENCE
9. ADEQUATE BUDGET

JOMINI

STRATEGIC PRINCIPLES

1. BRINGING STRATEGIC MEASURES, THE MAJOR PART OF AN ARMY'S FORCES, SUCCESSIVELY TO BEAR UPON THE DECISIVE AREAS OF A THEATER OF WAR AND AS FAR AS POSSIBLE UPON THE ENEMY'S LINES OF COMMUNICATIONS, WITHOUT COMPROMISING ONE'S OWN
2. MANEUVERING IN SUCH A MANNER AS TO ENGAGE ONE'S MAJOR FORCES AGAINST ONLY PARTS OF THOSE OF THE ENEMY
3. FURTHERMORE, BY TACTICAL MANEUVERS, BRINGING ONE'S MAJOR FORCES TO BEAR ON THE DECISIVE AREA OF THE BATTLEFIELD OR ON THAT PART OF THE ENEMY'S LINES WHICH IS IMPORTANT TO OVERWHELM
4. ARRANGING MATTERS IN SUCH A FASHION THAT THESE MASSES OF MEN BE NOT ONLY BROUGHT TO BEAR AT THE DECISIVE PLACE BUT THEY BE PUT INTO ACTION SPEEDILY AND TOGETHER, SO THAT THEY MAY MAKE A SIMULTANEOUS EFFORT

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 40

HOURS: 1

TITLE: The Age of Steam and Alfred Mahan

I. Learning Objectives

- A. The student will know and identify the major technological advances of naval forces of the late 18th, early 19th centuries
- B. The student will know and be able to identify Mahan's six fundamental elements of seapower

II. References and Texts

A. Instructor references

- 1. Dupuy, The Evolution of Weapons and Warfare, pp. 169-187
- 2. Hagan, In Peace and War, pp. 174-185
- 3. Jones, The Art of War in the Western World, pp. 423-427
- 4. Weigley, The American Way of War, pp. 167-191

- B. Student text - Jones, The Art of War in the Western World, pp. 423-427

III. Instructional Aids

- A. Chalkboard
- B. Overhead projector
- C. Locally reproduced transparencies (12 transparencies provided)

IV. Suggested Methods and Procedures

- A. Method options
 - 1. Lecture and discussion
 - 2. Guided discussion
- B. Procedural and student activity options - read and study assignment

V. Presentation (TP #1)

- A. History and background of steam propulsion
 - 1. The first steamship was introduced in France in 1783

2. Professional naval men were skeptical of steamships for two main reasons
 - a. The problem of refueling and thus the need for coaling stations
 - b. The paddle wheel was a problem because it was vulnerable to enemy fire, and because it reduced gun space by as much as one-third
3. Robert Fulton attempted to solve the paddle wheel problem with his USS DEMOLOGUS during the War of 1812
 - a. He used two hulls with the paddle wheel sandwiched in between
 - b. The DEMOLOGUS was not finished before the end of the war and thus was never operated at sea
4. The steamship received very little further attention until 1837 when John Ericsson developed the screw propeller, thus eliminating the need for a paddle wheel
 - a. England showed no interest in his invention, and he was persuaded to come to the United States by Captain Robert Stockton
 - b. Together Ericsson and Stockton designed the first screw-propelled warship, the USS
 - (1) The ship was armed with two 12" guns - one designed by each man
 - (2) Ericsson's gun (the "Oregon") worked well, but Stockton's blew up on its initial test, killing the Secretary of the Navy and several congressmen
 - (3) Stockton's disaster was an extreme setback to U.S. naval gun design - as a result, the construction of "built-up" guns was barred

PRINCETON

B. Technological advances other than steam

1. Ordnance

- a. The Industrial Revolution had a huge impact on ordnance, and this impact was felt earlier than the impact on ship design
- b. Major development was in "hooped" or "built-up"

gun construction

- (1) This construction process was developed as a result of a growth in knowledge and techniques
- (2) It began in France in 1829. Built-up guns were being produced in the U.S. by 1843
- (3) The development of these guns was not based on need, and thus were not quickly accepted by naval services

c. The Dahlgren gun was developed in 1851 and became the standard U.S. gun

- (1) These guns were made of cast iron and were smoothbore cannon
- (2) Dahlgren's were shaped like beer bottles, with the thickest part of the barrel at the points of greatest stress
- (3) The effectiveness of these guns was aided with the development of the hollow casting process developed by Major Thomas Rodman in 1860
- (4) The Dahlgren smoothbore proved to be the most effective weapon of the day and was used for many years

d. Another 19th century ordnance development was rifled shells

- (1) When rifling was first introduced, it met serious opposition because the longer, heavier shells could not be delivered with a velocity as great as that of the traditional spherical shot
- (2) Rifling eventually became standard after the development of slower burning powder which allowed for greater terminal

velocity

- (3) Rifled shells also proved much more accurate and presented the best answer to the new ironclads. They were also effective against masonry fortifications

2. Armored ships - "Ironclads" (TP #2)

a. The Battle of Sinope in 1853 revealed the vulnerability of wooden ships to the newly developed ordnance

b. France built the first true ironclad, the

GLOIRE, in 1859

c. In response to the French construction, Britain built the HMS WARRIOR in 1860

d. The Battle of Hampton Roads in 1862 signalled the end of the debate of wood vs. iron. The CSS VIRGINIA proved the superiority of iron to wood on day one of the battle, by sinking two U.S. ships before the MONITOR arrived

3. The development of mines ("torpedoes") also occurred during this period

4. The development of the submarine continued during the Civil War, but suffered from problems of efficient propulsion and positive control. However, the first successful (?) submarine attack did occur during the war (CSS HUNLEY vs. USS HOUSATONIC)

C. Mahan - Background and accomplishments (TP #3)

1. Alfred Thayer Mahan was the son of distinguished West Point graduate, Dennis Hart Mahan

2. Mahan chose a naval career - against the wishes of his father - and graduated from USNA in 1859

3. His early naval career was fairly uneventful and he possessed distinct anti-imperialist views

4. In 1884, Stephen Luce appointed him as a lecturer of history at the newly founded Naval War College

5. Mahan prepared extensively for his new duties, principally by acquiring the historical background which was essential to his work. He began by reading Momsen's History of Rome

a. Momsen's discussion of Hannibal's reasons for selecting the overland rather than the sea route to Italy led Mahan to wonder what the result of Hannibal's campaign might have been had he made the opposite choice

b. He concluded that "control of the sea was a historical factor which had never been systematically appreciated and expounded" (Mahan, The Influence of Sea Power Upon History)

(TP #4)

6. Mahan then proceeded to make a systematic study of the naval and military history of the 17th and 18th centuries, which provided ample material for analysis of the factors which affect the rise and decline of nations

7. This in turn caused Mahan to conclude that sea communications are the most important single element in national power and strategy
 - a. "Communications" refers to the "lines of movement between the force and its sources of supply" (TP #5)
 - b. "The power, therefore, to ensure these communications to one's self and to interrupt them for an adversary, affects the very root of a nation's vigor" (Mahan, The Influence of Sea Power Upon History) (TP #6)
 - c. The longer the communications, the greater the benefit conferred by sea power
8. After two years as a lecturer of history, Mahan was appointed President of the War College
9. Mahan's principal books and essays are history written with the focus of interest on sea power. In all, he wrote 20 books and 117 articles. His three major works are (TP #7)
 - a. The Influence of Sea Power Upon History, 1660-1783, compiled from lectures he had given at the War College. Published in 1890, it was devoted mainly to British-French conflict
 - b. The Influence of Sea Power Upon the French Revolution and Empire, 1783-1812. Published in 1892, it studied French Army dominance of the continent and British control of the sea
 - c. The Interest of America in Sea Power, Present and Future. Published in 1897, Mahan attempted to impress upon Americans a sense of responsibility as well as opportunities on the sea (TP #8)

D. Mahan's six fundamental elements of sea power

1. Geographic position as exemplified by the insular position of Britain as compared to her two chief rivals, France and Holland, in the 17th and 18th centuries
 - a. The French, unlike the British, had to spread their navy along two coasts
 - b. Britain was able to control the shipping lanes from Europe by virtue of her position and by having strategic possessions, like Gibraltar (TP #9)

- determines in 2. Physical configuration of the national domain the disposition of a people to seek and achieve sea power. The character of the coastline governs accessibility to the sea; good harbors imply potential strength; the character of the soil may win people away from the sea or drive them to it for livelihood
- a. The Dutch were driven to the sea, but their almost complete dependence on it was a source of weakness
 - b. The fertility of French soil made it unnecessary for the French to turn to the sea unless they so desired
 - c. Insular or peninsular nations like Britain, Spain, and Italy must of necessity be strong upon the sea if their pretensions to power were to be made effective (TP #10)
3. Extent of territory may be a weakness rather than a strength, depending upon the degree to which the land itself is supported by population, resources, and other factors of power
4. Size and character of population must both be considered in the measurement of sea power
- a. Uses Britain as an example of a nation with not only a strong navy, but also with shipbuilding and heavy trade relations. All of these traits are necessary to sustain a naval war
 - b. Asserts that although it's possible to build and readjust assets in time of war, a certain minimum strength must be constantly maintained in order to "buy time" until the navy can be built up
 - c. Mahan distinguishes between potential and actual powers and emphasizes the frequent problem within democratic societies of people not wanting to pay for military force in peacetime
5. National character and aptitudes are an essential factor in the success of a sea-faring people. The desire to trade, the ability to produce the commodities which enter into trade and the ability to produce the commodities which enter into trade, all constitute "the national characteristics most important to the development of sea power"
6. The character of the government is of vital importance in the achievement of sea power

- a. The "most brilliant successes" have ensued when a government has intelligently and persistently fostered and directed a national interest in the sea
- b. The efficiency, intelligence, and determination of a government will be determining factors in the development of sea power. The government controls the size of the navy, the quality of the naval establishment, the capacity of the navy to expand quickly in time of war, the spirit of its men and, its effectiveness for combat
- c. Mahan cites the French as an example of an unsupportive government, for French admirals were supposed to avoid any action which might cause the loss of a ship

E. Summary of Mahan's theories (TP #11)

- 1. Mahan had two main objectives - the first being to determine the influence of sea power on the destiny of nations, and the second to derive certain fundamental and immutable principles of naval strategy, comparable to the principles of land warfare formulated by Jomini
 - a. His first three major works concentrated on history with strategies thrown in sporadically. His strategies didn't develop formally until his later writings
 - b. Jomini had formulated principles of war which were built around fundamental ideas of position, lines, communications, and concentration of forces
 - c. Mahan attempted to discover analogous principles underlying naval tactics and strategy, and he found many of Jomini's concepts equally applicable to naval warfare, although others required modification or limitation
 - d. The principles which Mahan thus formulated became the foundation of a system of naval strategy that was to affect the plans and policies of all the leading navies
- 2. Mahan concluded from his studies that command of the seas was the route to national wealth and success
- 3. Mahan claimed the only way to command the seas was by building a strong battleship navy capable of defeating enemies beyond a nation's home shores
 - a. He argued against the traditional U.S. view of

commerce raiding and coastal defense

b. Claimed coastal defense of all ports would spread force too thin

c. Believed that concentration of force was of the utmost importance

4. Argued for an offensive-defensive strategy and claimed an inferior fleet could triumph if it used such a strategy

5. He made an important distinction between strategy and tactics

a. Tactics may change with time and technology

b. Strategy is governed by natural phenomena and thus won't change with technology, based on his six fundamental elements

6. In general, Mahan's contributions to naval strategy were

a. He developed a philosophy of sea power which was recognized and accepted outside of professional naval circles

b. He formulated a new naval strategy

c. He was a critical student of naval tactics

F. Evidence of Mahan's impact

1. His writings were widely accepted in England and his first book provided the arguments necessary for British naval expansion under the "Two Power Standard"

2. His writings did not bar him from favorable comment in France, where naval men accepted them and praised their impartiality

3. He was also widely accepted in Germany where the Kaiser quoted him to justify naval expansion. Tirpitz also followed Mahan's advice while raising the "Risk Fleet" to the second largest in Europe by 1916

4. As early as 1890 the U.S. began to build the battleship navy called for by Mahan

a. Secretary of Navy Benjamin Tracy asked for eight battleships in 1890 and got three. This was a huge step forward for the U.S. Navy, which had deteriorated terribly since the Civil War

b. By 1898, Congress had authorized five more battleships and the U.S. seagoing battle fleet was on its way

5. The success of the U.S. Navy in the Spanish-American War further proved Mahan's theories

a. Dewey's success in Manila Bay showed the importance of defeating an enemy far from U.S. shores and also showed the necessity to possess colonies as overseas naval stations for fueling purposes

b. The victory at Santiago Bay showed the need for a battleship navy and the USS OREGON's 13,000 mile trip from San Francisco showed the need for a Panama Canal which Mahan had promoted previously

G. Jeune Ecole (TP #12)

1. These were French technological determinists who felt that modern weapons such as the torpedo had rendered the battleship obsolete

2. They preached the "Guerre de Course" or an emphasis on torpedo boats and cruisers to defend the coasts, while relying on commerce raiding to defeat the enemy

3. They hoped to utilize new technology to achieve a "cheap victory"

4. They considered control of the sea to be meaningless in light of new technology

5. Two events led to their decline

a. British Naval Defense Act of 1889 which was the "Two Power Standard"

b. Mahan's first book

6. By 1914, the Jeune Ecole had declined to a military sect with little or no influence on French policies

7. There was never any attempt to synthesize the opposite views of Mahan and the Jeune Ecole

H. Problems associated with new age of steam navies

1. Need for coaling stations

2. More technical navy - problems with skills, line officer vs. engineer conflicts, employment of naval vessels, and new technology

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 41

HOURS: 1

TITLE: The American Civil War

I. Learning Objectives

A. The student will know and trace the evolution of American military thought from the time of the War of 1812 to the Civil War

B. The student will comprehend and compare the Civil War belligerence with regard to the military and economic resources and the socio-political fabrics of the opposing populations

C. The student will know the different strategies used by the North and South

II. References and Texts

A. Instructor references

1. Dupuy and Dupuy, The Encyclopedia of Military History, pp. 868-905

2. Fuller, A Military History of the Western World, Vol. III, pp. 1-53

3. Jones, The Art of War in the Western World, pp. 409-418

B. Student text - Jones, The Art of War in the Western World, pp. 409-418

C. Other reference - Esposito, The West Point Atlas of American Wars

III. Instructional Aids

A. Chalkboard

B. Overhead projector

C. Locally reproduced transparencies (6 transparencies provided)

IV. Suggested Methods and Procedures

A. Method options

1. Lecture and discussion

2. Guided discussion

- B.Procedural and student activity options - read and study assignment (The film "The Blue and the Gray" pertains to this lesson. Check university audiovisual center for film)

V.Presentation

A.Beginnings of the Civil War (TP #1)

- 1.The first of the unlimited industrialized wars was the American Civil War
 - a.It was the first great conflict of the Steam Age
 - b.It put to the test the military development of the Industrial Revolution
 - c.The aim of the North was unconditional surrender - total victory
 - d.Therefore, a radically new chapter in the history of war was opened (TP #2)

2.Populations

- a.North - 23 million in 22 states; over 4 million between the ages of 15-40; 2.4 million were mobilized during the war
- b.South - 9 million in 11 states; only 1.14 million between 15-40, but the slave population (3.5 million) released a larger proportion of white men for military service than the North could spare. Over 1 million were mobilized

3.Resources (TP #3)

a.North

- (1)109,000 manufacturing plants (1 million employees)
- (2)22,000 miles of railroad in an integrated network
- (3)These constituted more than 90% of the industrial power

b.South

- (1)31,000 manufacturing plants (200,000 employees)
- (2)9,000 miles of railroad in rather rambling systems, largely non-uniform in track

gauge

(3) Because of her concentration on export crops (cotton, tobacco), food for both men and animals was often scarce

c. The real conflict was not between factory and field, but between a fairly well-coordinated and balanced economy and a distorted, fairly incompetent agriculture-based economy

4. Military leadership

a. Of 1,080 officers in the Regular Army, 286 went South - including 184 of 824 West

Pointers

b. Of 900 West Pointers in civilian life, 114 joined the Northern Army, 99 joined the

Southern

c. In 55 of the 60 largest battles of the Civil War, West Pointers led both sides

d. More serious than the numbers going South was the high caliber of the officers - many had served as regimental commanders. The three professionals initially best qualified for high field commands - Lee and the two Johnstons - went South

5. Military Forces

a. The U.S. Army consisted of 16,357 officers and men at the time of Civil War outbreak

b. Of 198 companies or company-sized units, 183 were scattered among 79 positions on the frontier and Pacific coast. The other 15 guarded the Atlantic coast, the Canadian border, and the 23 arsenals

c. Approximately 1/6 of the entire Regular Army was lost to the South when General Twiggs surrendered to the Department of Texas

d. The North had a fleet of only 23 steamships, while the South had no naval power at the outbreak

6. Strategies

a. North

(1) Since the war aim was preservation of the Union, the war must therefore be one of aggressive conquest in order to deny the

South its independence

(2) The Federals could only hope to conquer the Confederacy bit by bit, reducing it systematically both in size and resources, until it was unable to sustain its armies in the field

(3) General Winfield Scott, who appreciated the relationship between economic pressure and attack, recommended what became known as the Anaconda Plan (TP #4)

(a) Naval blockade of the Confederacy

(b) Seizure of southern ports - especially those served by railroads - to seal off all commerce

(c) Two powerful armies would move to constrict the Confederacy

and divide the South 1. One would move down the Mississippi

and pin down Confederate forces in Virginia 2. The other would move on Richmond

(4) Lincoln did not immediately understand the relationship between economic pressure and land attack; therefore he did not appreciate Scott's conception, although he blunderingly carried it to implementation piecemeal over the years. Scott's plan required expenditures of time, men, and money - none of which Lincoln had an abundance of at this time due to public and political pressures

(5) Lincoln initially went part way, proclaiming on 18 April 1861 a naval blockade of the South

(a) The fallacy of the blockade was that, unlike Scott's proposal, it left the ports themselves open

(b) The South's 3,500 mile coastline, with 189 harbors and navigable river mouths, was most difficult to blockade effectively

b. South (TP #5)

(1) The Southern strategy was simpler. The South's aim was independence

(a) The problem was to resist conquest, to tire the Federals out, and force them to abandon the war

(b) The solution depended on how long their resources would hold out and in order to add to them it was vital to maintain trade with Europe by keeping Confederate ports open

(2) The survival of the Confederacy depended upon the same factors that controlled the Revolution of 1776

(a) A war of attrition to tire the enemy

(b) Foreign recognition and aid to consummate independence

(3) The rebels of 1861 faced somewhat the same difficulties as those in 1776, including a lack of sea power. But they also enjoyed roughly the same advantages

(a) Their armies stood on the defensive in very difficult country

(b) Britain and France seemed to favor them

(c) They were fighting a limited war. They had only to win the independence which many Northerners and the British and French were ready to concede to them

(d) They did not have to face a large Regular Army or Navy

c. Politics (TP #6)

(1) Few leaders examined the South in terms of its military geography or concentrated on a strategy to prevail over it. Instead most thought in terms of political boundaries and a short war that would end with the capture of the enemy's capital

(2) The loss of Washington might well have led to two things

(a) Immediate recognition of the Confederate States of America

(b) Surrender of Union forces

(3) Richmond represented the four mid-South states that joined the Confederacy after Fort Sumter fell. Without them, the Confederacy could hardly claim to represent a Southern nation

(4) Those who criticize the mutual fixation on the two capitals do not realize how vitally both of them affected the military forces, the country, and the will of the contenders.
(Clausewitz's center of gravity?)

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 42

HOURS: 1

TITLE: Northern Attempts at Richmond (1861-1862)

I. Learning Objectives

- A. The student will know the significance of the First Battle of Bull Run to the North and the South
- B. The student will know the significance of the Peninsular campaign to the North's strategy

II. References and Texts

A. Instructor references

- 1. Dupuy and Dupuy, The Encyclopedia of Military History, pp. 868-905
- 2. Preston and Wise, Men in Arms, pp. 247-258

- B. Student text - Preston and Wise, Men in Arms, pp. 247-258

C. Other references

- 1. Esposito, The West Point Atlas of American Wars
- 2. Fuller, The Conduct of War, 1789-1961, pp. 92-152
- 3. Hankison, A., First Bull Run 1861, The South First Victor, Osprey Military Campaign Series, Vol. 10, London, 1991, (ISBN 1-85532-133-5)
- 4. Instructor Resource Manual

III. Instructional Aids

- A. Chalkboard
- B. Overhead projector
- C. Locally reproduced transparencies (8 transparencies provided)

IV. Suggested Methods and Procedures

- A. Method options
 - 1. Lecture and discussion
 - 2. Guided discussion

B.Procedural and student activity options - read and study assignment

V.Presentation

A.Northern attempts at Richmond

1.Necessity (TP #1)

- a.General Scott's original plan was to make the major offensive down the Mississippi - a plan that had much to commend it. Circumstances, however - the proximity of the two capitals (100 miles apart) and of the first armies that were organized - dictated that Virginia would be the first theater of war
- b.Richmond was considered to be the Confederate center of gravity; as such, Lincoln felt that the enemy's capital should be the object of the war
- c.Additionally, if Richmond fell, the South would be without one of its largest iron works
- d.Lincoln was also faced with the problem of 3-month enlistments, which were running out. So orders were issued - ready or not (General McDowell had asked for more time to train) - the Federal Army should attack

2.First Bull Run (21 July 1861) (TP #2)

- a.No general other than Scott had ever commanded more than 5,000 troops
- b.Although the Union Army was largely inexperienced and untrained, public and political pressure demanded action
- c.The campaign (TP #3)

(1)On 16 July, General McDowell ordered his 35,000-man army to move South toward Richmond, via Manassas Junction

(2)20,000 Confederate troops, under General Beauregard, were waiting at Manassas Junction. Another 12,000 Rebels, under Joe Johnston, were about 40 miles away in the Shenandoah Valley. A railroad linked the two forces

(3)To counteract this, McDowell instructed Major General Patterson, with 18,000 Federal troops, to keep the pressure on Johnston and prevent him from joining Beauregard. However,

Johnston bluffed Patterson into taking the defensive and slipped southeast toward Manassas Junction

(4) Although arriving on 18 July, McDowell did not attack until 21 July - allowing Johnston time to reach Beauregard

(5) McDowell's plan was too complicated for his untrained commanders and troops. The Confederates held against Union attacks while the Federal forces broke under Confederate counterattacks, with many fleeing in panic

d. Analysis (TP #4)

(1) The confederate victory confirmed not only its confidence but its contempt for Northern arms. Therefore, the South developed a sense of false security

(2) The victory impressed Europe, where the South was looking for aid

(3) In the North, natural pride was wounded by the retreat to Washington. It woke up the Union to the reality of a long, dreadful war. Plus, the Union gained a greater fear of an attack on Washington

(4) On 22 July, Lincoln called upon George McClellan to take command of a growing army of long-term volunteers and regulars

(5) Finally, this first Battle of Bull Run (Manassas) ended the era of romantic war and introduced modern warfare

3. McClellan's Peninsula Campaign (TP #5)

a. As the year 1862 began in the eastern theater, plans prepared in Washington were aimed at the capture of Richmond rather than the destruction of the Confederate Army commanded by General Joe Johnston

b. Precise methods for reaching Richmond differed

(1) Lincoln favored an overland advance, which would always keep an army between the Confederates and Washington

(2) McClellan favored a waterborne move to Urbana on the Rappahannock, followed by a drive on Richmond before Johnston could move from the Manassas area to intercept him

(3) Johnston withdrew to Fredericksburg - halfway between the two capitals and astride McClellan's prospective route of advance

(4) McClellan then began to advocate a seaborne move to Fortress Monroe, to be followed by an overland advance up the Peninsula, moving quickly to Richmond before Johnston's forces could be concentrated. This plan had promise (TP #6)

(a) Utilized Federal control of the seas

(b) Useful base of operations at Ft. Monroe in Virginia

(c) Fewer rivers to cross than by the overland route

c. Successful neutralization of the CSS VIRGINIA by the Union MONITOR on 9 March had eliminated any naval threat to supply and communications lines, but the absence of good roads and the difficult terrain of the Peninsula offered drawbacks to the plan. Limited room for maneuver could also cause difficulties

d. The campaign (TP #7)

(1) On 4 April, McClellan began a snail-like advance from Ft. Monroe toward Richmond. His plans were upset by friendly as well as enemy elements

(a) General Jackson had become quite active in the Shenandoah Valley (part of Lee's plan to ease the pressure from Richmond and force dislocation of some of McClellan's forces)

(b) Brigadier General John Magruder, CSA, had only 15,000 troops, but entrenched them, used many "Quaker" (dummy) guns, and feigned activity, causing McClellan to be overly slow and cautious (TP #8)

(2) First, direct engagement took place at Seven Pines on 31 May when Johnston, conducting a strategic retreat toward Richmond, was able to strike the first blow. This 2-day battle ended indecisively, with its most noteworthy element being the loss of Johnston to wounds and his being replaced

by General Lee

(3) Lee then pretended to reinforce Jackson in the Shenandoah valley while secretly ordering him to bring his army ASAP to Richmond to reinforce Lee. This arrival increased Lee's forces to 87,000 against 110,000 for the U.S.

(4) Lee defended south of the Chickahominy River and held his fortifications there with some 28,000 men, which held up some 75,000 U.S. troops. With the remaining 59,000 troops, Lee wheeled to the north bank and struck the 34,000 U.S. troops in the first action of what was to become known as the Battle of Seven Days, which occurred from 26 June to 2 July 1862

(a) Lee continually rained blows on the federal flank and on 28 July the U.S. withdrew across the Chickahominy, losing some 5,000 POWs at Gaines Mill

(b) Lee pursued the retreating U.S. forces, which were now concerned with saving their army. Gunboats were sent up the James River to assist the U.S., which by now had abandoned all attempts to take Richmond

(c) The Feds continued to retreat towards the James River and on the the 7th day of the battle, the CSA attacked at Malvern Hill, but were beaten back with a loss of some 6,000

(5) Nevertheless, Lee did succeed in his objective - to save Richmond. The U.S. forces were evacuated via the James River and returned to the Washington area

(6) Due to the losses in this campaign and the failure to take Richmond, coupled with Lincoln's loss of faith in McClellan, the general was subsequently removed from command of the Army of the Potomac

e. Analysis

(1) How Washington and Richmond influenced strategic planning. The rout at First Bull Run caused fear that the Confederates might attack Washington itself. Then the threatening movements of Jackson caused new apprehension. From this time on, the safety of Washington was a factor in all

strategic plans for the eastern theater - until Grant came east in 1864. As a

result of the near success of McClellan on the Peninsula, Richmond was almost captured and his scare left its mark on Southern thinking, with the result that the defense of Richmond also influenced Confederate strategy in the eastern theater - although not so profoundly as that of the Union - for Lee made it a point to keep the fighting as far from Richmond as his lines of communications would permit

(2) McClellan offered the South many opportunities to defeat his divided command. McClellan's mistakes began almost as soon as he landed his force at Fortress Monroe. He did not attack vigorously whenever possible and failed to apply the principle of the offensive

(3) Whether McClellan's failure was due to his incompetence, interference from Washington, or the genius of Lee is probably debatable

(4) Tactics

(a) Lee learned that the tactics of the Napoleonic Empire could not be valid here due to the great changes in technology - repeating rifles, rifled cannons, advanced fortifications for the rifleman (axe and spade became as important as the rifle)

(b) Lee was a master of the defense - he realized that a regiment in a fortified position could hold off a division - thus used the defense as the pivot of his attacks - would leave a small force to hold enemy and then attack the enemy with the main body from a different direction

(c) Union still relied on the tactics of Napoleon - columns of troops with bayonets fixed to advance against defended positions - heavy casualties resulted. Cavalry charges fared no better - the cavalry could be torn apart by the longer range rifles and cannons

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 43

HOURS: 1

TITLE: Lee Moves North (1862-1863)

I.Learning Objectives

A.The student will comprehend and compare the initial invasions conducted by the North and South

B.The student will comprehend and interpret Lee's significance as a Great Captain

II.References and Texts

A.Instructor reference - Dupuy and Dupuy, The Encyclopedia of Military History, pp. 868-905

B. Other references

1.Esposito, The West Point Atlas of American Wars

2.Fuller, The Conduct of War, 1789-1961, pp. 92-152

III.Instructional Aids

A.Chalkboard

B. Overhead projector

C.Locally reproduced transparencies (7 transparencies provided)

IV.Suggested Methods and Procedures

A. Lecture and discussion

B.Guided discussion

V.Presentation

A.Lee turns north (TP #1)

1.Lee's first invasion of the North (Antietam - 17 September 1862)

a.After victory at Second Bull Run, Lee had cleared out most of Virginia of Federal troops. Now it was the Confederate Army which lay outside Washington, not the U.S. Army outside of Richmond

b. Lee felt the need to keep the initiative; thus he decided the time was ripe to invade the North. Lee's reasons for this action were numerous

(1) Convincing Maryland to secede

(2) By entering Maryland, the enemy could be drawn away from Washington. With Maryland held by the South, no Federal Army based in Washington would dare move against Richmond and Virginia would remain

unmolested

(3) Capitalize on Union war-weariness

(4) Indirectly threaten Washington

(5) Cause friendly intervention by France and England

c. The battle (TP #2)

(1) Lee crossed the Potomac into Maryland and dispersed his army, sending Jackson to capture Harper's Ferry, Virginia and Longstreet to Hagerstown, Maryland

(2) With 95,000 men, McClellan marched northwest from Washington in search of General Lee's forces

(3) A twist of fate provided McClellan a copy of Lee's orders detailing Confederate plans. However, McClellan did not act quickly enough, allowing Lee to withdraw to Sharpsburg on the Potomac and Jackson to rejoin Lee there

(4) Nevertheless, McClellan, with some 70,000 troops, followed Lee to Sharpsburg. There he found him with 39,000 men, the Potomac to his back, and across his front a sluggish stream called the Antietam

(5) Outnumbered greatly, Lee's men were able to hold off McClellan's charges by using shorter interior lines of communication. By late afternoon Lee's army, with no reserves, was in danger of collapse. A. P. Hill's timely arrival with reinforcements from Harper's Ferry ended the day's fighting

d. Analysis (TP #3)

(1)McClellan moved too slowly in several instances

(a)He waited too long to attack Lee after intercepting Lee's orders

(b)During the battle, Lee's lines grew very thin, yet McClellan hesitated too long in hurling in fresh troops which might have been able to burst through. Extensive Union reserves were not utilized

(c)Finally, McClellan might have been able to rout Lee and his weary troops the next morning, yet he was again overcautious and allowed the

Confederates to escape back to Virginia. He was again removed from command (Lincoln: "He's got the slows") (TP #4)

(2)While not a complete Union victory, Antietam had two far-reaching effects

(a)It caused Britain and France to postpone a decision on intervention

(b)It provided an opportunity to announce the Emancipation Proclamation

2.Burnside's Fredericksburg Campaign (TP #5)

a.In the Fall of 1862, Fredericksburg lay astride the line of another Union march on Richmond

b.On 7 November, Ambrose Burnside reluctantly accepted command of the Army of the Potomac

c.A week later he proposed a movement south through Fredericksburg and on to Richmond before Lee (then at Culpeper) could move to intercept him. Such a move, if successful, would cut Lee off from his main base

d.Lincoln approved the plan, noting, "It will succeed if you move rapidly; otherwise not"

e.Burnside's forces began arriving at Falmouth, across the Rappahannock from Fredericksburg, on 17 November. At that time there were few Confederate soldiers in the town

f.Unfortunately, pontoon bridging equipment arrived very late (the Washington engineer supply authorities had refused to respond to the urgency of Burnside's request), and it was not until 11 December that Burnside began to push across

the river

g. That was a terribly costly delay - it gave Lee time to discern Burnside's plan and to concentrate his forces. By the end of November, Lee had over 78,000 men in and about Fredericksburg, opposed by Burnside's 122,000 across the river on Stafford Heights (TP #6)

h. The battle

- (1) Burnside's forces crossed the river and assaulted the Confederate positions
- (2) Fourteen successive Union charges melted away under the Confederate fire
- (3) Along the entire line, 12,500 Union troops were killed or wounded - 6,000 of them in front of Longstreet's position on Marye's Heights. Confederate losses were 5,300
- (4) Burnside was dissuaded by his corps commander from making further attacks, and withdrew across the river on the 15th (TP #7)

i. Analysis

- (1) Burnside should have (could have) occupied Fredericksburg with a holding force long before Lee arrived in strength (in fact, Sumner, one of his corps commanders, had recommended just that; Burnside - fearing that rain would make the fords impassable, leaving Sumner stranded - refused)
- (2) Burnside failed to scout the Confederate positions properly, so was unaware of the strength of the enemy position. Instead, he depended largely on balloon observation, which was ineffective in such wooded country
- (3) An infantry frontal assault on a strongly held and fortified position is foolhardy
- (4) Burnside, instead of concentrating on Lee's army and its destruction, aimed toward a geographical objective (again, the objective in "vogue" at the time). In fact, when his force was at Warrenton, and Lee's at Culpeper, he was in a much better position to attack the Confederate Army
- (5) The battle was noteworthy for the U.S. Army in that the telegraph first saw extensive battlefield use, linking headquarters with forward

batteries during the
action - a forerunner of 20th century battlefield communication

j. Burnside blamed his subordinates (!), and demanded that the President dismiss them or him. Lincoln dismissed him and, somewhat reluctantly, appointed "Fighting Joe" Hooker to command. (Burnside had declared that Hooker was "unfit to hold an important commission during a crisis like the present" - perhaps the one time when Burnside's judgement proved sound!)

3. Hooker and Chancellorsville (May 1863)

a. Forces - Hooker had 134,000 men. Lee's forces now numbered about 60,000

b. Hooker's plan

(1) Hooker determined that he would not repeat Burnside's mistake, butting head-on against the stout Confederate defenses at Fredericksburg. Instead, he planned a double envelopment which would place strong Union forces on each of Lee's flanks

(2) Three of his corps would move secretly up the Rappahannock and ford the river

(3) Two corps, having remained conspicuously in Fredericksburg, were to strike across the old battlefield

(a) Hold Lee's attention, or

(b) If the Confederates retreated, to pursue

(4) Two corps in reserve

(5) The cavalry corps, less one division which was to screen the move up the river, was to raid far behind Lee's rear to destroy communications and divert Lee

c. Lee's action

(1) One of Jeb Stuart's cavalry brigades kept the Union cavalry corps under surveillance while Stuart's main body shadowed Hooker so effectively that Lee knew every move made by Hooker's forces

(2) Lee used the principles of the offensive, maneuver, economy of force and surprise to compensate for his inferior numbers

- (3) Instead of retreating, he left a part of his army (General Early - 10,000) to hold Fredericksburg and started west for Chancellorsville with the main body

d. The battle

- (1) Hooker's forces made contact with enemy skirmishers on 1 May in the wilderness. Believing himself to be threatened by Lee's whole force, he fell back to Chancellorsville
- (2) While Lee moved up with his main force, Stuart's cavalry discovered Hooker's vulnerable right flank and promptly reported that fact to Lee
- (3) Lee decided to divide his inferior force and "envelope the envelopers"
 - (a) He committed 17,000 men to hold (demonstrate against) Hooker's left
 - (b) Jackson, with 26,000, made a wide, 15-mile swing to get beyond Hooker's right flank. (Hooker interpreted this movement to be a retreat by Lee!)
- (4) Shortly after 1700 on 2 May, Jackson's leading divisions charged out of the woods, rolling up General Howard's corps
- (5) The Confederates pressed forward, but fresh Union troops, disorganization of the Confederate forces in the failing light, and the wounding of Jackson halted the Confederate advance
- (6) Stuart, Jackson's successor, reformed his lines. Against Stuart's right, Hooker launched local counterattacks which at first gained some success, but the next morning, he withdrew his whole line
- (7) Sedgewick assaulted and carried Marye's Heights on 3 May
- (8) On 4 May, Lee again divided his command
 - (a) Left Stuart with 25,000 to guard
 - (b) Moved himself with 21,000 to the east, met Sedgewick at Salem Church and forced him northward across the

Hooker

Rappahannock

- (9) Lee then prepared for a full-scale assault against Hooker on 6 May. However, Hooker commenced withdrawal across the river at 1700 on 6 May, a move which took Lee completely by surprise

e. Analysis

(1) Use of cavalry

- (a) Stuart's cavalry performed reconnaissance work that contributed to Lee's planning and his ability to change his plans in order to take advantage of the situation. Stuart kept Lee

informed

- (b) Hooker's main body of cavalry was off on a mission of considerably less importance than its proper role as a screening and reconnaissance force for Hooker's army

1. Although Stoneman ranged to within 2 miles of Richmond and created some panic, he did little real damage

2. The net result of this cavalry mission was to deny Hooker his cavalry's capability of screening his advancing forces and also of bringing him information on enemy positions and movements

3. Hooker had no cavalry with which to delay Lee's reinforcement of McLaws at Salem Church - if he even thought of it

- (2) Lee used the principle of movement intelligently - especially Jackson's march to the Union right flank - in combination with firm pressure all along the line

- (a) At first glance Lee's decision might appear to be a violation of the principle of mass, but while Lee's two forces were initially separated, their common objective was the Army of the Potomac

- (b) Although there was some confusion in the Confederate ranks and Hooker launched some successful counter-

attacks on the night of 2 May, Hooker ultimately withdrew. Once more he

yielded the initiative at the moment he had a stronger force between Lee's two divided and weaker forces

(3) Confederate losses were about 13,000; Union losses about 17,000

(a) Lee had won a tremendous victory, but had lost the one man he could not spare - Jackson died of his wounds on 10 May

(b) Actually, Lee's brilliant and daring maneuvers had defeated only one man - Hooker - and in no other action of the war did moral superiority of one general over the other stand out so clearly as a decisive factor in battle

(c) Chancellorsville exemplified Napoleon's maxim: "The General is the head, the whole of the army"

(4) Chancellorsville clearly ranks as the masterpiece of Lee's career

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 44

HOURS: 1

TITLE: Gettysburg - 1863

I. Learning Objectives

- A. The student will know the major events leading to the Battle at Gettysburg
- B. The student will know the major tactical event of each day of the Battle of Gettysburg
- C. The student will know the effect of the Battle of Gettysburg on the North and South

II. References and Texts

A. Instructor references

1. Dupuy and Dupuy, The Encyclopedia of Military History, pp. 868-905

2. Weigley, The American Way of War, pp. 59-76, 92-152

B. Student text - Weigley, The American Way of War, pp. 59-76, 92-152

C. Other references

1. Esposito, The West Point Atlas of American Wars

2. Zook and Higham, A Short History of Warfare, pp. 185-223

III. Instructional Aids

A. Chalkboard

B. Overhead projector

C. Locally reproduced transparencies (2 transparencies provided)

IV. Suggested Methods and Procedures

A. Method options

1. Lecture and discussion

2. Guided discussion

B. Procedural and student activity options - read and study

assignment

V.Presentation

A.The Battle of Gettysburg

1.Lee's second offensive in the North - resulting in the Battle of Gettysburg (1-3 July 1863)

a.Due to the recent victory at Chancellorsville and the high morale of the army, Lee and Davis decided to invade Pennsylvania

b.Lee also felt that Hooker would be obliged to follow him North, taking the war out of Virginia. Lee hoped to attain a decisive, war-ending victory in the North

c.Hooker wished to counter Lee by advancing on Richmond, but Lincoln vetoed this in favor of the enemy army as an objective. Hooker was relieved by General George Gordon Meade

d.Because of the attrition Lee's offensive battles had imposed on the Army of Northern Virginia, the Confederate leaders desired a "defensive" offensive: the Federals should be forced to attack, in order to drive the Confederate Army from their soil. However, this did not happen

(1)The perils of maneuver with a limited ammunition supply

(2)The Confederates were unfamiliar with their terrain, making a defensive stance difficult. Stuart was off on another "ride around the U.S. Army," denying Lee much-needed information on enemy movement

(3)Lee's confidence in his troops prodded him to take the offensive

e.The battle (TP #1)

(1)The two armies met and initially engaged in battle north and northwest of Gettysburg. The Confederate Army outflanked the Federals, who rallied on Cemetery Hill, while the Confederates held Gettysburg the evening of 1 July

(2)Arriving that night, Meade decided to

improve and defend their position. The Union forces continued to arrive throughout the night. 15,000 fresh troops under General Pickett were on the way to reinforce Lee

(3) After assaulting both Union flanks on 2 July, Lee tried a final, frontal assault 3 July on the entrenched Union Army, but, although valiant, "Pickett's charge" failed to break the Union line

(4) Both sides had lost more than 20,000 men and Lee was forced to withdraw back across the Potomac. Meade followed cautiously, missing a golden opportunity to overwhelm Lee's army

f. Analysis (TP #2)

(1) The battle shows the importance of communications and good staff work, since many opportunities for a Confederate victory were lost because of "discretionary" orders, lack of coordination, and recalcitrant subordinate commanders

(2) On the third day, Lee relied too heavily on frontal assaults against the entrenched Union Army. The problem of frontal assault against rifled weapons was not simply one of inability to penetrate enemy lines, but more of how to stay there and exploit the advantage once the enemy's line was pierced. Once through the lines, the attacker had suffered heavy losses and was unable to repel a counterattack due to a lack of supporting troops

(3) Stuart's threat to the Union rear was neutralized by Custer on the "East Cavalry Field"

(4) Lee was hurt particularly by the earlier loss of "Stonewall" Jackson. The trouble he experienced with his subordinates here was mainly because of poor communications and lack of experience

(5) Lee overestimated his troops and underestimated the Union Army. An offensive war undertaken by the outmanned Confederate Army was an all-or-nothing situation and spelled the beginning of the end for the Southern Confederacy

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 45

HOURS: 1

TITLE: Grant Takes Charge (1864-1865)

I. Learning Objectives

- A. The student will comprehend and explain how the waging of the Civil War changed from limited warfare to total warfare upon the ascendancy of Grant, Sherman, and Sheridan
- B. The student will comprehend and compare/contrast Lee and Grant as Great Captains

II. References and Texts

A. Instructor references

1. Dupuy and Dupuy, The Encyclopedia of Military History, pp. 868-905

2. Fuller, A Military History of the Western World, Vol. III, pp. 53-89

B. Other reference - Esposito, The West Point Atlas of American Wars

III. Instructional Aids

A. Chalkboard

B. Overhead projector

C. Locally reproduced transparencies (2 transparencies provided)

IV. Suggested Methods and Procedures

A. Lecture and discussion

B. Guided discussion

V. Presentation

A. Grant and the Union Army - (533,000 in 17 commands); Meade remained in command of the Army of Potomac; Halleck remained in Washington and became Chief of Staff

1. Grant and Richmond

a. Grant takes command (TP #1)

(1) In February 1864, Congress revived the grade of Lieutenant General and awarded that rank to Grant, who was recalled from the west in March to take command of all Union armies

Confederate Army

(2) Grant insisted on considering all entire army operations as one, with a single objective - the destruction of the

Confederacy

(3) Grant's strategy called for Meade's army to contain Lee while Sherman would strike directly through the heart of the

b. The advance toward Richmond (TP #2)

(1) Correctly surmised that Lee would have to defend all the way, hoping that attrition would hurt the Union Army as it moved toward Richmond

(2) The battles of the past had been 2-3 day affairs, with casualties in the few thousands. The Wilderness Campaign was to be different - it lasted for a month and resulted in over 50,000 casualties. The Battle of the Wilderness actually was two major separate engagements by the same forces: Wilderness and Spotsylvania

(3) Imagine a diagonal line of about 60 miles, stretching roughly southeasterly from Germana Ford on the Rapidan to Cold Harbor, just 10 miles east of Richmond

<u>Lee</u>	<u>Grant</u>
63,900 men 274 guns	118,700 men 316 guns
Wilderness casualties 7,750-11,400	15,000-18,000
Spotsylvania Courthouse casualties 7,000-10,000	17,000-18,000
To Cold Harbor 20,000-40,000 total	55,000 total

(a) Again and again, Grant smashed at Lee's line, was held and thrust back and then "slid down" the diagonal with Lee racing on a parallel course to stop

him

(b) No single battle in this campaign reached the dimensions of a Gettysburg or Shiloh, but collectively they constituted the most costly campaign of the war

(4) Who won the Battle of the Wilderness?

(a) Lee had prevented Grant from breaking his lines, had saved Richmond, had forced Grant to abandon the campaign of the direct attack and fall back on siege, and had inflicted on Grant losses almost as large as the whole of Lee's own army

(b) Grant had largely achieved his own primary objective. He had so punished Lee that the Army of Northern Virginia never really recovered. He had thus prepared the way for the subsequent attack on Richmond from the south

c. The Battles of the Wilderness cost the Union over 50,000 casualties and, temporarily at least, bolstered the morale of the Confederacy. The problem at this point was that while Grant could (and did) receive replacement troops, Lee could not. In fact, Lee had a net loss of nearly 25,000 troops during the Wilderness Campaign

d. After the Battle of Cold Harbor (7,000 Federal casualties in 20 minutes on one day), Grant attempted to flank Lee and Richmond by moving south and west, across the James river to Petersburg

(1) While Grant moved his force initially without Lee's knowledge, aggressive action by small Confederate forces and caution by Union commanders caused a stalemate outside Petersburg

(2) By July 1864, the Union had suffered a total of 75,000 casualties. Lincoln, concerned about the upcoming election, admonished Grant to be cautious - and so the war in the east became one of siege for the autumn and winter of 1864-65

(3) Finally, in April 1865, Lee could do nothing but withdraw to the west, hoping to resupply and then link up with General Johnston's army in the Carolinas

e. Lee surrendered at Appomattox Court House on 9 April 1865, after finding his supply lines cut, losing one-third of his active forces at Saylor's Creek, and discovering his retreat route blocked by overwhelming numbers of Federal troops

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 46

HOURS: 1

TITLE: Ulysses S. Grant - Great Military Captain

I. Learning Objectives

- A. The student will comprehend and explain how the waging of the Civil War changed from limited warfare to total warfare upon the ascendancy of Grant, Sherman, and Sheridan
- B. The student will comprehend and compare/contrast Lee and Grant as Great Captains

II. References and Texts

A. Instructor references

1. Dupuy and Dupuy, The Encyclopedia of Military History, pp. 868-905

2. Fuller, A Military History of the Western World, Vol. III, pp. 53-89

B. Other reference - Esposito, The West Point Atlas of American Wars

III. Instructional Aids

- A. Chalkboard
- B. Overhead projector
- C. Instructor-produced transparencies

IV. Suggested Methods and Procedures

- A. Lecture and discussion
- B. Guided discussion

V. Presentation

A. Grant's pre-Civil War background

- 1. Born 27 April 1822 in Ohio
- 2. West Point - 1843
- 3. Mexican War service
- 4. Resigned in '53 after 10 years; sold insurance, worked for father, etc. - largely unsuccessful

B. Grant's rise to command of the Army of the Potomac

1. In the West

- a. 1861 - rejoins army; is appointed Colonel of 21st Illinois Volunteers
- b. 17 May - Brigadier General of Volunteers
- c. September - occupied Cairo and Paducah, Kentucky
- d. February 1862 - Forts Donelson and Henry captured
- e. April 1862 - Shiloh (Pittsburgh Landing) - initial defeat; final victory
- f. 1863 - Mississippi River Campaign, Siege of Vicksburg
- g. 4 July, Vicksburg surrenders (same day Lee begins retreat from Gettysburg)
- h. November 1863 - Chattanooga area operations

2. In the East

- a. 1864 - in command of the Army of the Potomac; subsequently all Union forces
- b. May-June - Wilderness Campaign
- c. July-November - siege of Petersburg
- d. 1865 - pursuit of Lee
- e. 9 April - Lee's surrender at Appomattox

C. Grant's philosophy and its impact on the war

1. His philosophy

- a. Clausewitzian
 - (1) Destroy enemy
 - (2) Achieved by battle - directly and aggressively
 - (3) Distrust theories
 - (4) Pursuit of the enemy
 - (5) Find "center of gravity"

b. Clausewitzian triangle

- (1) Enemy's armed force - Lee
- (2) Material elements - Sherman's campaign through Georgia and the Carolinas
- (3) Public opinion - Lincoln

D. Impact on war

1. Battles and bloodshed

- a. 700 lives a day (average)
- b. 1,022,000 deaths in 5 years

2. End of "Napoleonic" great battles

3. Differences seen in two phases

a. First three years

- (1) Anaconda plan
- (2) Incompetent generals
- (3) Little pursuit
- (4) Engage only enemy, leave all else alone
- (5) See only part of the picture

b. Last two years

- (1) Grant grasps whole picture
- (2) Aggressive
- (3) Pursuit - war of attrition
- (4) Attack supply and materials (Sherman)
- (5) Psychological warfare (Sherman) - total war concept

4. Results

- a. Reduced Lee to defense and retreat
- b. Destroyed Army of Northern Virginia
- c. South disillusioned
- d. Appomattox Courthouse

E. As a Great Captain

- 1.Learned from experience
- 2.Understood the larger picture
- 3.Understood unity of command
- 4.Understood supplies and logistics
- 5.Knew the enemy (from West Point)
- 6.Understood destruction of enemy's resources was as important as destruction of enemy forces
- 7.Troops confident by his tenacity and imperturbability
- 8.Accomplished goal with ruthless driving energy
- 9.Successful application of Clausewitzian theory

F.Summary

- 1.In rising from regimental command to General in Chief, Grant had learned much from experience, and if he sometimes made mistakes, he rarely repeated them
- 2.He understood and applied the principle of modern war in that the destruction of the enemy's economic resources is as necessary as the annihilation of the enemy's armies
- 3.His bulldog tenacity and his imperturbability under trying conditions filled his troops with confidence. He never gained the popularity of McClellan; he lacked the glamour of Hooker, but there was never disaffection in his ranks
- 4.He was a man of single purpose and ruthless, driving energy who would ignore politics and concentrate upon destroying the Confederate Army

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 47

HOURS: 1

TITLE: Robert E. Lee - Great Military Captain

I.Learning Objectives

- A.The student will comprehend and compare/contrast Lee and Grant as Great Captains
- B.The student will know and recall Lee's major strengths and weaknesses as a military leader

II.References and Texts

A.Instructor references

1. Dupuy and Dupuy, The Encyclopedia of Military History, pp. 868-905

2.Fuller, A Military History of the Western World, Vol. III, pp. 53-89

B. Other references

1. Esposito, The West Point Atlas of American Wars

2.Leckie, The Wars of America, pp. 381-521

3.Matloff, ed., American Military History, pp. 196-280

4.Zook and Higham, A Short History of Warfare, pp. 185-223

III.Instructional Aids

A.Chalkboard

B.Overhead projector

C.Instructor-produced transparencies

IV.Suggested Methods and Procedures

A.Lecture and discussion

B.Guided discussion

V.Presentation

A.Background

- 1.Born 19 January 1807 - son of Revolutionary War hero Henry "Lighthorse Harry" Lee

2. West Point class of 1829; graduated #2 with no demerits
3. Joined Engineer Corps - assisted in building most of the sea forts on the East Coast
4. Mexican War - Chief Engineer on General Scott's staff, where he learned more of how an army operates
5. Appointed Superintendent of West Point early 1850's. Grew to know well most of the people he would fight with/against
6. Texas - command of army's most elite unit: 2nd U.S. Cavalry
7. Fall 1859 - on leave in Arlington; led Marines against John Brown at Harper's Ferry
8. Nation began falling apart
 - a. Winfield Scott offered Lee command of all union forces. Lee planned to resign his commission if Virginia seceded
 - b. Opposed to both secession and slavery, Lee nonetheless offered his services to the Confederacy
 - c. In February 1865, Confederate Congress conferred supreme command of all Confederate armies on Lee, but it was an empty honor - for Lee could no longer control events
9. Upon taking command of Virginia's forces
 - a. 40,000 men in 3 months were raised
 - b. Placed most of those forces at Manassas
10. Fall 1861 - sent to West Virginia to get three CSA Commanders to work together
 - a. Failed - personality clashes plagued C.S. command structure
 - b. Western Virginia breaks ties with rest of Virginia - becomes own state in 1863
 - c. "Evacuating Lee"
11. Charleston Harbor
 - a. "King of Spades"
 - b. Harbor held until 1865, however

12. Military advisor to J. Davis

a. Desk job

b. "Granny Lee"

13. 1 June 1862

a. Union Army 9 miles from Richmond

b. Replaces Joe Johnston at Seven Pines

B. Personal Qualities

1. Kindness

a. Lee was loved and respected by his men. Long after the soldiers had lost faith in the government and the cause, Lee could still command their devotion and raise their fighting spirit

b. Commanded men through respect and admiration rather than fear

c. Gettysburg - fallen Union soldier - Germalia Bradford Jr.: "Hurray for the Union", "Son, I hope you soon will be well"

2. Devotion to military - expert in military readings

3. Devotion to duty - to son: "Do your duty in all things. You cannot do more. You should never wish to do any less"

C. Secrets to Lee's military success

1. Inspired morale in his men - simply because the army was so superbly led and the men knew it

a. Religious worship in the army grew rapidly

b. Troops felt they couldn't be defeated

2. War was a passion for Lee

3. He was a master of defense

4. Knew his enemy - Mexican War, West Point, peace time

5. Knew McClellan - overly cautious

6. Knew Pope - confused easily

7. Knew Hooker - would snap under pressures of army command and surprises

8. Audacity

- a. "A man born to make the attack"
- b. Killer instinct - would follow up

D. Weaknesses

1. Perhaps much harm to the Confederacy's cause would have been averted if Lee had asserted himself more aggressively
 - a. Gave verbal and imprecise orders - Ewell at Gettysburg
 - b. Yet even when a drastic action was imperative, he could not overcome his inherent deference to authority
 - c. All through the war years he exerted far too little influence on the political situation. Had he used the power of public opinion, he could have forced President Davis to consult him on all matters of general strategy
 - d. "Hands off" after the battle began. His corps commanders did not always serve him well, however
 - e. He should have tried to have Davis confine his activities to administrative duties and leave the conduct of the war to those who had shown that they were capable of doing it competently
 - f. Lack of staff - never more than seven, usually one
2. The second of Lee's weaknesses was his strange aversion to maps. He lost opportunity after opportunity through a lack of correct information, yet he never seemed able to overcome this failing
3. Yet, his weaknesses were outgrowths of his virtues
 - a. His submissiveness was an exaggerated sense of duty and military obedience
 - b. His neglect of maps was at least in part due to the fact that he kept an inadequate staff, so as not to take officers away from combat duty
4. His health was not good. He suffered from diarrhea, rheumatism, angina, had broken hands at Sharpsburg (Antietam), a heart attack before

Gettysburg

5. He continually underestimated the U.S. Army
6. He took too many risks
 - a. Malvern Hill
 - b. Sharpsburg (Antietam)
 - c. Gettysburg
7. Lee at times overlooked the situation in the west, concentrating on Virginia out of loyalty

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 48

HOURS: 1

TITLE: Review - The American Civil War (1861-1865)

I.Learning Objectives

A.The student will know and trace the evolution of American military thought from the time of the War of 1812 to the Civil War

B.The student will comprehend and compare the Civil War belligerence with regard to the military and economic resources and the socio-political fabrics of the opposing populations

C.The student will know the different strategies used by the North and South

D.The student will comprehend and compare the initial invasions conducted by the North and South

E.The student will know the effect of the Battle of Gettysburg on the North and South

F.The student will comprehend and explain how the waging of the Civil War changed from limited warfare to total warfare upon the ascendancy of Grant, Sherman, and Sheridan

G.The student will comprehend and compare/contrast Lee and Grant as Great Captains

II.References and Texts

A.Instructor references

1.Dupuy and Dupuy, The Encyclopedia of Military History, pp. 868-905

2.Dupuy, Evolution of Weapons and Warfare, pp. 196-198

3.Jones, The Art of the War in the Western World, pp. 409-418

4.Preston and Wise, Men in Arms, pp. 247-258

5.Weigley, The American Way of War, pp. 59-76, 92-152

B.Student texts

1.Jones, The Art of the War in the Western World, pp.

2.Preston and Wise, Men in Arms, pp. 247-258

3.Weigley, The American Way of War, pp. 59-76, 92-152

C. Other references

1.Esposito, The West Point Atlas of American Wars

2.Fuller, The Conduct of War, 1789-1961, pp. 92-152

III.Instructional Aids

A.Chalkboard

B. Overhead projector

C.Locally reproduced transparencies (5 transparencies provided)

IV.Suggested Methods and Procedures

A.Method options

1.Lecture and discussion

2.Guided discussion

B.Procedural and student activity options - read and study assignment

V.Presentation

A.Change in warfare (TP #1)

1.Defense relatively strong

a.Two of the outstanding tactical characteristics of the war were

(1)The futility of frontal assaults

(2)The demand for field entrenchments

(3)Both were a consequence of the rifle

bullet

b.Both land and water mines were used extensively for the first time in history. This foreshadowed their great use in World War I

c.By the time of the siege of Petersburg, the armies had arrived at a form of siege and trench warfare not outdone either by the trenches of WWI or the bunkers of Korea

d.The cavalry was finally accepted as a tactical

weapon

2. Industrial impact (TP #2)

a. Products of the mature industrial revolution precluded a successful Napoleonic strategy

(1) By exploiting the railroad, steamship, and telegraph, the War Department provided field commanders a novel type of mobility in their operations

(2) In 1858, the U.S. adopted the conoidal bullet, fired from a muzzle-loading rifle. The relation of lethal capability between infantry weapons and artillery had been reversed

(3) Breech-loading rifles were steadily improved and the Spencer repeating carbine of 1860 increased the soldier's rate of fire to 16 shots a minute. (However, single-shot weapons were predominant)

b. The resulting imbalance between infantry weapons of greater potential lethality, and tactics better suited to the weapons of a previous generation, sent casualties soaring higher on both sides to levels comparable to Napoleon's bloodiest battles. Attackers could win battlefield decisions only through immense sacrifices of manpower

c. By the end of the war, however, there was a clear - although slow - trend toward dispersal. But this was a lesson that would be relearned at great expense in WWI

3. Jomini's influence

a. Although Napoleonic Wars' improvements in firearms had revolutionized tactics, tactical theory remained Napoleonic

b. Clausewitz's On War was not translated to English until 1873

c. The leading Federal tacticians were still conducting war according to Jomini (which was according to Napoleon). So it is not surprising that columns of Union soldiers would advance, only to be torn to shreds by unseen opponents

B. Limited war to total war

1. Total, because the North had to bring down the

Southern government to win

2.No total war until Grant, Sherman, and Sheridan took over

a.Until Grant and Sherman opened their dual campaign in 1864, with few exceptions, violence had been restricted to the outer front - that is to the armed forces of the Confederacy; but now it was also to be directed against the inner front - the civil population of the South - against the moral and economic foundations of the Confederate government and its army. This was a conscious effort to take the decision for ending the war away from the Confederate government and army and give it to the Southern populace

b.These Union commanders introduced constant pressure, rather than the "fight and rest" system of the first few years of the war

c.Sherman's campaign - like Sheridan's in the Shenandoah valley - anticipated the economic warfare and strategic bombardments of the 20th century

3.Cost - was astronomical - even by 1860's standards

4.New dimensions to armed conflict

5.Both sides resorted to conscription to man their armies. (New York draft riots - 1863)

C.The Emancipation Proclamation (TP #3)

1.Lincoln, while opposed to slavery and its extension to the western territories, was not an abolitionist

a.He had stated publicly that the war was being fought over union or secession, with the slavery question being only incidental

b.But anticipating the total psychological warfare techniques of the 20th century, he had for some time desired to free the slaves of the Confederate states in order to weaken their economy and appeal to the antislavery sentiment in Europe

2.On 22 July 1862, the President read a preliminary draft for an emancipation proclamation to his cabinet

a. William Seward, Secretary of State, felt that such a step would be interpreted abroad "as the last measure of an exhausted government, a cry for help"

b. Lincoln agreed and did not issue it until 22 September - 5 days after the Union victory at Antietam (TP #4)

3. Direct effects

a. The proclamation set no slaves free on the day it took effect (1 January 1863). Negroes in the four slave states still in the Union were not affected, nor were the slaves in those Confederate areas that had been subjugated

b. Had no immediate effect behind the Confederate lines, except to cause a good deal of anger and resentment

c. But thereafter, as Union forces penetrated the south, the newly freed people deserted the farms and plantations en masse (TP #5)

4. Indirect effects

a. Labeled the South as "pro-slavery"

b. Committed the Union to crushing slavery by force and sealed off the Confederacy from the outside world. No European nation would intervene to aid the "slavery side"

c. Served absolute notice that this was to be a fight to the finish

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 49

HOURS: 1

TITLE: Pax Britannica and the Race for Empires

I. Learning Objectives

A. The student will comprehend the meaning of Pax Britannica and how the British fleet provided the deterrence to renewed total war

B. The student will know and discuss the weaknesses of the British Army as demonstrated in the Crimean War

C. The student will comprehend and explain the reasons for the revival of the race for empires and the necessary military requirements

D. The student will comprehend and explain how the Boer War put 19th century British imperialism to its most severe test

II. References and Texts

A. Instructor references

1. Dupuy and Dupuy, Encyclopedia of Military History, pp. 820-855

2. Preston and Wise, Men in Arms, pp. 200-237

3. Ropp, War in the Modern World, pp. 164-169, 206-214

4. Weigley, The American Way of War, pp. 167-191

B. Student text - Preston and Wise, Men in Arms, pp. 200-237

C. Other references

1. Castle and Knight, Zulu War 1879, Osprey Military Campaign Series, Vol. 14, London 1992, ISBN 1-85532-165-3

2. Farewell, Queen Victoria's Little Wars, NY, 1972, ch. 30 & 31

3. Instructor Resource Manual

III. Instructional Aids

A. Chalkboard

B. Overhead projector

C. Locally reproduced transparencies (5 transparencies provided)

IV. Suggested Methods and Procedures

A. Lecture and discussion

B. Guided discussion

V. Presentation

A. Pax Britannica (TP #1)

1. At the Congress of Vienna in 1815, Britain rid herself of many of her colonial possessions and retained those with strategic importance such as Heligoland (North Sea), Malta and Gibraltar (Mediterranean), Mauritius (Indian Ocean), Cape of Good Hope, British Guinea (South America), and Ceylon
2. By 1880, Britain had added Singapore, Aden, Hong Kong, Cyprus, and the Suez Canal to her empire, thus giving Britain control of the world's major sea lanes
3. Britain's head start in industrialization created a need for new markets and raw materials overseas. Sea power provided the means for transport of materials and goods as well as protection of colonial assets
4. Stripped of her burden of extra colonies, Britain was free to use its fleet as the balance in the new European system. This role had been designed by and for the British in 1815
5. Britain's control of the seas, unquestioned since 1805, not only ensured peace on the continent, but also enabled her to exploit her lead in industry. This combination of military deterrence and economic superiority provided the foundation of Pax Britannica
6. Pax Britannica could only be maintained by British Naval Supremacy
7. The Crimean, a limited war fought by France and Britain against Russia from 1854-56, was the only application of British power on the continent during this time. It started because of Russia's desire to fulfill territorial ambition in the South and displayed rustiness and incompetence on both sides. A notable development in the handling

of battlefield casualties was the establishment of the Red Cross

- a result of the efforts of
Florence Nightingale

B.The Industrial Revolution (TP #2)

- 1.The European powers were eager to develop industrial capabilities equal to Britains. While the spread of the Industrial Revolution may have been inevitable, it was no doubt accelerated by governmental activism - which also caused a greater percentage of industry to be used for military purposes
- 2.In addition, desires for colonies grew for nationalistic, political, and economic reasons
 - a.By 1914, Africa had been partitioned by Europe
 - b.Imperialism and acquisition of "spheres of influence" brought about the final disintegration of the Chinese Empire
3. Naval developments took a heavier toll on the British. Newer armor, artillery, steam propulsion and screw propellers made larger numbers of British ships obsolete at any given time. Therefore, the British had to expend much more capital than other nations to maintain their fleet at its peak

C.Technological imperative (TP #3)

- 1.With the introduction of new weapons and better means of production, nations had to modernize economies and military establishments to remain competitive
- 2.Lesser nations could have greater influence with a small number of technologically advanced weapons
- 3.Nations such as Russia could not use sheer numbers to achieve a military victory
- 4.Italy and Russia had to industrialize also to be competitive in the economic arena
- 5.The end result was that by the 1870's, Europe found herself in the situation which Britain was in the 1830's and 40's. Europe's colonial and industrial expansion had to be accelerated to "catch up" with Britain and keep pace with other European rivals. To achieve their ends, Europe was immersed in an era of experimentation in weapons and theory. Orientation was geared towards adaptation of military theory to technology, thus creating the phenomena of this technological imperative. Some radical departures were

- a. The French Jeune Ecole, which taught that large squadrons of torpedo boats could defeat slow battleships
- b. The Italian battleship DUILIO and DANDALO mounting seventeen 7", 100-ton guns. These ships caused such a furor that even the British felt compelled to copy their own design and build the INVINCIBLE
- c. The first serious attempts to use submarines as tools of war

D. Mahan (TP #4)

1. Captain A. T. Mahan's, The Influence of Sea Power upon History, 1660-1783, caused a great new awareness of sea power as a political and economic force. In fact, Mahan's writings were prime motivators for Wilhelm II's desire to build his German high seas fleet
 - a. The German fleet was built as a "risk fleet"; that is, it was built as a direct challenge to British naval supremacy. The risks of a weakening effect caused by defeating a German fleet would cause the British to make concessions rather than accept battles
 - b. Realizing her reliance on sea power, Britain tried to maintain her supremacy at sea by introducing her "two-power" standard. The British fleet would be kept at a level where it would still be stronger than the next two naval powers. Potential rivals in 1883 were France, Russia, and Italy. The United States was seen as a potential ally
2. Mahan wrote that only some nations, because they fulfilled certain criteria, were inherently sea powers. Their political and economic well-being were dependent on trade. Therefore, a powerful fleet was necessary and must thrive. Other nations which had no need of fleets except for military and political purposes could not be sea powers. Wilhelm II tried to apply Mahan's laws to Germany as a sea power and by 1907 the high seas fleet was a dangerous rival to the British grand fleet
3. Even the construction of the first modern battleship - the DREADNOUGHT in 1907 - could not maintain British supremacy. Industrial capabilities of other nations were such that soon all major European powers had dreadnoughts in service

E. The Boer War (TP #5)

1. Technology and multi-imperialist sentiment enabled the South African Republics to hold out against the British for almost 3 years
2. Britain was forced to commit 500,000 troops to the area
3. The Boer's used guerrilla tactics, mobility, repeating weapons, and smokeless powder to drain British power
4. The war showed inadequacies of traditional tactics in dealing with colonial foes. Anti-imperialism was also shown to be a strong motivator. Guerrilla tactics were shown to be successful when employed by an outmanned nation. These lessons were forgotten by colonial powers in the 20th century
5. The British only succeeded through systematic devastation of Boer territory. This lesson too has been forgotten

F. The Modern Era

1. The British were forced to lessen their military burden, concentrating on naval superiority in narrow seas and the eastern Atlantic to counter Germany
2. Britain's strategic and economic superiority steadily eroded in the face of a burgeoning Europe
3. Britain's declining naval power relative to the rest of Europe - particularly Germany - forced her in 1907 to relinquish her role as the balancer and become an actor in the European alliance system. This development officially marked the end of PAX BRITANNICA

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 50

HOURS: 1

TITLE: The Prussian Influence

I. Learning Objectives

- A. The student will comprehend and relate the forces of nationalism in the three wars for the unification of Germany
- B. The student will comprehend and explain the Prussian victory in the Franco-Prussian War

II. References and Texts

A. Instructor references

- 1. Dupuy and Dupuy, Encyclopedia of Military History, pp. 820-842
- 2. Dupuy, The Evolution of Weapons and Warfare, pp. 198-202
- 3. Fuller, A Military History of Western World, Vol. 3, pp. 90-109
- 4. Jones, The Art of War in the Western World, pp. 392-409
- 5. Preston and Wise, Men in Arms, pp. 252-258
- 6. Ropp, War in the Modern World, pp. 152-158, 169-175, 195-206

B. Student text

- 1. Jones, The Art of War in the Western World, pp. 392-409
- 2. Preston and Wise, Men in Arms, pp. 252-258

C. Other references

- 1. Earle, ed., Makers of Modern Strategy, pp. 172-205, 281-325, 320-325
- 2. Hart, Strategy, pp. 154-159
- 3. Instructor Resource Manual

III. Instructional Aids

A. Chalkboard

B. Overhead projector

C. Locally reproduced transparencies (8 transparencies provided)

IV. Suggested Methods and Procedures

A. Lecture and discussion

B. Guided discussion

V. Presentation

A. The struggle for dominance in Germany (TP #1)

1. The Napoleonic destruction of Europe created a power void. The two great German powers, Austria and Prussia, became rivals for leadership in the struggle to unify all the German states into one powerful German Empire

2. The Prussian Zollverein (customs union) aids Germany unity

a. Until the tariff barriers which separated the many German states were removed, British goods would continue to inundate Germany

b. To put an end to that situation, a mutual abolishment of tariffs was adopted by most German states

c. By 1844, the Zollverein included all of Germany except the Austrian dominions (TP #2)

3. Prussia and Austria joined to defeat Denmark in the Schleswig-Holstein War (1864)

a. The complicated relationships of Schleswig and Holstein to each other, to Denmark, and to the German Confederation caused problems in the 19th century

(1) Since 1773, Schleswig and Holstein had belonged to the King of Denmark

(2) The Germans of these two duchies revolted in 1848. Prussia aided them initially, but withdrew under British and Russian pressure

(3) Danish sovereignty was again questioned in 1863 when Denmark again claimed direct rights and Prussia made counterclaims

b. Otto Von Bismarck - the Prussian Premier - in alliance with Austria, declared war on Denmark, quickly securing Schleswig-Holstein for joint control of Austria and Prussia

4. Disagreements over Schleswig-Holstein soon led to war between Austria and Prussia

a. This was not a war of aggression in the common meaning of the word, nor a war of conquest, but a war of diplomacy

(1) The aim of Prussia was not to humiliate Austria or even to weaken her, but to persuade her that nationalism in Germany was a living, growing force which demanded unity

(2) On no account did Bismarck want to make Austria a vindictive enemy, because he knew that one day Germany would have to contend with France for the hegemony of Europe and when that day came, he wanted a neutral Austria (TP #3)

b. Prussia won in 7 weeks, due primarily to

(1) The greatly superior Prussian General Staff

(2) The German needle gun

(3) The outmoded (mass) tactics of the

Austrians

5. The defeat of Austria resulted in Prussian preeminence in Germany

a. Even before the issue had been decided, Bismarck began preparations for the third of his trinity of wars - the victory over France - which he intended to be the seal of German unity

b. The states north of the River Main were formed into a North German Confederation under Prussia; those to the south were formed into a separate Southern Union

c. Then, Napoleon III of France did exactly as Bismarck predicted he would do - he claimed the left bank of the Rhine in compensation for Prussia's gain in power

d. Fear of France threw the Southern Union into an alliance with Prussia

e.All that was needed now was a common war against a common enemy in order to weld together all the parts of Germany (TP #4)

B.Franco-Prussian War (1870)

1.The outbreak of war between France and Prussia in July 1870 was due ostensibly to diplomatic irritation about the succession to the Spanish throne. But in fact, the two powers were more deeply antagonized than that

a.Napoleon feared Prussia as the leader of a united Germany (upset the balance of power)

b.Bismarck saw war with France as an opportunity to unite all of Germany

2.Napoleon, deluded by optimistic but untrue evaluations of the French Army, decided to precipitate a war which he believed to be inevitable. He declared war on 15 July 1870

3.Mobilization began in both countries

a.German mobilization and troop concentrations followed a definite, well-directed plan which utilized the railway net to the fullest extent

b.French mobilization was haphazard and incomplete (TP #5)

4.Forces and plans

a.Germany

(1)Three well-equipped armies - 475,000 - were concentrated on the frontier west of the Rhine between Trier (Treves) and

Landau

(2)Prussian intelligence had determined the complete French order of battle

(3)The objective was the destruction of the French armies in the field, to be followed by the capture of Paris

b.France

(1)Eight separate army corps - 224,000 - between Thionville and Strasburg and echeloned back to Metz-Nancy-Belfort

(2)French intelligence was nonexistent

(3) The only plan of campaign was the cry "On to Berlin". Napoleon issued orders for a general advance

c. Between July 1870 and April 1871, several battles were fought - some of them major engagements which resulted in the poor use of cavalry. In the end, Prussian superiority won (TP #6)

5. Prussian victory resulted from

a. The detailed mobilization plan and flexible battle plan of Moltke and the general staff

(1) The mobilization had been well-planned in advance and in the opening phase, each unit followed precise directives

(2) The three armies were mobilized and transported to the forward zone west of the Rhine within 18 days

(3) The detailed advance plan of Moltke ended at this point. He thought it wrong to attempt to lay down precise plans too far ahead. Why? Because the situation beyond the first clash with the enemy was bound to contain unknown factors

(4) Moltke's army commanders knew his broad plan and had operational directives, but they were given latitude in their detailed operations and were expected to display initiative

b. The lack of such planning on the part of the French. In the first three weeks of the war France's machinery of mobilization broke down so badly that only 220,000 troops reached the frontier, including a regiment which detrained by mistake in a town just occupied by Prussians

c. Superior Prussian artillery

(1) All smoothbores had been replaced by rifled steel breechloaders - superior both in range and accuracy of the bronze muzzle-loaders of France

(2) The Prussians handled their artillery much better, massing guns effectively to knock out French cannon

d. Inability of the French to properly employ their superior infantry weapons - particularly the mitrailleuse

(1) The first machine gun of European warfare

(2) Because the weight of the piece made a horse-drawn carriage necessary, France's generals regarded it as an artillery rather than an infantry weapon

(3) Had been such a guarded secret in France that very few soldiers knew how to operate it

(a) Often they opened up at ranges too long for effect

(b) Prussians would bring up field pieces to knock out every mitrailleuse before the infantry advanced

(4) Since the placement of the mitrailleuse within the artillery was at the expense of regular artillery pieces, it was a detriment to the French war effort (TP #7)

6. Obedience versus initiative

a. Prussian commanders realized that it was impossible for them to observe all parts of their commands, to detect all blunders of the enemy, and to reserve the right to issue the orders for the actions of all subordinate units. In the Prussian armies of 1866 and 1870, no order was to be blindly obeyed unless the superior was present and cognizant of the situation. If the superior commanders were not present, the subordinate leader was to use his own judgement and act as he believed his superior would have directed him

b. The French exercised little initiative. The faults of the French subordinates stemmed from the false conception of the rights and functions of command and to the ingrained habit of blind and inert obedience (TP #8)

7. Results

a. The Prussian Army gained global renown and the general staff became a model for emulation

b. Germany was unified under Prussian leadership

- c. Germany replaced France as the foremost military power
- d. Germany became a major industrial power with the acquisition of industrial areas of Alsace and Lorraine
- e. Britain was compelled to bring an end to her centuries-old quarrel with France in order to reestablish the balance of power
- f. Germany set out to become a leading industrial and imperial power, bringing her into direct conflict with Britain

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 51

HOURS: 1

TITLE: The German General Staff

I. Learning Objectives

A. The student will comprehend and explain the emergence of the German General Staff under Moltke

B. The student will comprehend Moltke as a grand strategist

II. References and Texts

A. Instructor references

1. Fuller, A Military History of Western World, Vol. 3, pp. 90-109

2. Dupuy, The Evolution of Weapons and Warfare, pp. 198-202

B. Student reference - Dupuy, The Evolution of Weapons and Warfare, pp. 198-202

C. Other reference - Hart, Strategy, pp. 154-159

III. Instructional Aids

A. Chalkboard

B. Overhead projector

C. Locally reproduced transparencies (2 transparencies provided)

IV. Suggested Methods and Procedures

A. Lecture and discussion

B. Guided discussion

V. Presentation

A. General Staff under Moltke (TP #1)

1. Background

a. Created in 1812, the Prussian General Staff had largely been shaped by Geisenau - its second chief

(1) Encouraged flexibility of thought

(2) Established continuing peacetime planning and study

(3) Developed the system of general directives which left subordinates considerable freedom of action

b. The general staff became a separate "planning and education" branch of the army

(1) The Minister of War exercised a strong influence on the tactical and strategical thought of the officers assigned to the staff by training them in war games and map exercises

(2) It became customary to assign these officers to various units, which went far toward extending the control of the Chief of Staff over all field generals

(3) Where rival armies contended themselves with hypothetical plans of defense against vague future enemies, Prussian generals studied the actual roads and towns of neighboring countries with a view of directing the advance of invading armies

c. The general staff had accepted Clausewitz's On War as its military gospel, adapted to fit the conditions of the time

2. In 1857, Helmuth von Moltke became Chief of the General Staff

a. He attained this position by virtue of his intellectual achievement, not by "practical soldiering"

b. He gradually achieved the transformation of the general staff into an agency furnishing cohesion through jurisdiction over all matters of command and secured recognition of its chief as the highest military advisor to the monarch

c. He established the Railway Section of the general staff

(1) Railroads offered new strategic opportunities

(a) Troops and supplies could be transported six times as fast as the armies of Napoleon had marched

(b) More precise calculation of movements was now possible

(2) A country which had a highly developed system of rail communications gained important and possibly decisive advantages in warfare

(3) Much of Prussia's rail network had been constructed with strategic considerations in mind

(4) Enhanced the value of interior lines

d. Moltke's intellectual and administrative skill, together with the organization that he inherited, developed the plans that resulted in Prussia's lightning mobilization for the wars with Austria and France (TP #2)

e. Moltke's standards permeated the army, which by 1870 was largely oriented as he planned

(1) Most of the brigade and divisional commanders had been trained under him on the general staff

(2) Each corps and army commander had a chief of staff at his side

f. Field Marshall Viscount Montgomery said the following about the general staff system

(1) From 1866, Napoleon III and Marshal Niel, Minister of War, worked to bring the French army more into line with Prussian standards. But the reformers had to fight against opposition even stronger than that in Prussia, for the regime in France was more liberal and public opinion could not be overridden in the same way. Gay uniforms and romantic passages of arms in far corners of the world had led to some revival of the sentiment of an earlier Napoleonic era, but French public opinion was still cautious. The middle classes were interested above all in prosperity and peace and the army was acceptable only if it cost no extra money and so long as those who wished could avoid military service. Since 1818, conscripts in France had been permitted to send substitutes; the result was that the army had developed as an element apart from the nation and the officer corps was socially despised. In 1866, the French authorities considered the problem and calculated that, while Prussia might be able to raise 1.2 million trained men, the military strength of France could produce only 288,000 -- from

which contingents must be drawn to meet commitments in Algeria, Italy, and Mexico. But when Niel proposed the adoption of universal military service on the Prussian model, he was accused in the Legislature of wanting to turn France into a barracks. His reply was that if the French were not careful their country would be turned into a cemetery

(2) In January 1868, a new law was passed. Under this, 172,000 men were to be called up annually to do 5 years with the colors and 4 in the reserve -- which by 1875 should provide a mobilized strength of 800,000 for the army. Another 500,000, drawn from those who escaped the call-up, were to be trained in the Garde Mobile. This was to be the French equivalent of the Landwehr, but Niel's proposal had been so watered-down by the deputies that the resemblance was slight. Service was for 5 years, but the annual training period lasted only 2 weeks; even this could easily be evaded and to avoid the taint of militarism it was laid down that men were to be trained only for one day at a time, and in conditions which would enable them to get home by evening. After Niel's death in 1869 his successor, General LeBoeuf, discarded the Garde Mobile altogether

(3) In 1870, the professional army of France consisted of nearly half a million men, and it was certainly well-equipped, there being ample quantities of clothing, food, and ammunition. A million chassepot rifles had been manufactured and although the artillery had not been reequipped, that which existed was by no means bad. On the other hand, despite the incessant warning from the French military attache in Berlin, hardly a start had been made in those areas of staff work in which the Prussian Army by now excelled; for example, the training of officers, the organization of supply and railway communications, and machinery for mobilization and deployment. The French soldiers were known to be courageous, but also to be undisciplined. The standard of teaching at the military colleges of Saint-Cyr, Metz, and Saumur was poor and only a few intelligent or wealthy officers attended them. Most French officers were elderly, brave men who had risen in the colonial

wars by virtue of their qualities of courage, dash, and coup d'oeil, rather than for technical expertise in their profession. In 1870, the French army was better prepared for war than it had been at any time since the Napoleonic wars, but it was not prepared for modern war. (From A History of Warfare, by Field Marshal Viscount Montgomery of Alamein, The World Publishing Company, Cleveland and New York, 1968, p. 429)

B.Von Moltke

1. Took great risks - but his superior staff allowed for such action
2. Believed France should be completely crushed and was not satisfied with peace
3. Believed in civilian control
4. Felt negotiations should be used after war not during it
5. His beliefs were adopted by German military men for generations
6. Although militarily outstanding, they became isolated from society
7. Believed another "Great War" would come with France and Russia

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 52

HOURS: 1

TITLE: The Drift Towards Total War in Europe

I. Learning Objectives

- A. The student will know and trace the reorganization of the French General Staff and military system, focusing on the ideas and contributions of du Picq and Foch
- B. The student will know and discuss the technological improvements of the late 19th century that were militarily significant

II. References and Texts

- A. Instructor reference - Dupuy and Dupuy, The Encyclopedia of Military History, pp. 915-926
- B. Other references
 - 1. de Picq, Col., Battle Studies
 - 2. Ellis, The Social History of the Machine Gun
 - 3. Fuller, The Conduct of War, pp 126-130
 - 4. Instructor Resource Manual

III. Instructional Aids

- A. Chalkboard
- B. Overhead projector
- C. Locally reproduced transparencies (14 transparencies provided)

IV. Suggested Methods and Procedures

- A. Lecture and discussion
- B. Guided discussion

V. Presentation

- A. Military theory (TP #1)
 - 1. Clausewitz
 - a. He is considered primarily responsible for the concept of "total war" which evolved from his work, On War. In this text he declared that

war "is nothing else than a continuation of political transactions intermingled with different means"; such means must entail the "full utilization of the moral and material resources of a nation to bring about by violence the complete destruction of the enemy's means and will to resist"

b. His text became the basis for many of the military theories and strategies in the late 19th century

2. Reformation of French military philosophy

a. Background

(1) It was not until after the Austro-Prussian War of 1866 that French military authorities began to suspect that all was not well with their organization and staff work

(2) If the Austro-Prussian War raised doubts in the minds of French officers concerning the perfection of their military organization, the war of 1870 was a rude awakening to them. There was now no doubt that France had lost its military primacy in Europe

b. Reforms were hastily instituted to overcome the problems of poor army organization, incomplete staff work, and incompetent leadership at the highest levels

(1) In 1874, the French General Staff was reorganized on the Prussian model

(2) In 1878, the Ecole Militaire Superieure was organized for the education of officers

c. Ardant du Picq (TP #2)

(1) Posthumously there appeared a small book, Etude sur le Combat, authored by Colonel Ardant du Picq - an obscure professional killed early in the Franco-Prussian War

(2) It is believed that the sources of his inspiration included the incompetence of the allied military leadership during the Crimean War (TP #3)

(3) Briefly, his theory was that success in battle is a question of morale and should the morale of the attacker be superior to the morale of the defender, the attacker

will win

(a) He said that success in modern war depends upon the valor of the individual soldier and of small fighting units, and this in turn depends on mutual moral pressure and mutual supervision of men "who know each other well" (TP #4)

(b) He emphasized quality as more important than quantity

1. He foresaw a departure from the mass army of Napoleon and thought it possible that a small force opposed by a larger, similarly equipped force could win by a combination of good sense and superior morale

2. He opposed French plans to reform the military capability of France by calling up and training vast numbers of reserves

a. He argued that "a democratic society is antagonistic to the military spirit"

b. The question implies that he believed that reservists are loath to fight, while professional soldiers lust for battle

(4) Analysis

(a) His idea that the moral element in war is superior to the physical - that is, that mind can overcome matter - fostered a feeling that "a battle lost is one which you admit defeat"; "a battle won is one you refuse to admit defeat"

1. He failed to appreciate the moralizing effect of order on the defenders and the demoralizing effect of disorder on the attackers

2. He entirely overlooked the moralizing effects of entrenchments

(b) The enormous losses of the French army in 1914 could have been avoided if the French General Staff had followed du Picq's advice where it was wise and ignored it where it was not wise

(The prejudice against reservists accounted for the fact that in 1914, Joffre threw against the Germans only half of the forces available and prematurely gave up important positions which he considered indefensible because they were held by reservists)

battle

(c) There is little doubt that the main ideas set forth by du Picq were sound and should not be overlooked (TP #5)

1. Man is the decisive instrument in

2. Importance of combat psychology

3. Importance of thorough training

4. Mind over matter

5. Quality vs quantity

6. Esprit de corps

(5) The human heart is indeed the foundation of war and, under the strain of battle and danger, the heart is ruled by fear

(6) In war, quality does precede quantity

(7) The tremendously powerful weapons of today are not effective by virtue of the mere weight of steel and shock they hurl against the enemy, for "the new arms are almost worthless in the hands of weak-hearted soldiers, no matter what their number may be"

(8) Nevertheless, the problems and potentialities of raising and training a sound reserve and national guard force can not be ignored

d. Ferdinand Foch

(1) The French school of the offensive took inspiration from du Picq and in the last decade of the 19th century found its leading exponent in Lieutenant Colonel Ferdinand Foch (TP #6)

(a) In 1885, when the first lectures on Clausewitz were given at the Ecole de Guerre (formerly the Ecole Militaire), Ferdinand Foch entered the school

(b) In 1894, Foch was appointed a professor at the Ecole de Guerre

1. By blending the traditions of the past with exciting new military discoveries, he became the recreator of French military thought

2. He was a most important and influential figure in molding the intellectual outlook of the French officer corps before WWI

(2) Before the First World War, he wrote two books which indicate that he was influenced by Clausewitz to a greater degree than by any other military theorist. But he was extreme in his interpretation of Clausewitz's ideas

(a) He extolled the theory of absolute war as practiced by Napoleon and preached by Clausewitz

(b) He scorned the concept of limited warfare (TP #7)

(c) Once he reduced to ridicule a method of warfare utterly repugnant to him, he set out to prove that - "Any improvement of firearms is ultimately bound to add strength to the offensive"... "Nothing is easier", he said "than to give a mathematical demonstration of that truth"

Suppose you launch 2 battalions against	1
You then launch 2,000 men against	
1,000	
With a rifle-fire of 1 shot a minute,	
1,000 defenders will fire	1,000
bullets	
With the same rifle, 2,000 assailants	
will fire	2,000
bullets	
Balance in favor of the attack	1,000
bullets	
With a rifle firing 10 shots a minute,	
1,000 defenders will fire within	
1 minute	10,000
bullets	
With the same rifle, 2,000 assailants	
will fire	20,000
bullets	
Balance	10,000
bullets	

Discuss weaknesses in mathematical proof

- Size of target - prone (defense) vs. standing (offense)*
- Registered support weapons
- Fire plans
- Organization
- Morale?

against
and not

*...because 1,000 defenders lying prone will offer but 1/8 of the target of 2,000 assailants advancing, the assailant's hits must be reduced by 7/8; therefore, the balance the assailants will be 1,250 bullets 10,000 in their favor

(d) He unreservedly adapted Clausewitz's point of view that battle is the only solution of war. He popularized the notion that "we can win if we think we can - if we don't admit defeat"

(morale factor)

(3) In his first book, he stated that principles of war of a permanent value did exist, but he added that these principles should be qualified by application to particular situations. (Consider all the 9 principles of war, use them appropri-ately)

(4) Analysis (TP #8)

(a) To his charge that "A battle won is a battle in which one will not confess oneself beaten" consider this: In a battle in which both sides are armed with magazine rifles, the comment is nonsense, if only because, however high the assailant's morale may be, it does not render them "bullet-proof"

(b) Foch was right to impress on his students the importance of offensive, but when borne in mind that he was instructing the future leaders and staff officers of the French army, he was most unfortunately wrong to exalt it into a fetish

e. The writings of Ivan S. Bloch (TP #9)

(1) A Warsaw banker and economist, Bloch was also an amateur military thinker and

philosopher

(2) Wrote a 7-volume work - The Future War in its Economic and Political Relations: Is War Now Impossible? - published in 1898

(a) Interrelating modern communication, the growing role of industry and the tremendous progression in firepower, he foresaw wars of horrible slaughter

(b) His aim was not to eliminate or restrict war, but to persuade the nations to realize that the ever-increasing power of firearms had already eliminated war as a profitable political instrument

(c) He was convinced that the impact of war would pass to the economic sphere, effecting a nation much beyond just its military and political organizations

1. The destruction of resources would disrupt the social order

2. War was possible only at the price of "national suicide"

3. Therefore, peaceful means of settling international disputes were imperative

B. Progression of military technology

1. The Industrial Revolution resulted in key developments for total war

a. The technology of the 19th century enabled the mass production of materials, as well as yielding easy and effective weaponry

(1) Cartridges eliminated the need to manipulate powder and shot

(2) Breechloading eliminated the ramrod

(3) Magazines and bolt-action gave a rapidity of fire

(4) Calibrated sights improved accuracy

(5) Breechloading and recoilless carriages eliminated the tedious business of swabbing out and relaying artillery pieces after each shot

b. Weapons improvement (TP #10)

(1) By 1871, the single-shot breechloading rifle had reached a high standard of efficiency - such that the next step was to convert it into a repeating, or magazine rifle. By 1900, all armies had magazine rifles

(a) Approximately equal efficiency

(b) Calibers varied from .256 - 3.5

(c) All bolt operated

(d) Fired smokeless powder

(e) Sighted to 2,000 yards or meters

(2) The machine gun was destined to revolutionize tactics

(a) All three versions developed in the 19th century (Gatling, Maxim, and Browning) offered users a staggering increase in firepower

(b) Gatling: "It bears the same relation to other firearms that McCormack's reaper does to the sickle or the sewing machine to the common needle"

(3) Modern artillery not only outranged the rifle and could be fired rapidly, but could be fired by indirect laying

(4) On the sea, the development of the submarine - or more appropriately, the U-boat - yielded a new weapon for blockade and counter-blockade warfare

2. The waging of war was made easier and deadlier
(TP #11)

a. Accuracy, firepower, range, lethality

b. The use of traditional frontal attacks was inhibited by such developments

c. The shock value of the horse cavalry was removed

C. Important nonmilitary developments (TP #12)

1. Technology

a. The railroad's aid to warfare has been previously discussed

b. Gasoline internal combustion engine

(1) In 1896, motor vehicles first took part in French army maneuvers

(2) In 1899, the first tactical motor vehicle - a four wheeled cycle equipped with a Maxim machine gun - was exhibited in

England

(3) The tank

c. The development of the airplane (17 December 1903 - Kitty Hawk, North Carolina). Together with the dirigible, this would add a third dimension to warfare

2. Agriculture (TP #13)

a. Improved techniques (the McCormack reaper and Appert's perfection of canning) increased the supply of grain and meat for industrial workers in peacetime; armies in war

b. Improved diet, e.g., use of citrus to prevent scurvy

c. The results of these developments were that by the mid-19th century, countries could provision larger armies than the Napoleonic wars and keep them healthier

D. Harbingers of total war (TP #14)

1. The "little wars" - At the close of the 19th century and the opening of the 20th, two small wars and one major one were fought. Besides their political importance, all three are of considerable tactical interest because they were the first in which new weapons were put to the test

a. Spanish-American War

(1) Rebellion in Cuba in 1895 was of major concern to the U.S.

(a) Protect American interests in Cuba (\$50 million investment; \$100 million trade annually; people)

(b) An excuse to expel Spain from the Western Hemisphere

(2) When the battleship MAINE blew up in Havana Harbor, war sentiment swept the

nation

(3) The Navy, which had been favored by a building program (Mahan's influence), was completely superior to the enemy and this partially offset Army unpreparedness

(4) Results

(a) Militarily it was a small affair - its two naval battles were executions rather than contests. But the military victory is attributable to modern naval power operating to blockade and to command the sea

(b) Politically it was important because it raised the U.S. from the position of a continental power to that of an intercontinental power

1. Acquired Guam, Puerto Rico, Philippines, and a protectorate over Cuba

2. Implemented Mahan's theories for power via the sea

b. Boer War - already discussed

c. Russo-Japanese War

(1) Toward the end of the 19th century, Japan joined in the game of colonialism

(a) In 1894, she went to war with China, defeated her, and gained Formosa and the Liao-tung Peninsula

(b) This brought Japan into conflict with Russia, because for years Russia had been seeking an ice-free port as an outlet to Siberia and had been interested in the Liao-tung Peninsula

(2) Results and lessons

(a) At sea, Japan - using a navy built and trained by Britain and Spain - demonstrated what the new naval power could do

(b) Tactical lessons

1. Impact of the developments in firepower - particularly the power of quick firing artillery and the deadly effectiveness of the machine gun (which Western observers failed

to grasp fully)

2. The failure of frontal attacks and the success of envelopments - particularly with the aforementioned developments in firepower
3. The enormous defensive power of field entrenchments and barbed wire entanglements

(3) Consequences of the war

- (a) Japan became the leading power in Asia
- (b) By liberating Germany from the fear of war on her eastern flank, it made her the dominant power in Europe - thereby upsetting the balance of power
- (c) By challenging the concept of white supremacy, it awakened Asia and Africa and dealt a mortal blow to every

European colonial empire

2. An international arms race: With each improvement in the offensive (e.g., rifled guns), the defensive was strengthened (better armor). In turn, efforts were then increased toward building better weapons and so on

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 53

HOURS: 1

TITLE: World War I - 1914

I. Learning Objectives

- A. The student will know, identify, and discuss the harbingers of total war
- B. The student will know and summarize events of July and August, 1914
- C. The student will know and outline the Schlieffen Plan and the French Plan XVII and describe how they were implemented
- D. The student will know and summarize the campaigns on the Eastern Front and evaluate the Russian failures
- E. The student will comprehend the allied problems of coalition warfare and the evolution of the unified command

II. References and Texts

A. Instructor references

1. Fuller, A Military History of the Western World, Vol. III, pp. 171-181

2. Jones, The Art of War in the Western World, pp. 434-488

B. Student text - Jones, The Art of War in the Western World, pp. 434-488

C. Other references

1. Hart, Strategy, pp. 167-219

2. Millis, Arms and Men, pp. 211-264

3. Zook and Higham, A Short History of Warfare, pp. 255-306

III. Instructional Aids

A. Chalkboard

B. Overhead projector

C. Locally reproduced transparencies (10 transparencies provided)

IV. Suggested Methods and Procedures

A.Method options

- 1.Lecture and discussion
- 2.Guided discussion

B.Procedural and student activity options - read and study assignment

V.Presentation

A.Outline

1.Germany-Schlieffen Plan (TP #1)

a.The purpose of the Schlieffen Plan was to avoid a long war on two fronts, which the Franco-Russian Entente seemed to threaten

(1)The vast area of Russia seemed to make a quick decision in the Eastern theater unlikely

(2)France should be knocked out quickly, before Russian mobilization could be completed

b.The plan was to invade France through Belgium

(1)Weight the right wing for an overwhelming blow - do not attack center

(2)The left wing (about 15% as strong as the right) would "retreat" before the weight of the French advance, leaving the French rear area (i.e., Paris) weakly defended

2.France - Plan XVII

a.In 1911, General Michel, then Vice President of the French Supreme War Council, set forth the following views: in the event of a war with Germany the probabilities were that the Germans would do two things

(1)Mobilize reserves and regular troops simultaneously, and

(2)Direct their main line of advance through Belgium

b.He urged that French reserves be similarly mobilized and that the plan of war hinge on frustrating the German advance

c.The French, however, would not accept the fact

that reserve units should be mixed with active ones (du Picq and Foch) and Michel was dismissed, being replaced by Jaffre

d. Plan XVII (the 17th itemization of the plan for war against Germany)

(1) The plan was based on two postulates

(a) That at first the Germans would not bring into line reserves; therefore, they would not be strong enough to simultaneously advance through Belgium as well as Lorraine

(b) As the French soldier was irresistible in the attack, the sole tactic necessary was to deploy the French armies between Mezeires and Epinal, move straight forward, smash the German center (or rather what was assumed to be the center), and then complete the victory

(2) Pledged not to violate Belgium's neutrality, the French molded their plan on what they supposed the German plan to be

e. Informed staff negotiations between France and England between 1905 and 1914 had paved the way for a reversal of England's centuries-old war policy. Now, England was to provide land forces to secure the French left wing

3. The belief in a short war

B. Marne (September 1914) (TP #2)

1. Background

a. On 4 August, the German armies began their advance in the north, quickly overcoming Belgian resistance

b. As the armies advanced toward Paris, gaps appeared

c. Moltke became concerned and ordered the armies on the right to close, thereby sweeping east of Paris

d. Air reconnaissance detected German dispositions

2. The French and British, who had been in full-scale retreat, now prepared a counterattack against the German flank (use of taxi-cabs to move French troops)

3. The Battle of the Marne lasted 5 days and was fought

on a 100-mile front; Germany was halted

4. Analysis (TP #3)

a. The Marne was a strategic, not tactical victory. Nonetheless, it was one of the vital battles of history

(1) Paris and France's railway hub had been saved

(2) Germany had lost her chance to defeat France before she engaged Russia

(3) Realization that a quick war was impossible; war of attrition now inevitable

(TP #4)

b. Germany's failure at the battle of the Marne can be attributed to the following

(1) At the tactical level, the German failure to break through can be attributed to the fact that for the first time since the outbreak of war, the French had been able to form a continuous defensive position. This allowed the French to make use of their trump card - batteries of 75mm field guns firing from masked positions that were all but invulnerable to counter-

battery fire

(2) At the operational level, the German failure to break through can be attributed to the French ability to reinforce threatened points faster than the Germans could exploit local successes. The key factor here was the French use of their excellent road and rail networks to rapidly move their reserves

(3) On 25 August, Moltke sent troops from the right to the Eastern Front

C. Eastern Front - The Battle of Tannenberg (August 1914) (TP #5)

1. In response to French pleas, the Russian Commander in Chief - the Grand Duke Nicholas - pushed forward two armies towards East Prussia. The theater of operations was divided by the Mansurian Lakes

a. One army under General Rennenkampf passed north of the lakes

b. Another army under General Samsonov passed south of the lakes

2. Rennenkampf - thanks to numerical superiority - routed a German corps on 20 August, but he failed to exploit his success and moved very slowly
 3. Samsonov, initially meeting little resistance, leaped to the conclusion that the German Army had been routed - pushed forward at top speed
 4. The Germans left only a screen to block the slow-moving Rennenkampf and moved great strength against Samsonov
 - a. Two corps moved via road
 - b. One corps moved via rail ("strategic mobility afforded by a superior German railroad")
 5. Samsonov was surrounded and defeated. He committed suicide
 6. This was considered by many historians to be the tactical feat of the entire war
 7. Allied confidence in Russia was shattered; additionally, defeats militarily served to exacerbate the already shaky political situation
- D. Jutland (May 1916) (TP #6)
1. The Germans attempted to draw the British Grand Fleet into a trap
 2. Admiral Jellicoe avoided the trap but, being overly cautious, failed to destroy the German High Seas Fleet
 3. The losses were about equal - so Germany claimed a victory (being the weaker navy). But relative losses were worse for Germany
 4. England maintained command of the seas
 5. The battle of Jutland was the last great naval battle in which air forces virtually did not count. It is considered by most naval historians to signal the end to the era of the battleship - the age of the carrier was not accepted until almost 30 years later (Battle of Midway in WWII)
 6. German emphasis now shifted to commerce raiding and extensive use of the German submarine fleet
- E. Somme (June 1916) (TP #7)
1. To relieve the pressure on Verdun ("bleed them white"), the Franco-British spring offensive was launched on a 25-mile front on 1 July 1916

2. Allies thought that masses of men and guns were the answer

a. Almost 3 million men

b. 1,500 guns - (1 for every 20 yards)

c. Artillery prep - 7 days, 1.7 million rounds

3. In 4 1/2 months, the allies gained 8 miles!

a. British lost 60,000 men the first day

(1) Attacks in waves couldn't stand up to the machine gun

(2) Soldier carried 66 pounds (compare to combat load today?)

b. Losses (TP #8)

(1) Allies 620,000

(2) German 500,000 - including many company level leaders (NCOs, junior officers, etc.)

4. Allied failures (TP #9)

a. Massed assault tactics

b. Rolling barrage was good concept, but often not timely. But what did it do to follow-on forces and mobility?

c. Mobility problem - battlefield so torn up by artillery barrages that even if a break could be made, it seldom could be exploited because additional logistic support couldn't move over badly pitted ground. What did Somme produce for the future? The use of tanks

F. Stalemate broken (TP #10)

1. The sinkings of the LUSITANIA (7 May 1915), the ARABIC (19 August 1915), and the SUSSEX (24 March 1916), all with the loss of American lives, caused the U.S. to declare war on 6 April 1917

2. Prior to the commitment of manpower, the American contributions to the Allies had been munitions and other wartime supplies

G. Coalition warfare

1. When General John J. Pershing arrived in France, the Allied commanders pleaded that the American soldiers be used to fill the depleted French and British ranks. Pershing refused
 - a. French morale was low; might be infectious
- b. Importance to the home front of "American units in action"
 - c. He did, however, lend divisions to the French and British in early 1918 before he was ready to form an American Army
2. The German offensive of 1918 was a bid for a saving military decision
 - a. Her economic endurance had been severely reduced and the tightening blockade was further reducing it
 - b. Germany also hoped for a decision before the American effort could get up to steam
 - c. When the Germans attacked, the agreement for mutual support made between the French and British commanders broke down
 - d. Disaster, or near disaster, hastened an overdue step
 - (1) On 26 March, Foch was appointed, on Haig's initiative, to coordinate operations on the Western Front
 - (2) After the second German offensive began (9 April), Foch was named Commander in Chief of the Allied armies in France

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 54

HOURS: 1

TITLE: World War I - Allied Victory

I. Learning Objectives

- A. The student will know, identify, and discuss the harbingers of total war
- B. The student will comprehend and compare/contrast the British, French, American, and German approaches to and objectives in World War I
- C. The student will know and describe the final allied offensive on land that defeated Germany, with emphasis on the American contribution

II. References and Texts

A. Instructor references

1. Fuller, A Military History of the Western World, Vol. III, pp. 182-330

2. Weigley, The American Way of War, pp. 192-222

B. Student text - Weigley, The American Way of War, pp. 192-222

C. Other references

1. Hart, Strategy, pp. 167-219

2. Millis, Arms and Men, pp. 211-264

3. Zook and Higham, A Short History of Warfare, pp. 255-306

III. Instructional Aids

A. Chalkboard

B. Overhead projector

C. Locally reproduced transparencies (9 transparencies provided)

IV. Suggested Methods and Procedures

A. Method options

1. Lecture and discussion

2. Guided discussion

B.Procedural and student activity options - read and study assignment

V.Presentation

A.Actual total war (WWI)

1.Participants - review from last lesson (TP #1)

a.Triple Alliance - Austria-Hungary, Germany, Turkey

b.Triple Entente - France, Britain, Russia, United States

2.Origins of the war

a.Contributors

(1)Arms race

(2)Nationalism

(a)Belief in racial superiority by

Germany and Britain

(b)Anglo-German colonial and commercial rivalries

(c)French desire for revenge after the humiliation of 1870 and for the return of Alsace-Lorraine

(d)Austria was determined to humble

Serbia

(3)Alliances

(a)Pan-Slavic movement

1. Unification movement among the Slavic nations in the Balkans, including Russia

2. Russia had "lost face" in 1908 when Austria annexed Bosnia and Herzegovina and couldn't back down again

(b)German "blank check" to Austria, promising support

(4)The spark that initiated the war was the assassination of Archduke Ferdinand, heir to the Austrian throne, on 28 July 1914, by a Serbian nationalist

- (a) Austria-Hungary declared war on Serbia, since it already had German support
- (b) Russia, the main promoter of Pan-Slavism, mobilized for war against Austria
- (c) Germany, in support of Austria, moved toward war with Russia. Fearing a two-front war, it requested that France remain neutral; France refused. Consequently, Germany attacked France through Belgium in accordance with the Schlieffen Plan, with the intent of removing France from the war first so that Germany could turn its full military power against Russia
- (d) France was drawn in by the attack from Germany
- (e) Britain entered the war due to its political and economic interests in France and Belgium
- (f) Turkey, having anti-Russian sentiments, made a secret alliance with Germany, fully expecting Britain to stay out of the war
- (g) The United States eventually entered the war due to the aggression of the Central Powers - particularly German attacks on the U.S. shipping - as well as its economic ties with France and Britain

3. Early trends

- a. The major participants were powerful industrial societies, each of which had to mobilize its full potential. This war became one of attrition in which victory could not be gained until one's enemy had been bled completely dry. As each country mobilized fully, the capacity to throw more and more men into the field placed a premium on weaponry that would annihilate the enemy as cheaply and as quickly as possible
- b. At this same time, there was a general tendency among politicians and military leaders to ignore the technological improvements in warfare, despite the evidence of the "small" wars. The old officer corps especially held contempt for the new, mechanical means of warfare, which they felt removed such human virtues as individual valor from the battlefield.

Further, it endangered the glorious and honorable frontal attack in which

such virtues would appear. Consequently, the improvements in weaponry posed a dire threat to their assumptions about the nature of war

4. Technology and tactics

a. Land warfare

- (1) Primarily involved entrenchments and other field fortifications, enhanced by the use of barbed wire
- (2) With these positions, as well as with support from machine guns and artillery, the frontal attack became ineffective. However, the military leaders were slow to learn this, and the land battles of the war became bloody stalemates as a result
- (3) Further developments toward absolute victory came through the introduction of the tank and poison gas. The tank was an outgrowth of the development of the internal combustion engine and the need to advance against machine gun fire. The use of poison gas lost its effectiveness as its element of surprise disappeared and troops became better equipped to handle such an attack

b. Air and sea

- (1) As previously mentioned, the airplane and the dirigible added a new dimension to warfare. These platforms were initially used for reconnaissance and gunnery observation. However, as the war progressed, their missions evolved into bombing and, in the case of the airplane, combat with other aircraft
- (2) On the sea the submarine proved an effective weapon for commerce raiding, thus aiding to "bleed" the enemy of commercial shipping

- ##### c. Psychological warfare - this tactic was used systematically in warfare for the first time.
- Propaganda campaigns arose on the home fronts and subversive leaflets were dropped over enemy lines to aid in this intangible aspect of the war. Analysis after the war indicates that propaganda was most effective in bolstering morale at home and influencing opinion among allies. It was not significantly effec-

tive against the enemy's combat units

5. Effects of the war (TP #2)

a. Global

- (1) Central Powers were eventually defeated, with Germany bearing the brunt of the damage and the blame
- (2) In Russia, which quit the war in 1917, the Bolshevik Revolution had occurred and a new government under Lenin was established
- (3) Most of the Allied powers were economically drained, in addition to having lost a large portion of a generation of young men. France and England were particularly damaged in these respects. The U.S. suffered some such damage, but unlike France was not physically devastated by the war. Consequently, it became the strongest power arising from this war

b. Military theory - points illustrated by the war

- (1) Total war required planned coordination and exploitation of each nation's entire resources
- (2) As a result, war took on two aspects
 - (a) Battlefield materials and manpower - The primary need of keeping large armies equipped with the means to devastate an enemy. In this, the development of improved weapons and defenses was necessary, as in the past
 - (b) Industrial capabilities - a new aspect - The need to have large armies so equipped translated to an industrial and logistical structure to make these weapons, as well as to feed and equip the troops
- (3) The allocation of manpower to munitions factories became equally as important as conscription to big battalions, "for of necessity, industry, which furnished the means, took its place alongside armed forces in determining military decisions" (Zook and Higham, p. 255)
- (4) Consequently, war became total in two respects. For one, it came to involve the entire structure of the competing nations.

The fighting of the front line soldiers was abetted by the industrial and political structures of their nations, as well as by the support of their people. In addition, war now tended toward the absolute destruction of the enemy's means and will to resist. Troops were no longer the only targets; commerce and industry now became important targets in the drive for victory. As such, war came to include entire nations rather than just their armies

B.Objectives and approaches to the First World War
(TP #3)

- 1.The belief prevailed on both sides that the participants were engaged in a righteous war with God on their side. More than this, the higher commands were imbued with the idea that the other side was composed of inferior people who would crack first
- 2.British
 - a.1839 treaty with Belgium pledged British support
 - b.Informal talks had pledged British support of France if attacked
 - c.Destroy Germany as a commercial rival
 - d.Desire to protect/further protect colonialism
 - e.Balance of power (TP #4)
- 3.France
 - a.Bent on revenge after humiliation of 1871
 - b.Regain Alsace-Lorraine
 - c.Eliminate Germany as a commercial rival
 - d.Reestablish her leadership on the continent
- 4.Germany (TP #5)
 - a.Prevent French aims
 - b.Colonial equality
 - c.Maintain supremacy on the continent
- 5.United States (TP #6)

a. In 1914, the average American felt no such interest as did the average British citizen in affairs outside his own country. He was, however, inclined to sympathize with the
British outlook

b. Allied propaganda was effective in the U.S.

c. Constitutionalism vs. autocracy

d. Anger over the German proposal to Mexico of an alliance and the annexation of Texas, New Mexico, and Arizona!

C. Submarine warfare (TP #7)

1. Before the end of 1914, Britain had swept virtually all the German surface ships off the trade routes

2. Simultaneously, the threat of German submarines and large-scale mining in home waters was growing

3. On 4 February 1915, the Germans gave notice of a submarine blockade

a. Germany had originally held back from all-out strategic use of the submarine because of concerns in diplomacy and international law and because of their preconceived doctrines based on Mahan. (Note: Mahan had given small recognition to the submarine - based on the times of his major works - and dismissed the "guerre de course" as inconsequential and wasteful for a nation's navy)

b. Eventually, submarine warfare was seen as a means of survival for Germany

(1) German admiralty didn't bank on destruction alone

(2) It estimated that the U-boats would scare from the seas and confine to port 2/3 of the neutral shipping. Early success was heartening - in the U.S., American ships were "interning themselves"; in British ports, neutral skippers were refusing to sail

4. Since the bulk of the British fleet was busy blockading the German fleet, it could spare little for merchant protection

5. Against the advice of the British Admiralty, Lloyd George (now Prime Minister) ordered the convoy system to be instituted at the end of April 1917

6. In addition to convoys, the Allies used mines and airplanes to counter the submarines threat
 - a. By the end of 1917, a mine barrage was laid across the Straits of Dover in a field 230 feet by 15-25 miles and at depths to 240 feet, sown from Scotland to Norway
 - b. Airplanes carried no lethal antisubmarine weapons, but were a deterrent
7. At the peak of submarine attacks, before Allied countermeasures and mounting submarine repairs significantly reduced the effectiveness of German sub attacks, Britain had only enough food for another six weeks

D. The machine gun (TP #8)

1. Though around since the mid to late 1800's, its importance was at first underrated by both sides
 2. Basically immobile, used principally for defensive purposes. Immobility was due to the fact that most of the effective machine guns of the time had to be water cooled to prevent barrel meltdown and therefore were not moved easily around the battlefield
 3. No longer would an overwhelming number of aggressors mean victory; advantage clearly given to the defender. Noticeable effect on the French doctrine of offensive operations (Offensive a l'outrance)
 4. Major reason why war turned to stalemate; best to be on defense - attacking armies easily repelled. Counter to machine gun technology was the tank

E. Airplanes/airships

1. At first, military airplanes were used only for reconnaissance
2. With improvements in radio (an important technological innovation for both air and naval warfare, in addition to land operations), the aerial spotter was of far greater importance
3. As troops on the ground didn't appreciate the enemy aerial spotters, the demand for protection brought forth fighter aircraft
 - a. The first aerial combat occurred on 5 October 1914, but by July 1915, only eight aircraft had been shot down (all but one by carbines)

- b. A successful synchronization mechanism enabled machine guns to be fired through propeller arcs and the whole plane to be aimed as a weapon
4. There were a few occasions of resupply by air drop when the ground became impassable for ground transport
 5. Both the British and the Germans experimented with airships. The Germans had taken the lead in strategic bombing
 - a. The raids on military installations and cities in England and France had more effect upon civilian morale and politics than the material damage warranted
 - b. Caused a major diversion of British resources in order to build up a home defense organization
 - c. The British and French quickly followed Germany's lead
 - d. Long before the air war prophesies of the interwar years, there had been created a concept of a strategic role for air power that was to bear bitter fruit in the future
 6. Air actions in WWI were much overrated. The chief importance was its political, psychological, and doctrinal influence on the post-war development of air forces and the other arms

F. Tanks (TP #9)

1. One of the steps toward solving the stalemate problem was to disarm the defender by rendering his rifles and machine guns ineffective
 - a. This could be done by protecting the attacker with a bulletproof shield of sufficient size to cover his body
 - (1) As it would be too heavy for him to carry, it would have to be mounted on a self-propelled vehicle
 - (2) The vehicle would also have to be armored
 - (3) Because the vehicle would have to move off the roads and over battlefields, it would have to be provided with caterpillar tracks instead of wheels. This was especially true in that the battlefields were

badly pitted by artillery and virtually impassable, oftentimes even by foot

- b. These three requirements led to the introduction of the tank - a small mobile fort first called a "landship"

2. Tanks were first used at the Battle of Somme,
15 September 1916

- a. England had only 60 tanks in France at this time; they were distributed without regard to organizations among 9 divisions over a 3-mile front
- b. Of the 60, only 49 could leave their parks and only 36 reached the line of departure for the battle
- c. The tanks attacked ahead of or with the infantry, with excellent local results
- d. Only nine returned; the others were disabled by mechanical breakdown or put out of action by German artillery
- e. The tanks had not been used as recommended by their early protagonist, Colonel Ernest Swinton

3. At Cambrai, on 20 November 1917, the British "tankers" were given a better chance to put their theories to the test

- a. Without any preliminary bombardment, over 300 tanks went forward in mass formation
- b. The first day, at a loss of 1,500 men, they captured 10,000 German prisoners and made a hole in the Hindenburg line 4 miles wide
- c. On the second day, about half the tanks were running; further attacks made a salient 12 miles wide at the base and 6 miles deep into German territory by the end of the second day
- d. This was the most spectacular penetration on the Western front since 1914, and it was achieved in what was then considered an

incredibly short time

4. At Amiens, on 8 August 1918, over 500 tanks were used in conjunction with 13 infantry divisions, 3 cavalry division, 2,000 guns, and 800 aircraft. Between dawn and 1300, elements of the allied forces had penetrated over 7 miles. Considered by many historians to be first "combined arms" utili-

zation of modern forces

(The movie "The Gallant Breed" Part 1 has some interesting footage of this period)

G. Summary/peace

1. Germany makes one last desperate land offensive
2. Allies able to repulse and drive them back; Germans forced to surrender with Treaty of Versailles. In many ways, punitive elements of treaty set the stage for WWII
3. Reasons allies won - not "worn down" as much as the Germans. WWI was great "firepower-attrition" war - the winner was the individual with the greatest ability to sustain and replace losses. Additionally, the blockade by the British Fleet had effectively isolated Germany from resupply, and the convoy system - combined with American productive capacity - engineered the defeat of the U-boat campaign
4. After the economic drain of WWI, combined with Treaty of Versailles, the stage was set for future conflict. Modern warfare had begun and the tank, airplane, and aircraft carrier were beginning to come of age

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 55

HOURS: 1

TITLE: Adolf Hitler

I. Learning Objectives. The student will know and trace Hitler's rise to power and explain his subjugation of the German General Staff and the officer corps

II. References and Texts

A. Instructor reference - Fuller, A Military History of the Western World, Vol. III, pp. 364-376

B. Other references

1. Conway, John, The Path to Dictatorship 1918-1933

2. Schramm. P.E., Hitler: The Man and the Military Leader

3. Weiner, Alfred, Nazi Propaganda

III. Instructional Aids

A. Chalkboard

B. Overhead projector

C. Instructor-produced transparencies

IV. Suggested Methods and Procedures

A. Lecture and discussion

B. Guided discussion

V. Presentation -- **"Political misjudgments and wrong turns are like tuberculosis - hard to detect and easy to cure in the beginning and easy to diagnose and very hard to cure at the end." - Machiavelli**

A. The early years

1. Adolf Hitler was born in the small town of Braunau, Austria-Hungary, to Alois and Klara Poetzl Hitler in 1889

2. As a boy, Hitler lacked any capacity for intellectual, emotional, artistic, or sexual development

3. At age 15, he began to develop the political and social prejudices that he carried into his reign as the Fuhrer of Nazi Germany

a.Hitler dropped out of school in 1905 and pursued his dream of becoming an artist in Vienna. He was a failure

b.The Vienna years (1907-1913) were an important part of Hitler's life because it was there that he was able to develop his ideology

4.Hitler: The soldier; radical statesman

a.24 May 1913 - Hitler flees Vienna to escape arrest as a deserter from the Austrian army

b.In WWI, Adolf Hitler volunteered for service in the German army, where he served as a regimental messenger in the trenches of the Western Front

c.Hitler was promoted to corporal, wounded twice, and awarded the Iron Cross, first and second class for bravery

d.After the war, Hitler joined an espionage section of the Armistice Army of Germany where he served until he became a member of the National Socialist German Workers Party in 1919. He blamed the war results on Jews and Marxists

e.Hitler was able to excel within the party due to his previous and compatible ideology of anti-Semitism, opposition to liberal democracy, and the "leadership and follower-ship" principle

f.Hitler's oratorical skill and propaganda techniques were unmatched

g."To lead means to be able to move masses". (Hitler, Mein Kampf)

5.Rise to power: 1923-34

a.Hitler ran a public conspiracy against the Weimar Republic with his well-publicized Nazi party. He utilized the aid of General Erich von Ludendorf to begin his "National Revolution"

b.The march was disrupted by police with gunfire; Hitler was tried for treason and sentenced to five years in prison

c.He wrote Mein Kampf ("My Fight") while in prison

d.In 1925, Hitler decided to reshape his party

along legal grounds and set about the elimination of leading party members

e. On 30 January 1933, Hitler gained the Chancellorship of Germany

f. Hitler consolidated his power over the course of one year and gave himself the title of Fuhrer of the Third Reich

6. Hitler and the preparation for war: 1935-1939

a. The economic recovery under Adolf Hitler was tremendous and centered around a primary object of war preparation

b. His skill and maneuvering in the foreign policy arena misled all other European powers as to his ultimate goal of expansion

7. The war and its aftermath: 1939-45

a. After a series of annexations, alliances, and agreements, Hitler began his blitzkrieg toward Poland in September of 1939

b. At the peak of the war, Hitler controlled territories from the Arctic to North Africa

c. Hitler began his "Final Solution to the Jewish Question"

d. The "Battle of Britain" signalled the turn of events in the war and Hitler was forced to abandon his plan to invade

e. Hitler invades Russia in June 1941. "General Winter" aids the Soviets and Germany suffers losses at Moscow and Stalingrad in 1942-43

f. The United States joins the war on the side of the Allies in December 1941

g. Hitler's Axis begins to crumble with Mussolini's death and the Allied invasion of 1944

20 July 1944 - h. Hitler's officers attempt to kill him on shaking the leader's mental stability

i. With the Russians knocking on the door of Berlin, Hitler marries his longtime companion, Eva Braun, and commits suicide on 30 April 1945

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 56

HOURS: 1

TITLE: The Interwar Years

I. Learning Objectives

- A. The student will comprehend why the interwar period represented only an armistice rather than genuine peace or international stability by describing attempts at peace and why they failed
- B. The student will know and explain the bases of American isolationism in 1920-30's, and the resultant impact on defense preparedness
- C. The student will know and explain the "doctrine of defense", with emphasis on the Maginot philosophy and the thoughts/contributions of Liddell Hart

II. References and Texts

A. Instructor references

1. Dupuy and Dupuy, Encyclopedia of Military History, pp. 1027-1050
2. Dupuy, Evolution of Weapons and Warfare, ch. 24, 25, pp. 230-244
3. Jones, The Art of War in the Western World, pp. 489-508
4. Preston and Wise, Men in Arms, pp. 278-294
5. Ropp, War in the Modern World, pp. 275-313
6. Weigley, The American Way of War, pp. 223-265

B. Student texts

1. Preston and Wise, Men in Arms, pp. 278-294
2. Weigley, The American Way of War, pp. 223-265

C. Other references

1. Earle, ed., Makers of Modern Strategy, pp. 598-623
2. Instructor Resource Manual

III. Instructional Aids

A. Chalkboard

B. Overhead projector

C. Locally reproduced transparencies (17 transparencies provided)

IV. Suggested Methods and Procedures

A. Method options

1. Lecture and discussion

2. Guided discussion

B. Procedural and student activity options - read and study assignment

V. Presentation

A. Composition of forces (TP #1)

1. Land forces

a. Interwar armies adjusted to peace according to their luck in the Great War

b. If the armies did badly in the war, they made reforms to avoid previous failures

c. Victors, however, closed their eyes to reality and returned to pre-1914, colonial-type forces

d. Vanquished countries bettered the victors in inventing and perfecting new weapons (perhaps tremendous Allied military inventories discouraged technological advances) (TP #2)

2. Sea forces

a. Principal navies: United States, Britain, Japan, France, and Italy

b. Attitude they adopted towards new weapons was conditioned by the traditional position and potential enemies

c. Future roles of battleships, aircraft, and submarines were obscured by future technological uncertainties

d. Confusion was reflected in naval conferences seeking parity (Washington - 1921, Geneva - 1927, and London - 1930 and 1935)

3. Air forces (TP #3)

a. During the interwar period, air forces sought to

achieve independent roles

- b. Airmen demonstrated potential military value of their machines at every opportunity
- c. Technological advances were slow until the early 1930's, then accelerated rapidly
- d. Deterrence was not practical until after 1935 (TP #4)

4. Theorists

- a. Strangely, victorious Britain - where revulsion was strongest against the incompetent way the war had been fought on the Western Front - was a fountainhead of theory

- (1) Admiral Sir Herbert Richmond

- (2) Major General J.F.C. Fuller

- (3) Captain B. H. Liddell Hart

- b. General Mitchell, U.S. - air power

- c. Colonel DeGaulle, France - armor in France

- d. Germans tried out new ideas in Russia and Spain (TP #5)

B. National Armed Forces

1. United States

a. Land

- (1) The Army recognized the importance of the machine gun but did not appreciate the truck, tank, or plane fully

- (2) The National Defense Act of 1920 reverted to mobilization plans of 1927

- (3) Envisioned an infantry army, but no selective service system was provided

- (4) Isolationism cut the army to a token force of 119,000 men (TP #6)

b. Sea

- (1) The Navy revived its 1916 program, although the war had not eliminated most of the potential enemies. The program rendered most ships under construction obsolete

- (2) The Navy concentrated on carriers and airships because of naval conference limitations and a foreseen vulnerability at first
- (3) Later returned to battleship building in search of a balanced fleet
- (4) Amphibious warfare was developed by the Marine Corps and lessons were studied from Gallipoli. Additionally, greater support was being given by the Navy (TP #7)

c. Air

- (1) The Army Air Service was championed by the wartime hero, General Billy Mitchell
- (2) Mitchell was ahead of the times, both politically and technologically, and subsequently was sacked for disobedience
- (3) Later, Mitchell's claims were evaluated by committees and an Army Air Corps was established
- (4) A strategic bombing doctrine was developed and the B-17 prototype was tested (TP #8)

2. Britain

a. Land

- (1) The British Army followed its colonial heritage and fought mechanization
 - (2) Despite Fuller and Hart and the publication in 1929 of the army field manual, growth of the armed forces was extremely slow
 - (3) As a result, British tanks were technically superior to German ones in 1940, but were so tactically and doctrinally bound to entrenched infantry that they were destroyed by German motorized forces
- (TP #9)

b. Sea

- (1) The size of the Royal Navy was slowly reduced by politicians and disarmament treaties
- (2) Little effort was given to submarines, carriers, or antisubmarine warfare

(3) New dimensions in naval warfare were disregarded

c. Air (TP #10)

tribal areas (1) The RAF was used to police primitive

(2) Home defense was handled better by the RAF than by the older two services

developed (3) A counter-strike deterrent force was

(4) The stress to produce and use fighters for home defense came just in time to save Britain in 1940 (TP #11)

3. France

a. Fear of a revived Germany dominated Paris

b. France retained the most powerful army and air force in Europe

Germany by allies c. A Cordon Sanitaire was attempted around France and her Little Entente

d. The Maginot Line was constructed

e. By 1940, political struggles between Left and Right crippled the military and left France in bad shape (TP #12)

4. Italy

a. The advent of Mussolini's fascist government in 1922 revived a waning prestige of the armed forces

b. The Army modernized and mechanized with a role of defense of colonial operations and the Alpine passes

c. The Air Force was given full independence

d. Forces exercised in Ethiopia (1935-36) and in Spain as volunteers (1936-39)

e. As WWII began, Italian armed services were in decline. Italy did not have the modern material, economic base, or morale for the war in which it was to fight

5. Japan

a.Land

- (1)The Army was dominated by the samurai tradition and continued to develop along German lines
- (2)Concentrated on mechanization as well as mobility and jungle operations
- (3)From 1931, they fought in China and grew into a tough, efficient force
- (4)The Army Air Force made rapid progress during the 1930's, but since they rarely faced first-class opponents, technical developments were neglected (TP #13)

b.Sea and air

- (1)The Navy was not neglected and made great strides in carrier operations (under British instruction!)
- (2)Cruisers and destroyers were excellent and torpedoes were highly potent
- (3)No strategic bombing force was developed (no need for it)
- (4)Japanese suspicions of the U.S. and the lack of a stand by the Allies in Manchuria led to and encouraged plans for a Greater East Asia Co-Prosperity Sphere. This was an expansion plan implemented with military backing (TP #14)

6.Russia

- a.Badly demoralized by the 1917 failure of Czarist leadership, the Russian forces proved their new mettle in the Polish Wars as they eagerly reestablished themselves
- b.Soviets, as with other totalitarian movements elsewhere, made mechanization the symbol of the revolution
- c.German help, British thought, and American ingenuity turned the Russian Army into a highly mobile army with infantry-carrying tanks
- d.A Supply Corps was established
- e.A compromise was worked out between the desire of ex-Czarist officers and the Communist Party. However, Stalin's purge would ensure poor military leadership

- f. Military and political general staffs were created
- g. The Air Force was reborn with help from Germany
- h. Hitler struck before work was complete (TP #15)

7. Germany

a. Land

- (1) Deprived of power by treaty, irritated by defeat, but saved by the myth of "backstabbing," the German General Staff worked behind the scenes to repair the damage of the WWI
- (2) The Army experimented and remolded doctrine
- (3) The Regular Army became a cadre of officers ready to expand rapidly when required
- (4) Works of Fuller and Hart were translated and elaborated upon
- (5) Hitler gave the army even more support
- (6) Mechanization proceeded and equipment was tested in the Spanish Civil War
- (7) The general staff openly resumed pre-Versailles power

b. Sea and air (TP #16)

- (1) Raeder developed new U-Boats in Spain, Holland, and Finland
- (2) "Pocket" battleships developed
- (3) BISMARCK and TIRPITZ constructed
- (4) The Luftwaffe mushroomed under Goering
- (5) A tactical air force only was good for Blitzkrieg, but without strategic bombing was not good for the needs of a long war or home defense

8. Summary

- a. The major nations treated armed forces in the interwar years as diplomatic position and national characteristics dictated
- b. Disarmament movement acted as a brake until collapse in Geneva in 1934

c. Then there was a universal shift or rearmament, especially in the air

C. Theorists (TP #17)

1. Surface forces pundits

a. Richmond called for a return to Britain's traditional use of sea power as an adjunct to a continental campaign

b. Fuller dwelt on two themes - importance of weapons and value of good leadership. He was also a blunt spokesman for the armed forces

c. Hart called for new tactics. He worked out the combat team, armored infantry, and held to the Jomini school more than that of Clausewitz. Dynamic defense was advocated by Hart, along with the direct approach to warfare (a forerunner to maneuver warfare)

2. Air power authors

a. Douhet - strategic bombing

b. Mitchell - built on French and English theories

c. RAF - counter-strike deterrence

d. Most all theorists of air power were naive as to actual power of their weapons

D. Peacetime Wars

1. Colonial campaigns

a. British

(1) Third Afghan War

(2) Irish rebellion

b. Spanish

(1) Moroccan revolts

(2) Riff war

2. Japanese invasion of China

a. Manchuria

b. Eastern provinces

c. North China

- d. After the Munich crisis and the fall of France, Japan had free reign in most of East Asia

3. Abyssinian war

- a. The invasion of Ethiopia by Italy resulted in economic sanctions against her, but they had no effect
- b. Italy was finally successful after use of air power, gas, and tanks
- c. Britain and Italy almost came to war, but the Royal Navy was restrained by a timid London and lack of air power

4. Spanish Civil War

- a. There was much internal struggle between the Right and Left in Spain during the interwar years
- b. The army in Morocco led by Franco revolted
- c. Germany and Italy supported Franco against the government
- d. USSR came to the aid of the Loyalists
- e. The civil war was a testing ground for much of the WWII doctrine and weapons on both sides
- f. Franco was finally successful in his war of attrition by 1939

5. Conclusion

- a. The interwar years were characterized by normal military peacetime problems - economy, cutbacks, stagnation, exhaustion, and complacency among the victorious democratic powers
- b. Defeated authoritarian powers solved the psychological and economic aspects of unemployment by expanding and modernizing the armed forces as a symbol of progressive industrialization

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 57

HOURS: 1

TITLE: The Second World War: An Overview

I. Learning Objectives

- A. The student will know and identify the causes of the Second World War
- B. The student will understand the four "wars" of the Second World War as presented in class

II. References and Texts

A. Instructor references

1. Dupuy and Dupuy, The Encyclopedia of Military History, ch. XX, pp. 1014-1026, 1050-1123
2. Dupuy, The Evolution of Weapons and Warfare, ch. XXIV, pp. 230-240; ch. XXV, pp. 245-253
3. Fuller, A Military History of the Western World, Vol. 3, Chronicles 10-15, ch. 10-15
4. Hagan, In Peace and War, ch. 13 and 14, pp. 237-289 (In "Seapower" instructor reference inventory.)
5. Jones, The Art of War in the Western World, pp. 508-595
6. Paret, Makers of Modern Strategy, Part 4, ch. 19, 20, 22, 23, 24
7. Ropp, War in the Modern World, ch. 9, pp. 294-313; ch. 10, pp. 314-382
8. Preston and Wise, Men in Arms, ch. 18, pp. 295-330
9. Weigley, The American Way of War, Part 4, ch. 13, 14, pp. 269-311

B. Student texts

1. Dupuy, The Evolution of Weapons and Warfare, ch. XXIV, pp. 230-240; ch. XXV, pp. 245-253
2. Jones, The Art of War in the Western World, pp. 508-595
3. Preston and Wise, Men in Arms, ch. 18, pp. 295-330
4. Weigley, The American Way of War, Part 4, ch. 13,

III. Instructional Aids

A. Chalkboard

B. Overhead projector

C. Locally reproduced transparencies (11 transparencies provided)

D. Map

IV. Suggested Methods and Procedures - Discussion/Discussion Group

V. Presentation

A. Introduction

1. Use world map to explain idea that WWII was actually composed of four "wars"

a. Hitler's War - The Anglo-German conflict, 1939-1945

b. The Crusade - The Russo-German War, 1941-1945

c. Sino-Japanese - The China War, 1931-1941

d. The Pacific War - Japanese-American War, 1941-1945 (TP #1)

2. Note that WWII marked a profound change in the character of war, both in the military and political sense

a. Military sense - the introduction or exploitation of novel weapons (including the tank, airplane, and submarine forces) were for the most part still heavily reliant on horse-drawn transport for any but the front line attack units

b. Political sense - there were new ideological struggles

(1) Democratic - peace an end in itself; the cessation of war

(2) Marx - peace yet another form of war

(3) National Socialists (fascism) - peace a time to incubate war or prepare for it

(Divide the class into two groups and have each group discuss one of the two wars that Germany fought. Have them list the major event and results of each)

B.Hitler's War: The Anglo-German conflict, 1939-1945

1.Poland (TP #2)

- a.WWII actually broke out on 12 September 1939, when Hitler invaded Poland
- b.England and France declared war on 3 September, but did nothing as they were totally unprepared for war against so formidable a foe as Germany
- c.The "blitzkrieg" was born

(1)Theory of strategic paralysis

(2)Brainchild of Fuller and Hart, but first practical exponent was Guderian

(3)This concept was well understood by Hitler as he believed not in a direct political attack on a nation but to destroy and conquer the nation from within itself. Exemplified by "fifth columns," i.e., propaganda, etc.

(4)Components (TP #3)

(a)Concept of paralyzing the enemy's command, but not necessarily by destroying his headquarters

(b)Guderian's contribution to the theory lay in his realization that the enemy's command could be fully paralyzed by a sudden and swift blow which shattered his front

(c)Offensive mass (combat power) was the key in conjunction with surprise and maneuver (that which puts the enemy at a disadvantage and forces him to take an action which is not the most favorable to him)

(d)Find weak spots or gaps in combat resources (reconnaissance)

(e)Exploit by speedy armored columns in concert with air support

(f)Unlimited objectives (mission-type orders)

(g)Infantry formations encircled units isolated by breakthroughs

(h) Flexibility - each objective taken, then threaten others which constantly keeps the enemy off guard (Napoleon)

(i) The command structure (brain) was thus demoralized and destroyed (not physically), which nullified the fighting power of the army

(j) True purpose of the strategy was to minimize the possibility of resistance (TP #4)

d. Poland: Conquered in 3 weeks, although the Russian invasion from the east was a major contributing factor

e. Showed the power of the offensive - especially if there was also a balanced combination of motorized infantry, armor, and air under a single commander

2. Denmark and Norway

a. Denmark fell on 9 April 1940 to forces which merely walked up to the palace gates and took power

b. Norway

(1) A masterpiece of unorthodox warfare (Zook)

(2) Hitler needed Norway to ensure access to Swedish iron ore and to outflank the

British naval blockade

(3) Swiftly carried out on 9 April

(4) Showed the importance of tactical air power especially when used in coordination with and as part of naval warfare. Also, it showed the strength of coordinated joint operations coupled with surprise and security (TP #5)

3. Hitler takes France

a. German plan employed three groups (A, B, C)

b. Group B took Holland and Belgium in May of 1940

c. While Allied forces went to aid of Belgium, Group A attacked France through the Ardennes Forest, thus splitting the Allied Forces

d. Group C held the French defense forces at bay in eastern Lorraine and along the Rhine River

- e. Allied plan was purely defensive and was characterized by a lack of cooperation between the British and the French
- f. Hitler halted his units at Dunkirk to allow Luftwaffe to finish off the Allies, but the RAF held the Germans at bay
- g. Finally, in June the Germans conquered France and once again the "blitzkrieg" had proven effective (TP #6)

4. Battle of Britain

- a. The Germans needed to control the air in order to invade Britain because of their lack of sea power. They were barely able to round up enough landing craft to make an invasion possible at all
- b. Germany had 3,000 airplanes to the RAF's 1,200, but were unable to defeat the British because of a critical strategy shift in response to the RAF's bombing of Berlin
- c. Hitler canceled the planned invasion (Operation Sea Lion) on 17 September 1940 (TP #7)
- d. There were four main factors which determined Britain's air victory in this battle
 - (1) Britain's incredible desire for victory
 - (2) Britain's employment of radar
 - (3) Britain's efficient ground-control system
 - (4) The German strategic blunder of dispersing their effort
- e. Poor air doctrine cost Germany the war in the West. Hitler ordered the attack on Russia, which left an enemy to his rear and gave the U.S. a place to establish itself

5. When the U.S. entered the war in 1941, they formed an extremely close alliance with Britain, which was characterized by unprecedented cooperation, the likes of which had never before been seen between two nations (TP #8)

6. U.S. and Britain had a strategic disagreement, however

- a. Churchill wanted to strike at the "soft underbelly" and attack through the Mediterranean

b.The U.S. wanted an immediate and direct invasion of western Europe

c.The conflict was finally resolved at the Casablanca Conference in 1943 when the U.S. agreed not to cross the Channel until 1944 and Britain agreed to Roosevelt's demand that the Allies settle for nothing less than "unconditional surrender"

7.Allied forces began to see success late in 1942 with the invasion of North Africa

8.From Africa the Allies invaded Sicily and then continued their march into Italy, defeating Mussolini

9.Throughout the war the German naval strategy of commerce raiding with their U-boats was very successful, but in 1943 allied antisubmarine warfare had progressed and the German threat was minimized

10.1944 saw the beginning of the end for the Germans with the extensive Allied bombing (British at night and America in daylight)

11.The Allies compiled a huge landing force and on 6 June 1944 they landed at Normandy

** Transparencies 5709 - 5711 provided for use with this lesson if desired.

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 58

HOURS: 1

TITLE: World War II: Blitzkrieg

I. Learning Objectives

- A. The student will know and summarize the key events of German political-military expansion in the Rhineland, Austria, and Czechoslovakia
- B. The student will comprehend the importance of the Nazi-Soviet nonaggression pact
- C. The student will know and explain the failure of the Western Allies to respond militarily to the invasion of Poland and the subsequent "Phoney War"
- D. The student will know and explain the rapid victory by Germany in Western Europe
- E. The student will know and discuss German naval strategy, with emphasis on the Battle of the Atlantic

II. References and Texts

A. Instructor references

- 1. Dupuy, The Evolution of Weapons and Warfare, ch. XXVI, pp. 245-252
- 2. Fuller, A Military History of the Western World, Vol. III, pp. 382-412
- 3. Jones, The Art of War in the Western World, pp. 508-595
- 4. Preston and Wise, Men in Arms, pp. 295-330

B. Student texts

- 1. Jones, The Art of War in the Western World, pp. 508-595
- 2. Preston and Wise, Men in Arms, pp. 295-330

III. Instructional Aids

- A. Chalkboard
- B. Overhead projector
- C. Locally reproduced transparencies (11 transparencies provided)

IV.Suggested Methods and Procedures - Discussion/Discussion Group

V.Presentation

A.German victory in the West (TP #1)

1.Germany invades Poland (1 September 1939)

a.Britain and France declare war on Germany

- (1)Mutual aid treaties with Poland
- (2)Change in submissive attitudes in both countries

b.Blitzkrieg was born in Poland

- (1)"Lighting Warfare"
- (2)Attack enemy at weakest point
- (3)Combination of lateral and forward movements
- (4)Use of large mechanized ground forces - both armor and troop transport
- (5)Coordinated use of airpower. Dive bombers effective psychological weapon against civilian population
- (6)Germans use double envelopment against Polish troops
- (7)Poland

(a)Poor leadership

(b)Lack of modern-type tactics and equipment

(c)Geography well-suited for Blitzkrieg

2.Sitzkrieg - Limited action on allied part (defense posture)

a."Phony War" - term applied by the remaining European nations to the German actions in taking Poland. They failed to seize the initiative against Hitler, thus protracting the war

b.French take up the Maginot Line opposite the German Siegfried Line - a defensive strategy

c.British Expeditionary Force dug in along Belgian Frontier

- d. Allied air power limited to leaflet dropping
- e. British Navy rounds up German merchant raiders
- f. Allies fear retaliation from the Germans

3. Germans invade Denmark and Norway (9 April 1940)

- a. German troops hidden on a merchant ship in Copenhagen harbor seized the city and Denmark fell almost without bloodshed
- b. Britain proposes to mine neutral Norwegian ports to stop ore supplies to Germany
- c. Proposal aroused German anxiety and she attacked Denmark and Norway in order to break the British blockade and project her presence into the Baltic Sea
- d. German invasion of Norway
 - (1) Merchant ships carried hidden German soldiers into ports
 - (2) Air attacks and airborne landing seized or destroyed all vital points
 - (3) The Allies (France and Britain) fought tenaciously alongside the Norwegians and initially held Norway, but due to conflict in the West, the Allies withdrew and Norway quickly fell to Germany

4. Germans take Belgium and Holland

- a. The Germans, as in WWI, attacked the weak allied left wing (Schlieffen Plan). The Maginot Line did not extend to the sea
- b. They used air and airborne attacks against Dutch airfields and bridges
- c. The Allies were beaten easily by a combination of skill and surprise
- d. The Germans badly damaged French morale, which opened an avenue for the invasion of France
- e. During this early phase of WWII, the Allies were disjointed and lacked centralized control. Holland and Belgium had tried to remain neutral. When Germany attacked they were totally unprepared and the French high command was indecisive (TP #2)

5. Invasion of France

a. Comparison of strengths

- (1) German's 135 divisions, Allies' 136 divisions; German divisions larger and better trained
- (2) The Germans were superior in armor tactics and motorized division organization
- (3) The Germans were far superior in air power - key to their invasion

b. Germany's plan

- (1) Attack France through the Ardennes
- (2) Open up a crossing of the Meuse south of Liege
- (3) Three columns were to advance
 - (a) Eastern column - swing to rear of the Maginot Line; the line did not extend to the sea
 - (b) Central column - drive south toward Aisne
 - (c) Western column - swing toward channel to strike at bulk of allied forces

c. Invasion

- (1) May 10th, Germans began to bomb headquarters, supply dumps, and air fields
- (2) By May 13th, the Meuse had been crossed at three points
 - (a) The Germans used combat troops, tanks, dive bombers, and motorized artillery
 - (b) Allied commanders were confused because they still clung to the World War I style of warfare
- (3) By May 21st, German armored columns had reached the channel, cutting off the main allied armies in Belgium
- (4) Dunkirk (26 May - 3 June)
 - (a) 300,000 British and French troops were surrounded in the port city

(b)The Germans decided to conserve armor

(c)The Luftwaffe could not destroy the Allies

(d)The Allies were allowed to escape across the channel in assorted boats

(5)The Germans then pushed French forces beyond Paris and Paris was evacuated by French forces on 11 June 1940 (to Bordeaux)

(6)France capitulated and signed an armistice on 25 June 1940; she surrendered three-fifths of her territory to German control

d.Reasons for quick German victory

(1)The Germans utilized modern weapons and tactics. The speed and surprise of mobile armor and troop transport proved effective

(2)The Allies wanted to rely on defensive positions and 1918 tactics; they had no real mobile armor divisions (TP #3)

6.French and Polish industrial areas were located close to the German border

a.Allied industry was easily taken by minor incursion into the countries

b.Then used by the Germans to complement their war production capabilities for a sustained war in Europe

7.The conquest of France left Germany undisputedly in control of continental Western Europe. Hitler was then faced with attacking east (Russia) or northwest (Britain) (TP #4)

B.Battle of Britain

1.Hitler wished to knock England out quickly

2.Germany was not prepared for seaborne operations

a.Germany lacked amphibious equipment

b.She had no amphibious doctrine

c.Additionally, air and local sea power belonged to Britain

3.Operation Sea Lion: Germany planned to defeat

Britain through air power and later invade

a. Germany waged an air war of attrition against the RAF

fighters
b. The Germans lacked heavy bombers and were hampered by the limited range of their

c. Goering overestimated the strength and effectiveness of his forces and underestimated English resolve

d. The British had a great advantage concerning fighter direction because of radar and radio area coverage. This allowed British controllers to vector superior formations against German bombers (TP #5)

e. Four phases of the air war

(1) The Germans tried to clear channel by attacking convoys

(2) Germany shifted concentration and attacked main inland RAF bases. It was very effective and inflicted heavy damage to air fields and communication and control centers. Britain came close to falling under the massive attack and retaliated by bombing Germany

(3) The bombing of London to break British morale - British civilian casualties were high but the British spirit never faltered. Britain countered by destroying 200 barges in French and Low Country ports which had been gathered for the attack on England, causing Hitler to suspend Operation Sea Lion

(4) Goering changed to high level bombing. The Battle of Britain had been won by the British

f. An incorrect air doctrine cost Germany the Battle of Britain

g. Hitler abandons the attacks on Britain in order to prepare for the invasion of Russia

h. Four factors decided the British air victory in the Battle of Britain and forced Hitler to cancel operation "Sea Lion" (TP #6)

- (1) Britains will to win
- (2) British radar
- (3) Britains well-organized ground control system
- (4) Germany's strategic blunders and her dispersion of air attack efforts

C. Operation Barbarossa: The German Invasion of Russia (TP #7)

- 1. Hitler believed the Russian Army could be destroyed in 3 months
- 2. Germany invaded Russia on 22 June 1941; Hitler's aim was to knock out Russia and establish his own ability to make war before U.S. involvement
- 3. Initial German aims were to capture Russian oil fields and industrial areas in order to
 - a. Support Germany's war in the west
 - b. Break Russian economic power so she could not attack at some later date
- 4. Three German Army groups used double envelopments to destroy the Russian Army (northern, central, southern)
 - a. Northern attack columns attacked north and pinned Russian Army against the Baltic Sea to seize Leningrad
 - b. Central attack columns attacked along the traditional invasion route and seize Moscow
 - c. Southern attack columns attacked south to seize Kiev
- 5. Russian strategy (TP #8)
 - a. Barter space for time; intended retreats
 - b. Scorched earth policy; withdrew and forced the Germans to overextend their lines of communications and supply. Forced Hitler's exposed army to spend the winter in -40 degree
 - c. Partisan organizations were to prey on Germany's lines of communications
- 6. The German "Blitzkrieg" was initially very suc-

weather

cessful

7. Armored pincers of the Central Army closed on Minsk; a great tactical victory was achieved
8. Tactical surprises gave the Germans victories at Smolensk and Kiev
9. German offensive halted
 - a. Supply lines were so long they slowed the advance
 - b. Vast area which had been taken was hard to control because of Partisan activity
 - c. The massive size of Russia exhausted German troops
 - d. The Russian winter set in and the Germans did not have adequate equipment to fight a winter battle
10. Hitler's decision to delay the attack on Russia from 15 May to 22 June 1941 in lieu of the Balkan Campaign and his taking control of the armies from his generals were major mistakes which contributed to German failure in Russia (TP #9)

D. German naval strategy

1. Hitler lacked an appreciation for sea power and was concerned mainly with land and air actions
2. Hitler promised his admirals that the war would not begin until 1944 (Z-plan for ship building)
 - a. The German surface fleet was totally lacking at the outset of the war
 - b. Although doctrine and tactics had been studied effectively, the German submarine force was small and largely composed of shorter-range types
3. Germany concentrated mainly on commerce raiding to stop the flow of goods from the U.S. to Britain and Russia
 - a. They used submarines against convoys of merchantmen
 - b. They used some surface ships against shipping as well
4. Britain did not pay attention to ASW efforts

between wars and therefore

- a. Was seriously short of escorts for convoys at the outset of war
- b. Did not have an effective convoy system to defend against the U-boat
- c. Did not solve the problem until great merchant losses demanded solution (TP #10)

5. Five phases of the battle of the Atlantic

- a. Phase one (Sept 1939 - June 1940) - U-boat operations
 - (1) Sinking of the COURAGEOUS and ROYAL OAK
 - (2) Sinking of unescorted merchantmen
- b. Phase two (June 1940 - March 1941) - U-boats' "Golden Age"
 - (1) Germany built special bombproof submarine pens
 - (2) "Wolfpack" operations began against convoys
- c. Phase three (April - December 1941) - Growth of U.S. participation
 - (1) 50 destroyers were given to Britain for a 99-year lease right to British bases
 - (2) The lend-lease program of U.S. allowed Russia to hold out against Germany
 - (3) The Germans initiated unrestricted submarine warfare
- d. Phase four (January 1942 - April 1943)
 - (1) The Germans attacked shipping routes near the American coast
 - (2) An air and surface-escorted interlocking allied convoy system was developed and used
 - (3) The turning point came in April 1943: the Germans lost several submarines with only a few merchantmen sunk
- e. Phase five (May 1943 - May 1945)

- (1) Germany shifted attacks to Mediterranean-bound convoys
- (2) American escort carrier hunter-killer groups
- (3) The Germans shift to operations off the Spanish coast (TP #11)

6. Defeat of U-boats

- Atlantic
- a. Close air cover all the way across the
 - b. Plenty of escorts for convoys and hunter-killer groups
 - c. Advances in technology

7. The primary factors which shifted the balance of power to the Allies were

- a. U.S. entry into the war
- b. Advances in technology among the Allied powers
- c. Depletion of German assets

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 59

HOURS: 1

TITLE: World War II: North Africa to Normandy

I. Learning Objectives

- A. The student will comprehend and compare American and British motives in the decision making for the North African and Italian campaigns
- B. The student will know the Anglo-American strategic bombing offensive

II. References and Texts

A. Instructor references

- 1. Dupuy, The Evolution of Weapons and Warfare, ch. XXVI, pp. 253-266
- 2. Fuller, A Military History of the Western World, Vol. III, Chronicles 13-15; ch. 13-15; pp. 478-589

B. Other reference - Instructor Resource Manual

III. Instructional Aids

- A. Chalkboard
- B. Overhead projector
- C. Locally reproduced transparencies (11 transparencies provided)

IV. Suggested Methods and Procedures - Discussion/Discussion Group

V. Presentation

- A. Operation Torch - Numerous ideas had been suggested for the U.S. entry into the war. On 25 July 1942, the decision was made to attack North Africa - code named "Torch" (TP #1)
 - 1. Ports - four ports were considered for the landing: Casablanca, Oran, Algiers, and Bone. A landing at Tunis, which was the primary objective, was insupportable with air power due to its long distance from England

2. Tactics - to land with the main forces on the flanks of highly defended main ports and then push in from the flanks and rear. It was to be a night landing with Morocco being the typical ship-to-shore movement and a 0400 H-hour

3. The decision was made for three separate landings

a. Casablanca - located on the Atlantic African Coast which made the landing susceptible to rough fall and winter weather. However, its importance made it a necessary objective

(1) Casablanca served as the railhead for east-west railways across northern Africa. A German or Spanish attack on Gibraltar could be supported from the sea by rail and could cut off troop support inside the Mediterranean Sea

(2) Eisenhower believed it would fall under its own weight once the remainder of North Africa was taken, but Spain's stake in the war had not been fully decided. Failure to attack Casablanca could result in Spain backing the Germans

(3) JCS felt the protection of Gibraltar was paramount

b. Oran and Algiers were selected because of their important airfields and ports and because they could be easily supported by air power. Algiers was also an economic, political, and military center

c. Because of the long distance required for air support, Bone was not selected even though it was inside the Mediterranean Sea and located close to the ultimate objective, Tunis

4. The operation was an overall success

a. A major attack against the Axis powers was completed with great loss to the German cause

b. The Allied powers (U.S., England, France, Spain) were drawn together for a common fight against Hitler

c. The stage was set for a cross-channel landing at Normandy

d. The decision was made to accept no terms from the Germans short of "Unconditional Surrender"

- e. Operation Torch was the first modern history large scale, joint operation under a unified commander - Eisenhower

B. Strategic Bombing of Germany

1. The strategic bombing of Germany called for the smashing of the German war machine by a bomber blitz much like the German tank blitz that conquered France and Poland
2. Until the development of the A-bomb, bombing was not sufficiently destructive to bring the war to a rapid conclusion - unless it was concentrated against the most vital targets

- a. Five main target groups were established

- (1) Military group - tactical, not strategic

- (2) Industrial group - a vast number of targets that would take years and large numbers of aircraft in order to achieve

results

- (3) Urban group - densely inhabited, populated area to create demoralization and revolt

- (4) Resources and energy group - coal, oil, etc.

- (5) Transportation group - destroy the means to transport war materials, i.e., bridges, railroads, etc.

- b. Groups (4) and (5) - transportation and energy - became the dominant targets

3. The British and the U.S. differed in their approach to strategic bombing

- a. British - believed daylight bombing would bring prohibitive losses and preferred to bomb at night. Night bombing was less accurate, but resulted in fewer losses. British bombers were designed for long-range payloads at the expense of speed and defensive firepower and their fighters were short-range air defense types, rather than bomber escorts

- b. U.S. - believed in daylight bombing with heavily defended bombers. U.S. believed that the ultimate invasion of Europe would be very risky without precision daylight bombing. Such bombing was much more accurate and

tighter bomber formations could provide for

bomber protection. They also planned on the development of a new long-range fighter (TP #2)

4. Industrial bombing - The bombing of industrial areas did not prove effective. The Germans actually increased their production base and scattered their plants throughout the country. The bombing would damage the building, but seldom damaged the machinery enough to stop production. However, it did make it difficult for Germany to concentrate on a single weapon system, i.e., nuclear, etc.

5. Urban/civilian population bombing - This type of bombing was effective in reducing morale, but had minimal effect on stopping the war effort. Berlin was 60-70% destroyed, but production continued

(TP #3)

6. Air support plan - Initially, there were two plans used to pursue the strategic air war

a. Oil plan - to attack submarine pens, aircraft industry, transportation, oil plants, and other war industries. The thrust was to use strategic air as an independent weapon to defeat the enemy

b. Transportation plan - to disrupt the enemy's ability to move in the battle area by rail or road. Churchill disapproved of this plan because of the predicted high number of French civilian casualties (80,000). Eisenhower believed the prediction was too high and also planned to warn the civilians prior to bombing

c. Roosevelt backed Eisenhower and the transportation plan. It was put into effect in April 1944 with great success. By D-day at Normandy, 50% of the rail traffic had been cut and the lack of roads prevented trucks from taking up the slack. Rails within 150 miles of Normandy were rendered 75% unusable. Additionally, 18,000 workers had to be diverted to the construction of the Atlantic Wall to make emergency repairs prior to D-day (TP #4)

C. Overlord - Operation Overlord was the most massive and complex military endeavor in history. Its objective was to destroy the German armed forces (TP #5)

1. Numerous beaches were studied for possible landing sites, but the selection was narrowed to Normandy or Pas de Calais

a. Advantages of Pas de Calais

- (1) Best air cover
- (2) Shorter sea voyage
- (3) Best beaches and conditions
- (4) Close to Dutch and Belgium forts

b. Disadvantages of Pas de Calais

- (1) Germans considered it the most likely avenue of approach
- (2) Beaches were too narrow to support follow-on operations (TP #6)

c. Advantages of Normandy

- (1) Good beach conditions
- (2) Somewhat sheltered
- (3) Within air cover distance
- (4) Defenses were not strong
- (5) Port of Cherbourg could be quickly isolated and captured

d. Disadvantages of Normandy

- (1) Exits from the beach were difficult
- (2) Insufficient numbers of ports were readily available (TP #7)

2. Eisenhower was appointed Supreme Commander

a. Churchill preferred Marshall, but Roosevelt chose Eisenhower on 5 December 1943. The plan was to

- (1) Land on the Normandy coast, build up and break out of the beachhead
- (2) Attack on a broad axis with two armies - one to attack east and north towards Germany and the other to link up with the southern France invasion to the south
- (3) Maintain an unrelenting offense for the complete destruction of enemy forces west of the Rhine

(4) Launch a final attack - a double envelopment of the Ruhr with an emphasis on the northern, left flank toward Ruhr - the heart of industrial Germany (TP #8)

3. Artificial harbors - There were no large ports in the initial objective area. Therefore, due to bad weather in the channel, during the period of D-day it was necessary to construct artificial harbors to handle the estimated 600-700 tons of supplies required by each combat division per day

a. Gooseberry - 70 old ships were sunk offshore to provide a breakwater at 5 different beaches. It took 5 days to emplace them

b. Mulberry - Huge cement harbors sunk in the beach areas and established as a port. Two mulberries were constructed for each army. They took 14 days to erect and ranged in size from 1,672 tons to 6,033 tons (TP #9)

4. German defenses - did not have a grand strategy, but merely reacted to the Allies' movement

a. Von Rundstedt - He was commander of the western front and believed in a mobile defense conducted with armor after the enemy came ashore. He believed the attack would be at Pas de Calais

b. Rommel - He was assigned by Hitler to inspect and improve the defense along the west coast line. He initially reported directly to Hitler rather than Von Rundstedt which created chain of command problems. His defensive ideas differed in that he believed the attack would be at Normandy and that the enemy should be defeated on the beach

c. In the final analysis Hitler, after much vacillation, made the fatal decision to hold four divisions under Supreme Headquarters Central - thus weakening Von Rundstedt and Rommel's ability to defend at the beach

d. The German Air Force numbered 400 aircraft on paper, but they had far fewer trained pilots

e. Rommel set out to improve the beach defenses, but lacked mines, concrete, time, and manpower

f. On 5 June, Rommel was told that weather would prevent the landing, so he departed for his home by car (TP #10)

5. Allied invasion - conducted with five amphibious and two airborne divisions

a. Amphibious assault was a tactical surprise
(TP #11)

(1) U.S. 1st Army (Bradley) landed at night over Utah and Omaha beaches, astride Carentan estuary with VII Corp (Collins) crossing Utah beach

(a) The Utah Beach Operation was almost an isolated attack. Forces landed one mile south of the intended beach, and there was no firing, as the first men crossing the beach suffered only 13 KIAs on D-day

(b) V Corps (Cerow) landed across Omaha beach which backed up to bluffs rising 150 feet to a plateau. There were many enemy positions in the bluffs overlooking the beaches. The U.S. had not believed a British intelligence report concerning the existence of a new German division in the area. Naval gunfire support was lifted when the first wave was 800 yards off the beach. Under heavy enemy fire, the beach became cluttered and the bluffs prevented an advance. There were over 1,000 KIAs on D-day

(2) The British 2nd Army (Demsey) landed over Gold, Juno, and Sword beaches with the XXX Corps (Bueknall) crossing Gold and the 1st Corps (Crocker) over Juno and Sword. British forces had an easy assault with fewer formidable obstructions and Poles and Ukrainians with low morale defending the beaches. It was an important assault because it covered the Allied left flank and prevented German reinforcements from reaching the Normandy battlefield

b. Airborne assault

(1) U.S. forces

(a) The 101st Airborne Division drop was scattered over 20 x 15 miles with other small elements even more scattered. By dawn, only 1,100 of the 6,600 man division could be mustered

(b) The 82nd Airborne Division drop was almost as bad. It was only at 1/3

strength on D+3

(c) The confusion actually helped the mission. The enemy was completely disorganized, thinking the attacking

force was much larger than two airborne divisions (because it was scattered over such a large area). The 82nd, acting with only part of the division, took St. Mere Eglise, which proved later to be a superior tactical maneuver

(d) Rommel correctly predicted that the first 24 hours would be the decisive time period. Attempts to move the 12th Panzer Division to the battle area were blocked by Hitler who continued to believe that the Normandy landing was only a ruse and the real assault would come at Pas de Calais

(e) By the end of D-day, the 82nd held St. Mer Eglise, the 101st still was in small pockets, and Utah Beach was secure with the entire 4th Division ashore. The Allies at Omaha were held to only 1,500 yards of penetration, but the Germans were unable to take advantage of the situation

(f) D-day casualties were 2,500 KIAs; the allies had expected 10,000. Omaha had the largest number of casualties with 1,000 KIAs

(g) The Battle for Normandy proved to be the turning point in the European Theater. By 18 June, the U.S. 1st Army had sealed off Cherbourg Peninsula to ensure a secure harbor. Caen fell to the British on 8 July and St. Lo to the U.S. 1st Army on 18 July. The tide had turned

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 60

HOURS: 1

TITLE: World War II in the Pacific (Overview)

I. Learning Objectives

- A. The student will know and review Japanese strategy in the Pacific
- B. The student will comprehend and assess the impact of Pearl Harbor on American political and military thinking
- C. The student will know and trace the development of the dual American command system in the Pacific
- D. The student will comprehend and evaluate the island-hopping campaign in bringing about Japan's defeat
- E. The student will know and review the American decision to employ the atomic bomb and assess its impact on Japan's acceptance of unconditional surrender

II. References and Texts

A. Instructor references

- 1. Dupuy and Dupuy, The Encyclopedia of Military History, pp. 1123-1198
- 2. Hagan, ed. In Peace and War, pp. 263-289
- 3. Montross, War Through the Ages, pp. 852-901
- 4. Preston and Wise, Men in Arms, ch. 18, pp 311-330
- 5. Weigley, The American Way of War, ch. 13, pp. 269-311

B. Student texts

- 1. Preston and Wise, Men in Arms, ch. 18, pp 311-330
- 2. Weigley, The American Way of War, ch. 13, pp. 269-311

C. Other reference - Zook and Higham, A Short History of Warfare, ch. XXXIV, XXXV

III. Instructional Aids

A. Chalkboard

B.Overhead projector

C.Locally reproduced transparencies (10 transparencies provided)

D.Map

IV.Suggested Methods and Procedures

A.Method options

1.Lecture

2.Lecture and discussion

B.Procedural and student activity options - read and study the assignment

V.Presentation

A. Background

1.Japanese-American relations had been tense since Japan challenged American's "open door" policy by sacking Manchuria in 1931 (TP #1)

2.In 1937, continued Japanese expansion in China resulted in an attack on an American gunboat, the PANAY, on the Yangtze River by Japanese aircraft

3.In September 1940, Japan formally joined the Axis Powers with Germany and Italy

4.Continued Japanese expansion toward French Indo-China in Southeast Asia led the Roosevelt administration to adopt retaliatory economic sanctions, culminating in a British-Dutch-American oil embargo (July 1941)

5.Threatened with immobilization of their fleet, the Japanese struck for the oil-rich Netherlands, East Indies (Indonesia), Singapore, and the surrounding British-owned Malaya, Thailand, the Philippines, and Hong Kong

6.The Japanese, knowing well their interests in the Far East would bring them into military conflict with the U.S., camouflaged their plans for aggression with diplomatic negotiations in Washington. However, the U.S. still expected an assault somewhere in the Pacific because crypto-analysts - using a technique dubbed "Magic" - had broken the Japanese diplomatic code

7.Nevertheless, the attack on Pearl Harbor surprised the Americans, who had not anticipated a strike so far east or one solely mounted by carrier-borne aircraft

B. Japanese strategy in the Pacific (TP #2)

1. Japan realized that it could not match the industrial strength and resources of the Allies, or even of the U.S. alone
2. The Japanese believed that they could successfully employ the same basic offensive-defensive strategic concept that had brought them victory over Russia in the Russo-Japanese War (TP #3)
3. The Japanese plan had three phases

a. Phase 1: Neutralize the U.S. Pacific Fleet - the only major hostile force in the Pacific/ East Asia region - with a surprise attack, while simultaneously seizing the Southern Resources Area and also those strategic areas permitting the establishment of a defensive perimeter around it

b. Phase 2: Consolidate and strengthen the perimeter so as to make any Allied attacks prohibitively costly

c. Phase 3: Defeat and destroy any Allied efforts to penetrate the perimeter

4. The Japanese believe that the strength of their defenses, combined with the extremely long and vulnerable Allied lines of communications and supply would ensure success (TP #4)

C. The impact of Pearl Harbor on American political/ military thinking

1. Political

a. The isolationists were silenced and all Americans were united behind the war effort

b. Many Americans were shocked that the supposedly inferior "yellow man" was able to achieve such success against the "white man." The Japanese had led many Americans to believe that they were soft-spoken, quiet people who had been drawn into conflict with the Chinese. This severe military blow against the U.S. forced the Americans to accept that the Japanese were indeed a capable and dangerous foe

c. Hitler's declaring war on the U.S. officially drew the potentially most powerful country in the world into conflict. The entire nation would now direct all of its efforts to defeating the Axis Powers (TP #5)

2. Military

- a. The Army and Navy were faced with the task of rebuilding their depleted forces destroyed at Pearl Harbor. The Navy felt the brunt of this, having had all of its battleships incapacitated
- b. Admiral Nimitz replaced Admiral Kimmel as Commander in Chief of the Pacific Fleet. It was under Nimitz's subsequent leadership that the Navy in the Pacific was to defeat the Japanese rather quickly and decisively
- c. By incapacitating all of the U.S. battleships, the Japanese forced the Navy to adopt the carrier task force concept quickly. It was the carrier that became the principal capital ship of the Navy, and it was through their successful employment that the U.S. was able to achieve partial victory at Coral Sea, total victory at Midway, and ultimate victory in the Pacific (TP #6)

D. American dual command system in the Pacific

1. The Joint Chiefs of Staff, acting on the authority of the President, actually commanded the campaign for the Pacific
 - a. The problems were so complex, and the differences in opinion between the Army and the Navy so pronounced, that it was not feasible to name a single Pacific commander
 - b. The Joint Chiefs, Admiral King and General Marshall, served to harmonize the conflicting view and set the overall strategy for the Pacific. They were overseen by the Chairman of the JCS, Admiral Leahy
2. The Joint Chiefs created two theater commands in the Pacific War to facilitate operations
 - a. Admiral C. W. Nimitz - Commander in Chief of the Pacific Fleet - was charged with responsibility of directing actions in the north, central, and southern Pacific areas. He had at his disposal the entire fleet of ships in the Pacific as well as the Marine Corps
 - b. General D. A. MacArthur - Commanding General of the U.S. Army forces in the Far East - was given the southwest Pacific area. He, at times, was to have naval forces and Marines under his command when invasion strategy and

tactics deemed it necessary

E.The emergence of the Carrier Task Force at Coral Sea and Midway

1.Coral Sea (May 1942) (TP #7)

- a.The Japanese, not satisfied with their advances, sought further aggression by planning to seize Tulagi in the Solomons and Port Moresby in Papua. This would secure them air mastery over the Coral Sea
- b.The Japanese plan was threefold: a left prong to occupy Tulagi in the lower Solomons; a right prong to start from Rabaul, whip through Jomard passage in the Louisiades, and capture Port Moresby; and finally, a carrier task force would enter the Coral Sea from the east and destroy any force the Allies might use to disrupt the operation
- c.The American plan was much simpler: Admiral Nimitz, who did not have even half the force of the Japanese, gave Admiral Fletcher all that he had (two carriers, three cruisers, a few destroyers) and issued orders no more specific than "stop the enemy"
- d.The ensuing action was full of mistakes, wrong estimates and assumptions, bombing wrong ships, misses of great opportunities, and fortuitous cashing-in on minor ones
- e.By the end of the engagement, the U.S. had lost a major carrier and had severe damage inflicted upon another. The Japanese had lost one light carrier and had damage inflicted upon two others. The battle has been called a tactical victory for the Japanese - they sank more tonnage - but a strategic victory for the Americans - they halted the Japanese drive to Port Moresby
- f.For the first time in the history of naval warfare, a battle at sea had been fought without surface ships firing upon each other, or even seeing each other. This battle was a harbinger of the method of warfare to come and also set the stage for the most decisive naval battle of World War II: Midway
(TP #8)

2.Midway (June 1942)

- a. In attempting to invade the Western Aleutians and Midway Island, the Japanese objectives were threefold: capture the Aleutians for Japan's "ribbon defense," capture Midway as a base for air raids on Pearl Harbor, and draw out and destroy the U.S. Pacific Fleet
- b. Japan clearly had the logistical advantage - she had compiled one of the largest task forces the world has ever seen, including four carriers and the super-battleship YAMATO. The Americans, on the other hand, had the advantage of superior flag officer leadership and most importantly, forewarning of the entire Japanese strategy through code breaking by Navy cryptographers
- c. Having prior knowledge of the Japanese plan, Nimitz did not succumb to the ruse in Aleutians. He was ready with all the force he could muster for the main Japanese thrust at Midway
- d. The Japanese, under Yamamoto, committed a fatal error by attacking Midway first, without seeking out and fighting the American task force. Had they fought and destroyed the U.S. surface forces, they could easily have taken Midway Island. By attacking Midway first they left themselves open to attack from the U.S. carriers
- e. By the end of this engagement, U.S. Navy dive-bombers had sunk four carriers and a heavy cruiser while the Japanese had sunk but one American carrier. All of the Japanese planes were lost, for they had no place to land. The Japanese also lost an irreplaceable supply of their best pilots. Aerial engagements for the remainder of the war exposed Japanese cockpit inexperience and was exploited by the

Americans

- f. The tide having turned, the U.S. forced the Japanese to assume a defensive posture in the Pacific for the duration; this occurred much more rapidly than anyone had hoped to expect

F. "Twin drives" across the Pacific (TP #9)

1. General MacArthur takes the "low road"

- a. MacArthur begins his drive across the southwest Pacific by taking the islands east of New Guinea - including New Georgia and New Britain
- b. The "leap-frogging" strategy he adopted proved quite effective. He captured Japanese out-

posts that were not well protected and moved his way across, leaving the Japanese behind. This strategy saved lives, for MacArthur's forces hit points of minimal resistance and saved time, for they were able to do this quickly

c. This same strategy was put to work on the island of New Guinea, where MacArthur worked his way along the coast. Allied control of the air and sea enabled MacArthur's forces to sweep westward along the coast, bypassing enemy centers of resistance and leaving Japanese troops behind to "whither on the vine." Japanese attempts to reinforce their troops from the sea were disastrous

d. When MacArthur had ousted the Japanese from New Guinea and the surrounding islands, he was ready to join up with Nimitz' force as it completed its central Pacific route. His victories thus far were admirable. Never before had so large and strongly held an area been reduced with such economy. MacArthur was poised to return to the Philippines

2. Admiral Nimitz and his Navy-Marine Corps team take the "high road"

a. With newly constructed carriers, planes, battleships, etc., ready to roll, Nimitz was poised to make his move across the central Pacific

b. The invasion of Tarawa provided some very costly lessons for the Marine Corps. Incorrect hydrographic charts placed the Marines in water deeper than expected. Wading up to their chests in water, many were massacred by the Japanese defenders. Many amphibious vehicles (LVTs, LCMs) were left stranded as water flooded their engines. Victory was eventually achieved, but at a high cost in lives

c. The Marines learned from these experiences, as evidenced by their efficient invasion of the Marshall Islands. Victory here broke the keel of any Japanese resistance

d. The Marianas, Saipan, and Guam were soon taken, and the Navy itself was ready to return to the Philippines

3. The strategy of the "twin drives" was to have two routes by which the Allies could reach the Japanese islands. MacArthur had requested full control of all

forces in the Pacific, but Admirals King and Nimitz had insisted upon the twin drives (TP #10)

G. Two weapons that make their presence felt: the B-29 and the submarine

1. The B-29

a. Some of the hardest and bloodiest battles of the Pacific war were fought in the Philippines and on Iwo Jima and Okinawa. These battles were indeed worth this high price, for they enabled the forward deployment and successful use of the B-29 long-range bomber

b. The B-29 destroyed 66 of 69 major Japanese cities, totally eliminating Japan's industrial power to sustain a war

2. The submarine in the Pacific

a. Tojo placed among the three major causes of Japanese defeat the destruction of Japan's merchant marine by the U.S. submarine force. Nearly one-third of all Japanese combatants and nearly two-thirds of all Japanese merchant tonnage sunk was the work of U.S. submarines

b. Because of the scarcity of U.S. submarine bases, the American concept of submarine operations dictated that the submarines be capable of self-sustained cruising for long periods of time over great distances

c. Submarines were employed secretly to taxi important people into troubled areas

d. Because of the submarine's independent operations there were no great "battles" to speak of - their presence was simply felt by the whole of the Japanese Empire

H. The employment of the atomic bomb to end the war

1. Secretly developed by the U.S., atomic bombs were dropped on Hiroshima and Nagasaki in August of 1945 - effecting a prompt Japanese surrender

2. The morality of the use of the bomb has been debated for decades, but the fact remains that it probably saved millions of lives that would surely have been lost in an Allied invasion of Japan

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 61

HOURS: 1

TITLE: Post-World War II Development

I. Learning Objectives

- A. The student will comprehend the origins of the Cold War and the emergence of the United States as the dominant military power
- B. The student will know and trace the evolution of the National Security Act of 1947
- C. The student will comprehend and assess the impact of potential nuclear proliferation on American defense policy
- D. The student will comprehend and explain the origins of the Truman Doctrine and NSC-68

II. References and Texts

A. Instructor references

- 1. Fuller, A Military History of the Western World, Vol. III, pp. 629-636
- 2. Jones, The Art of War in the Western World, pp. 596-612
- 3. Preston and Wise, Men in Arms, pp. 331-354
- 4. Weigley, American Way of War, pp. 363-381

B. Student texts

- 1. Jones, The Art of War in the Western World, pp. 596-612
- 2. Preston and Wise, Men in Arms, pp. 331-354
- 3. Weigley, American Way of War, pp. 363-381

C. Other reference - Bernard and Brodie, From Crossbow to H. Bomb

III. Instructional Aids

- A. Chalkboard
- B. Overhead projector
- C. Locally reproduced transparencies (16 transparencies)

provided)

IV. Suggested Methods and Procedures

A. Method options

1. Lecture
2. Lecture and discussion

B. Procedural and student activity options - read and study the assignment

V. Presentation

A. Background: End of World War II

1. The world and war would never be the same again after the greatest war in history
 - a. War had become total and universal
 - b. War deaths totalled 22 million
 - c. New nations were formed and old ones needed to be rebuilt from the wreckage
 - d. The development of new weapons caused moral considerations to become more blurred by expediency. Total war brought with it a decline in moral standards. These considerations resurfaced again in developing tactics to combat insurgency movements
2. Additionally, the scientist for the first time became fully engaged in the war effort
3. Interallied scientific cooperation, another new feature of the war, resulted in many new developments
 - a. Proximity fuse
 - b. Radar
 - c. RDX (an explosive twice as powerful as TNT)
4. World War II saw technology applied at an astonishing rate to fashion weapons which greatly altered the traditional methods of conflict. The development of the atomic bomb signaled an exponential jump in a weapon's killing effectiveness. It marked a new era

B. The Atomic Revolution (TP #1)

1. Hiroshima - 6 August 1945: explosive equivalent of

20,000 tons of TNT - instantly devastated four square miles of city - 66,000 killed

2. Nagasaki - 9 August 1945: 39,000 killed

3. Implications of atomic revolution

a. New questions were asked about target selection (industries tend to be in or near large cities; eliminate all industry and civilian populations)

b. Strategic bombing became the dominant form of war

c. Offense had a decided advantage - first strike favored

4. The U.S., immediately following the war, favored manned bomber delivery of nuclear weapons. Emphasis was based on

a. The apparent success of strategic bombing in Germany and Japan

b. The large number of bombers left over from wartime buildup were available as delivery devices

c. The lack of any better means to deliver nuclear weapons (ICBMs and FBMs not yet developed)

5. During the period of America's atomic monopoly (1945-49), the early notions of deterrence were primitive and undeveloped

a. Most strategists assumed that the atomic bomb inherently favored the aggressor. The military services, especially, were more concerned with the way a third world war might be fought than with developing a strategy (deterrence) that might be used to prevent war from occurring in the first place

b. A minority view recognized the deterrent potential of the atomic bomb and sought to integrate it into a national strategy. If and when atomic capabilities spread to other countries, these individuals urged that steps must be taken to make as certain as possible that an aggressor who uses the bomb will have it used against him. If such arrangements were made, it was felt that the bomb would be a powerful inhibition to aggression

6. During the last few years of the 40's, a sort of strategic balance existed between American atomic

weapons (with long-range air power) and Russian land forces. Soviet armies were poised to overrun

Western Europe and American bombers were ready to destroy Russian cities with atomic bombs. The strategy of trading of Western Europe for Russian cities created a stalemate - a precarious stalemate. The emergence of the Russian atomic bomb in late 1949 ended this balance and caused the U.S. to develop a more appropriate and explicit deterrent policy (TP #2)

7. The new policy of deterrence drawn up by the Truman Administration (1951) rested on three basic factors: retaliation, reserve potential, and ground forces in being. Several principles underlie this policy of balanced deterrence

a. Diminish the enemy's ability to create surprise

b. The U.S. must provide a capability for coping with limited and local aggression by local application of force. This principle was not fully appreciated until the Korean War demonstrated the need for adequate and prepared conventional forces

c. The U.S. must take seriously the possibility of total war

C. The Cold War (TP #3)

1. Not only was the atomic revolution a source of conflict between the Soviet Union and the U.S., but opposing ideologies created tensions as well

a. Soviet policy and ideology: the Soviet ideology could not abide in a divided world. Communist influence must be all-pervasive to be effective. Russia was unwilling to live and let live. This belief resulted in a policy and goal of world domination. Conflict was inevitable between capitalism and socialism

b. American policy and ideology: traditionally, the U.S. tended towards isolation and political liberalism. This fact allowed America to live in a divided world as long as her own security was not threatened

2. After World War II, the world became polarized into two camps: the Communist World (led by the Soviet Union) and the Western World (led by the U.S.). Countries felt no alternative but to align with one or the other

3. President Eisenhower: "Two atomic powers eye each

other malevolently across a defenseless world."

This malevolent attitude and state of tension between the East and West is descriptive of the term Cold War

4. The Cold War was fought by the U.S. and Russia not directly with weapons but indirectly by proxy, subversion, subterfuge, colonial rebellion, and espionage (TP #4)

5. Some early manifestations of the Cold War

a. Soviet blockade of West Berlin (1948)

b. Soviet-inspired and supported coup d'etat of Czechoslovakia (1948)

c. Russian attempts to intimidate Turkey into relinquishing control of the Bosphorus

d. Communist insurgents attempts in Greece to overthrow the government

e. Russia's ruthless suppression of the Hungarian revolt in 1958 (TP #5)

6. Western responses

a. Allied planes flew over the blockade to supply West Berlin by air

b. The West could not stop the coup in Czechoslovakia, but it was effective in alerting the world that the Soviet Union had not abandoned the Marxist ideal of world revolution

c. In support of Turkey and Greece, President Truman, on 12 March 1947, announced the Truman Doctrine: Truman promised aid to any country threatened by communist aggression

(1) The Truman Doctrine was a "policy of containment"

(2) It also was a fundamental step away from isolationism

(3) The U.S. was now working to achieve full cooperation among free states to resist Soviet aggression (TP #6)

d. In 1949, at the suggestion of the Canadian Prime Minister Louis St. Laurent, nine "like-minded" countries in Western Europe and North America set up NATO (North Atlantic Treaty Organization) to give each other mutual guarantees against aggression. In response, the

Soviet Union criticized NATO from its inception as a violation of the U.N. charter and later formed its own alliance with its satellites in the Warsaw Pact - 1955

e. Other alliances

(1) 1954: Southeast Asian Treaty Organization (SEATO)

(2) 1955: Middle East Treaty Organization (METO)

f. Possibly the most effective weapon of the U.S. in the Cold War was the Marshall Plan. The Marshall Plan was economic aid to those countries that were devastated by the war. It was offered to Russia and her satellites (East Germany, Poland, Yugoslavia, Czechoslovakia, Bulgaria, Romania, and Hungary), but was

refused

D. National Security Act of 1947 (TP #7)

1. While Europe was in shambles after the war, the U.S. found itself needing to reorganize its military command structure. The difficulty in handling joint command and staff problems during the war revealed that major revisions were necessary to promote efficiency and effectiveness. Moreover, the impending emergence of the Air Force as its own service (free of the Army) made restructuring vital

2. For nearly 150 years prior to 1947, the two major services (Army and Navy) evolved as separate and distinct entities

a. Each was established and organized by separate legislation

b. Both looked directly to the President for leadership

c. Both were monitored by different congressional committees

d. Both had separate appropriations (TP #8)

3. Attempts at interservice coordination - the seeds of unification

a. 1903 - Joint Army and Navy Board: This board was established in response to the ineptitude in cooperation during the Santiago Expedition in the Spanish-American War. It lacked a

working staff and disbanded after doing little to promote interservice cooperation

b. In 1919, the Joint Board was reconstructed with a more workable staff and studied areas of overlap

c. In 1933, the Joint Economy Board explored possibilities of interdepartmental savings

d. The Joint Chiefs of Staff: The JCS was created by President Roosevelt as an instrument to help him direct the war. The stress of war provided sufficient motives for cooperation, but everyone soon realized that something more would be necessary after the war

4. Before the war was over, proposals were written for the unification of the armed services. Each department had its own prejudices and biases that revealed themselves and their goals (TP #9)

a. War Department's goals (Army)

(1) Combat effectiveness

(2) Military control

(3) Adequate ground troops

(4) Establishment of a separate and coordinated Air Force

(5) Economy

(6) Restriction of the Marine Corps

(7) One military budget controlled by JCS (TP #10)

b. Navy Department's goals

(1) Combat effectiveness

(2) Organizational effectiveness

(3) Collective strategy development

(4) Civilian control

(5) Economy

(6) Navy and Marine Corps remain unimpaired

5. The Army, as early as November 1943 and led by General George C. Marshall, endorsed the proposal of a single department of armed forces. The Army

resented the Marine Corps as a competitor, and they feared cutbacks during peacetime

6. The Navy at first remained noncommittal on the question of unification. They emphasized the uniqueness of the Navy-Marine Corps mission. This emphasis grew into opposition to the single department idea. The Navy also feared that the new Air Force would take over the air arm of the Navy

7. The various proposals (TP #11)

a. 25 April 1944: The McNarney Plan - Supported by the Army, this rather vague plan called for a single Chief of Staff to the President and a Secretary for the Armed Forces to exercise overall military control. Supporters of this plan viewed the Marine Corps as a "clear duplication of function"

b. 11 April 1944: The Richardson Report - The recommendations of this report were more radical than the McNarney Plan. It called for: a civilian secretary heading the single department, one military Commander of the Armed Forces who would also act as Chief of Staff to the President, a chiefs of staff organization composed of service chiefs and a department secretary, and an Air Force coordinated with the Army and Navy. The implications of the report were enormous (TP #12)

(1) There would be no civilian supervision of the individual services

(2) The overall military commander would be responsible only to the President

(3) The position of the Marine Corps was fixed for 10 years, but after that the armed forces' commander would modify their role with the approval of the single secretary. (TP #13)

c. October 1945: The Eberstandt Report - This report was prompted by the radical nature of the Richardson Report. The Eberstandt plan was endorsed by the Marine Corps and the Navy Department. It called for the organization of the military into three coordinated departments (Air, Navy, and War) - each headed by a secretary of cabinet rank, continuation of the JCS, encouragement of scientific research and development, and the creation of new agencies - the National Security Council and Central Intelligence Agency

d. October 1945: Collins Plan - Basically, this plan was a more detailed version of the McNarney and Richardson plans (TP #14)

8. The Battle of the Potomac: Congress hammered out the two leading proposals (Eberstandt and Collins). After much debate, President Truman signed the National Security Act of 1947. This Act most closely resembled the Eberstandt plan

a. Three departments headed by civilian secretaries

b. A Secretary of Defense to oversee and coordinate the departments

c. The JCS, composed of the three service chiefs plus Chief of Staff, were to be the principal military advisers to the President and the Secretary of Defense. The JCS would have a joint staff limited to 100 officers

d. CIA and NSC were created

E. National Security Council document #68 (TP #15)

1. Along with the conflict among the services about unification, there arose conflicts in 1949 about how to prepare for the next war, what weapons should be developed, and what the U.S. overall military strategy should be

2. The pertinent issues that revealed the need for a new overall military policy

a. Chinese communists had defeated Nationalist forces and controlled mainland China

b. The Soviet Union had achieved nuclear status

c. The U.S. faced the decision on whether to pursue production of the fusion bomb

d. The Navy-Air Force dispute over carriers or bombers

e. Initial survey of European defenses showed them woefully unprepared

3. In response to these needs and issues, President Truman, in 1949, directed a joint State Department/Defense Department study group to investigate and resolve these problems (TP #16)

4. The result of the directive was NSC-68

a. NSC-68 stressed the need for conventional

military capabilities

- b.The document reasoned that a negotiated settlement with Russia was unlikely
 - c.NSC-68 estimated that the U.S. could afford spending up to 20% of its GNP on rearming without jeopardizing the economy
 - d.The document predicted that American nuclear deterrence would be offset by Russian nuclear capability within 4-5 years
 - e.Summary: NSC-68 called for the development of a systematic program for the improvement of Western strength and cohesion on the basis that the entire free world was threatened by the growth of Soviet power
- 5.President Truman's response to the directive was influenced by two conflicting issues: international security and domestic (the home economy) policy
- 6.Truman chose to stay on the economy track and keep the military budget low (1951: \$13 billion)
- 7.NSC-68 would probably have been forgotten were it not for the Korean War. This surprise startled the administration and Congress into action. The framework for this action was NSC-68
- 8.In the summer of 1950, President Truman, in reference to drastically increasing the military budget, said, "The purpose of these proposed estimates is two-fold. First, to meet the immediate situation in Korea and second, to provide for an early, but orderly buildup of our military forces to a state of readiness designed to deter further acts of aggression"
- 9.The about-face of the administration's policy and implementation of NSC-68 marked the beginning of the U.S.'s current military strategy

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 62

HOURS: 1

TITLE: Korea

I. Learning Objectives

- A. The student will comprehend and explain the proposition that preparation for nuclear war left the United States unprepared to deter a limited war
- B. The student will know and describe the United Nations response to the invasion of South Korea in terms of the perceived monolithic nature of communism
- C. The student will comprehend and evaluate the Inchon Landing as a deterrent to military stalemate in Korea
- D. The student will comprehend the significance of the Truman-MacArthur controversy

II. References and Texts

A. Instructor references

- 1. Dupuy, Evolution of Weapons and Warfare, Ch. 28, pp. 277-281
- 2. Dupuy and Dupuy, The Encyclopedia of Military History, pp. 1240-1253
- 3. Heinl, Victory at High Tide (from Amphibious Warfare Course)
- 4. Preston and Wise, Men in Arms, pp. 346-348
- 5. Weigley, The American Way of War, pp. 382-398

B. Student texts

- 1. Preston and Wise, Men in Arms, pp. 346-348
- 2. Weigley, The American Way of War, pp. 382-398

III. Instructional Aids

- A. Chalkboard
- B. Overhead projector
- C. Locally reproduced transparencies (8 transparencies provided)

IV. Suggested Methods and Procedures

A.Method options

- 1.Lecture
- 2.Lecture and discussion

B.Procedural and student activity options - read and study the assignment

V.Presentation (TP #1)

A.Background of Korean War

- 1.The Russians expelled Japan from Korea almost immediately after WWII, in order to exert their influence on the peninsula
- 2.The U.S. replaced Japan below the 38th parallel - an artificial demarcation line between the USSR and U.S. - after accepting the Japanese surrender, in order to check the spread of communism
- 3.A communist regime begins to develop in North Korea under Soviet backing
- 4.The goal of a free and unified Korea is not reached
- 5.U.S. turns problems of Korea over to newly established United Nations
- 6.In 1949, all U.S. forces except for a military assistance group are withdrawn
- 7.Early on 25 June 1950, the North Korean Army, backed by 100 Russian T-34 tanks and covered by tactical air support, begins its drive across the 38th parallel towards Seoul

B.Tactics and strategy of war

- 1.The North Koreans drove towards Seoul in a "blitzkrieg" attempt to seize the city
- 2.MacArthur, commander of U.S. forces, blockaded North Korea and used air power to support the South Korean Army
- 3.With South Korean and U.N. troops almost pushed into the sea, the U.S. sent two Army divisions and a Marine brigade to the Pusan Peninsula. All troops were put under U.N. control and MacArthur was appointed commander of U.N. forces
- 4.MacArthur surprised the North Koreans with an amphibious landing at Inchon behind the lines of

the North Korean Army. U.N. forces crushed the North Korean Army and moved north across the 38th parallel towards the Yalu River

- 5.U.S. decided to fight a limited containment war and did not continue north
- 6.MacArthur's strategy of total victory and to bomb supply bases in Manchuria is rejected and leads to his ultimate removal
- 7.Chinese join war and use small unit tactics to harass U.N. forces at night and hide during the day
- 8.Joint Chiefs of Staff make critical decision to fight limited war and not attack Chinese, risking possible escalation into total war

C.Leaders of Korean War

1.General Douglas MacArthur

a.Removed from command on 11 April 1951 because of public controversy with President Truman over war goals and strategy

b.Had been a general officer longer than anyone else except Winfield Scott

c.Favorite strategy was the indirect approach from behind or the flanks. Used frontal means only when necessary. Inchon is a perfect example

d.Very frugal, resourceful commander who fought with little. He was noted for his economy of force and light casualties

e.The Inchon landing went down as his finest hour and as one of the great strategic strokes in history. It reversed the tide of the

entire war

f.Had the opportunity in his career to do everything, including oversee Japan after war. He was a commander and a politician

2.General Matthew (Bunker) Ridgeway

a.At the death of Wally H. Walker, he assumed command of all Korean ground forces under MacArthur

b.When MacArthur was relieved, Ridgeway received the command

c.Characterized as an excellent troop leader

d.Best known for welding the multinational Eighth Army into a powerful war machine

(TP #2)

D.Tensions between civil/military relations

1.The Korean Conflict produced strained relations between the troop commanders and policy makers in Washington

2.Korea began an era of "limited wars." U.S. policy makers saw Europe as key and feared a dissipation in U.S. strength and a depletion in supporting NATO commitments by involvement in Asia

3.Washington policy makers monitored the war more closely because of the threat of escalation to the nuclear stage and total war

4.Military commanders became frustrated with the "no win containment policy," and this was the factor that led to MacArthur's dismissal

5.People at home felt the war had drawn out too long because of its limited nature (TP #3)

E.The nuclear age of warfare

1.Because the world was now in the nuclear age, from 1950, the superpowers were involved directly or indirectly in almost all confrontations

2.The Eisenhower administration introduced its policy of "massive retaliation" based on ensuring massive U.S. nuclear superiority as a deterrent to war. The policy was for mass use of nuclear weapons against would-be aggressors

3.The Korean Conflict was first major struggle during the nuclear age and nuclear weapons were not used

4.The threat of "the bomb" hampered U.N. forces because, fearing escalation, they would not exploit their battlefield successes (TP #4)

F.Major campaigns of the Korean War

1.North Korean invasion, 25 June 1950

a.The North Korean Army, consisting of 7 divisions and backed by more than 100 Russian T-34 tanks and air support, surprised South Korea by crossing the border and heading towards Seoul

b. President Truman ordered MacArthur, on 27 June, to support South Korea's Army with naval gunfire and air support

c. Seoul falls to North Korea on 28 June

d. Truman ordered U.S. troops ashore on 30 June

e. U.S. forces moved ashore under the command of Major General Dean

f. Their surprise attack allows the North Korean Army to push south and surround South Korean, U.S., and U.N. forces on the Pusan Peninsula

2. Inchon landing, 15-25 September

a. At dawn, on 15 September, the 1st Marine Division landed on the treacherous beaches of Inchon, 150 miles northwest of the existing battlefront. Major General Edward M. Almond commanded the 7th Division under MacArthur

b. The amphibious operation was a complete surprise and the 1st Marine Division secured the Kimpo airport while encountering little resistance

c. The 7th Division proceeded south toward the battlefront while severing all North Korean Army supply lines

d. On 26 September 1950, Seoul was liberated with more than 125,000 North Korean Army troops taken prisoner

e. Under the direction of Truman and the U.N., the international force moved north across the 38th parallel

3. Communist China entered the war and threatened U.N. forces with a counteroffensive

a. Peking had threatened intervention if the 38th parallel was crossed by U.N. troops. Heavy concentrations of Chinese Communist troops were reported north of the Yalu River in

Manchuria

b. As a part of the "limited war" plan, aerial reconnaissance into Manchuria was forbidden by Truman. This caused U.N. forces to underestimate the Chinese Army staged across the Yalu River

c. The South Korean Army and the 1st U.S. Regiment become victims of the Chinese just south of the Yalu. MacArthur then halted his advance north

d. 25-26 November: Communist counteroffensive - 180,000 Chinese troops attacked U.N. forces' Eighth Army's right flank and threatened to surround the entire force. General Walker pulled back his Eighth Army 130 miles to the 38th parallel

e. The U.N. forces suffered a serious defeat in North Korea. MacArthur was criticized for his offensive strategy (TP #5)

4. U.N. counteroffensive: 25 Jan - 10 Feb 1951

a. Lt General Ridgeway, now in command of all ground forces in Korea, began a counter-offensive to regain control of Seoul for the second time

b. On 14 March 1951, U.N. forces regained control of Seoul for the second time

c. U.N. forces advanced easily into North Korea, in an attempt to interrupt supply lines

5. Communist spring offensive: 22 April - 1 May 1951

a. First attacks came at night, with the Chinese attacking the International Corps north of Seoul

b. U.N. forces provided a solid defense

(1) Communists lost momentum

(2) 70,000 Communist casualties vs. 7,000 U.N. casualties

c. The Communists tried again, this time in the east with more than 20 divisions striking the U.N. forces

d. General Van Fleet, now commanding U.N. ground forces, ordered in reserves consisting of the 3rd Marine Division and the 187th Regiment Combat Team to halt Communist advance

e. The Communist attacks were mostly small unit night raids of a hit-and-run style. These attacks kept U.N. forces constantly awake

6. U.N. takes the offensive

a. The entire U.N. front began a drive north

b.U.N. forces succeeded and moved quickly into North Korea. Before moving farther north, Van Fleet was ordered to halt his offensive by the Joint Chiefs of Staff. Van Fleet begged for "hot pursuit" of an enemy on the run, but U.S. policy makers were afraid of escalation

c.Van Fleet consolidated his forces into a defensive position north of the 38th parallel

7.Cease-fire talks begin

a.North Korea was buying time to recover

b.Prisoners of war become a hot topic of debate (TP #6)

8.Armistice finally signed on 27 July 1953

a.U.N. had 118,585 men killed and 264,591 wounded

b.Communists suffered 1.6 million battle casualties

c.Of the 10,218 American POWs, only 3,746 returned home (21 refused repatriation) (TP #7)

G.Communism and the Korean War

1. The war was one of conflicting ideologies

2.The U.S. wanted to contain the spread of communism. With this in mind, the U.S. fought a "limited war" designed not to destroy the enemy but to halt the spread of communism (TP #8)

H.Truman vs. MacArthur

1.11 April 1951, Truman relieved MacArthur of his command

2.MacArthur was not in sympathy of the "limited war" policy and made his objection publicly known

3.MacArthur wanted to bomb Manchuria in order to halt supplies across the Yalu River

4.MacArthur believed the Soviets wouldn't aid China - even if the U.N. forces invaded Manchuria

5.Truman was irate with MacArthur, who publicly disagreed with the Commander in Chief

6. Truman quickly ousted MacArthur

- a. The quick relief of MacArthur by Truman offended many
- b. MacArthur learned of his firing by a news broadcast
- c. MacArthur returned home to a hero's welcome

I. Conclusion

1. Korea was a "learning" war for the U.S.
 - a. The war taught the U.S. not to rely on a single weapon (nuclear) as a "quick-fix" to any type of crisis on the globe. Nuclear war would become total war if this strategy was invoked
 - b. New strategies needed to be developed besides total nuclear destruction for the containment of communism. "Wars of National Liberation" could not be solved with a nuclear bomb
 - c. Korea taught the U.S. the need to keep its troops combat ready. Undertrained and understaffed units were quickly placed in battle, and this lack of readiness was the cause of many unnecessary casualties
2. The age of warfare under the nuclear umbrella had begun

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 63

HOURS: 1

TITLE: Vietnam

I. Learning Objectives

- A. The student will comprehend the voluntary limitation of the American military effort in the Indochina Conflict
- B. The student will know and review the anti-communist military effort from the landing at DaNang in 1965 to the end of 1967
- C. The student will comprehend and contrast the military realities of the Tet offensive with its popular American perception and media coverage
- D. The student will comprehend and explain the need for and implementation of a policy of Vietnamization

II. References and Texts

- A. Instructor references
 - 1. Dupuy, Evolution of Weapons and Warfare, pp. 270-282
 - 2. Preston and Wise, Men in Arms, pp. 343-354
 - 3. Weigley, The American Way of War, ch. 18
- B. Other reference - Instructor Resource Manual

III. Instructional Aids

- A. Chalkboard
- B. Overhead projector
- C. Instructor-produced transparencies

IV. Suggested Methods and Procedures

- A. Lecture
- B. Lecture and discussion

V. Presentation

- A. Chronology
 - 1. 1858: Conquest began to make Vietnam a French colony

- 2.1883: Cambodia inadvertently acquired while the French Navy was looking for a water route to China by way of Mekong River
- 3.1893: Laos added to colony for strategic purposes
4. Cambodia and Laos were sparsely populated, thickly vegetated, protected by mountains - no trouble for the French
- 5.1879: French civilian control established in Vietnam
- 6.1897: Paul Doumer became Governor General of French Indochina
 - a. Vietnam had been a drain on the French treasury for 40 years, and he was determined to turn that around
 - b. Governor General centralized the government, began a huge public works program, and enslaved hundreds of thousands of peasants for labor
 - c. Governor General built roads, railroads, factories, Damer Bridge near Hanoi
 - d. To pay for this, he taxed the people of Vietnam - the poorest paid 12%; the most the French paid was one-third of one percent
 - e. Of 80,000 workers needed to build one 300-mile stretch of railways, 25,000 died of accidents, malaria, hunger, and sickness
 - f. Doumer made salt production a monopoly and taxed its sale - the Vietnamese used it to preserve their food but couldn't afford it
 - g. Population increased 80% from 1900 to 1937, but the total rice consumption declined 30% due to huge exporting - something Vietnam never did before the French
 - h. The Vietnamese were starving; young men were separated from their families; the people were treated like animals, abused, and became sick
 - i. "Doumer's successors were like engineers at the controls of a huge train without brakes chugging up the slope of a steep mountain. The prospect of getting over the top was nil, but there seemed no safe alternative to continual forward motion. Millions of Frenchmen ceaselessly fueled the public works engine set up by Doumer"

- 7.1954: Diem Ben Phu
 - a. Bo Dai assigned emperor
 - b.Bo Dai assigns Diem to run the country
 - c.Diem and U.S. do not sign accord for elections in '56
- 8.1954-1956: Diem attempts to consolidate power over a very frail South Vietnam (no leadership, management, etc., thanks to French rule)
- 9.1956: Diem refuses to allow Ho Chi Mien elections
- 10.1957: Ho infiltrates 65,000 former South Vietnamese back to South Vietnam and begins insurgency
- 11.1957-60: U.S. attempts to build conventional forces
- 12.1961: The situation gets worse, but American advisors see and learn from mistakes
- 13.1962
 - a.Hamlet programs begin and show promise
 - b.17,000 advisors, helicopters, and C-130s sent
 - c.Equipment has major impact and at the year's end, things seem promising
- 14.1963
 - a.Monks march from Hue
 - b. Catholics vs. Buddhist
 - c.Diem crushes protest
 - d. Viet Cong (VC) take advantage to rearm and reassert at will
 - e.First hamlet overrun
 - f.Monks burn in the streets
 - g.Ambassadors change and so does policy
 - h.Coup d'etat - Diem is killed
 - i.Anarchy and chaos - coup after coup
 - j.Decisions of '63 to rearm; VC send northerners

south as advisors and to attack U.S.

k.12,000 North Vietnamese infiltrate south

l.40-50% of insurgency now northerners

m.9th Division (1st VC division formed)

n.South Vietnamese Army (ARVN) from 100,000 to 500,000

o.Major Nua Units sent south - change in tactics - invasion!

p.USS MADDOX and sister ship attacked - Gulf of Tonkin

q.U.S. air strikes against the north

15.1965

a.February

(1)Sappers attack Pleiku - 8 KIA, 109 WIA, 20 aircraft destroyed

(2)U.S. bombs north in response

(3)U.S. hotel in Qui Nhon destroyed - 23 KIAs

(4)Johnson approves "Rolling Thunder" - graduated response

b.March

(1)Two Marine battalions wade ashore at Da Nang

(2)U.S. families evacuated

16.1965 (continued)

a.Recognizing the now-conventional threat, General Westmoreland asks for 100,000 (two U.S.-based divisions and one Korean) - denied
- later asks for 100,000 to hold and 300,000 to regain the initiative - approved in June - race was on between U.S. and Giap's forces; despite major construction, Westmoreland knew he could not win the race so opted to strike out and sacrifice security

b.Giap decided to infiltrate three NVA divisions to cut South Vietnam in half

c.1st Air Cavalry destroyed the divisions in Ia Drang River operations

d. Invasion halted

e. MacNamara travels to Saigon following Westmoreland's request for more combat troops = 400,000 by '66 and up in '67

17. 1966: War became a protracted war of attrition with tremendous limits on U.S. forces - Laos, Cambodia, North Vietnam off-limits

18. 1967

a. Westmoreland requested 200,000 more troops = 600,000

b. "Rolling Thunder" grew fangs, but continued off and on

c. Restricted to killing only enemy forces in South Vietnam

d. He used ARVN to pacify the countryside and U.S. forces to attack, build up, etc., search and destroy Iron Triangle - whole Army Corps participated. (Later it would be used again by NVA)

e. Westmoreland called to President to explain need for more men

f. Crossover point was reached in '66

g. 200,000 denied - no reserve call up; 50,000 sent, 520,000 troops now in-country

h. Still no strategy - war of attrition continued

B. The history of Vietnam under French rule

1. By the end of WWII, guerrilla forces of Vietnamese Nationalists and Communists were combined into the Viet Minh under the leadership of Ho Chi Minh and occupied the jungles of North Vietnam

2. The French decide not to relinquish control over their colony in Indochina

3. 1950 - Viet Minh are recognized by Communist China and the USSR. Viet Minh are receiving an increasing amount of military assistance from China

4. December 1950 - De Lattre de Tassigny is sent from France to command troops clashing with Vietnamese. Tassigny was their leading soldier and was sent to restore French authority in the colony and boost morale

5. Guerrilla warfare is main tactic used by Viet Minh against French

6. March-September 1953: U.S. aid to France increases for the "war" in Vietnam

7. Fall of Dien Bien Phu

a. French garrison was under siege for 6 months

b. French were easy targets in this valley fortress

c. Only 73 of 15,000 soldiers escaped

d. This defeat ended French rule in Vietnam

C. Beginnings of U.S. involvement

1. 20 January 1955: The U.S., France, and South Vietnam agree to reorganize the Vietnamese Army. The U.S. was to send a training mission to operate under the direction of General Paul Ely, the new French commander in Indochina

2. 28 April 1956: U.S. Military Assistance Advisory Group (MAAG) assumes responsibility for training in South Vietnam

3. 11 October 1961: U.S. agrees to support the government of South Vietnam against guerrilla attacks

4. 11 December 1961: Two U.S. Army helicopter companies arrive in Saigon to become the first direct military support of South Vietnam

5. 2-4 August 1964: Gulf of Tonkin incident - North Vietnamese patrol boats engage U.S. destroyer. Triggers retaliation by bombings

D. Policies, tactics, and strategies for Vietnam

1. Kennedy decided Vietnam needs a "whole new kind of strategy" and increases the special forces and counter-guerrilla training units

2. General Taylor recommends freeing the South Vietnamese Army from its present position of static defense. Taylor suggests mobility - air mobility. Beginning of heavy use of helicopters for combat and evacuation

3. North Vietnam is seen as vulnerable to conventional bombing - henceforth, this should be exploited

4. Kennedy sees South Vietnam as a test of America's

ability to counter Communist "Wars of National Liberation." Kennedy implements and endorses a plan for "flexible response"

5. Plan 34A is enacted

- a. American-sponsored covert attacks on North Vietnam
- b. Commando raids, sabotage, bombings by planes with Laotian markings are all part of 34A
- c. This covert plan eventually led to the Gulf of Tonkin incident and direct participation by U.S. forces in the war

6. Operation Rolling Thunder

- a. Ordered by President Johnson on 13 February 1965. The operation called for constant bombing of North Vietnam. Ground troops would be needed to protect airfields if "Rolling Thunder" was going to be successful
- b. This operation escalated U.S. involvement

7. Counterinsurgency campaigns

- a. A strategy to deny the enemy access to key areas
- b. "Search and destroy" missions become main method of combat

8. General Westmoreland takes the offensive. His plan for victory consisted of three phases

- a. Phase I - The commitment of U.S./F.W.M.A. (Free World Military Assistance) forces necessary to halt the losing trend by the end of 1965
- b. Phase II - The resumption of the offensive by U.S./F.W.M.A. forces during the first half of 1966 in high-priority areas necessary to destroy enemy forces and reinstitution of rural-construction activities
- c. Phase III - If the enemy persisted, a period of a year to a year and a half following Phase II would be required for the defeat and destruction of the remaining enemy forces and base areas

E. The air war over Vietnam

1. Operation "Rolling Thunder" begun in February 1965

- a. First used as a retaliating measure for Viet Cong attacks on American installations

b. Next, the operation was for strategic persuasion

(1) President Johnson is interested in peace

(2) Strategy to bomb the North Vietnamese to the bargaining table is undertaken

c. Finally, the operation was intended to impede the flow of supplies and reinforcements to the North Vietnamese Army

2. The use of aircraft - especially the heavy reliance on helicopters - became a symbol of the Vietnam war

3. Success of the air campaigns was limited only because of the limitations put on the military by the policy makers in Washington

F. Military operations and statistics of Vietnam

1. Highlights of 1965

a. 8 February - U.S. begins air war on North Vietnam under President Johnson's orders

b. 8 March - 9th Marine Expeditionary Brigade becomes the first U.S. ground combat force in Vietnam when they land at Da Nang

c. 18-21 August - Operation Starlight becomes first important victory for U.S. forces. Over 5,000 Marines moved against Viet Cong, destroying a major stronghold near Van Tuong

d. 15 December - First U.S. air raid on a major North Vietnamese industrial target - a thermal power plant at Uongbi

2. Highlights of 1966

a. 1-8 January - The 173rd Airborne Brigade becomes the first unit in the strategic Mekong Delta. They destroy one enemy battalion and the headquarters of a second one in Operation Marauder

b. 12 April - The first strikes by American B-52s based in Guam are carried out against North Vietnamese infiltration routes on the Laos-North Vietnam border

c. 14 September-24 November - Operation Attleboro. Almost 22,000 U.S. troops engaged the North Vietnamese and Viet Cong forces in a series of

small engagements in Tau Ninh province next to the Cambodian border, with the goal of disrupting a planned Communist offensive. This was the largest U.S. campaign to date

d. The U.S. military strength reaches 389,000 personnel by December

3. Highlights of 1967

a. 8-26 January - Operation Cedar Fall. Major campaign with the 1st and 25th Infantry, 173rd Airborne Brigade, 11th Armored Cavalry Regiment, and ARVN forces operating against Viet Cong headquarters and major Communist bases approximately 25 miles northwest of Saigon

b. 22 February-14 May - Operation Junction City. Largest U.S. campaign to date, with 22 U.S. battalions and 4 ARVN battalions moving against the enemy north of Saigon along the Cambodian border

c. 3 May - 3rd Marine Division seizes high ground near Khe Sanh providing a dominating position over North Vietnamese infiltration routes from Laos into the Quang Tri province

d. 8-18 December - U.S. 101st Air Cavalry Division undertakes the longest and largest airlift to date - 10,024 men and over 5,300 tons of equipment were carried in 369 C-141s and 22 C-133 Cargomasters from Fort Campbell, Kentucky directly into combat in Vietnam

e. Personnel increased to 480,000 by the end of 1967

4. Highlights of 1968

a. 30 January-29 February - "Tet Offensive" - breaking the Tet holiday truce, almost 50,000 enemy troops launch well-planned, simultaneous attacks on bases and cities throughout South Vietnam. The offensive was repelled and no military success for the North Vietnamese occurred, yet it was a great psychological blow to the U.S. and South Vietnamese

b. 16 March - My Lai Massacre - over 200 unarmed men, women, and children are slain during a search and destroy mission

c.8 April - Operation Complete Victory is launched. Over 100,000 men from 42 U.S. battalions and 37 ARVN battalions undertake the offensive against Communist forces in 11 provinces around Saigon

d.10 May - Paris peace talks begin

e.31 October - U.S. stops all bombing north of DMZ to encourage peace with North Vietnam

5.Highlights of 1969

a.6 February - Nixon's "Vietnamization" plan begins

(1)U.S. will turn war operations gradually over to South Vietnam

(2)U.S. will still supply military hardware for the war

b.24 April - Intensive bombing by B-52s on Cambodian border

c.26 April - First "Vietnamization" transfer. The 6th Battalion, 77th Field Artillery completed turnover of equipment to the ARVN artillery battalion

d.14 May - Nixon announces planned withdrawal

e.8 July - Withdrawal of U.S. forces begins with 3rd Battalion, 60th Infantry Brigade, 9th Infantry Division leaving Vietnam for Ft. Lewis, Washington

f.Military personnel in Vietnam number 484,326

6.Highlights of 1970

a.30 April-30 June - U.S. troops enter Cambodia to attack bases. Nixon promises all troops will be out by 30 June

b.September - Daily B-52 raids along Laotian border to prevent Communist buildup continue

c.Military personnel number 334,794

7.Highlights of 1971

a.11 August - All ground combat responsibility is turned over to South Vietnamese Army

b.26-31 December - U.S. continues to bomb North Vietnam

c. Only 158,119 military personnel are left

8. Highlights of 1972

a. 7 April - General John Lavelle removed as Commander of the U.S. Seventh Air Force in Vietnam in March, demoted to Lieutenant General, and retired when it was revealed that he had ordered some 20 unauthorized air strikes against North Vietnam

b. 8 May - President Nixon orders the mining of all North Vietnam harbors

c. 12 August - Marks the end of U.S. ground combat role in North Vietnam

d. 18 December - Massive U.S. air strikes continue in North Vietnam

e. Personnel number 24,200

9. Highlights of 1973

a. 15 January - President Nixon halts all offensive action against North Vietnam

b. 27 January - End of the military draft

c. 29 March - Last American combat troops depart Vietnam for home

10. Evacuation

a. In 1975, with the fall of Saigon imminent, the U.S. evacuates almost all Americans and relatives plus many South Vietnamese marked for death because of their American ties

b. Two Marine guards are killed by an exploding shell during the evacuation, becoming the last two men to die in combat

G. Guerrilla warfare

1. Vietnam was a war of small skirmishes fought in the jungles on the platoon level. Very few large, conventional battles occurred. The North Vietnamese benefitted from this type of warfare because of their guerrilla tactics. Tenets of Guerilla Warfare

a. The enemy advances, the guerrilla retreats and hides to tire the enemy and avoid losses

- b. The enemy camps, the guerrilla harasses. This was particularly effective in Vietnam and consisted of many nighttime raids of U.S. and South Vietnamese installations
- c. The enemy tires, the guerrilla attacks. U.S. forces tired both mentally and physically from chasing a phantom enemy through the jungle
- d. The enemy retreats, the guerrilla pursues. This strategy was the basis for the North Vietnamese being able to overrun Saigon

2. U.S. forces were unprepared to effectively counter the above strategies

H. Problems with Vietnam

1. South Vietnam had a series of ineffective leaders after Diem's death

- a. Very difficult to coordinate strategy with the ever-changing governments

- b. Trust was hard to gain between South Vietnamese government and its people

2. Media coverage of war

- a. Television brought the atrocities of war home every night

- b. Media coverage increased protests against the war, especially when abuses or crimes were uncovered (My Lai Massacre)

I. U.S. military leaders

1. General William Westmoreland

- a. Commanded U.S. troops in Vietnam until 1968

- (1) Responsible for requests for more troops

- (2) Reported very positively on the progress of the war

- b. Initiated the "search and destroy" tactics used in the early ground war

2. General Creighton W. Abrams

- a. Relieved Westmoreland in June 1968

- b. Implemented Nixon's "Vietnamization" program

c. Known for performing well under the many policy limitations for the war

J. Conclusion

1. Vietnam, like Korea, was a clash of political doctrines and different cultures. A war of attrition could not be fought against North Vietnam. Decreasing U.S. support for the war effort let the North Vietnamese realize that time was on their side
2. Vietnam was a much studied and criticized war. There were countless mistakes, and some lessons learned

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 64

HOURS: 1

TITLE: Low-Intensity Conflict

I. Learning Objectives

- A. The student will know and discuss the basic definition of low-intensity conflict (LIC) as it applies to current national military strategy
- B. The student will know and discuss the basic dynamics and imperatives that are specific to LIC
- C. The student will comprehend and explain the restrictions on military commanders that are characteristic of the LIC environment
- D. The student will comprehend, explain, and give examples of the five major categories of LIC

II. References - Other references

- A. De Treux, K. M., 1stLt, USMC, "Infantry in LIC: Observations from Operation JUST CAUSE," Marine Gazette, Vol. 74, No. 9, September 1990 (reprinted with permission from Capt S. Zohi, USMC)
- B. Marine Corps Institute, Command and Staff Nonresident Program: LIC; Amphibious Warfare School Nonresident Program: LIC
- C. FM 100-20 Military Operations in LIC
- D. Joint Pub 3-07. Doctrine for Joint Operations in LIC
- E. Thompson, L. B., Low-Intensity Conflict: The Pattern of Warfare in the Modern World, ed. 1989, Lexington Books., pp. 1-50, 77-108, 145-186
- F. Van Huaute, E. B., Maj, USMC, "Combat Service Support in LIC," Marine Gazette, Vol. 75, No. 4.

III. Instructional Aids

- A. Chalkboard
- B. Overhead projector
- C. Instructor-produced transparencies

IV. Suggested Methods and Procedures

A.Method options

- 1.Lecture and discussion
- 2.Guided discussion

B.Procedural and student activity options

- 1.Begin by presenting definitions of LIC, followed by a discussion of how LIC is distinct and yet similar to other types of conflicts and wars
- 2.The second half hour should expand upon the various categories of LIC, to include nation building, counterinsurgency, counterterrorism, peacekeeping operations, and contingency operations

V.Presentation

A.Operational continuum - "War must never be thought of as something autonomous, but always as an instrument of policy. Wars must vary with the nature of their motives and the situations which give them rise."
(Carl Von Clausewitz, On War)

- 1.Solicit comments from the students on the spectrum of war. Give examples of each
- 2.Instructor breakdown of the operational continuum; definition and comparisons of levels of conflict
 - a.High-intensity conflict (HIC) - War between two or more nations and their respective allies, if any, in which the belligerent employ the most modern technology and all resources in intelligence, mobility, firepower (including nuclear, biological, and chemical weapons), command, control, and communications and service support
 - b.Mid-intensity conflict (MIC) - War between two or more nations and their respective allies, if any, in which the belligerent employ the most modern technology and all resources in intelligence, mobility, firepower (including nuclear, biological, and chemical weapons), command, control and communication and service support for limited objectives under definitive policy limitations as to the extent of destructive power that can be employed or the extent of geographical area that might be involved
 - c.LIC - Political-military confrontation between contending states or groups below conventional war and above the routine, peaceful competi-

tion among states. It frequently involves protracted struggles of competing principles and ideologies. LIC ranges from subversion to the use of armed forces. It is waged by a combination of means employing political, economic, informational, and military instruments. LICs are often localized - generally in the Third World - but contain regional and global security implications

d. The LIC environment - The term "Low-Intensity Conflict" reflects a U.S. perception and perspective of existing conditions. To the people of the affected country or region more directly affected, the term is a misnomer. To them, the threat may be immediate and critical; to the U.S., it may be subtle, indirect, and long-term, but with potentially serious implications for U.S. national security interests

e. Routine peaceful competition - The condition of relations among states in which each seeks to protect and advance its interests by political, economic, and informational means without employing violence (FM 100-20)

B. Dynamics and imperatives of LIC

1. Explain the distinguishing characteristics of LIC which make it distinct from other levels of conflict

2. Uncertainties in the future

a. Political

(1) Diffusion of power from two spheres of influence to a number of regional powers

(2) Political instability

b. Economic

(1) Reduced U.S. economic dominance

(2) Interdependent world economy

(3) Increased debt burden in Third World

c. Sociological

(1) Increasing population in low-developed countries

(2) Resurgence of ethnic conflict

d. Technology

- (1) Rapid advances
- (2) Improved weaponry and lethality

e. Military

- (1) Improved weapons proliferations (including CBR)
- (2) Increased terrorism

f. Bottom Line: increase in LICs. "What is important is to understand the role of the military force and the role of other responses and how these fit together." (Casper Weinberger)

3. LIC dynamics

- a. Change. The benefits of modernization and development are rarely distributed evenly to all segments of society. This frequently gives rise to social stress. Government and social systems must be innovative in order to manage change successfully
- b. Injustice/Discontent. The discontent is typically caused by underlying social, economic, or political problems. Groups will form around specific issues. The intensity of the feelings of injustice and cultural norms affect the propensity for violence
- c. Poverty. As a result of mass communication in various forms, people of developing nations have immediate comparisons on how they compete with developed nations. The distinctions in wealth and modernization is a catalyst for discontent and eventually violence in various forms
- d. Instability in Government. As manifested in the developing world, nations seek regional power through military means at a cost to social development. This retardation of the society dramatically increases the instability of a government and reciprocally detracts from the legitimacy of the government
- e. Violence. A by-product of this collective instability and subsequent discontent is manifested in various forms of violence by the dissatisfied against those who perpetuate the current system

4. LIC principles

a. There are six principles that dominate the nature of LIC and the actions of those who work in this realm of conflict

(1) Primacy of political instrument. In contrast to the traditional military objective in war of neutralizing, incapacitating, or destroying the enemy's armed forces and his will to fight, the ultimate military objective in the LIC environment is the attainment of political objectives without resorting to war. In LIC operations, political objectives drive military decisions at every level from the strategic to the tactical. All commanders and staff officers must understand the specific political objectives and the impact of military operations on them. They must adopt courses of action which legally support those objectives, even if the courses of action appear to be unorthodox. In addition, they should anticipate direct involvement by the national command authorities in the decision-making process

(2) Unity of Effort. Military leaders must integrate their efforts with other governmental agencies to gain a mutual advantage in the LIC environment. Military planners must consider how their actions contribute to initiatives which are also political, economic, and informational in nature. Unity of effort calls for interagency integration and coordination to permit effective action within the framework of our government's system. Commanders may answer to civilian chiefs or may themselves employ the resources of civilian agencies

(3) Adaptability. The skill and willingness to change or modify existing structures and methods (for example - doctrine, tactics, techniques, procedures, training, equipment, organization, and leadership) to accommodate different situations. It requires careful mission analysis, comprehensive intelligence, and regional expertise. Adaptability is more than tailoring or flexibility - both of which merely imply the use of the same techniques or structures in many different situations

(4) Legitimacy. Legitimacy is the willing acceptance of the right of the government to govern or of a group or agency to make

and enforce decisions. Legitimacy is not tangible nor is it easy to quantify. Popular votes do not always confer or reflect real legitimacy.

Legitimacy derives from the perception that authority is genuine and effective and uses proper agencies for reasonable purposes. Legitimacy is the central concern for all parties directly involved in the conflict

(5) Perseverance. Perseverance is the patient, resolute, persistent pursuit of national goals and objectives for as long as necessary to achieve them. LICs rarely have a clear beginning or end marked by decisive actions culminating in victory. They are, by nature, protracted struggles. Even those short, sharp contingency encounters which do occur must be assessed in the context of their contribution to long-term objectives. Perseverance helps commanders reject limited short-term success in favor of actions in pursuit of long-term goals

(6) Discriminate use of force. LIC includes military operations in which the goal is neutralizing the enemy's capabilities rather than inflicting maximum casualties on the enemy. The LIC environment is often characterized by constraints on the weaponry, tactics, and level of violence. Excessive violence can adversely affect efforts to gain or maintain legitimacy and impede the attainment of both short-term and long-term goals. Minimum essential force is the guideline. Discriminate use of force refers to the judicious, prudent, and thoughtful selection and employment of forces which are most suitable for the mission. Discriminate use of force does not preclude the possibility of applying massive or overwhelming force, when appropriate, to display U.S. resolve and commitment

C. LIC is different. Instructor highlight those aspects of LIC that make it characteristically different as an environment of potential violence.

MIC AND HIC

LIC

- | | |
|--|--|
| 1. Objectives - primacy of military objectives; war suspends politics. | Primacy of political objectives at the operational and |
|--|--|

tactical levels of

war

- | | | |
|-----|---|--|
| 2. | Deterrence - conventional and strategic - is irrelevant | Strategic deterrence is usually effective |
| 3. | Strategy - attrite enemy; capture key terrain
building popular | Gain political legitimacy through support |
| 4. | Roles - military has lead | Military has supporting role |
| 5. | Method - reliance on mass firepower
discriminately | Firepower is restrained, |
| 6. | Technology - relies increasingly upon high-tech solutions | Emphasis on reliability and simplicity |
| 7. | U.S. involvement - probably direct | Prefer indirect |
| 8. | Trigger - requirement for substantial cause to precipitate involvement | Best addressed prior to reaching level of substantial cause |
| 9. | Duration - can be short | Usually protracted |
| 10. | Organization - sufficient urgency/visibility to gain attention of NCA and NSC | Usually below the attention level of policy makers; need an interagency forum for LIC |
| 11. | Political - once begun, Congress galvanizes
falls with political tides;
tenuous at best | Support rises and usually
and rarely sufficiently solid to permit long-range planning |
| 12. | Resources - once begun, unlimited | Limited |
- D. Use of combat support/combat services support functions

1. Combat units do not play the primary role. Emphasis is placed on combat support and combat service support capabilities such as intelligence, logistics, psychological, medical, engineering, and civil affairs

2. Indirect application of U.S. military power through security assistance which can include training, advisory help, logistics support, and the supply of essential equipment

E. LIC players

1. There is a vast variety of actors who participate in the LIC environment and differing strategies are required

2. Examples
 - a. Urban guerrillas
 - b. Anti-marxist insurgents
 - c. Vigilante groups
 - d. Revolutionaries
 - e. Terrorists
 - f. Narco-terrorists

3. U.S. national players. The following players are part of the U.S. LIC establishment
 - a. Board for Low-Intensity Conflict - A senior review group chaired by the Assistant to the President for National Security Affairs. The board deals with matters pertaining to the coordination of policy and strategy in the LIC area. Provides "top-down" guidance for the various departments and agencies charged with LIC responsibilities

 - b. Assistant Secretary of Defense for Special Operations and Low-Intensity Conflict (ASD/CO-LIC) - The principal staff assistant and civilian advisor to the Secretary of Defense for policy and planning related to special operations and LIC activities within the Department of Defense (DoD). He/she supervises the Special Operations Forces (SOF) programs and activities and represents DoD in interagency matters

- c. Chairman of the Joint Chiefs of Staff (CJCS) - Assists the President and the Secretary of Defense in providing strategic direction for LIC to the commanders of the Unified and Specified Commands
- d. Commanders in Chief (CINCs) of Unified and Specified Commands - Responsible for the development and execution of LIC strategy and plans in their respective areas of responsibility
- e. Chief of Mission (Ambassador/Charge d'Affairs) - The President of the U.S. gives the Chief of Mission authority for direction and control of U.S. in-country government personnel. Ensures that all in-country activities best serve U.S. interests, as well as U.S. regional and international objectives. Promotes positive program direction by seeing that all activities are efficiently and economically administered and effectively interrelated. The Ambassador uses the Country Team to fulfill these responsibilities
- f. Country Team - This concept denotes the process of interdepartmental coordination among key members of the U.S. diplomatic mission. The makeup of the Country Team varies, depending on the desires of the Chief of Mission (Ambassador), the situation in-country, and on the number and levels of U.S. departments and agencies. The principal military members of the Country Team are the Defense Attache and the Chief of the Secretary Assistance Organization. The team coordinates numerous activities under the Unified Commanders' control because of their political-military implications. This coordination is intended to ensure unity of effort and eliminate initiatives that are politically, economically, informational, or militarily counterproductive
- g. United States Information Agency (USIA) - Supports U.S. foreign policy objectives by attempting to influence public attitudes in other nations. Advises the President or his representatives, and various other government departments and agencies on the implications of foreign opinion toward present and contemplated U.S. policies, programs, and official statements. The USIA uses a variety of media and methods to publicize U.S. policies, to plan and conduct information programs in sup-

port of U.S. and host nation agencies, to counter propaganda hostile to U.S. interests, and to coordinate U.S. overt psychological operations (PSYOPs) with approval and guidance from the Department of State

h. United States Agency for International Development (AID) - AID has the responsibility for carrying out nonmilitary U.S. foreign assistance programs and for the continuous supervision of all assistance programs under the Foreign Assistance Act of 1961. It is primarily concerned with developmental assistance and plans and implements overseas programs to improve economic and social conditions

F. LIC sub-elements. There are five major categories of LIC; however, it must be remembered that these categories may blend

1. Insurgency and counterinsurgency

a. Insurgency: An organized movement aimed at the overthrow of a constituted government through the use of subversion and armed conflict. The U.S. Government is prepared to assist selected insurgencies opposing oppressive regimes who work against U.S. interests. This support may require advisory assistance, training, support in logistics, intelligence, civil-military operations, humanitarian and civil assistance, and if needed, U.S. tactical operations

b. Counterinsurgency: Those military, paramilitary, political, economic, psychological, and civic actions taken by a government to defeat subversive insurgency. Those actions the U.S. Government is prepared to undertake include advisory assistance, training, support in logistics, intelligence, civil-military operations, humanitarian and civic assistance, and if needed, U.S. tactical operations

c. Nation assistance: To assist or fight insurgency movements, the U.S. Government uses internal defense - notably economic aid and political and security assistance

(1) Internal Defense and Development (IDAD) - A process used by the U.S. Government to assist a friendly government faced with an insurgency, in which the opposing forces compete for legitimacy by mobilizing from

the same pool of resources. The IDAD concept incorporates four mutually supporting functions: balanced development, security, neutrality, and mobilization

(a) Security: Protects the people from the insurgent violence, separates them from insurgent control, and establishes the conditions in which development can occur. Renders the insurgents' effort ineffective by separating insurgents from the people, converting their members, disrupting their organization, or capturing/killing them

(b) Balanced development: Seeks improvement in the social, political, and economic well-being of all groups and classes of people

(c) Mobilization: Develops human and material resources from within the country through programs which enlist their country, active support of a plurality of politically active people and assures the acquiescence of the rest

(d) Four principles which guide the implementation of IDAD

1. Unity of effort: Ensures coordination of employment of all civil and military agencies and private organizations in mutually supportive actions to achieve a common goal

2. Maximum use of intelligence: Calls for the identification of all issues around which the insurgents mobilize and to which they respond. It also calls for the identification of the insurgent leaders, infrastructure, and combat forces so the government can neutralize them with minimal harm to noncombatants and their property

3. Minimum use of violence: Requires use of the minimum violence necessary in a given situation and an emphasis on the denial of support to the insurgents by persuasion and preemption of issues. It also avoids the creation of new issues

by unintentional injury of noncombatants and their personal property

4. Responsive government: Administrative efficiency, competence, and a willingness to change will lead to a responsive government

(2) Security Assistance Programs: Security assistance includes programs that assist friendly foreign countries to establish and maintain an adequate defense posture. The basis of U.S. assistance lies in the strategy of collective security - a national security policy which recognizes that the security and economic well-being of foreign, friendly countries are essential to U.S. security. Operationally, security assistance is the principal U.S. military instrument in LIC

2. Terrorism - The unlawful use or threatened use of force or violence against individuals or property for coercing or intimidating governments or societies - often for achieving political, religious, or ideological objectives

a. Terrorism counteraction: Combating terrorism consists of those defensive (anti-terrorism) measures to meet the evolving terrorist threat; i.e., intelligence, security - physical and personal, hostage negotiations, hostage rescue, and assault of terrorist positions

b. Considerations

(1) Intelligence is critical

(2) Collateral damage to property and people can be significant

(3) U.S. values and beliefs limit options

c. Example: Desert One (1979)

3. Peacekeeping Operations

a. Peacekeeping Operations (PKO): PKO are military operations conducted in support of diplomatic efforts to achieve, restore, or maintain peace in areas of potential or actual conflict - observations and surveillance, escort, patrolling, communications, search, protection of facilities, logistics assistance, policing, investigation of complaints, mediation, clearing of mines, marking defined forward limits of each belligerent forces, and seeking and receiving

the remains of those killed during hostilities

b.Principles

- (1) Use of force in self-defense only - minimize offensive capabilities
- (2) Participation is usually multinational in nature
- (3) Usually sponsored by the U.S., with agreement of the belligerents
- (4) U.S. involved if critical to U.S. national security interests

c.Examples

- (1) Sinai (1973 to present)
- (2) Beirut (1982-84)
- (3) Korea (1953 to present)

4.Contingency operations

a.Peacetime contingency: Politically-sensitive operations characterized by short-term, rapid projection or employment of forces in conditions short of conventional war; e.g., strike, raid, NEO, rescue, recovery, demonstration, show of force, unconventional warfare, intelligence operations, airborne assault, amphibious assaults, raids, airlift, air interdiction, noncombatant evacuation, disaster relief, and drug interdiction

b.Characteristics

- (1) Planned in secret
- (2) Boldly executed
- (3) Usually short-term notice of execution
- (4) Special operations units - usually for high-risk operations

c.Types

- (1) Strike operations
- (2) Raids
- (3) Recovery operations (people and property)
- (4) Noncombatant evacuations

- (5) Show of force
- (6) Special operations
- (7) Intelligence operations

d. Examples

- (1) Grenada (1983)
- (2) Liberia (1990)
- (3) Panama (1989-90)
- (4) Somalia (1991)
- (5) Saudi Arabia (1990-91)

5. Counter-drug operations

a. In the last 15 years, there has been a mutually beneficial - yet very dangerous - union between terrorists and drug traffickers

b. Involvement by U.S. military personnel has largely been in support of interdiction efforts and through providing training to countries from which narcotic trafficking originates

c. Examples

- (1) Operation Snowcap - Bolivia - 1986 to present
- (2) Trainers in Peru
- (3) Military operations in support of law enforcement agencies/interdiction efforts

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 65

HOURS: 1

TITLE: The Middle East

I. Learning Objectives

- A. The student will know and trace the evolution of the Arab-Israeli conflicts
- B. The student will comprehend and then assess super-power influence in the Mid-East
- C. The student will know and review the October War, with emphasis on the impact of modern weaponry

II. References and Texts

A. Instructor references

- 1. Dupuy, The Evolution of Weapons and Warfare, pp. 282-286
- 2. Jones, The Art of War in the Western World, pp. 602-609
- 3. Preston and Wise, Men in Arms, pp. 349-351, 390-399

B. Student texts

- 1. Jones, The Art of War in the Western World, pp. 602-609
- 2. Preston and Wise, Men in Arms, pp. 349-351, 390-399

C. Other references

- 1. Knight, John E., Jr., "The Arabs and Israel in Perspective," Marine Corps Gazette, Vol. 58, No. 1, 2, and 6, 1974
- 2. Instructor Resource Manual

III. Instructional Aids

- A. Chalkboard
- B. Overhead projector
- C. Instructor-produced transparencies

IV. Suggested Methods and Procedures

- A. Lecture and discussion

B.Guided discussion

V.Presentation

A.The Soviet invasion of Afghanistan, 1979

1.History pertinent to the conflict

a.Afghanistan enjoyed the courtship of the Soviet Union from 1954-1978, in the form of economic support and shipment of arms

b.Following his reinstatement to power in 1973, Mohammad Daoud sought to lessen his country's dependence on the USSR by diversifying his sources of support externally and internally

c.27 April 1978: Communist-supported military coup murders Daoud and instates Nur Muhammad Taraki

d.Twenty months of internal unrest followed under Taraki and his successor Amin, who assumed power in September 1979

2.Reasons for Soviet invasion of Afghanistan

a.Instability had reduced the Soviet presence in Afghanistan to only an influence and not domination, which left them no other option

b.The Soviet-backed Amin regime was no longer functioning amid rampant executions, imprisonment, and political rivalries

c.A giant step towards control of sea lanes which carry the majority of the world's mideast oil

d.A stepping block to eventual acquisition of warmwater ports on the Arabian Sea

3.Courses of action in the invasion

a.24 December 1979 - Airlift of two Soviet airborne divisions totaling 25,000 men into Afghanistan begins

b.27 December - Soviet airborne troops storm Amin's palace; Amin is executed and Barbrail Karmal is installed in office

c.28 December - Kabul, capital of Afghanistan, is completely controlled by Soviet troops after encountering little resistance

d.29-31 December - Second phase of intervention by land is executed as two divisions of motorized

riflemen and necessary support personnel enter Afghanistan

e. 40,000-60,000 Soviet troops remain behind at the border in reserve

f. Widely scattered clashes with insurgents - presently undisciplined and unorganized

g. 4 April 1980 - Ratification of the treaty on the temporary stay of the limited Soviet military contingent on Afghan soil by the Soviet Union, giving themselves the privilege to occupy Afghanistan

h. Soviet invasion is met with worldwide condemnation and scorn

4. Soviet occupation after invasion

a. Ragtag insurgents have combined forces and restricted their bickering to become a disciplined guerrilla unit and control 80% of the land - mostly rural - but lack the manpower to evict Soviet troops

b. Soviet troops occupy major urban areas, but have not committed enough troops to pacify the insurgents, though time is on their side

c. Standoff ensues - endless Soviet offensives and rebel counterattacks

d. One-fourth of country now consists of refugees in neighboring Pakistan

e. Soviet Union will not withdraw to abandon what gains they have made, leaving Afghanistan in limbo as a Soviet puppet

f. Soviet Union continues to indoctrinate Afghans through "Sovietized" education and training of future Afghan officials in Russia

5. Lessons derived from the Soviet invasion and occupation

a. Kremlin will not hesitate to intervene in Third World countries to keep a communist regime in power

b. Instability attracts Soviet involvement; keep close eye on Iraq and Iran

c. Kremlin is not fearful of the outcome of their

actions upon diplomatic relations with the U.S.

- d. Little to be learned concerning strategy and weaponry due to primitive style of warfare and weapons used by the rebels

B. Presentation of the Israeli-Arab Wars

1. The evolution of events pertinent to the conflict

- a. For the Jews, their claim to the State of Israel is biblical
- b. For the Arabs, their claim to the State of Israel is self-determination; the territory involved has historically been inhabited by Arab people
- c. The Balfour Declaration is signed 9 November 1917, claiming that England would work to facilitate the establishment of a national home for the Jews in Palestine. Jews only numbered 90,000 at this time
- d. England stalled in its pledge and for the next three decades they governed Palestine under a mandate from the League of Nations
- e. The Jewish population in Palestine continued to grow as immigration of Jews from Hitler's rise to power in Europe mounted - numbered 400,000 in 1937

2. Arab-Israeli War of 1948

- a. Friction climbed between Arab inhabitants of Palestine and Jewish immigrants
- b. Arab Revolt in 1939
- c. England, recognizing the crucialness of the Arab population to the war effort in the Middle East, made concessions to them - including limitations on immigration
- d. Following World War II, Jews responded to limitations on immigration of their people with terrorist attacks and other forms of resistance. By 1945, an underground Jewish rebellion was firmly implanted
- e. February 1947 - England, realizing the tremendous scope of the conflict, gave the problem to the United Nations
- f. U.N. decided to partition Israel between the Arabs

and Jews, but the proposal is refused by the Arabs

g.14 May 1948 - Declaration of Independence that proclaimed the State of Israel as an independent Jewish state

h.15 May - In response, the new nation of Israel is invaded by five Arab states

i.7 January 1949 - War ended with an Israeli victory - 700,000 Arabs are now refugees, driven from their homes in Palestine

3.The emergence of "superpower" influence in the Middle East and the Arab-Israeli War of 1956

a.USSR, U.S., and Great Britain are quick to recognize the new State of Israel

b.1955 - Arms agreement between Egypt and Soviet Union is reached

c.1956 - Israeli strike across Sinai is initiated in response to Egypt's military buildup and their blockade of the Gulf of Aqaba to Israeli ships

d.France and Great Britain enter the war on the side of Israel to regain the Suez Canal which Nasser took 3 months earlier, after U.S. and Great Britain reneged on a promise to build the Aswan Dam

e.Israel wins the second Arab-Israel War

f.March 1957 - Israel withdraws from the territory it conquered after receiving guarantees that their ships would have access to the Gulf of Aqaba

g.By July 1957 - With the Soviet Union rearming both Egypt and Syria combined with American support of Israel, the Middle East was fast becoming a potential area of "superpower" confrontation

4.Presentation of the Arab-Israeli War of 1967

a.7 April 1967 - Signaled start of struggle as Syrians and Israelis fought a 1-day battle on air and ground

b.Followed by series of fatal military moves made by Nasser

(1)14 May - Large-scale massing of Egyptian troops on Israeli borders

(2) 16 May - Nasser demanded the withdrawal of UNEF peacekeeping forces who patrolled the Israeli-Egyptian borders

(3) 22 May - Nasser closed the straits of Tiran - Israel's only outlet to the Red Sea - immediate cause for war

c. Interlude of diplomatic maneuvers which failed to get Nasser to retract his recent actions

d. 5 June - Israel struck and achieved a tremendous victory, occupying Egyptian, Syrian, and Jordanian territory in 6 days

(1) In first 3 hours, Israeli aircraft struck 25 bases and destroyed 350 aircraft using primarily Mirage-3 fighter bombers

(2) Struggle in Sinai with tanks, in which Israelis were again victorious with equal speed and surprise; destroyed 200 Arab tanks in 2 days

e. Results of 1967 War

(1) Israelis exhibited extraordinary prowess in mobilizing troops and equipment overnight, fielding a force of 235,000 men in 48 hours

(2) Eliminated a decade of Soviet arms' buildup to Egypt

(3) Israel refused to relinquish its conquered territory

5. The Arab-Israeli War of 1973: The October (Yom Kippur) War

a. September 1970 - Nasser dies and is succeeded by Anwar Sadat

b. Sadat makes overtures to the West

c. July 1972 - Sadat expels most Soviet advisors and technicians from Egypt in response to USSR's inadequate supply of arms

d. After October 1972, limited Soviet arms resume flowing into Egypt

e. Sadat's frustration and unhappiness with faltering negotiations to regain Arab territory lost in 1967 prompt him to attack Israel

f. 6 October 1973 - Egypt launches a carefully coordinated attack with Syria across the Suez

Canal and Golan Heights

- g. Israel is caught by surprise. Egypt scores early victories by inflicting heavy losses and penetrating into the Sinai Peninsula across the Suez Canal
- h. Iraq sends troops and air force to aid Syria; Lebanon is mobilized; Saudi Arabia, Libya, and Persian Gulf states provide arms; Soviet and U.S. fleets are poised in the Mediterranean
- i. Israel soon turns tide of the war and moves battlefronts back into Egypt and Syria
- j. 25 October 1973 - Cease-fire declared and Israel again emerges victorious
- k. Permanent peace settlement is sought.
September 1975: Arab-Israeli agreement is made. Heavy involvement by "superpowers" in negotiations

6. Results of October War

- a. Air power proves vulnerable to ground-launched, anti-air equipment, as 80% of Israeli planes knocked down are hit by Soviet-made SAMs. The SAM-6 is particularly impressive.
- b. Unlike 1967, the tank no longer ruled the battlefield. The tank onslaught, supported by close aerial support, suffered heavy casualties (840 Israeli tanks destroyed) due to developments in anti-air and anti-tank equipment. Particularly successful are the Soviet-made Sapper and Sagger anti-tank missiles
- c. A massive airlift capability is crucial to victory, as evidenced by the logistics' support given by the superpowers to the respective sides
- d. Egyptian successes against superior Israeli forces established Egypt as a military contender and Sadat as a viable leader. Egypt earned respect and bargaining power for peace negotiations

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 66

HOURS: 1

TITLE: The Gulf War (Desert Storm)

I. Learning Objectives

- A. The student will comprehend and be able to discuss the background and justification used by Hussein for the invasion of Kuwait
- B. The student will comprehend and be able to discuss the strategy and operational and tactical concerns of the coalition forces in Operation Desert Storm
- C. The student will comprehend and be able to identify the combat "firsts" utilized in Operation Desert Storm

II. References and Texts - Other references

- A. Edson, J. J., Col, USMC (Ret.), "A Perspective on Desert Storm," Marine Corps Gazette, Vol. 75, No. 6, June 1992, pp. 25-27
- B. Friedman, N., Desert Victory, the War for Kuwait
- C. Keene, R. R., Leatherneck Magazine, Vol. LXXIV, No. 3, March 1991, "Desert Storm Stirs Up," pp. 23-25
- D. Wilson, G. I., LtCol, USMC, "Maneuver Warfare and the Operational Art," Marine Corps Gazette, Vol. 75, No. 6, June 1991

III. Instructional Aids

- A. Chalkboard
- B. Overhead projector
- C. Locally produced transparencies (4 transparencies provided)

IV. Suggested Methods and Procedures

- A. Lecture and discussion

B. Guided discussion

V. Presentation

- A. Background: Hussein's Justifications For Invasion (TP #1)

- 1. Hussein felt Kuwait - and indeed, the rest of the

Arab world - "owed" him a great deal

a. Most important, Iraq - being the primary military power - was now the Arab world's deterrent to the most hated enemy, Israel

b. Iraq's historic claim to the region (Kuwait) - the current border was the result of a line drawn in the sand by the British. Kuwait actually belonged to Iraqi Mesopotamian forefathers

c. Hussein felt he had defended Kuwait from the onslaught of Iran's Islamic fundamentalism

d. Kuwait had consistently overproduced its OPEC-set oil quotas, lowering the price of oil and reducing income to Iraq at a time when it was most needed

e. Hussein accused Kuwait of pumping Iraqi oil from the Rumalia oil field

2. Reconstitution of the Iraqi economy required due to costs of the Iranian War and loss of revenues

3. Advantages that Hussein felt annexation would bring

a. Ability to attack Israel at will and pull rest of Arab world to his side

b. Faith in his troops to win long, drawn out battle with the U.S. if America interfered - war of attrition like he had just won with Iran

c. Actually felt that because of Vietnam, American public would not endure this long, drawn out struggle

d. Hussein felt he would attain a position of leadership in Arab world comparable to that of Nasser

e. His possession of approximately 20% of the world's oil reserves in both Iraq and Kuwait would make his country an economic giant

4. Saddam Hussein sent his troops across the Kuwait border at 0200, 2 August 1990. At this point, Hussein

a. Set up a provisional government that lasted only 5 days -

b. At which time Iraq formally annexed Kuwait as its 19th province

c.Hostages - "Iraqi guests" - were seized in Iraq and Kuwait. These "guests" were anybody not "in sync" with Hussein's goals (TP #2)

B.Operation Desert Shield - 7 August 1990

- 1.First U.S. forces arrive in Saudi Arabi - 7 August 1990. F-15 Eagle fighters from Langley Air Force Base, Virginia
- 2.USMC Maritime Pre-positioning - Marines were married up with their gear and supplies before any other branch of the service
- 3.The General Assembly of the United Nations voted tough economic sanctions against Iraq to cut off their supply line and put pressure on them to pull out of Kuwait. These resolutions culminated with one that authorized force if Iraq had not began a substantive withdrawal from Kuwait by 15 January 1991. Ironically, Iran was the only country to vocally stand by Iraq. This accents the hatred of Americans by the Iranians
- 4.Hussein began to demand that the invasion of Kuwait be linked to the Palestinian problem. He determined that Iraq would not give up Kuwait unless this problem was addressed. The U.S. determined that Iraq would give up Kuwait with no bargaining whatsoever
- 5.On 22 August 1990, President Bush authorizes the first call-up of selected reserves to active duty since WWII
- 6.Many attempts at peaceful resolution were attempted, but all failed. Jesse Jackson and Yassar Arafat, among others, got involved - to no avail (TP #3)

C.Operation Desert Storm - 16 January 1991 - U.N. forces involved, which included U.S., Saudi, British, and Egyptian troops

- 1.All-out air attacks were launched against Iraqi positions by U.N. forces (A-6s, B-52s, Harriers, etc.)
 - a.More than 100,000 allied sorties were flown in 6 weeks. This created a big strain on air traffic control - which was handled beautifully - managing to continually fly missions night and day
 - b.Continuous bombardment destroyed Iraqi Air Force before it could get off the ground. This took out Hussein's ability to see what the U.S. was

doing

- c. Some of the targets included missile storage sites, communications structures, SAM sites, airstrips and runways, supply installations - in addition to known and suspected enemy positions
 - d. The air bombardment was entirely successful. Iraq was devastated before the ground war even began
2. Another area of pre-ground war preparation was a series of "roving-gun" artillery raids begun on suspected enemy positions in Kuwait
- a. The purpose was to provoke enemy reaction, with aerial observers, tactical air on-station and artillery waiting to hammer Iraqi troops if they came out of their fortified positions
 - b. The raids promoted deception and kept the Iraqis off-balance by keeping them confused as to when the actual ground war would begin
 - c. These artillery raids continued with significant success until ground combat was initiated
3. As January progressed, ground elements in Saudi Arabia continued to move north toward enemy positions in Kuwait
- a. On 29 January, Iraqis penetrated the Saudi Arabian border at three locations. This led to the most highly publicized ground conflict between coalition forces and Iraqis prior to the initiation of the ground offensive when they met at Khafji. After brief skirmishes, Marines played a big part by spotting and adjusting fire for artillery and tactical air strikes. By the next day, Khafji was cleared of Iraqis
 - b. Operation Desert Sting was carried out on January 29. This was a raid in which the Iraqi-occupied island of Maradim was hit. No enemy was encountered; however, large amounts of equipment, ammunition, and supplies were destroyed. This raid was carried out by RECON and STA (surveillance and target acquisition) Marines
 - c. For the next several weeks, ground forces continued reconnaissance missions while repositioning in preparation for the ground offensive

d. On 21 February, 2nd LAI BN was engaged on three separate occasions by Iraqi forces during cross-border screening operations, calling tactical air and artillery to suppress the enemy each time

e. Deception operations offshore continued on the 22nd and 23rd of February as offensive preparations were finalized

4. Iraqi Scud missile attacks began on 17 January. These missiles were used for several attacks on Israel, who showed uncharacteristic discipline in not replying to the threat and allowing coalition forces to respond. U.S. Patriot missiles successfully intercepted most of the Scuds

a. Scuds are short-range, ballistic (self-propelled and free-falling) missiles that are relatively obsolete. Iraq was supposed to have about 1,000 of the liquid-fueled Scuds. Most were intended to be fired from a fixed location, although many were to be launched from mobile platforms as well. Most of the fixed locations were located and destroyed, but the mobile launchers gave the coalition forces problems. The principle Iraqi threat supposedly lay in the use of Scud warheads containing chemical or biological agents. This never occurred

b. Patriot is an air-defense missile system. Originally an anti-aircraft weapon, it was modified to defend against ballistic missiles as well. It uses searching/tracking radar on incoming missiles. During the war, Patriots managed to rack up a near-miraculous kill ratio against the Scuds of the Iraqis

c. However, one Scud did get by to hit its target on 25 February - the second day of the ground war. It destroyed a U.S. barracks in Dhahran, killing 28 soldiers

5. Ground war begins on 24 February 1991

a. With Iraqi air virtually eliminated, their army was pounded mercilessly for weeks; supplies were lost or destroyed - and most importantly - Iraq's command and control communications were severely degraded. The army was starved by lack of food, water, fuel, supplies, intelligence, and information

- b. It was in this scenario that Marines made a pre-dawn assault on 24 February 1991. Within 30 minutes after the invasion started, Marines had overrun the minefields, barbed wire, and other obstacles of Saddam's highly touted "walls of death." Within 6 hours, Marine and Army divisions sliced through the Iraqi defenses and waded through a 35-mile "sea" of Iraqi soldiers
- c. The Iraqis were simply outgunned. Marine M-1 and M-60 tanks, tracked landing vehicles, LAVs, HMMWVs mounted with TOWs (tube-launched, optically tracked, wire guided), Cobra gunships, AV-8B Harriers, A-6 Intruders, and F/A-18 Hornet attack jets shot across the desert with power and speed that stunned and devastated the Iraqis. Cluster bombs blew 50-foot craters; incoming 155mm and 8-inch artillery shells created a vacuum as they exploded, creating concussion effects. Hellfire missiles slammed home in blinding blasts and sent parts of Soviet-made tanks flying in every direction
- d. This continued for 3 days and on 27 February, Marine forces surrounded Kuwait City. The initial success had been nothing less than as tounding. Not a single tank or armored vehicle had been lost
- e. It was all but over in 100 hours. At 0800 on 28 February, offensive operations ceased. Heaps of Iraqi corpses were being buried in mass graves (estimates of Iraqi casualties range from 85,000 to 100,000). The desert was littered with 3,700 of their tanks, 1,875 armored vehicles, and 2,140 artillery pieces burned or abandoned. Groups of Iraqi soldiers roamed the desert looking for someone to surrender to; still others headed north and home
- f. It had cost the Americans 115 dead, 200 wounded, and 28 missing in action (TP #4)

D. Demonstrations Had Worked Perfectly. General Schwarzkopf, coalition commander, had devised an operation that had not only called for bold tactics and envelopments, but also feints and deception by the Marines and Navy. Approximately 18,000 Marines of the 4th M.E.B. continued heavy operations out in the sea, to keep the Iraqis guessing as to when the rumored massive amphibious operation would begin. There was

actually no room, anyway - none was ever planned. It worked perfectly as Iraq committed a heavy barrier of infantry along the coast and spent much of their time and effort building an extensive barrier there. This contributed heavily to the success in the desert as General Schwarzkopf moved forces west for a huge envelopment - a move that Hussein was incapable of countering and still cover the coast

E.Environmental Destruction Was Terrible. On 25 January, Iraq had created a massive oil slick off the coast with their reckless bombing. The military leadership - unable to face the oncoming onslaught, and before fleeing north without their troops - torched nearly 600 Kuwaiti oil wells, which experts said would take more than 2 years to totally extinguish

F.Combat Firsts

- 1.20 February: AV-8B Harriers conducted strikes from the USS NASSAU - a first for the Marine Corps
- 2.Transfer of control of an enemy prisoner: spotted by an F/A-18 Hornet, was effected between an aircraft and armored vehicles - another Marine Corps first.
- 3.An enemy news team - CNN - was allowed to broadcast directly from a city under attack and even to interview the enemy leader, Hussein
- 4.TV gave America its first clear view of the well-trained women of the U.S. military services going about their business, from flying transports to loading bombs to servicing radars
- 5.Most extensive interviews of America's leaders on a daily basis. Never has a public been so well served in terms of information

G.War Crimes and Atrocities

- 1.Persistent rumors of atrocities and crimes by the Iraqis turned out to be brutally true. Victims were shot, tortured, and raped. These reports were, in part, reasons for General Schwarzkopf's eagerness to get Marines into Kuwait City ASAP
- 2.Approximately 20,000 hostages were taken during the Iraqi occupation. The coalition resistance provided a list of about 40,000 Iraqis wanted for questioning

H.Conclusion - while it was high technology and sophisticated equipment that played a big part in this war, it still came down to individuals - skilled and

trained in the professional military arts - to make it all work successfully. The first and greatest difference between the two forces was that the U.S. troops

who formed the majority of the coalition forces were all volunteers - a factor of inestimable value in terms of morale. These men and women wanted to be doing the job they had been called upon to do. While American leadership shined and continually performed admirably, the Iraqi leadership failed miserably. The Iraqis resorted to execution of deserters to try and keep their soldiers on the lines. In the end, it came down to the months and months of hard work, hard training, and sacrifice that led the U.S. and coalition forces to victory

**NAVAL RESERVE OFFICERS TRAINING CORPS
EVOLUTION OF WARFARE**

LESSON: 67

HOURS: 1

TITLE: Future Warfare and Terrorism

I. Learning Objectives

- A. The student will know and then summarize the proliferation of terrorism and its use as a political and military method of warfare
- B. The student will know/discuss the possibility of nuclear terrorism

II. References and Texts

- A. Instructor reference - Dupuy, The Evolution of Weapons and Warfare, pp. 286-336
- B. Other references
 - 1. Department of the Army, Soviet Army Operations, ch. 1, 3, 4, 5
 - 2. Dupuy and Dupuy, "Understanding War from Historical Perspective", Marine Corps Gazette, June 1985, pp. 53-58
 - 3. Earle, Makers of Modern Strategy, ch. 4, 5
 - 4. Lykke, Military Strategists: Past and Present, pp. 18-22, 111-114
 - 5. Office of the CNO, Understanding Soviet Naval Developments, pp. 11-19, 25-26

III. Instructional Aids

- A. Chalkboard
- B. Overhead projector
- C. Instructor-produced transparencies

IV. Suggested Methods and Procedures

- A. Lecture and discussion
- B. Guided discussion
- V. Presentation

A. Dupuy identifies the following 13 "fundamental operational features" as characteristic of combat throughout man's history. In discussing them, keep in mind their possible application or irrelevance to future combat - whether it be guerrilla, conventional, limited nuclear, or nuclear. Afterwards, examine the beliefs of other theorists and military forces and possible mitigating factors of these tenets

1. Offensive action is essential to positive combat results - no matter what the posture (offensive/defensive) of the unit in question
 - a. This can allow forces to seize the initiative and dictate the flow of combat, preventing the enemy from assuming the offensive
 - b. When a foe is fleeing, offensive action allows the force in question to administer the coup de grace by smashing any remaining resistance
 - c. When faced by superior forces, offensive action allows a force to forestall defeat - possibly until enough relief arrives to make force strength more equitable/superior
 - d. Jomini preferred offensive posture, for reasons listed later
 - e. The once-powerful threat as set forth by Soviet doctrine emphasized bold and decisive combat activeness and the pursuit and destruction of the retreating foe
 - f. In nuclear warfare, does the offense have the edge? (Force that seizes the initiative may obliterate any possibility of offensive action from a force attacked)
2. Defensive strength is greater than offensive strength. Dupuy maintains that this is true not only because the worst thing that will happen to a defensive force is that it will merely slow the enemy down, but also that fighting from the defensive may allow a force to take advantage of terrain and fortifications and assume the offensive and, possibly, momentum. Furthermore, some maintain that today's military technology may give a "radical advantage" to the defense. Early-warning radar, satellite surveillance, and infrared optics may allow forces to anticipate the enemy's moves and strike as he is massing his forces for the offensive (i.e., when he is most vulnerable). As for applicability to the recent past, NATO possessed no prepared field fortifications, did not possess significant combat superiority, and therefore could

not have repelled a Warsaw Pact attack. It may at this point be only speculative; however, it stands to reason that if alerted with enough time to deploy and entrench forces in field fortifications, the chances of success would have been significantly greater. Furthermore, in light of the dictum that "the best defense is a good offense," what consequences could this outlook have on the probability of preemptive nuclear strikes from bases close to the enemy's territory. One last question: how does a force assume the defensive against guerrillas or terrorists?

3. Defense is imperative when offense is impossible. For the initial reasons mentioned above, Dupuy maintains that defensive posture automatically multiplies the strength of a force. Furthermore, it seems clear that if a force cannot assume the offensive, then failure to assume the defensive allows the enemy to turn stalemate into victory. The Soviets saw a number of benefits to be reaped from defensive posture in the event of inability to assume or maintain the offensive
 - a. Consolidation of gains made is possible
 - b. Allows forces to await additional elements (and thus become able to resume/assume the offensive)
 - c. Protection of flanks
 - d. Repel the counter-thrusts of an attacked enemy
 - e. A force can regroup after severe losses from a nuclear (or other devastating) attack
 - f. Resources of the defensive force(s) are freed for use elsewhere
 - g. Allows a force to await logistic support and/or prevent overextension of its supply line (look what happened to Napoleon)

4. A flank or a rear attack increases a force's chances of success. Dupuy believes this allows for greater chances of surprising the enemy, attacking him at weaker zones of his force, the possibility of encircling (and therefore cutting off) a force, and that defense of a flank or rear areas is more difficult, since most of a force's power is directed toward the front. Theoreticians such as Jomini have long emphasized hitting the enemy where he is weakest - traditionally the flank and rear areas. An examination of what was once Soviet doctrine revealed the importance of flank and rear attacks, for the goal of combat - in addition to the

destruction of military - is the seizure of key political and economic centers deep within the opponent's rear areas; flanking and envelopment movements thus comprise a major part of their tactical doctrine. Despite these considerations, however, flank or rear attack may not be practicable, for a strategic nuclear weapon renders any distinction between front, rear, and flank of an attacking force meaningless (not to mention the force itself); furthermore, such distinctions may be meaningless when fighting highly-dispersed guerrilla forces

5. Initiative permits one to capitalize on superior combat forces. By seizing the initiative, a force can determine the course of combat by forcing the enemy to react to its moves - thus preserving its freedom of action, while denying the enemy such freedom. This tenet once formed a key part of Soviet strategy. It would be interesting to see if this doctrine is still alive and well in Unified Russia. It should be pointed out that when dealing with terrorists or guerrillas, the unconventional forces have a decided advantage in seizing the initiative; also, the force that seizes the initiative with the use of nuclear weapons may not face any subsequent resistance (or may initiate global thermonuclear war)

6. The defenders' chances of success are directly proportional to his fortification strength. Dupuy says that fortifications are always beneficial to the defender who uses them; the more fortifications a defense has, the fewer weak spots his enemy can exploit. While this may be true in certain land battles of limited, local wars, does this still hold in light of the following considerations?

a. In guerrilla warfare, the emphasis is on attacking the enemy after he ventures outside of his fortifications and fighting often occurs in the countryside - away from fortifications

b. Fortifications provide little obstacle to tactical and/or strategic nuclear weapons

c. Fortifications hinder an army's ability to disperse its forces (they are immobile)

d. In some situations, the collapse of a fortification from the force of explosive weapons may kill and injure more personnel than would otherwise have been affected

7. The strongest defenses can be penetrated, but at a price. While this may have been true in the days of laying siege to forts, given the existence of

ICBMs, ABMs, and other technological achievements, such may no longer be the case. Indeed, the cost of penetrating such defenses may result in uncontrolled escalation. At best, it may be a pyrrhic victory. When dealing with terrorists or guerrillas, how does one penetrate their defenses? One should also keep in mind that a combatant may use any available weapons - no matter how terrible - to prevent the penetration of his defenses

8. Successful defense depends on depth and reserves. Defense-in-depth ensures that the enemy's penetration of the initial barriers will not guarantee victory, and even in the worst situations makes the pursuit of a beaten foe more costly in terms of personnel, equipment, and time. This may buy the defenders the time to regroup and reequip for the launching of an offensive before they must resort to "last gasp" measures (e.g., CBR warfare). How effective is a defense-in-depth against the various types of CBR warfare?
9. Superior strength always wins. Dupuy does not consider superior strength to mean merely superior force ratios; rather, he asserts that superior strength results from the combination of a variety of combat variables in any situation. Some of these variables include the size, discipline, training, mobility, and esprit of the forces involved, quality of leadership, the element of surprise in conducting operations, the defensive posture of one or both forces, the acquisition and exploitation of the battlefield terrain, and the firepower and type of weapons involved. Given that the above variables will have different importance in different combat situations, the victor in any combat situation can be said to have had the superior strength
10. Surprise enhances combat power. This also appears to be inarguable - for by surprising the enemy, at worst a force will be fighting a somewhat weakened enemy, while at best the enemy may be routed in the initial attack. Jomini emphasizes the "surprise value" of surprise. Some considerations in future warfare include
 - a. Terrorists and guerrillas have the overwhelming advantage in the use of surprise and exploit it consistently
 - b. The surprise use of strategic nuclear weapons hopefully appears less likely, with the reduction of cruise missiles in Western Europe
 - c. Initial destruction may be so great that the surprised defender may have to resort to

extreme (CBR) measures of defense

11. Firepower kills, disrupts, suppresses and causes dispersion. This point is self-evident
12. Combat activities are slower, less productive, and less efficient than anticipated. In warfare, as in anything else, things never go quite as planned. Unforeseen contingencies such as equipment breakdowns, an enemy that does not react as expected, or unfavorable climate and terrain always hinder the efficiency of any combat operation
13. Combat is too complex to be described in a single simple aphorism

B. Principles of war - In reviewing the principles of war, recall and contrast the perspectives of Jomini and Clausewitz with current authors, such as Dupuy

1. Jomini

- a. Concentrate forces at decisive areas and eliminate the enemy's communications without compromising one's own communications and security. This tenet is similar to that of mass in the principles of war and merely asserts that forces should be employed where they will be most effective - and that cutting off the enemy's communications significantly hinders his ability to continue fighting
- b. Major forces should be pitted against the enemy's weaker ones, for these can be destroyed at minimal cost before forces must be directed to the enemy's strength. This may create fatal gaps in his defenses that can be exploited
- c. The above should be done as swiftly as possible, with the actions of the various elements of each force acting synchronously. Briefly, it should be noted that speed and coordination assume even greater significance in the age of nuclear weapons
- d. Do not separate forces unless absolutely necessary. (As we shall see, this dictum may be less applicable when considering the use of nuclear weapons)
- e. Surprise is supremely important in any operation
- f. The strategic initiative is very important, for the side that seizes the initiative dictates the ensuing warfare
- g. A beaten foe should be pursued and destroyed

2. Soviet Army doctrine once consisted of seven principles for combat success and assumed that combat would occur on a nuclear battlefield (or zone that will likely become nuclear). This may hold true still today. Again, bear in mind the same considerations that were given for Jomini
 - a. Mobility of forces and high rates of combat operations yield significant combat advantages
 - b. Concentrate the main effort and create superiority of forces and means over the enemy at the decisive place and time
 - c. Surprise and security (secrecy and avoiding being surprised) are of paramount importance in any combat operation
 - d. Combat activities must be bold and decisive; indecision must be avoided and retreating enemies must be ruthlessly pursued and destroyed
 - e. Combat activeness of friendly forces must be preserved so that they may carry out the fight
 - f. The goal or objective of an operation must conform realistically to the combat situation
 - g. Elements in a force must be effectively coordinated
3. The U.S. Army's principles of war bear many similarities to (and some differences from) the timeless verities of Dupuy and the principles of Jomini. More than likely, these similarities are no doubt held by other modern powers in Eastern Europe and the Middle East. When considering the following principles, note these similarities and differences and consider their applicability to future combat operations
 - a. All combat operations should be directed toward a clear objective (objective)
 - b. Use initiative in combat to determine the time, place, strength, type, and direction of attack, and attack whenever possible (principles of offensive)
 - c. Combat power should be concentrated at the decisive point and time (principle of mass)
 - d. Distribute available forces in the most advantageous manner possible (economy of force)

- e. Maneuvering forces stopping results in stagnation (principle of maneuver)
- f. Elements of forces must utilize teamwork to achieve the goal, and there must be one center for issuing orders and coordinating movements (principle of unity of command)
- g. Use surprise whenever possible in implementing a combat operation (principle of surprise)
- h. Never be surprised. Keep your communications secure and intercept the enemy's communications (principle of security)
- i. Keep plans as simple as possible, for they are more easily adapted to changing situations (principle of simplicity)

C. When examining the preceding principles and aphorisms of warfare and their applicability to future combat, one must bear in mind that certain factors internal and external to the military organization influence the extent to which any of the preceding criteria can be successfully fulfilled. These "threads of continuity," have influenced warfare from its inception and will likely continue to do so forever. Review the threads of continuity (internal and external) to the military organization and how they may impact on future warfare

D. Contemporary phenomena and their possible influence on future warfare: for discussion by the class

1. Nuclear weaponry

a. Arguably, many schools of thought no doubt still profess that the best defense is the threat of massive nuclear retaliation. According to those who maintain this, a first "surprise" strike is unthinkable - for enough missiles would be left (ground-based and especially sub-based) - to launch a devastating retaliatory strike on the attacker. This possibility has resulted in the clear necessity of any sort of first strike wiping out the strategic nuclear weapons of the foe, which is thought to be an impossibility

(1) With the presence of cruise missiles in Western Europe and SS-20s in eastern block countries, it has been argued that the flight time of such weapons is sufficiently short to make "surprise attack" possible. Given the existence of sub-launched ballistic missiles and the difficulty in detecting the submarines, are such fears justified?

(2) The development of SDI technology has received much publicity in recent times. Assuming such technology works as well as its proponents claim, what influence (if any) does this have on the doctrine of MAD and any possibility of surprise first strikes?

b. With the extreme destructive power of tactical and strategic nuclear weapons, many thinkers now advocate maximum dispersal of forces to lessen as much as possible the losses inflicted by such weapons. How can this belief be reconciled with the principles of war which advocate massing of forces at the enemy's weak points to achieve military success? (Such reconciliation may not be possible)

c. It has been argued that with the development of such technological wizardry as satellite surveillance, early warning radar, and the like, that "surprise attacks" are no longer possible and that such "passive" defenses (as opposed to "active" ones like the ABM) have assumed a hitherto unprecedented importance in national defense. Do you believe this is true? (Why or why not?)

d. The threat of nuclear warfare has increased the importance of other types of conventional and unconventional (non-nuclear) warfare for those powers desiring to avoid direct military conflict with a nuclear nation

(1) Economic and/or political warfare in the form of tariffs, embargoes, boycotts, and possibly blockades has become a popular means of forcing the opponent to alter his behavior. Some examples include the grain embargo to the Soviet Union after the 1979 invasion of Afghanistan, the boycott of the 1980 Olympics, the embargoes and naval blockade against Iraq in the recent South-west Asia conflict, etc. Are such means effective substitutes for direct military actions, or do they allow nations to appear decisive while at the same time enabling them to resume profitable trade relations in the future when things have "cooled down?"

(2) The proliferation of "proxy wars" between nations supplied and backed by opposing superpowers for the purpose of achieving indirectly (through the success of a "satellite") that which the superpower does not

wish to attempt directly seems to be a recent phenomenon. Some examples include the Vietnam War, Iran-Iraq War, and the Israel-Syria conflicts. Is this an effective means for nations to achieve military, economic and/or political objectives? What consequences and influences could such wars have in the future - particularly as "catalysts" of global nuclear war between sponsoring superpowers?

(3) It has been argued that nuclear weaponry makes the possibility of worldwide holocaust more, not less, likely - for any nation possessing nuclear weapons would certainly use them when facing imminent defeat in a conventional conflict. How valid is this proposition?

2. Terrorism and guerrilla warfare. One consequence of the emergence of nuclear weapons has been the emergence of terrorism and guerrilla warfare waged by powers unable to compete militarily with either conventional or nuclear weapons, yet which desire to influence other nations. Such nations view these methods as legitimate means of competing with superpowers who would annihilate them. The "laws" of armed conflict seem to place legitimate governments at a disadvantage

a. Terrorism and guerrilla warfare seem clearly to give nations employing such methods an advantage in surprise and initiative, and therefore the ability to dictate the nature of any conflict. What consequences could this have on future conflicts - especially if a terrorist nation such as Libya obtained and used "briefcase" tactical nuclear weapons in a terrorist mission?

b. What can conventional military organizations do to defend against and combat terrorist and guerilla tactics? What are the advantages and disadvantages of such methods? (What about the loss of innocent life and collateral damage on either side of the conflict?)