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ANALYSIS OF OPERATION COBRA AND THE FALAISE GAP MANEUVERS IN WORLD WAR II

MAJOR THOMAS R. GRANIER, USAF 85-0965

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Submitted to the faculty in partial fulfillment of requirements for graduation.

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The study presents a review of Operation Cobra and the Falaise Gap maneuvers which were conducted by Allied forces against the Germans in France during July and August 1944. General of the Army Omar N. Bradley's role in planning and executing these operations is analyzed. The author examines the development of strategy and discusses the principles of war most responsible for the outcome of the operations.

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PREFACE

This paper was prepared for the Warfare Studies Branch of the Air Command and Staff College, Maxwell AFB, Alabama. It presents a review and analysis of General of the Army Omar N. Bradley's role in the planning and execution of Operation Cobra and the Falaise Gap maneuvers which were conducted by Allied forces in France during the summer of 1944. Analysis of these military operations was accomplished using the ACSC strategy process model and the principles of war as stated in AFM 1-1. This is one in a series of analyses of great warriors being compiled by the Warfare Studies branch for possible use by future ACSC course officers. The author's goal in writing this paper was to provide insight into the process by which strategy and the principles of war are applied in planning and executing large scale military operations.

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ABOUT THE AUTHOR

Major Granier earned his commission in 1971 through the Air Force ROTC program at Louisiana State University where he received a BS in Microbiology. After completing pilot training at Laughlin AFB, Texas, he flew the KC-135 at Loring AFB, Maine. In 1976, Major Granier returned to Laughlin AFB for a 4-year tour as a T-37 instructor pilot. During that tour, he served as a flight examiner, flight commander, and section chief for pilot upgrade. Major Granier was then assigned to duty in the Strategic Air Command at Carswell AFB, Texas, where he served as a KC-135 aircraft commander and later as chief of the disaster preparedness division until departing for Air Command and Staff College at Maxwell AFB, Alabama. Major Granier has a MS in Systems Management from the University of Southern California.

TABLE OF CONTENTS

Preface ---------- iii
About the Author ---------- iv
List of Illustrations ---------- vi

CHAPTER ONE - INTRODUCTION ---------- 1

CHAPTER TWO - BIOGRAPHY OF GENERAL OMAR N. BRADLEY ---------- 3

CHAPTER THREE - DESCRIPTION OF OPERATION COBRA AND THE FALAISE GAP MANEUVERS
- Status of Allied and German Forces in France Prior to Operation Cobra ---------- 5
- General Bradley Plans Operation Cobra ---------- 6
- Montgomery Supports Operation Cobra With Operation Goodwood ---------- 7
- Final Preparations Are Made For Operation Cobra ---------- 8
- Bad Weather Causes a False Start of Operation Cobra ---------- 8
- Execution of Operation Cobra ---------- 9
- German Forces Yield to Allied Advances ---------- 12
- American Command Structure Changes ---------- 14
- Patton Races to Capture Supply Ports ---------- 14
- Hitler Plans German Counteroffensive ---------- 16
- Bradley Plans the Falaise Gap Maneuvers ---------- 17
- Collins' Men Win at Mortain ---------- 18
- Allied Forces Plan to Join South of Falaise to Trap the Germans ---------- 19
- Operation Totalize ---------- 20
- Operation Tractable ---------- 21
- Bradley and Montgomery Change Plans to Close the Gap ---------- 22
- German Forces Escape Through the Closing Gap ---------- 23
- Status of Allied and German Forces in France Following Operation Cobra and the Falaise Gap Maneuvers ---------- 24

CHAPTER FOUR - ANALYSIS USING THE ACSC STRATEGY PROCESS MODEL
- Strategy ---------- 25
- Principles of Linkage, Future, and Reality ---------- 27

CHAPTER FIVE - ANALYSIS USING THE PRINCIPLES OF WAR
- Principle of Objective ---------- 29
- Principle of Surprise ---------- 30
- Principle of Security ---------- 30
- Principle of Mass and Economy of Force ---------- 31
- Principle of Maneuver ---------- 31
- Principle of Unity of Command ---------- 32
- Principle of Logistics ---------- 32
- Principle of Cohesion ---------- 33

CHAPTER SIX - DISCUSSION QUESTIONS ---------- 35

LIST OF ILLUSTRATIONS

FIGURES

FIGURE 1 - Position of Allied Forces in France prior to Operation Cobra---------- 39

FIGURE 2 - Operation Cobra---------- 40

FIGURE 3 - Falaise Gap Maneuvers---------- 41

Chapter One

INTRODUCTION

Studying history is often the best means of preparing for future events. Since the beginning of civilization, great leaders have studied warriors of the past with the intent of profiting from their successes and learning from their failures. This practice continues in modern times.

The purpose of this paper is to study a great warrior of modern times, General of the Army Omar N. Bradley, who at the height of World War II commanded 1.3 million American combat troops in France. In order to give insight into the process by which strategy and the principles of war are applied in planning and executing large scale military operations, the author will review and analyze General Bradley's role in planning and executing military operations during the liberation of France in World War II. Analysis will be accomplished using the ACSC strategy process model and the principles of war as stated in AFM 1-1. The military operations that will be studied are Operation Cobra and the Falaise Gap maneuvers. Operation Cobra was started on 25 July 1944, 50 days after the Allies landed at Normandy. The Falaise Gap maneuvers began soon after the completion of Operation Cobra and lasted until 21 August 1944. The review and analysis of events and decisions made during these two major operations will be accomplished in chapters two through six.

Chapter two provides a brief biography of General Bradley, while chapter three describes the planning and execution of Operation Cobra and the Falaise Gap maneuvers. Chapter four analyzes the planning and execution of Operation Cobra and

the Falaise Gap maneuvers using the ACSC strategy process model. Chapter five analyzes Bradley's application of the principles of war as stated in AFM 1-1 during these two major operations. Chapter six consists of four discussion questions designed to stimulate thinking on how military operations in support of Operation Cobra and the Falaise Gap maneuvers might be related to the ACSC strategy process model and/or the principles of war. One possible answer with rationale is included for each question.

Chapter Two

BIOGRAPHY OF GENERAL OF THE ARMY OMAR NELSON BRADLEY

12 February 1893	- Born in Clark, Missouri (3:10; 6:38)
1911	- Appointed to US Military Academy Missouri (3:10)
1 June 1915	- Commissioned as a second lieutenant in the infantry after graduating 44th in the West Point class of 1915 (3:10; 6:38)
1 July 1916	- Promoted to permanent first lieutenant (3:11; 6:38)
17 June 1918	- Promoted to temporary major (3:11; 6:38)
September 1919	- Became professor of military science and tactics at South Dakota State College (6:38)
22 January 1920	- Reverted to rank of captain following World War I (3:10-11)
1920	- Ordered to a 4-year tour as instructor in mathematics at West Point (3:10; 6:38-39)
25 June 1924	- Promoted to permanent major (3:11)
1925	- Graduated from the Advanced Course at The Infantry School, Fort Benning, Georgia, and ordered to duty in Hawaii (3:10)
1926	- In charge of National Guard and Reserve Affairs for the Hawaiian Islands (3:10)
1929	- Graduated from Command and General Staff School and was assigned to Fort Benning as instructor in tactics and weapons at the Infantry School (3:10; 6:39)
1934	- Graduated from the Army War College and was assigned to West Point where he served initially as an instructor in tactics and later became plans and training officer (3:10; 6:39)
1939	- Became Assistant Secretary of the General Staff (3:10)
20 February 1941	- Promoted to temporary brigadier general and assigned as Commandant of the Infantry School at Fort Benning (3:10; 6:39)

15 February 1942	- Promoted to temporary major general and assigned as Commander of 82nd Infantry Division at Camp Clairborne, Louisiana (3:10; 6:39)
June 1942	- Assigned as Commander of the 28th Infantry Division at Camp Livingston, Louisiana (3:10; 6:39)
Early 1943	- Selected by General Eisenhower to be his personal representative in the field in North Africa (3:10; 6:39)
16 April 1943	- Became Commander of the US II Corps (3:10; 6:39)
2 June 1943	- Promoted to temporary lieutenant general (3:12; 6:39)
10 June 1943	- Invaded Sicily with US II Corps (3:10)
1 September 1943	- Promoted to permanent brigadier general (3:12)
7 September 1943	- Released from command of US II Corps and called to England to assist General Eisenhower in planning the Normandy Invasion (3:11; 6:39)
16 October 1943	- Became Commanding General, 1st Army Group, which later became the 12th Army Group (3:11; 6:39)
6 June 1944	- Commanded landing of 1st Army Group at Utah and Omaha beaches, Normandy (3:11; 6:39)
1 August 1944	- Assumed command of the 12th Army Group, which eventually comprised the combat forces of the First, Third, Ninth and Fifteenth Armies (3:11; 6:39)
12 March 1945	- Promoted to temporary general (3:12; 6:39)
15 August 1945	- Became Administrator of Veterans' Affairs (3:11; 6:39)
7 February 1948	- Became Chief of Staff, United States Army (3:11; 6:39)
16 August 1949	- Sworn in as the first Chairman of the Joint Chiefs of Staff in the Department of Defense (3:11; 6:39)
22 September 1950	- Became America's fourth 5-star Army general (3:11; 6:39)
August 1951	- Reappointed Chairman, Joint Chiefs of Staff (3:10)
1951	- Published A Soldier's Story, a memoir (6:39)
August 1953	- Retired (6:39)
Summer 1979	- Began taping for A General's Life, an autobiography (2:669)
8 April 1981	- Died of a clot in the brain at age 88 (2:670)

Chapter Three

DESCRIPTION OF OPERATION COBRA AND THE FALAISE GAP MANEUVERS

STATUS OF ALLIED AND GERMAN FORCES IN FRANCE PRIOR TO OPERATION COBRA

On 6 June 1944, Allied forces initiated Operation Overlord, the invasion of northern France (2:244). After seven weeks of fighting, the deepest Allied penetrations were about 30 miles inland on a front of only 80 miles (See Figure 1) (1:321).

By the 23rd of July, the Allies had landed a total of 1,361,000 troops in France and had suffered 122,000 casualties. Furthermore, the Allied European Forces had 34 divisions in place and a large, immediately available reserve of American divisions in England waiting to enter the battle. There was hardly enough room for the Allies to maneuver and little room for additional troops. Since the 6th of June, the advance of American troops had been measured in yards instead of miles. There were, however, two bright spots. The Allies controlled the air, and the supply situation was basically good. Landing craft continued to bring material in over the beaches, and the first supplies were brought in through Cherbourg on the 19th of July (1:321-322).

The Germans in France, meanwhile, had 26 divisions in place, six of them armored. Allied intelligence, however, indicated that the Germans were stretched to the limit (1:322). The German Fifteenth Army, still intact in Pas de Calais, was pinned down by an Allied plan called "Fortitude" which was designed to make the Germans think Overlord was merely a feint and that an Allied invasion would take

place at Pas de Calais (1:322; 2:219). If the Germans saw through Fortitude, their ability to reinforce would be greater than that of the Allies. Neither side, however, was gaining much ground. The newspapers were full of the word "stalemate" (1:321-322).

GENERAL BRADLEY PLANS OPERATION COBRA

The stage was set for Operation Cobra--a plan by General Bradley, Commander of the US First Army, to break through the German lines at Saint Lo (see Figure 2). In contrast to the usual American preference for broad front assaults, this was to be a narrow, concentrated attack on a 7,000 yard front (5:250). The break through at Saint Lo was to be immediately preceded by a massive air bombardment and spearheaded by General Joe Collins and his aggressive VII Corps (1:322; 5:250). When Collins broke through, Bradley planned to throw the whole weight of the US First Army, some 15 divisions, into the assault (2:272). In addition, General Eisenhower intended to rush divisions over from England, activate General Patton's US Third Army, and send it racing to open the ports in Brittany (1:322). Initially, Operation Cobra was planned to start on the 19th of July (see Figure 2) (2:272).

A key feature of Operation Cobra would be a massive, paralyzing air attack on the Germans in a rectangle three and one-half miles wide and one and one-half miles deep. This would take place south of the Saint Lo-Periers road to which Collins' troops would advance prior to the "jump-off" (1:322; 2:276). There was no room for error. A mistake could bring a "rain of bombs" on the Allied troops. To minimize the chances for error, Bradley proposed a plan for Allied aircraft to approach the bombing rectangle on a course parallel to the east-west Saint Lo-Periers road and, of course, south of it. So directed, Allied planes would not fly over their own troops. Thus, if the aviators dropped bombs long or short of the target area the bombs would fall on the German side of the Saint Lo-Periers road (2:276).

MONTGOMERY SUPPORTS OPERATION COBRA WITH OPERATION GOODWOOD

To clear the way for Operation Cobra, Field Marshal Montgomery, Commander of the British 21st Army Group, planned an offensive to draw the Germans to the Allies' east flank, away from Bradley's US First Army. Montgomery's offensive, Operation Goodwood, was planned as an all-out thrust at Caen with an armored corps consisting of three tank divisions. It too would be preceded by a massive aerial assault (2:273).

Montgomery launched Operation Goodwood on the 18th of July. To initiate the offensive, over 2,000 bombers dropped nearly 8,000 tons of bombs into the German front. At first the attack went well. The British armored corps advanced three miles into the German lines and for a time seemed on the point of a clean breakthrough. Unfortunately, the British advance was slowed by the onset of rain and the thousands of large bomb craters the air assault had created. The Germans launched a limited counterattack which gained no ground but inflicted heavy losses on the British (2:275).

Montgomery abruptly halted the offensive on the 20th of July after the rains had turned the battle ground into a "sea of mud." The British had gained only the rest of Caen and the ground about six miles to the south of the city. The cost was high: 4,000 casualties and 500 tanks--over one-third of all the tanks in Montgomery's command (2:275).

Tactically, Operation Goodwood improved the chances for success of Operation Cobra. Montgomery had drawn the bulk of the German panzers to his front, and Allied intelligence indicated that German Field Marshal Guenther von Kluge had committed all of his reserves to oppose the British at Caen.

FINAL PREPARATIONS ARE MADE FOR OPERATION COBRA

In preparation for Operation Cobra, General Collins' men pushed forward to the Saint Lo-Periers road. At a cost of 5,000 casualties on the 18th of July, the Americans gained the vital heights of Saint Lo. By the 20th of July, they had reached positions commanding the Saint Lo-Periers road (5:249).

Meanwhile, Bradley refined his Cobra plan. On the 19th of July, he flew to US Air Force headquarters in England for a final discussion of the bombing with Air Chief Marshal Leigh-Mallory and other senior air force officers. According to Bradley, the conference resulted in three important agreements. The airmen agreed that the bombers would fly a parallel approach on the Saint Lo-Periers road to avoid hitting Allied troops. At the same time, to further minimize the chances of bombing Allied troops, Bradley agreed to withdraw Collins' forces some 1,500 yards north of the Saint Lo-Periers road. It was also agreed that the planes would drop no bombs larger than 100 pounds in order to avoid heavy cratering of the bombing rectangle (2:276-277).

BAD WEATHER CAUSES A FALSE START OF OPERATION COBRA

Operation Cobra was delayed by the same torrential rain and low clouds that sealed the fate of Operation Goodwood. Finally, on the 24th of July, the weather forecast was good. The order was given and 1,600 aircraft had launched when a heavy cloud cover moved over the target area (2:279; 5:253). Leigh-Mallory, who was in Bradley's command post, sent a message cancelling the attack. Unfortunately, it was too late to stop all the planes. Some 400 bombers reached France and dropped their bombs. Many bombs fell behind American lines, killing 25 and wounding 131. One reason for the error was that the planes flew a course perpendicular to the Saint Lo-Periers road rather than parallel to it as Bradley felt he had been assured (2:279).

Bradley launched an immediate investigation to find out why the airmen had bombed on a perpendicular course rather than a parallel one. To his astonishment, the air force senior officers claimed they had never agreed to bomb parallel to the road (2:279). They argued that a parallel approach would maximize Allied aircraft's exposure to enemy flak, present the narrowest rather than the widest target, and cause air congestion over the target (2:276). To make matters worse, the airmen would agree to a second attack only if it was perpendicular to the road. Fearing the Germans were on to him, Bradley accepted what the airmen offered and reset the "jump-off" for the following day, the 25th of July (2:279-280).

EXECUTION OF OPERATION COBRA

The next morning, the forecasters' promise of brighter weather was fulfilled. At 0700, 901st Panzergrenadiers telephoned division headquarters and reported, "American infantry in front of our trenches are abandoning their positions. They are withdrawing everywhere." Despite every indication from their intelligence to the contrary, the German staff accepted the withdrawal of Collins' infantry as evidence that the major Allied attack would come south of Caen on Montgomery's front (5:253).

At 0938, the fighter-bombers opened their first 20-minute assault on the German front line (5:254). In total, over 2,400 aircraft flew perpendicular to the target and dropped some 4,000 tons of bombs and napalm. Despite desperate efforts by the US ground troops to identify their positions with yellow panels and smoke markers, reports of "shorts" immediately flooded into Bradley's command post (2:280; 5:254). The Americans suffered 111 dead and 490 wounded at the hands of their own airmen (2:280).

Following the air assault, Collins' VII Corps hesitantly began to attack amid the shambles created by the bombing of their own forward areas. The men soon

discovered that the German Panzer Lehr Division which they faced was battered but still unbroken. Some German troops had even moved rapidly forward to occupy ground the Americans had evacuated to provide an air safety zone. General Collins' troops were even more disheartened to meet fierce artillery fire which they had confidently expected to find suppressed by the bombing (5:255).

The heavy opposition Collins' men initially encountered was, in fact, "merely the valiant and instinctive reaction of a few tough Germans." The bombing had done a great deal of damage. Official Army historian Martin Blumenson wrote,

> Bombs buried men and equipment, overturned tanks, cut telephone wires, broke radio antennas, sent messengers fleeing for foxholes or the nearest crater. Communications with forward echelons were completely disrupted. The bombardment transformed the main line of resistance. . . into a frightening landscaped of the moon. . . . No less than a thousand men must have perished in the Cobra bombardment. About one-third of the total number of combat effectives. . . were probably killed or wounded, the survivors dazed. Perhaps only a dozen tanks or tank destroyers remained in operation. Three battalion command posts of Panzer Lehr were demolished. The attached parachute regiment virtually vanished. Only local and feeble resistance was possible against attacking American infantrymen (2:280-281).

It was a tribute to the efforts of the British and Canadians that von Kluge's fears, as well as his principal forces, were still decisively fixed upon the eastern flank. Against the 14 British and Canadian divisions, the Germans still deployed 14 of their own, including six panzer divisions. The Americans, on the other hand, faced only 11 seriously weakened enemy divisions, two of them armored. It was against this weak spot in the German lines that 15 American divisions would soon be committed (5:255).

Even during the first encounters following the bombing, General Collins sensed the confusion and lack of coordination within the German lines. Accordingly, he called on his reserves and threw Huebner's Big Red One into the fight. He then committed his armor: Ted Brooks' 2d Division and Leroy Watson's 3d Division (2:281).

While the German positions were resisting fiercely, they did not appear to form a continuous belt of defenses. They could be outflanked and bypassed (5:255).

The rapid advance of American tank columns which followed was primarily due to the employment of the "Rhino", the American principal secret weapon for Operation Cobra. A "Rhino" was a Sherman tank with a set of steel "tusks" welded onto the front. Before the "Rhino" was invented, neither German or Allied tanks could get through the Norman hedgerows unassisted. The "Rhinos" restored battle field maneuverability to Bradley's armor by spending an average of only two and one-half minutes cutting through each hedgerow. Henceforth, while the German tanks remained restricted to the roads, the Shermans possessed the power to outflank them across country (5:251-252, 256-257).

On the afternoon of the 25th of July, Collins ordered his mobile columns to start moving. By nightfall, elements of 1st Division were outside Marigny (see Figure 2). The next morning, across the entire VII Corps front, units began to shake free from engagements with the Germans and move fast across country, reporting that resistance was crumbling before them (5:256).

The entire Allied offensive rapidly gained momentum. Pockets of resistance at crossroads halted the American tanks only long enough for the infantry to jump down and pour fire into them (5:251-252).

On the 26th of July, VIII Corps, commanded by General Troy Middleton, joined the offensive on Collins' right flank. General Middleton used the 8th and 90th Divisions to lead his attack because their positions alone possessed clear paths in front through the floods and swamps. Initially, both divisions bitterly disappointed Bradley by failing to gain ground. First light on the 27th of July, however, revealed that the Germans in front of the 8th and 90th Divisions had gone, compelled to pull

back because of their crumbling left flank. The Germans left only immense mine fields to delay the advance of VIII Corps (5:258).

Meanwhile, as darkness fell on the 26th of July, General Maurice Rose of 2nd Armored's Combat "Command A" raced on. His men's progress had been dramatically rapid, a tribute to the careful training of his tank companies before the attack, along side the foot soldiers of 22nd Infantry. At 0300 on the 27th of July, they had reached the first objective of Cobra, a road junction north of Le Mesnil-Herman. By noon the same day, 9th Division was also clear of all organized German resistance and moving fast. Since the rear areas were alive with German stragglers and retreating units, armored escorts were provided for the American supply columns racing to follow the lead troops (5:251-252).

Operation Cobra had succeeded. General Collins' VII Corps had reached Coutances, and the VIII Corps under General Middleton, to Collins' right, had taken Granville and Avranches (see Figure 2) (1:324). The Germans, now completely routed, retreated in haste or surrendered (2:281).

Operation Cobra, a major turning point in the war, would go down in history as the "St Lo Breakout." Seven agonizing weeks had passed since D-day and all that time the terrain, the weather, and the tenacious German troops had kept the Allies bottled up in the Cotentin Peninsula. The Allies, at last, were moving out at breathtaking speed. One phase of the war had ended, another had begun (2:282).

GERMAN FORCES YIELD TO ALLIED ADVANCES

The offensive now entered a new and bloodier phase. As the American columns lay strung out over miles of unfamiliar country, German units began to fight with all their customary ferocity to escape entrapment. General Bradley, however, knew that US First Army forces were dominating the battlefield and that the German assaults

reflected the "thrashings of desperate men," rather than a genuine threat to the American front (5:260).

By the last days of July 1944, the German army in Normandy had been reduced to such a condition that only a few fanatics of the German high command still entertained hopes of avoiding defeat, far less of achieving victory. Furthermore, any faint prospect of replacing the huge casualties in the west vanished in the wake of the Russian summer offensive which destroyed 28 German divisions in five weeks. Many German units were shattered ruins of their old selves, sustained by a fraction of the men and a tiny fragment of the armor and gun power that they had carried into battle weeks before. Attrition, not maneuver, had been decisive in reducing Field Marshal von Kluge's formations to a state in which they could no longer sustain the sagging line. German forces lacked both the mobility to race the Allies to the beaches and the fighting power to seal the gaps, even where they could reach these. Field Marshal von Kluge reported to Hitler,

> Whether the enemy can still be stopped at this point is questionable. The enemy air superiority is terrific, and smothers almost every one of our movements. . . . Losses in men and equipment are extraordinary. The morale of our troops has suffered very heavily under constant murderous enemy fire, especially since all infantry units consist only of haphazard groups which do not form a strongly coordinated force any longer. In the rear areas of the front terrorists, feeling the end approaching, grow steadily bolder. This fact, and the loss of numerous signal installations, makes an orderly command extremely difficult (5:277).

Wholesale collapses in morale resulted in the mass surrender of German units swamped by the American advance. Many German divisions had disintegrated, leaving scattered bands of demoralized stragglers roaming north-west France without equipment or leadership. It was astonishing that the German east-west front held together at all. Yet the surviving fragments of the old elite units still disputed the Allied advance at every stage (5:277-278).

AMERICAN COMMAND STRUCTURE CHANGES

At this pivotal moment in the Allies' fortunes, the long-scheduled shift in the American command structure took effect. On 1 August 1944, Lieutenant General Hodges assumed command of First Army, Patton's Third Army formally came into being, and Bradley stepped up to command of 12th Army Group which consisted of First and Third Armies. Until the Supreme Headquarters of Allied European Forces (SHAEF) could establish a forward command post on the continent, Bradley received his operational instructions from Montgomery, but, in fact, Eisenhower was assuming command of the land battle (1:325; 5:266).

PATTON RACES TO CAPTURE SUPPLY PORTS

On the 1st of August, Patton began his race through Brittany. The pre-Overlord plans placed great emphasis on Brittany and its ports. The plans called for Patton to concentrate all his forces on capturing the ports in the city of Brest. But with the German left flank wide open, Eisenhower wanted to send only one of the four corps of Patton's army into Brittany, devoting the "great bulk of the forces to the task of completing the destruction of the German Army" (1:325).

In fact, two of Patton's corps swept across the bridge at Pontaubault into Brittany. Bradley was cautious and determined not to embark on reckless adventures south-eastwards unless he was certain of holding the Avranches "elbow" in their rear. "We can't risk a loose hinge," he said (5:280). Bradley feared a German counter-attack north-westwards could break through to the coast and cut off Patton's armored divisions from their fuel and supplies. Once Patton's supply lines were broken, his army could be rolled up from the rear. Bradley himself later accepted responsibility for the decision to swing large American forces west into Brittany (5:280).

While the British Second and US First Armies continued to attack, contain, and destroy the Germans in Normandy, Patton's Third Army moved rapidly. Patton took Rennes on the 3rd of August and got as far as Le Mans, almost halfway to Paris, five days later. The air forces gave Third Army all possible support. Fighters and fighter-bombers protected the flanks while the heavy bombers continued to interdict behind the German lines. Additionally, French Resistance activities added immeasurably to the German woes. The Germans were reduced to moving troops by night, and their supply deficiencies were acute (1:325-326).

Bradley wrote of Third Army's great sweep in early August, "Patton blazed through Brittany with armored divisions and motorized infantry. He conquered a lot of real estate and made big headlines, but the Brittany campaign failed to achieve its primary objectives" (5:281). Bradley was referring to the rapid seizure of the western ports in a useable condition (5:281).

According to Max Hastings, author of Overlord, the true architects of Patton's rush through Brittany were Collins and his VII Corps, who had broken the German line in Operation Cobra, and the British and Canadian armies, who still faced the bulk of Field Marshal von Kluge's effective formations. There was no German front in the west, merely a disorganized number of German units retreating with all the speed that they could muster into the fortified ports where they were expected to make a stand (5:281).

Most of the Germans opposing Patton's forces were given time to withdraw into Brest, whose garrison swelled to 38,000 men and whose defenses held until the 19th of September. Far more seriously, the vital turn east towards Mayenne and Alencon, intended to initiate the rolling up of the main German front in Normandy, was delayed by days because of the German resistance at Brest (5:282-282).

HITLER PLANS GERMAN COUNTEROFFENSIVE

Despite the turn of events in favor of the Allied forces, Hitler saw an opportunity to cut Patton's line of communication, recapture Cherbourg, and possibly drive the Allies back into the sea. He proposed to do this by counterattacking through Mortain and on to the coast at Avranches. Hitler described the situation as "a unique, never recurring opportunity for a complete reversal of the situation" (5:326). To strengthen the attack, Hitler sent German units from the Pas de Calais to Field Marshal Guenter von Kluge. The Germans had finally seen through Fortitude. Hitler also withdrew units facing the British Second Army for the Mortain attack (1:326).

Hitler took control of the Mortain battle because he mistrusted his generals. This forced him to use the radio, allowing Ultra (Allied radio intercept intelligence) to pick up both the general plan and most of the specific details. For example, Ultra provided a brief warning of the Mortain counterattack to Bradley's headquarters on the night of the 6th of August (5:283). Without Ultra, the strong German attack at Mortain would have caused grave concern in the Allied high command (1:326). Instead, when von Kluge struck late in the evening on the 6th of August, Eisenhower and Bradley knew his strength and intentions (1:326).

Six German armored divisions hit one US infantry division at Mortain and quickly surrounded it (1:326). The Germans advanced without a preparatory artillery bombardment because they still cherished the illusion of surprise. Within a few hours, German units were within nine miles of Avranches. Their goal was to break through to the coast and cut off the 12 American divisions south of the junction from their lifeline of fuel and supplies (see Figure 1) (5:283).

BRADLEY PLANS THE FALAISE GAP MANEUVERS

Bradley perfectly understood the German counterattack at Mortain as an opportunity, not a threat. The Germans had plunged weak forces into battle against powerful American formations. Bradley told the visiting Henry Morgenthau, "This is an opportunity that comes to a commander not more than once in a century. We are about to destroy an entire German army" (5:283).

On the 7th of August, Eisenhower met with Bradley and they immediately agreed to hold Mortain with minimal forces while rushing every available division south to trap the German forces. They bolstered the defenses with American artillery and called in the fighter-bombers. Eisenhower told Bradley, "If the Germans should temporarily break through from Mortain to Avranches and thus cut off the southward thrust, we will give the advance forces two thousand tons of supplies per day by air" (1:326). The following morning, Eisenhower told Marshall (the US Army Chief of Staff), "The enemy's. . . counterattack. . . makes it appear that we have a good chance to encircle and destroy a lot of his forces" (1:326).

Montgomery, on the other hand, had always planned to swing the Canadians and the British left from Falaise across to the Seine while the American Third Army blocked the so-called Paris-Orleans gap between the Loire and the Seine. This was known as the "long envelopment," designed to entrap the entire surviving German forces in western France. Montgomery, however, was receptive when Eisenhower telephoned him from Bradley's headquarters on the afternoon of the 8th of August to discuss American proposals for a "short hook," with the arms of US Third Army and the Canadian and British forces meeting somewhere around Argentan to create a much smaller noose. (5:300-301).

Bradley's plan was to use Collins' VII Corps with assistance from the Allied air forces to defend Mortain while British, Canadian, Polish, and American forces sealed the German flanks and closed the gap between Falaise and Argentan to trap the German forces (see Figure 3) (5:283, 285).

COLLINS' MEN WIN AT MORTAIN

The gamble at Mortain paid off. In a classic defensive action, the 30th Division held while the artillery and air forces virtually destroyed the German tanks. On the 9th of August, von Kluge discontinued his offensive and refused to renew it despite Hitler's orders. The Canadians and Patton were posing a threat von Kluge could not ignore. The Allied offensive was in full swing. Their objective was to destroy von Kluge's Fifth Panzer and Seventh Armies which were in a huge salient with the tip at Mortain and the base at the Falaise-Argentan line (1:327).

The German attack at Mortain failed for two reasons. First, the German commander feared entrapment and did not wait for the full weight of German armored forces to be transferred to him. Thus, the Germans attacked with little armored support (5:285). Second, Allied aircraft maintained control of the air, stopped German armored support from reaching the battle area, and intercepted almost every approaching German sortie. Far from creating even temporary relief from the threat of encirclement, von Kluge's divisions had driven deep into the destructive embrace of the Allies (see Figure 3) (5:285-286).

Von Kluge's weekly situation report declared, "The enemy's first main objective is to outflank and encircle the bulk of the Fifth Panzer Army and Seventh Army on two sides" (5:298). As late as the 9th of August, von Kluge could readily have executed a withdrawal to the Seine covered by a sacrificial rearguard. Hitler, and Hitler alone, closed this option to him and presented the Allies with their extraordinary opportunity (5:298).

ALLIED FORCES PLAN TO JOIN SOUTH OF FALAISE TO TRAP THE GERMANS

As Patton's XV Corps, led by General Haislip, pushed east around Alencon on the 11th of August, it became Montgomery's responsibility to consider setting a new boundary between his forces and the American forces which imminently expected to meet and complete the encirclement east of the German armies. Montgomery declined to alter the line he had set near Argentan on the 6th of August. He believed that XV Corps would meet slow going on its turn north. Montgomery assumed that the Canadians, pushing south across reasonably open country, would be in Argentan before XV Corps. The new boundary, the point at which XV Corps would halt its advance, was therefore set just south of Argentan. Patton, nonetheless, warned Haislip to be ready to push up to Falaise despite Haislip's fears that his divisions would not prove strong enough to hold a trap closed in the face of the wholesale German retreat. Patton urgently began to seek reinforcement to strengthen XV Corps (5:288-289).

The Canadian attack, however, went slowly. Meanwhile, Patton's troops faced less resistance and made a steady advance. By the 10th of August, von Kluge's forces were nearly trapped. Patton's units had cut off all but one of the supply roads for the German Fifth Panzer and Seventh Armies. On the 12th of August, Patton's lead corps reached Argentan (see Figure 3). The Canadians were still short of Falaise and 30 miles away from linking with the American forces (1:330-331). Patton telephoned Bradley with his legendary demand: "We have elements in Argentan. Shall we continue and drive the British into the sea for another Dunkirk" (5:288-289)?

General Bradley's staff had consulted Montgomery's 21st Army Group about a possible boundary change, but the request was refused. Bradley, however, opposed any further push north by Haislip's XV Corps, irrespective of the opinions of Montgomery. He feared, as Haislip did, the danger of presenting a thin American

front to German troops who would have no alternative but to seek to break through it. Throughout the days that followed, Bradley refused to press Montgomery for a change in the boundaries (1:331; 5:289-290). Bradley made the decision on his own, without reference to Montgomery or to Eisenhower (1:331).

OPERATION TOTALIZE

Since the halt of Operation Goodwood on the 20th of July, British and Canadians pushed slowly forward on their own front with much pain and at heavy cost. The weight of German armor did not begin to shift away from Montgomery's forces until after the first week in August when Hitler withdrew German units facing the British Second Army to support the Mortain counterattack. II Canadian Corps viewed this as an opportunity to launch Operation Totalize, an offensive designed to link Canadian forces with Haislip's XV Corps at Argentan (5:298).

Operation Totalize began on the night of the 7th of August, preceded by a massive air attack. Initially, the progress of the Canadian forces was encouraging. Their early objectives had fallen by first light. At about 1250, the first of 492 bombers began a new wave of support attacks. Unfortunately, many bombs strayed, costing the Canadian, British, and Polish forces over 300 casualties (5:298). By the afternoon of the 8th of August, the offensive was losing steam. As so often throughout the campaign, German positions which had been bypassed did not quickly collapse as expected, but continued to resist fiercely. II Canadian Corps had advanced more than six miles, but Falaise still lay 12 miles ahead. Canadian forces were now about 25 miles away from joining with Haislip's XV Corps to close the gap (5:298-299).

By the 10th of August, the German tank strength was reduced to 35. The Canadian II Corps, on the other hand, still had about 700 tanks. Yet, with some German reinforcements moving onto the front, it was decided that nothing less than

a new full-scale attack with massive bomber preparation would break the Canadians through to Falaise. The Germans had shown their usual skill in shifting armor and anti-tank guns as they moved quickly from threatened point to point and presented strong resistance to each successive Canadian push. It was also evident that the Canadians were not performing well (5:299-300).

For Montgomery, the breakdown of Totalize was a disappointment, but there is no evidence that he perceived it as a long-term threat to his hopes. Instead of making a major switch of forces to hasten the closing of the gap at Falaise, he ordered Dempsey's Second British Army to continue pushing south-east and left the vital operation--the drive to meet the Americans at Argentan--entirely in the hands of Crerar's Canadian Army which had graphically demonstrated its shortcomings in the past four days (5:301).

Meanwhile, on the American front, German resistance stiffened on the 13th of August in front of Haislip, but the Germans had still made no decision to attempt to flee the threat of encirclement. As operations around Mortain concluded and forces of the US First Army became available to move east, Collins' VII Corps began a rapid advance north-east from Mayenne (5:290).

OPERATION TRACTABLE

The Canadians spent the 12th and 13th of August preparing for Operation Tractable, another big attack on Falaise. Tractable jumped off at 1142 on the 14th of August, shielded by a smoke screen which substituted for the darkness of Operation Totalize. From its beginning, Operation Tractable was besieged with problems. By a tragic error, some ground units ignited yellow identifying smoke, while Bomber Command was employing yellow target indications. The resulting "short" bombs caused more than 300 casualties among the Allies. In addition, the smoke screen and the large dust cloud caused by the advancing armor made

navigation difficult. Allied tanks had trouble finding paths across the Laison, a small stream which proved a much more formidable anti-tank obstacle that had been expected. To make matters worse, the Germans found a copy of battle plans on the body of a scout car commander killed on the 13th of August and redeployed with exact knowledge of the Canadian lines of advance (5:301-302).

By the evening of the 15th of August, the Canadians reached positions a mile from the edge of Falaise after the Germans had disengaged and pulled back in front of them (5:302). The gap between Allied forces was still 14 miles wide.

BRADLEY AND MONTGOMERY CHANGE PLANS TO CLOSE THE GAP

By now, Bradley was convinced that the importance of closing the trap at Falaise had diminished because most of the Germans had already escaped eastwards through the gap. Acting on this belief, Bradley switched the focus of American forces east, towards the Seine. Bradley ordered Patton to direct Haislip east with two of his five divisions. Haislip's remaining three divisions stayed at Argentan commanded by General Gerow. It was almost as if Bradley had lost interest in the "short envelopment" which he and Eisenhower had proposed to Montgomery on the 8th of August. Bradley now seemed to concentrate on trapping the Germans against the Seine (2:302; 5:290).

At the same time, Bradley and Montgomery agreed that they would enlarge the scope of the pocket eastwards and seek to bring about a junction of the Allied armies at Chambois to trap the German forces that remained in the pocket. Accordingly, General Gerow was ordered to proceed to Chamois, and the Canadian forces engaged in Operation Tractable were ordered to push south-eastwards for Trun (see Figure 3) (5:292, 302).

GERMAN FORCES ESCAPE THROUGH THE CLOSING GAP

On the 16th of August, Field Marshal von Kluge issued the order for a full-scale retreat (5:302). For the Allies, time had now become critical in blocking the German army's escape. On the evening of the 17th of August, Canadian forces were still two miles north of Trun. Their delay was caused as much by narrow village streets and rustic stone bridges as by enemy action. American forces were still south of Chambois, nine miles away (5:303).

During this period, Allied aircraft played the principal role of destroying the German forces within the corridor. The fighter-bombers flew 2,000 to 3,000 sorties a day and inflicted heavy losses (5:303).

By the morning of the 19th of August, US 90th Division overcame German resistance and gained control of Chambois. Meanwhile, Canadian units blocked enemy attempts to escape through Trun. The gap through which German vehicles and infantry were pouring in retreat had now narrowed to a few thousand yards. German troops and equipment moving through the "bottle neck" were pounded by Allied artillery and raked by machine gun fire from the high ground. During this time, hundreds of German soldiers surrendered. German armored half-tracks patrolling the low ground fired upon many others who attempted to surrender (5:304-305).

The majority of the Germans, however, fought fiercely to hold their escape route open (1:333). The focus of the battle now concentrated upon a few square miles of fields and villages in which the remnants of a half-million-strong German army was fighting for survival (5:306). On the 21st of August, the Falaise gap was closed as Allied forces secured the northern passage to Chambois. Only a relatively small portion of German forces had escaped (5:333).

STATUS OF ALLIED AND GERMAN FORCES IN FRANCE FOLLOWING OPERATION COBRA AND THE FALAISE GAP MANEUVERS

Falaise was a victory. Some 50,000 Germans were captured and another 10,000 were killed. Furthermore, the majority of those who escaped left their equipment behind. The Germans ferried only 24 tanks and 60 guns across the Seine. Later in August, General Eisenhower toured the battlefield. One press representative wrote, "We were certainly not disappointed in the results, because the scene was one of masses of destroyed tanks, guns, transports and equipment of all sorts lying around, including many dead Germans and horses" (1:333).

The battle for Normandy had cost the German army a total of 1,500 tanks, 3,500 guns, and 20,000 vehicles. They had lost around 450,000 men, 240,000 of these killed or wounded. More than 40 German divisions had been destroyed. The Allies had achieved this at a cost of 209,672 casualties, 36,976 of these killed (5:313). From D-day to victory at Falaise, France was liberated in some 80 days (2:304).

Chapter Four

ANALYSIS USING ACSC STRATEGY PROCESS MODEL

In this chapter, the author will analyze the planning and execution of Operation Cobra and the Falaise Gap maneuvers using the ACSC strategy process model. Analysis will be accomplished by relating these military operations to the four fundamental steps that define strategy—national security objectives, grand strategy, military strategy, and battlefield strategy; and the three fundamental principles of strategy--linkage, future, and reality.

STRATEGY

The first step in determining strategy is to define national security objectives. During World War II, the Allied objective of unconditional Axis surrender was clear-cut. This US national security objective was transmitted to General Eisenhower via instructions to destroy the German armed forces after he entered the continent of Europe (4:225). As General Eisenhower's assistant in planning the Normandy Invasion, Bradley clearly understood this objective.

Once national security objectives are defined, the next step is to determine grand strategy. In order to establish grand strategy, one must determine which instruments of national power will be used and how they will be used to achieve the national objectives. In this case, all instruments of national power—political, economic, and military—were used to destroy German armed forces in France. Politically, US national resolve emphatically supported the war effort. Economically, the nation's mobilization to build military strength is perhaps unequaled in history.

Militarily, vast quantities of military equipment and huge numbers of men were moved into the France to annihilate the German forces.

Following the determination of grand strategy, a warrior's next step is to determine military strategy. Military strategy involves coordinating the development, deployment, and employment of military forces to achieve national security objectives. The impressive array of forces available to Bradley--fighters, fighter-bombers, bombers, tanks, artillery, landing craft, infantry--were appropriate to accomplish the objective of destroying the German forces in France. By the time Operation Cobra and the Falaise Gap maneuvers occurred, Bradley did not want for men, weapons, or supplies. Bradley used his forces to support the national objective of destroying German forces by concentrating on engaging and destroying the German forces in France, not merely gaining control of territory. Specifically, the objective of Operation Cobra was to break through the German defenses so more Allied forces could be brought into France and to gain control of the ports in Brittany so Allied forces could be sustained. The objective of the Falaise Gap maneuvers was to capture or destroy the remnants of the German Fifth and Seventh Armies. Both operations were clearly in support of the US national security objective of destroying German forces.

The final step in establishing strategy is to determine battlefield strategy, the tactics of deploying forces on the battlefield to achieve national security objectives. All tactics employed by Bradley's forces during Operation Cobra and the Falaise Gap maneuvers supported the national security objective of destroying German forces at as little cost to the Allies as possible. For Operation Cobra, Bradley's tactics included destroying some opposing German forces and weakening German defenses by using a massive air assault to initiate the offensive. To reduce obstacles to the advance of his forces, Bradley requested that the air forces use bombs no larger than

100 pounds after he learned of the problems large craters caused in Operation Goodwood. Bradley knew that he had been sent to France to win the war at tolerable cost, not to demonstrate the superiority of his fighting men to those of Hitler (5:317). Accordingly, once American forces broke through the German lines, they often avoided frontal assaults on small German strong holds, choosing instead to bypass and isolate them by cutting supply lines. For the Falaise Gap maneuvers, Bradley's tactic was to give minimal resistance to the German counteroffensive at Mortain while encircling and entrapping the German forces which were engaged in the counteroffensive. When efforts to close the gap at Falaise slowed, Bradley resorted to destroying the retreating German forces by bombing, artillery fire, and machine gun fire until Allied forces could close the gap and capture the remnants of the German armies.

PRINCIPLES OF LINKAGE, FUTURE, AND REALITY

Once strategy is developed, the principles of linkage, future, and reality must be incorporated into the strategy in order to improve the probability of success. Application of these principles improves the probability of success by connecting national objectives with military means, planning for future use of the military instrument of national power, and analyzing real world constraints to employing military power.

Allied activities during Operation Cobra and the Falaise Gap maneuvers were a classic example of linkage. All political, economic, and military instruments of the US and her allies were clearly cemented together—all for the purpose of destroying the Axis powers. From the formulation of national security objectives to the tactics of military engagements, the one common goal was to destroy the German forces.

Another principle in developing strategy is to orient it to the future. During Operation Cobra and the Falaise Gap maneuvers, Bradley demonstrated the principle

of future in three specific instances. The first example was the use of the "Rhino", a modified Sherman tank, which restored maneuverability to Bradley's forces by significantly reducing the time required for Allied armored units to break through the hedgerows that dominated the Normandy countryside. Another example of the principle of future, not previously mentioned, was Bradley's use of aircraft radios in American tanks during Operation Cobra to improve communications between air and ground forces during an attack. This was the first time this concept had ever been employed (5:271). Finally, Bradley's objective of capturing the ports in Brittany as one of the goals of Operation Cobra was clearly designed to establish supply lines to support future Allied military operations on the European continent.

The final principle in developing strategy is that decisions must deal with reality. Dealing with reality during Operation Cobra and the Falaise Gap maneuvers was one of Bradley's strong points. For example, Bradley accepted the air forces stand that bombing for Operation Cobra would be perpendicular to the Saint Lo-Periers road instead of parallel to the road as Bradley had requested. In the opinion of the author, Bradley accepted what the airmen offered because he did not want to delay the start of Operation Cobra, he recognized that preparatory bombing was key to the success of the offensive, and he realized that the number of American casualties would be high if his men were forced to attack without the preliminary bombing. Another example of Bradley's understanding of reality was his refusal to order Haislip's XV Corps past Argentan to link with the Canadian forces north of Falaise in order to close the gap. In the opinion of the author, such a move would not have trapped the Germans, but would have resulted in a thin defense that the Germans could have easily broken to defeat and demoralize the Allied forces.

Chapter Five

ANALYSIS USING THE PRINCIPLES OF WAR

In this chapter, the author will analyze the planing and execution of Operation Cobra and the Falaise Gap maneuvers using the principles of war as stated in AFM 1-1. Only those principles that had a bearing on the outcome of these military operations will be discussed. Analysis will be accomplished by giving specific examples of how each principle of war was or was not followed. These principles will be discussed separately in the paragraphs that follow:

1. Objective.
2. Surprise.
3. Security.
4. Mass and Economy of Force.
5. Maneuver.
6. Unity of Command.
7. Logistics.
8. Cohesion.

PRINCIPLE OF OBJECTIVE

General Bradley had clear objectives for both Operation Cobra and the Falaise Gap maneuvers. His objectives for Operation Cobra were to break through the German lines at the Saint Lo-Periers road, bring in more Allied troops from England, and gain control of the ports in Brittany. His objective during the Falaise Gap maneuvers was to destroy or capture those German forces attacking at Mortain.

PRINCIPLE OF SURPRISE

Bradley's use of surprise played a key role in the success of Operation Cobra. The element of surprise was on Bradley's side for two reasons. First, the Germans still had large forces in place to defend the Pas de Calais because of an Allied deception code named "Fortitude" designed to make the Germans think a major Allied offensive would take place there. Second, Operation Goodwood convinced the Germans that the major threat to their defenses would take place on Montgomery's front. The German high command held this belief even after Operation Goodwood was halted. Consequently, Bradley's forces faced weakened German defenses that were short of reserves. The Falaise Gap maneuvers, on the other hand, were not a surprise to the Germans. Field Marshal von Kluge knew that the Allies would attempt to entrap his forces when he attacked at Mortain. He delayed retreat only because he was following Hitler's orders.

PRINCIPLE OF SECURITY

The fact that Operation Cobra surprised the German high command attests to the sound security practices employed by Allied forces. The Allies went to great lengths to maintain security through the campaign in France. For example, when General McNair was killed by a "short" bomb during the start of Operation Cobra, he was buried in secrecy because news of his death might have compromised the "Fortitude" deception plan (2:280). German security measures were not as effective, especially during the Falaise Gap maneuvers. Assisted by Hitler's use of radios to send orders to the front, Allied intelligence had advance warning of German plans to attack at Mortain. Allied intelligence, however, was not flawless. On the 14th of August 1944, Allied intelligence prematurely indicated to Bradley that most German soldiers had escaped through the Falaise Gap (2:302). Acting on this misinformation,

Bradley split XV Corps. This weakened the American strength at Argentan and made a timely closure of the gap at Falaise almost impossible.

PRINCIPLE OF MASS AND ECONOMY OF FORCE

Bradley used the principle of mass effectively. Two major features of Operation Cobra were the dropping of tons of bombs on a relatively small rectangle and a "point" attack by General Collins' VII Corps instead of a broad frontal assault which was usually preferred by American commanders. During the Falaise Gap maneuvers, the Allies again used mass of force by pouring down tons of bombs and murderous artillery fire on German forces as they attempted to escape through the narrowing gap. The Allies use of economy of force, however, was not as effective. For example, Patton's race into Brittany did not accomplish the Allies' objective of capturing the ports there in a useable condition. Instead, the diversion of Patton's forces into Brittany was partly responsible for the Allies failure to close the trap at Falaise following the German attack at Mortain.

PRINCIPLE OF MANEUVER

During Operation Cobra, General Collins used the principle of maneuver to cut the supply and communications lines behind small groups of German defenders instead of meeting them head on in potentially costly fights. The theory was that once the Germans were isolated they would be demoralized and ineffective. This practice was soon adopted by other Allied forces in France. The advantage of this approach was that it did not allow small bands of resistance to slow the offensive. The disadvantage was that some German units created problems by fighting fiercely even after they were cut off from their main forces. The Allied maneuver during the Falaise Gap operation was on a grander scale. Following the German counterattack

at Mortain, Bradley's plan was to maneuver behind the enemy to trap him rather than meet him head on and leave the German avenue of escape open.

PRINCIPLE OF UNITY OF COMMAND

Allied unity of command during Operation Cobra was strong. Montgomery supported Bradley with Operation Goodwood and the air force provided the requested saturation bombing even though they disagreed with Bradley on which bombing approach should be used. All things considered, Operation Cobra was a well orchestrated effort which achieved the objective of breaking through the German defenses at the Saint Lo-Periers road. Likewise, the Allied plan for the Falaise Gap maneuvers demonstrated good unity of command. The plan to entrap the Germans and close the gap at the Falaise-Argentan line was agreed on by Eisenhower, Bradley, and Montgomery, and was understood by their subordinate unit commanders. The unity of command demonstrated during the execution of the Falaise Gap maneuvers, however, seemed to break down. When Haislip stopped at Argentan and the Canadian forces were unable to push through Falaise and close the gap, Bradley and Montgomery conferred only to verify boundaries. In the opinion of the author, the Allied commanders made little effort to determine alternate ways to close the gap. For example, Montgomery could have used Dempsey's Second British Army to augment the Canadian effort, or Bradley could have reinforced Haislip's forces and ordered him on. For whatever reason, Bradley and Montgomery seemed to lose sight of their objectives and concentrated instead on the reaching the original boundaries they had established.

PRINCIPLE OF LOGISTICS

Throughout Operation Cobra and the Falaise Gap maneuvers, logistics was an Allied strong point. The Allies brought ample supplies in over the beaches and

through ports at Cherbourg and Avranches. Additionally, the Allies had the capability to airdrop two thousand tons of supplies per day by air (1:326).

PRINCIPLE OF COHESION

Cohesion for the Allies was good, mainly because the enemy was usually only in front of their lines, not on their flanks or in their rear areas. The small bands of Germans that the Allies sometimes by passed were occasionally an irritant, but they did not threaten the cohesion of the Allies. On the other hand, the Allies succeeded in destroying the cohesion of the German forces during Operation Cobra and during the German retreat through the Falaise Gap primarily through the use of heavy air and artillery attack.

Chapter Six

DISCUSSION QUESTIONS

This chapter consists of four discussion questions designed to stimulate thinking on how military operations in support of Operation Cobra and the Falaise Gap maneuvers might be related to the ACSC strategy process model and/or the principles of war. One possible answer follows each discussion question.

QUESTION ONE

Operation Goodwood and Operation Cobra were essentially the same plan with the same objectives. Both operations consisted of "point" attacks which were preceded by massive air attacks. Both offensives were initiated within days of each other and differed only in that they were executed at different places by different forces. Why did Bradley succeed with Operation Cobra while Montgomery's Operation Goodwood achieved only a small gain of territory at a tremendous cost?

POSSIBLE ANSWER TO QUESTION ONE

While the plans for Operation Goodwood and Operation Cobra were essentially the same, the outcomes of the two operations were different for three reasons. First, the German defenses opposing Montgomery were stronger than those opposing Bradley. Second, the Germans committed strong reinforcements against Montgomery during Operation Goodwood (2:278). During Operation Cobra, the Germans again attempted to use reinforcements, but the few reinforcements they had arrived too late to do any good. Finally, the "sea of mud" which was created by a combination of

large bomb craters and rain water made maneuver difficult for Montgomery's infantry and armored vehicles. Bradley learned from Montgomery's misfortune by requesting that the air forces use bombs no larger than 100 pounds during Operation Cobra.

QUESTION TWO

The failure to close the gap at Falaise sooner was a disappointment for the Allies. What changes in events might have enabled the Allies to close the trap sooner and enjoy a more complete victory?

POSSIBLE ANSWER TO QUESTION TWO

The failure of the Allies to close the gap sooner at Falaise was due to an insufficient number of American forces and inefficient fighting by the Canadian forces. There are three ways in which this situation could have been avoided. First, Patton's forces could have been ordered to withdraw from Brittany sooner to strengthen the Allied forces converging on the gap. The likelihood of Patton capturing the ports in a useable condition was small and a token force would have been sufficient to lay siege to the Germans who had retreated into the port cities. Second, Montgomery could have used more capable forces to replace or assist the floundering Canadian units. Finally, a stronger unity of command for the Allies, perhaps through intervention by Eisenhower, might have focused more attention and forces on the Allied objective of closing the trap in order to crush the German Fifth and Seventh Armies.

QUESTION THREE

Operation Totalize was the first offensive designed to enable Canadian forces to push through Falaise and close the gap between Allied forces. What principle of war was the key element that caused the Canadians to lose to a numerically inferior German force?

POSSIBLE ANSWER TO QUESTION THREE

The principle of war that worked most against the Canadians and in favor of the Germans was the principle of maneuver. Maneuver by the Canadians to bypass German positions worked against the Canadians. The bypassed Germans disrupted the rear of the Canadian lines and slowed their advance. On the other hand, the Germans' skill in moving a comparatively small number of armor and anti-tank guns from threatened point to point to repel each successive Canadian push was a classic example of how a numerically inferior force could win through superior maneuver.

QUESTION FOUR

Following the defeat of the Canadian forces in Operation Totalize by a numerically inferior German resistance, Montgomery made no apparent attempt to reinforce or change these forces. The objective of these forces was to close the gap at Falaise by joining the American forces at Argentan. Assuming that Montgomery still desired to close the gap, what principle of strategy did he violate?

POSSIBLE ANSWER TO QUESTION FOUR

In this case, Montgomery was in violation of the principle of reality. The Canadian forces had clearly demonstrated their shortcomings by failing to defeat a numerically inferior German force even with the help of a massive air attack. To think that these same forces could achieve their objective of closing and holding the gap in the face of a desperate retreat by battle hardened Germans was totally unrealistic.

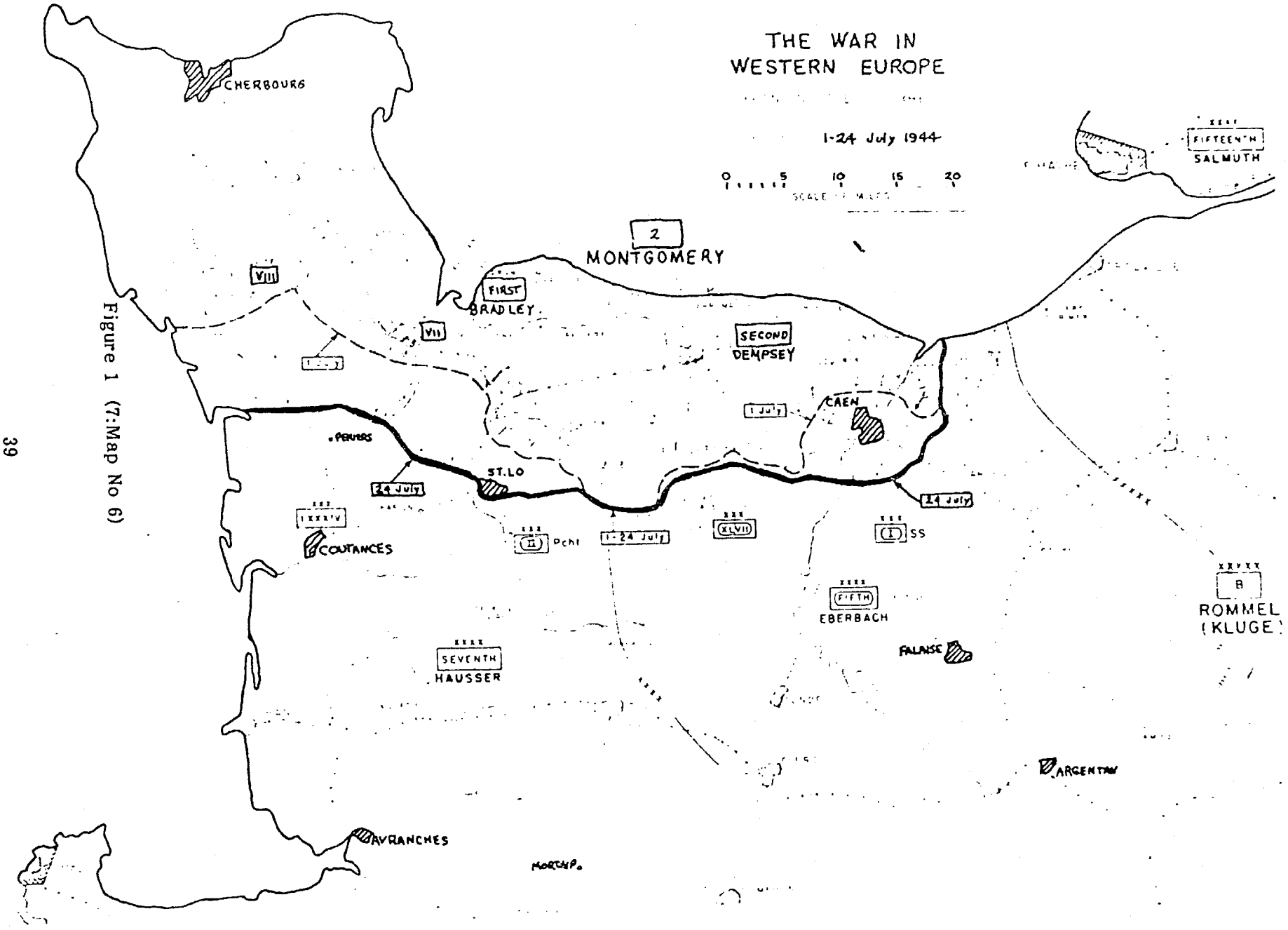


Figure 1 (7:Map No 6)

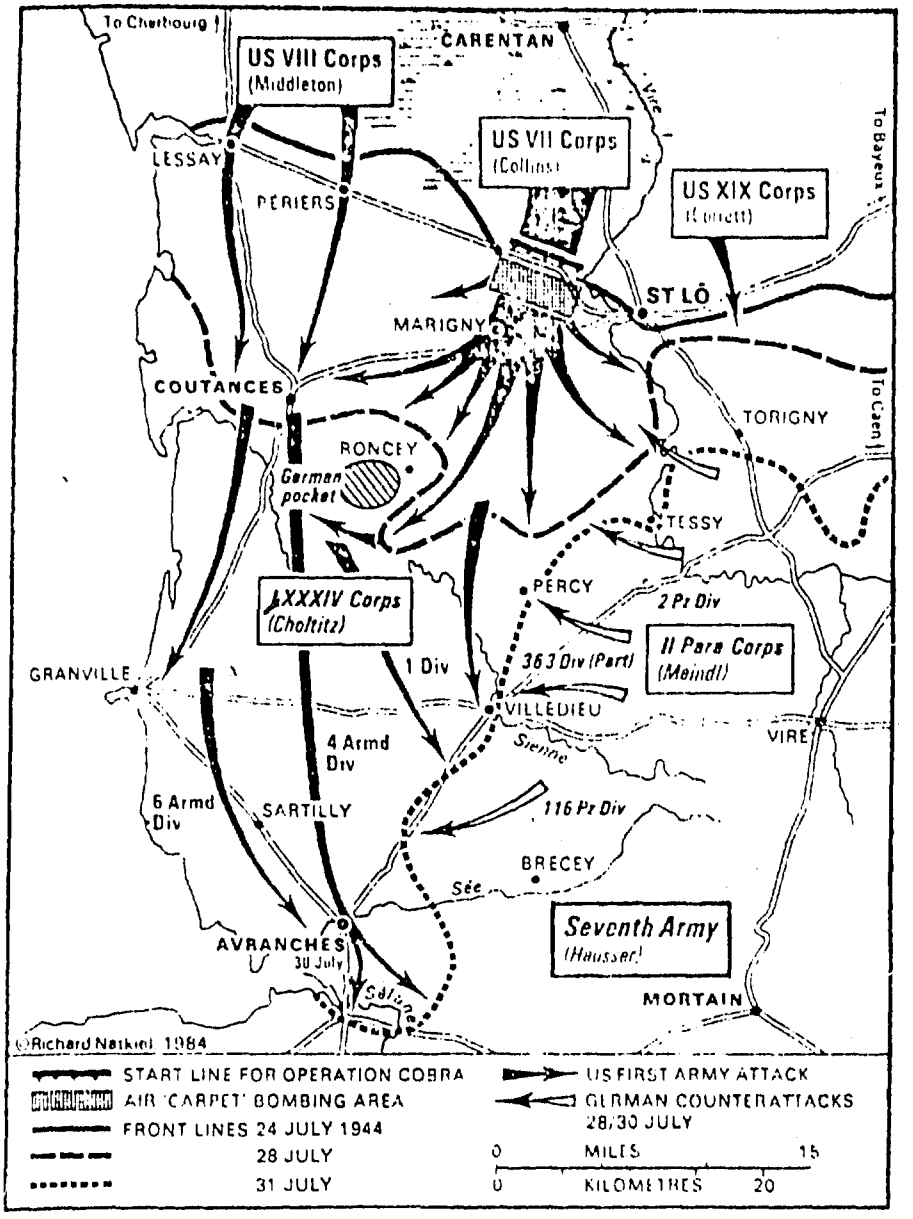
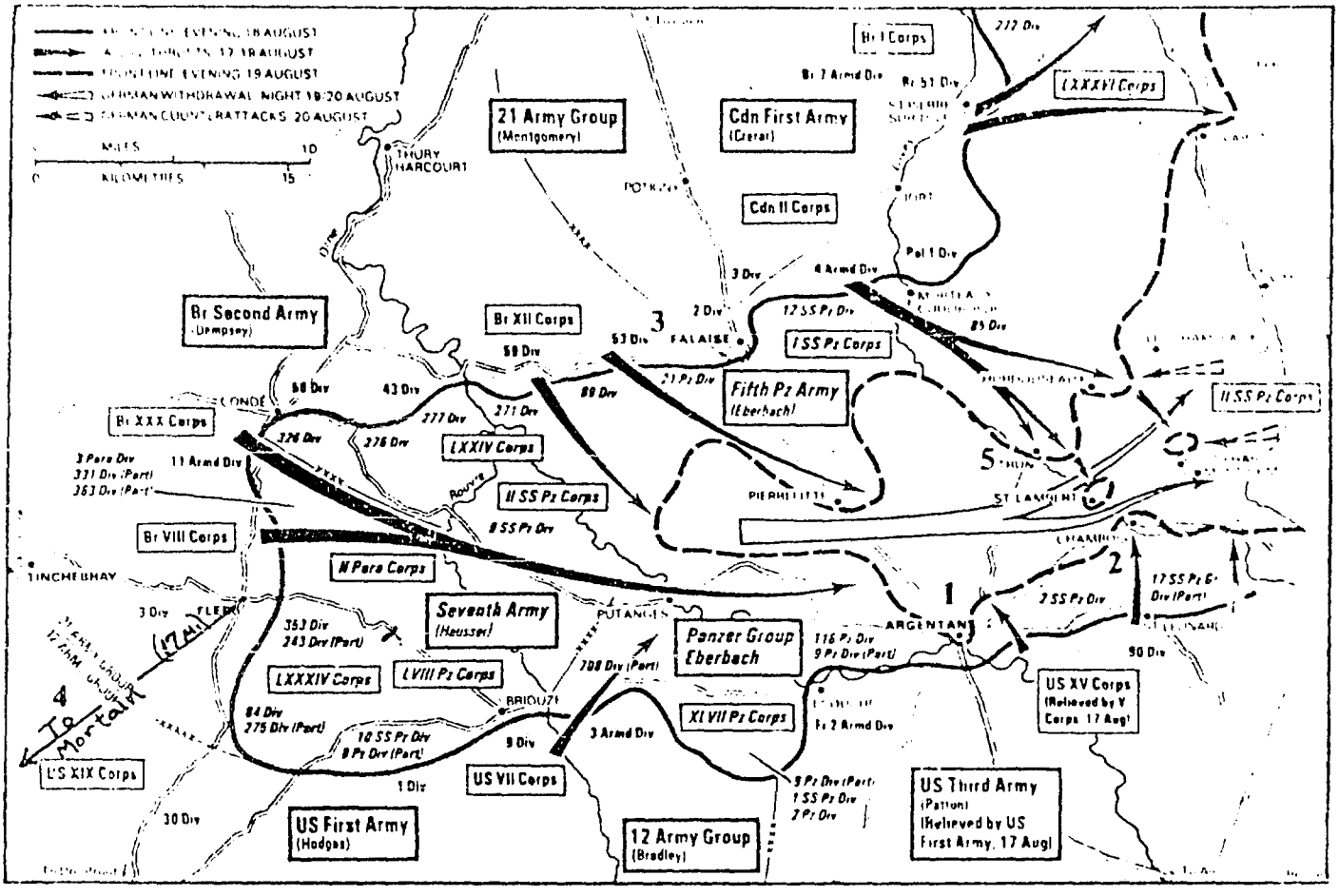


Figure 2 (5:251)



(1) Argentan

(2) Chambois

(3) Falaise

(4) Mortain

(5) Trun

Figure 3 (5:297)

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