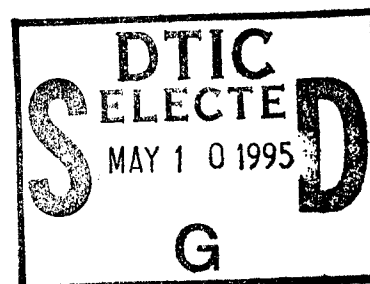


# NAVAL POSTGRADUATE SCHOOL MONTEREY, CALIFORNIA



## THESIS

### THE INTEGRATION OF SPECIAL OPERATIONS AND GENERAL PURPOSE FORCES

by

Michael M. Kershaw

December, 1994

Thesis Advisor:

Gordon H. McCormick

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THE INTEGRATION OF SPECIAL OPERATIONS  
AND GENERAL PURPOSE FORCES

by

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Captain, United States Army  
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Submitted in partial fulfillment  
of the requirements for the degree of

MASTER OF ARTS IN NATIONAL SECURITY AFFAIRS

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## ABSTRACT

Special Operations Forces (SOF) are frequently employed to conduct missions not within the limited boundaries of unilateral special operations. These operations often involve cooperation with general purpose forces (GPF) and are often under their command. This thesis argues that these cooperative efforts are better examined as *integrated operations*, rather than *special* or *conventional* operations. These operations require SOF to conduct specialized tasks facilitating the introduction of follow-on GPF to complete the mission.

This thesis develops a theory of integrated operations by examining six operations, previously considered under conventional wisdom as either special or conventional. It rejects much of the myth which surrounds these operations and offers a revisionist interpretation of the necessary and sufficient conditions for success in these endeavors. The thesis then goes on to compare cases of these special units using organizational theory to determine the sources of integration. The cases examined indicate a causal relationship between organizational factors related to command and training and a special unit's ability to integrate with GPF. The thesis concludes by recommending the realignment of select SOF in the current force structure to better meet the challenges of future integrated operations.



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## EXECUTIVE SUMMARY

Special Operations Forces (SOF) are frequently employed in ways that extend beyond the limited boundaries of unilateral special operations. These operations often involve cooperation with general purpose forces (GPF) and are often under their command. This thesis argues that these cooperative efforts are better examined as *integrated operations*, rather than *special* or *conventional* operations. Integrated operations require SOF to conduct specialized tasks facilitating the introduction of follow-on GPF to complete the mission. This requires that they be broken out and studied as a unique subset of the range of operations.

To limit the scope of this study, this thesis focuses on light infantry units conducting short duration strike missions at the operational level of war. This thesis does not analyze the use of SOF in conventional roles, nor does it address SOF integration in indirect actions. Its findings, however, address both SOF and GPF structure and the principles of integrated operations described within apply across the range of operations.

This thesis develops a theory of integrated operations by examining six cases, considered under conventional wisdom as either special or conventional. Specifically, this thesis examines the German airborne seizures of Eben Emael in Holland and Maleme airfield on Crete; U.S. Army Ranger operations at Cisterna, Italy and Point du Hoc in Normandy; and contemporary Ranger operations to seize the airfields of Point Salines on Grenada and Torrijos-Tocumen in Panama. It rejects much of the myth which surrounds these operations and offers a revisionist interpretation of the *necessary* and *sufficient* conditions for success in these endeavors.

Integrated operations occur in a rapidly changing and demanding operational environment. They are, in fact, two distinct engagements, having an initial, or "special", phase as well as a more "conventional" phase. In between lies a critical "transition" phase, often crucial to SOF in terms of sustaining mission achievements and combat power. Integrated operations are as rapid in execution as they are lengthy in preparation and place high

demands on planners and leaders. Finally, SOF conducting integrated operations perform their missions under restrictions not normally associated with unilateral special operations, and consequently, must be more robust.

The thesis goes on use organization theory to determine the sources of effective integration. The cases examined suggest that a causal relationship exists between organizational factors related to command and training and a special unit's ability to effectively integrate with GPF. Specifically, each unit was analyzed in terms of institutionalization and functional specialization. Autonomous organizations experienced difficulty in integrating operations with GPF because of bureaucratic rivalries and overspecialization. SOF employed in immature organizations experienced high levels of integration, but suffered heavily from misuse. The current division of SOF and GPF into distinct organizations has increased effective integration in deliberate operations. However, organizational barriers still exist which hinder the full integration of forces within the more demanding arena of contingency operations.

The thesis concludes by recommending the realignment of select SOF in the current force structure to better meet the challenges of future integrated operations. While the SOF command should maintain administrative and training control over select SOF designated for these operations, GPF commanders should gain greater operational control over these forces. Removing these barriers present in the current force structure would increase capability, further integrate training and enhance cohesion. Amid the current reorganization of military forces, these changes would better prepare SOF to meet the increasingly demanding challenges of the current security environment.

## I. INTRODUCTION

### A. BACKGROUND

Special Operations Forces (SOF) exist to conduct specialized military operations which,

...achieve military, economic or psychological objectives by unconventional means in hostile, denied, or politically sensitive areas.<sup>1</sup>

While there are other reasons for maintaining specialized elite units, such as leader development and doctrinal innovation, the necessity of conducting these specialized missions remain paramount in justifying the creation and maintenance of a permanent SOF presence in the force structure.<sup>2</sup> Although they are often considered separate from General Purpose Forces (GPF), SOF often operate with them.<sup>3</sup> Few SOF units possess the support structure for sustained operations and most depend on GPF for at least strategic mobility and logistical support. This is recognized in current doctrine which states that special operations can be conducted across the range of operations, "...independently or

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<sup>1</sup> The Joint Chiefs of Staff, Doctrine for Joint Special (Washington, D.C., 28 October 1992), p. GL-20.

<sup>2</sup> Eliot A. Cohen, Commandos and Politicians (Cambridge: Harvard University Press, 1978), pp. 29-34.

<sup>3</sup> Partly because of their role in bolstering public morale, and partly because of the natural tendency of upstart units to tout their own accomplishments, the literature on the subject of SOF is numerous and tends to focus exclusively on the units themselves, personalities and their actions. For the use of SOF as symbols see Cohen, pp. 60-65 and for the "legend" of SOF see Lieutenant Colonel Shaun M. Darragh, "Rangers: The Long Road to Recognition," Special Warfare (April 1988), p. 22 and David W. Hogan, Jr., Raiders or Elite Infantry (Westport, Connecticut: Greenwood Press, 1992), pp. 14-15, and 234-235 (Hereafter cited as Hogan, Raiders).

in conjunction with conventional forces."<sup>4</sup> Beyond this SOF and GPF are frequently employed together to accomplish missions as part of larger operations. These cooperative efforts, or "integrated operations", are the subject of this study.

Why should we look at integrated operations? First of all, since their inception, special units have been frequently called on to operate with GPF in cooperative efforts. Military history is filled with examples of both successes and failures in conducting integrated operations. The German army in World War II employed Brandenburg units to seize targets of direct importance to the advance of regular forces, particularly Panzer divisions.<sup>5</sup> Similarly, the U. S. Navy developed Marine raider battalions to spearhead amphibious operations, conduct raids and operate behind enemy lines in support of larger operations.<sup>6</sup> These are operations which special units traditionally perform, although perhaps not considered "classic" or unilateral special operations by contemporary doctrine.<sup>7</sup>

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<sup>4</sup> The Joint Chiefs of Staff, Doctrine for Joint Special Operations (Washington, D. C., 28 October 1992), p. I-3.

<sup>5</sup> Edward N. Luttwak, et al., A Systematic Review of 'Commando' (Special) Operations, 1939-1980, p. II-189, for principles of employment of Brandenburg units. See also James Lucas, Kommando (New York: St. Martin's Press, 1985) and Dr. Russell H. S. Stolfi, The German advance through Duenaburg, Latvia, p. 41, for specific examples of the employment of these units during operations.

<sup>6</sup> See Charles L. Updegraph, Jr., Special Marine Corps Units of World War II (Washington: Historical Division, USMC, 1972), pp. 2-4, for a discussion of the missions assigned to the Marine Raider Battalions and the concept for their employment.

<sup>7</sup> See Major Glenn M. Harned, Army Special Operations Forces and the Airland Battle, MMAS Thesis, US Army Command and General Staff College, 1985, pp. 100-104, for a

Second, the changing international security system is forcing both SOF and GPF to explore new missions, often in the same operational environment. Similarly, declining resources and overall force structure compel not only intraservice cooperation, but also cooperation between SOF and GPF in arenas once considered to be within the exclusive purview of one force or another. Currently, the Adaptive Joint Force Packaging initiative features not only multiservice cooperation, but also the employment of SOF on conventional platforms as part of a larger joint package.<sup>8</sup> The question then is not whether SOF and GPF will continue to conduct integrated operations; rather the question is what role will SOF play in these integrated operations?

### **1. Definitions**

Before examining the role of SOF in integrated operations, terms will be defined. Special operations will first be defined, in order to place integrated operations within the parameters of current doctrine. Second, conventional operations, and how they differ from special operations, will be reviewed. Integrated operations lie between special operations and conventional operations in the range of operations. Special operations are, as already noted,

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discussion on the difference between strike operations and 'Special Light Infantry Operations' which details why one category is a special operation and the other is conventional.

<sup>8</sup> See Admiral Paul David Miller, "The Military After Next", Proceedings, (February, 1994), pp. 41-44, for the exercising of Special Operations Forces with Joint Task Forces. See also General Wayne A. Downing, "Naval Postgraduate School Thesis Topics", Memorandum for Superintendent, Naval Postgraduate School, 1 June 1994, enclosure 1, p. 1, for current questions concerning AJFP and SOF's role in integrating with conventional forward based forces.

... conducted by specially organized and equipped military and paramilitary forces to achieve military, political, economic or psychological objectives by unconventional means in hostile, denied, or politically sensitive areas.<sup>9</sup>

Special operations differ from conventional operations,

...in degree of risk, operational technique, mode of employment, independence from friendly support and dependence on detailed operational intelligence and indigenous assets.<sup>10</sup>

Since some conventional operations are often high risk and employ operational techniques and modes of employment often associated with SOF, these operations would appear to be a starting point for an examination of integrated operations.

In order to fully consider the cases available and account for the increasing specialization implied by the term SOF today, a broader definition of SOF will be utilized. Special units will be considered which possess a specialized capability outside the norm of the period for infantry units. A unit possessing high morale, esprit, combat readiness or experience, although fitting the definition of elite, in the absence of special capability, will not qualify as a special unit for the purposes of this study.<sup>11</sup> Specialized capability will be defined as unit training in airborne assault, amphibious raiding, infiltration behind enemy lines or other specialized techniques beyond the capabilities of infantry

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<sup>9</sup> The Joint Chiefs of Staff, Doctrine for Joint Special Operations (Washington, 28 October 1992), p. GL-20.

<sup>10</sup> United States Special Operations Command, USCINCSOC Operational Concept (MacDill AFB, FL: USSOCOM/SOJS, 28 July 1989), p. 1-8.

<sup>11</sup> See Roger Beaumont, Military Elites (New York: Boobs-Merrill Company, Inc., 1974), pp. 2-5, for a discussion on the different types of military elites.

units of the period. Therefore, the terms SOF and special units will be used interchangeably to refer to units which meet the requirements of the above definition.

## **2. Integrated Operations**

What then are integrated operations? Integrated operations are those in which SOF and GPF are employed to accomplish interdependent tasks necessary for the successful completion of the overall mission. Unlike unilateral special operations, in which SOF accomplish missions independent of general purpose forces, integrated operations require SOF to seize or destroy a critical target and hold key terrain until relieved by GPF. The SOF mission is also generally critical to the introduction of follow on GPF. This concept was epitomized by the use of Marine Raiders to conduct amphibious operations across terrain believed inaccessible to larger units. During operations in the Solomons in World War II, the 1st, 3rd and 4th Marine Raider Battalions spearheaded landings for larger Army units of the 43rd Infantry Division on the Russell islands and New Georgia in examples of integrated operations.<sup>12</sup>

Integrated operations also differ from conventional operations in that SOF are employed in their specialized roles, as opposed to being used in conventional roles to support a GPF mission. Special units frequently are used as "shock troops" to support or enhance a conventional operation. Commanders are often prone to use special units in this role because of their high morale and readiness over a requirement for specific capability. This use, or misuse, of special

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<sup>12</sup> See Updegraph, for details of these operations. See also Henry Shaw and Major Douglas Kane, Isolation of Rabaul (Washington: Historical Branch, USMC, 1963), pp. 52-53, and John R. Miller, Cartwheel: The Reduction of Rabaul (Washington: Center of Military History, 1959), pp. 81-85, 99-106, and 129-131, for official accounts of these integrated operations presented from the service standpoint.

units is much argued and heavily documented.<sup>13</sup> For the purpose of this study, the mere cooperation of SOF and GPF will not constitute an integrated operation if SOF are employed in conventional roles. The employment of the Marine Raiders again provide an effective case in point. The commander of the 1st Marine Division committed the 1st Raider and 1st Parachute Battalions to the defense of a key ridge guarding the approach to Henderson field on Guadalcanal in November of 1942. Although the Raiders were immortalized for their successful stand in spite of tremendous casualties, this engagement is an example of the use of special units in a conventional role in a perimeter defense. It is not, by the parameters of this study, an integrated operation. This example highlights an issue that will be examined later, the dual nature of evaluating a special units mission in terms of tasks accomplished and casualties suffered.

Integrated operations generally require that SOF be augmented by GPF in some manner. Since SOF are designed to conduct special operations, they require augmentation of firepower, mobility or protection assets based on their assigned mission. One extreme example is the case of the U. S. Army Rangers in the Mediterranean theater in World War II. The Rangers gradually acquired heavier weapons, such as light artillery and heavy mortars, as they increasingly were assigned tasks requiring both specialized capabilities and

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<sup>13</sup> See David W. Hogan, Jr., U. S. Army Special Operations in World War II (Washington, D.C., Center of Military History, 1992), pp. 136-138 (Hereafter cited as Hogan, US Army SOF in WWII), for a discussion of the misuse of SOF in the concluding chapter of his work. See also David Hogan, Rangers Lead the Way?: The Problem of Misuse of U.S. Army Ranger Units in World War II, unpublished manuscript, Center of Military History.

heavier fire support.<sup>14</sup> The 2d Ranger Battalion, in its action at Point du Hoc during the Normandy invasion, made extensive use of naval gunfire support. These examples highlight the complementary nature of SOF and GPF. Since integrated operations require special units to operate closely with GPF, SOF will generally require some form of augmentation to sustain themselves until linkup or relief.

Finally, integrated operations are defined by tasks, not by unit. The integration of special and conventional tasks is the essence of an integrated operation. It has been shown that SOF are often assigned conventional missions within the context of larger operations. Similarly, certain general purpose forces can also be assigned special tasks within the context of an integrated operation. Since the focus of this study is on the roles that SOF can play in integrated operations, such operations will not be considered.

From the standpoint of SOF, integrated operations require them to conduct specialized missions, usually with some augmentation, to facilitate or allow the introduction of follow on GPF necessary to accomplish the overall mission. This study will use this definition to select cases to develop a theory of integrated operations.

## **B. SCOPE**

What type of integrated operations will be considered? All operations, whether special, integrated or conventional vary by duration, scale and mission. In order to limit the scope of this study, direct action or strike missions by light infantry type units, of short duration, and conducted at the operational level of war will be examined. It will be shown

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<sup>14</sup> See Dr. Michael J. King, Rangers: Selected Combat Operations in World War II (Leavenworth: Combat Studies Institute, 1985), pp. 22, 27-28, and 32, for details on the "upgunning" of Darby's Rangers.

that these missions, for which there is a wide selection of cases available for study, will figure heavily in future cooperative efforts between SOF and GPF. Additionally, although beyond the scope of this study, the principles of integrated operations and the lessons learned from organization theory should be applicable across the wide range of integrated operations and the special units which participate in them.

Integrated operations can be either limited or sustained in duration. The employment of SOF to conduct Unconventional Warfare (UW) or Foreign Internal Defense (FID) often requires the integration of forces over an extended campaign to accomplish its objectives. Examples of such sustained integrated operations are the employment of the Chindits and Merrill's Marauders in Burma in World War II in unconventional long range penetration roles in conjunction with advances of larger conventional forces. The employment of U. S. Army Special Forces in Southeast Asia during the Second Indochina conflict is an example of sustained employment in the role of foreign internal defense. These operations, however, were carried out by SOF elements fundamentally different from those assigned short duration missions. They relied on language skills and cultural knowledge as well as special military skills to accomplish their missions and therefore bring different variables into consideration. Although SOF's role in FID and UW have continued since their institutionalization, SOF continues to find itself heavily involved in short duration, strike operations. These operations have been defined as,

...sensitive special operations, normally limited in scope and duration, conducted against targets that have political or strategic significance.

Strike operations include the attack of critical targets...<sup>15</sup>

This study will focus on strike operations generally conducted in three days or less, the period most units can be employed without requiring extensive external sustainment.

Similarly, integrated operations can be conducted across the range of operations, from strategic to the tactical level. According to doctrine, however, SOF are optimally used at the strategic or operational levels of war.<sup>16</sup> Strategically, SOF generally operate independently or with GPF support to accomplish tasks for a theater or national command.<sup>17</sup> Joint Pub 3-05 defines the operational level as,

The level of war at which campaigns and major operations are planned, conducted, and sustained to accomplish strategic objectives within theaters or areas of operations. Activities at this level link tactics and strategy by establishing operational objectives needed to accomplish the strategic objectives, sequencing events to achieve the operational objectives, initiating actions, and applying resources to bring about and sustain these events.<sup>18</sup>

Under current doctrine, SOF does not perform missions in direct support of tactical commanders.<sup>19</sup> The operational level, therefore, not only holds numerous examples of

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<sup>15</sup> Major Glenn Harned, "Special Operations and the Airland Battle", Military Review 65 (September 1985), p. 76.

<sup>16</sup> Department of the Army, Doctrine for Special Operations Forces, FM 100-25 (Washington: Headquarters, Department of the Army, 1991), p. 2-3.

<sup>17</sup> Harned, MMAS Thesis, p. 141-143, defines the strategic role for SOF in the theater deep battle effort.

<sup>18</sup> Joint Pub 3-05, p. GL-16.

<sup>19</sup> Harned, MMAS Thesis, p. 146.

integrated operations, but is, doctrinally, the level of war at which SOF and GPF are most likely to cooperate. This level, then, will be the focus of this study.

SOF can be tasked with a variety of different missions to accomplish strategic and operational goals. Currently, special operations consist of five primary missions: Unconventional Warfare (UW), Foreign Internal Defense (FID), Direct Action (DA), Special Reconnaissance (SR) and Counterterrorism (CT). This study will examine the role of special units in performing missions which closely approximate the definition currently used for Direct Action. Although it is recognized that both air and naval components of SOF can also perform such actions, the focus of this study will be on light infantry type units. Light infantry refers to units utilizing manportable weapons and doctrine emphasizing small-unit actions, mobility, surprise and closequarters combat.<sup>20</sup> Their means of infiltration are varied and include amphibious, foot and airborne techniques. SOF units assigned to these missions have a high state of readiness and extensive specialized training.

This study will, therefore, examine cases of light infantry units conducting short duration strike missions at the operational level of war. By examining these cases of integrated operations, we will be able to develop a *theory of integrated operations* and discuss the expected effects of organizational factors on mission success.

### **C. THEORY**

This study proposes to develop a theory of integrated operations which sheds light on their nature and the potential roles for SOF. Second, hypotheses taken from organization

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<sup>20</sup> This definition of light infantry to describe elite forces is taken from Cohen, p.18.

theory will examine the role of SOF in more detail, highlighting the role played by functional specialization and institutionalization in determining SOF's ability to integrate with GPF and accomplish the mission. This study will approach these questions from a special operations perspective. Although GPF obviously cannot be ignored in this study, the findings and recommendations of this paper will primarily be directed at SOF.

### **1. Theory of Integrated Operations**

What is the nature of integrated operations? Integrated operations are, by definition, cooperative efforts. SOF units utilize their special capabilities to seize critical terrain which facilitates the follow-on of GPF. This highlights the most important characteristic of integrated operations, their *duality*. SOF capitalize on initiative, concentration and speed to gain an initial advantage over an opponent. This advantage, however, is fleeting. Without augmentation and timely arrival of GPF, opponents can regain the initiative through maneuver, bringing heavier firepower and greater numbers to bear against a lightly armed, numerically inferior and relatively immobile, defending SOF. So while the initial phase of the operation is conducted in a "special" environment, time and superior resources allow the enemy to turn it into a "conventional" environment, in which the advantage of numbers, firepower and initiative rest with the defender.

This duality leads to the second characteristic of integrated operations; they are three phased operations. The first, as already mentioned, pits an attacking SOF against a defending enemy in a "special operation". In the end, however, the final objective is to introduce GPF who, capitalizing on the advantage gained by the SOF, employ "conventional" means to achieve combat superiority over their opponent. The middle phase is one of transition. The goal of

the planner is to keep this phase to a minimum. Ideally, SOF is relieved by GPF shortly after attaining its objectives. Relief, even if not under pressure, is a difficult and complex task for even the most well trained and familiar units. Relief, under pressure, of dissimilar units is an even a greater challenge. This, compounded by the changing nature of the combat environment, makes the transition phase potentially the most likely to see the frictions of war affect the attacking force. Clausewitz, in his chapter on the unification of forces in time calls this potential period,

*...the phase of confusion, the condition of disarray and weakness - in brief, the crisis that occurs in every engagement, even on the victorious side.*<sup>21</sup>

The third characteristic of integrated operations is the changing nature of command functions. Initially, preparation for employing SOF demands detailed plans while execution is somewhat inflexible. Command functions are radically altered as GPF are introduced. Flexibility then is in much greater demand and detailed plans are overcome by events. Thus the command functions of planning and execution require fundamentally different approaches as the operation evolves.

Therefore, integrated operations are three phased, occur across a changing combat environment and require dynamic command philosophies. Using the cases in this study, the nature of how these characteristics define integrated operations will be highlighted and further defined.

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<sup>21</sup> Carl von Clausewitz, On War, Michael Howard and Peter Paret, eds., (Princeton: Princeton University Press, 1984), p. 206.

## 2. Organization Theory

How can organization theory identify factors that affect mission success? Organization theory can be used to examine large, functionally specialized bureaucracies, a characteristic of most modern military organizations.<sup>22</sup> Organization theory predicts that increasing specialization and institutionalization act against the rational setting of joint priorities among differing organizations.<sup>23</sup> Although Posen is specifically speaking to political-military integration, he notes a similar autonomy within the branches of the services.<sup>24</sup> This thesis hypothesizes that the ability of SOF and GPF to integrate their operations has a critical effect on mission success or failure. By examining the case studies, we can determine the causal links between organizational factors and mission success.

Institutionalization is often associated with the structure of administration and command. Functional specialization is closely related to a unit's ability to train for an assigned mission. A unit's ability to accomplish assigned tasks is more often associated with its capabilities, which appear to be closely related to its functional specialization, than the level to which it is institutionalized. However the literature on the misuse of SOF constantly discusses appropriate level of command, institutional support and commanders' misperceptions of SOF capabilities, all functions of the relative institutionalization of SOF.<sup>25</sup>

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<sup>22</sup> Barry Posen, The Sources of Military Doctrine (Ithaca: Cornell University Press, 1984), p. 42.

<sup>23</sup> Posen, p. 51.

<sup>24</sup> Ibid., p. 54.

<sup>25</sup> For "misperceptions" see Cohen, pp. 58-60; for "unity of command" and "organizational support" problems see Hogan, pp. 133-137; for "absence of a unity of command" see

In examining the special units employed in the cases, functional specialization will be measured by looking at the skills possessed by the unit and the amount of training it had to undergo to prepare for the mission. Were forces assembled "ad-hoc" in order to create a capability to accomplish the assigned task? What tasks were these units specially trained for and did other units of similar capability exist within the force structure? Finally, was there sufficient time to accomplish the organization and training of the unit? Special units, in short, can vary according to their level of training. They can be specified as trained, ad-hoc, and untrained with differences allowed for in time.

Institutionalization will measure the level of the unit's command and control during engagements presented in the cases analyses. Did the unit have a mature, growing or immature tactical headquarters? Who handled replacements, casualties and other administrative needs? To what level of headquarters was the unit responsible? Was it placed under the operational control of local commanders or were missions planned and controlled by special headquarters familiar with their capabilities?<sup>26</sup> This factor will also address the bureaucratic nature of organizations, their propensity to further their own agendas and friction between with organizations.

The ability of these factors to influence mission success in these critical operations has potential ramifications for how SOF train and organize. While it remains difficult to predict the changing nature of the threat and likely contingencies, SOF should be trained and organized to best suit the needs of the operational environment in which they

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King, pp. 74-75.

<sup>26</sup> Harned, MMAS Thesis, pp. 148-149, poses the question of whether SOF need a unified special operations command or would they be better employed under the operational control of theater commanders.

are expected to operate. If some portion of SOF will be involved in integrated operations in the future, an improvement in organization and training could better prepare them for those contingencies.

#### **D. CASE STUDIES**

The cases were selected using the definition of integrated operations already presented. They were further restricted by the scope of this thesis, specifically, to short duration strike operations, conducted by light infantry type units at the operational level of war. These three cases were chosen from integrated operations conducted in the modern era, 1940 to the present, a period which has seen both the frequent employment of SOF, and, critical to this study, their institutionalization.<sup>27</sup> Second, they feature SOF mature in their organization, as opposed to ad hoc formations which may have later developed into standing forces. This will allow the full employment of organization theory in assessing both specialization and institutionalization. Since organizations are dynamic, the cases selected examine multiple operations. A minimum of two examples of operations are included in each case study. Finally, the cases selected vary longitudinally over time, spanning from early World War II to 1989.

##### **1. Cases**

Three cases were selected. The first covers the German Parachute Corps in early World War II and examines two integrated operations: the assault on the Eben Emael fortress and the Albert Canal bridges in Belgium and Operation MERCURY, the airborne assault on Crete. The second case is one of the U. S. Army's first experiments with SOF, the World War II Rangers. The two Ranger actions examined are the infiltration attack at Cisterna in the Anzio beachhead and the assault on

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<sup>27</sup> Cohen, pp. 18-20.

Point du Hoc during the Normandy invasion. The final case is a contemporary organization, the current U. S. Army Rangers. The two cases examined feature the Rangers conducting forced entries onto the island of Grenada and the isthmus of Panama.

## **2. Case Selection**

The cases selected offer differing approaches to organizing for and conducting integrated operations. Two different countries, Germany and the United States, are examined, as well as differing services. The German Parachute Corps fell under the control of the Luftwaffe (German Air Force) while the World War II Rangers were an Army unit originally patterned on the British Commandos and organized for amphibious raiding. The current Rangers are Army ground forces first and foremost, specializing in, among other things, airborne assault.

Each case looks at a different approach to the control of special units. The German Parachute Corps were controlled in an autonomous and independent manner from 1940 - 1942. The World War II Rangers were controlled in a very decentralized manner, often under the tactical control of local commanders. The modern Rangers have operated under an extremely centralized control system, often responding directly to the national command authority.

The cases examine success and failure. Three of the operations saw mixed results, reflecting the dual nature of operational success in terms of tasks accomplished and casualties incurred when employing a special operations force. Additionally, in some of the cases, success or failure initially did not necessarily predict the outcome of the overall operation.

The cases were selected to fully develop the theory of integrated operations and test the hypothesis. Organization theory is concerned with the causal forces of purpose, people and environment. Purpose can be derived from operational

concepts and plans. People introduce uncertainty for commanders and their subordinate leaders. The environment, in terms of enemy forces, objectives and overall balance of forces, can present obstacles to control, coordination and rationality.<sup>28</sup> Using comparative case analysis, comparisons can be made over space and time in order to explain factors influencing mission success and failure. Other factors such as strategic culture, combat soldier style, opposing units and moral forces must still be considered. The cases selected, by offering a wide variation of approaches to integrated operations, will test the validity of the theory and present evidence to either refute or support the hypotheses.

### **3. Methodology**

Each case will be introduced with a brief background discussion of the special operations unit involved, initially focusing on purpose in terms of organizational development. Two characteristics of these units will be examined in detail, functional specialization and institutionalization. *Functional specialization* will be measured by the degree of training the unit underwent in order to achieve combat readiness for the assigned mission. *Institutionalization* will measure the administrative, training and command organizations that support the employment of the force and their degree of centralization.

Second, in order to determine the causal role of people within these organizations, key leaders of both the special units and their commanders will be examined. This will demonstrate the crucial role played by leaders at both levels in determining the tasks which make up these integrated operations.

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<sup>28</sup> Posen, pp. 42-44, explains the causal forces of purpose, people and environment in organization theory.

Each of the situations facing the special units will then be examined to determine the role environmental factors played in determining the mission of the unit. Specifically, enemy forces, resources available and stage of conflict will be considered. Engagements will be examined, looking first at preparation and then execution. Each engagement will be examined in terms of factors which contributed to mission success or failure and, specifically, where these missions failed, either initially or in attaining their final objectives. Overall success for the special unit will be measured by two variables: accomplishment of assigned tasks and casualties incurred. These dual measures of success recognize the nature of SOF as a non-renewable specialized asset. Organizational adjustments, leader changes and other lessons learned in action will be discussed in between the two engagements.

Finally, the organization and its experiences will be analyzed, focusing on the nature of each integrated operation. The validity of the hypotheses will then be assessed, evaluating the effects of organizational factors on success or failure, as well as the relative impact of the two factors.

Upon completion of all three case studies, a comparative analysis of these integrated operations and the two hypotheses will be conducted. Alternative explanations will be offered and evaluated against the evidence of the study. In the conclusion, this study will offer an assessment of SOF's current ability to conduct integrated operations and recommendations supported by evidence gained from testing the hypotheses on reorganization.

## II. GERMAN OPERATIONS (1937-1942)

### A. BACKGROUND

The Germans developed several special units during the interwar years in preparation for World War II, and created others during the war to cope with various contingencies. To conduct unconventional operations, special reconnaissance, and small scale direct action missions, Brandenburg units were formed under the direction of the intelligence branch (Abwehr) of the German High Command (OKW). These units often seized key terrain, such as bridges, to facilitate the advance of GPF.<sup>29</sup> For missions requiring larger units inserted by airborne means, however, the Germans frequently used elements of the Luftwaffe's Parachute Corps.

The German Parachute Corps originated from both Luftwaffe and Army parachute units raised in the interwar period. By 1939, however, all parachutists were placed under Luftwaffe control although differences in airborne doctrine between the Army and Air Force were still evident. The 7th Parachute Division, under General Student, was given overall responsibility for training and employing this new force and, later, the Army redesignated the 22d Infantry Division as a unit specifically designed for airlanding operations (Airborne) in support of parachutists. By the opening of the war against Poland in September 1940, the 7th Parachute Division consisted of two parachute rifle regiments (FJR), as well as supporting transport and glider units.

Poland saw only the limited use of parachutists in airlanding roles late in the campaign. Airborne doctrine, however, was soon tested in Norway. The army desired to employ paratroopers on strategic missions in conjunction with army units. Parachute units were to be employed in mass

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<sup>29</sup> Lucas, Kommando, pp. 9-11.

behind enemy lines in support of the *schwerpunkt*, or main effort of the army. The Luftwaffe envisioned employing parachutists in small simultaneous drops against targets nominated by air commanders. These units would conduct sabotage and threaten enemy communications from dispersed perimeters creating an "oil drop" effect. As the situation developed, the most promising perimeters would be reinforced to create a *schwerpunkt*. In April of 1940 the 1st Parachute Regiment (1FJR) participated in the invasions of Denmark and Norway, seizing key bridges, airfields and establishing blocking positions against reinforcing allied forces. These elements were relieved by advancing ground forces and reassembled for the upcoming invasion of the West.<sup>30</sup>

#### **1. Assault Detachment Koch**

German airborne leaders decided in June 1939, in anticipation of the upcoming campaign in the West, to establish an assault detachment within 7th Parachute Division. This element would be specially trained and use special equipment. Although all its members would be trained parachutists, its primary means of infiltration would be by glider. Gliderborne assault detachments presented several advantages to parachute units. First of all, gliders could infiltrate covertly onto an objective, once released from their tow planes. Second, gliderborne troops were capable of landing in a concentrated pattern avoiding the dispersion caused by parachuting from transports. Additionally, gliderborne troops could carry not only personal weapons, but also heavier weapons normally requiring special drop procedures from transports. Finally, although parachutists

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<sup>30</sup> James Lucas, Storming Eagles, (London: Arms and Armour Press, 1988), pp. 8-15, discusses the doctrinal debate over the employment of parachute and glider troops, as well as their origins and operations in Denmark and Norway.

were employed in Denmark and Norway, gliders were still relatively new and untried, thus the western allies were less suspicious of glider than parachute attacks.<sup>31</sup>

Assault Detachment Koch was formed in November 1939 from a company of I Battalion/1FJR, the pioneer platoon of II/1FJR and a glider unit. It was soon assigned the mission of neutralizing the Belgian Fortress of Eben Emael and the three bridges over the Albert Canal to allow army motorized units rapid advance into Belgium. (Map 1)

## **2. Eben Emael**

The Eben Emael fortress was designed to provide artillery support to Belgian defenses along the Albert Canal and Meuse River. It was located approximately 15 miles from the Dutch-German border near the junction of the Albert Canal and Meuse River. (Map 2) The fortress possessed two batteries of artillery in hardened positions for offensive and defensive fires. In accordance with the Belgian plans, specific gun positions within the batteries were sited and assigned to fire in support of specific areas. Positions 12 and 18 were dual 75mm guns and sited to provide fires to the three bridges over the Albert Canal north of the fortress. Additionally, positions 23, 24 and 31 were revolving cupolas capable of firing in any direction. Position 24 possessed two 120mm guns, the largest artillery in the position, capable of firing 12 miles in any direction.<sup>32</sup> (Map 3)

Defensively, the fortress was protected by both natural and man-made defenses. The fortress was protected on its eastern side by sheer cliff walls made by the excavating of the Albert Canal and on the northwestern side by a moat. The defensive battery was cited to provide defensive fires against

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<sup>31</sup> Lucas, Storming Eagles, p. 17.

<sup>32</sup> James E. Mrazek, The Fall of Eben Emael, (Novato, California: Presidio, 1970), pp. 29-30.

a ground attack on the perimeter of the fortress. Casemates were cited on the perimeter of the fort and along the cliffs of the Albert canal to protect the perimeter. Finally, tertiary batteries of four antiaircraft machine gun dugouts, two casemated machine gun positions and an observation post on position 31 were designed to support the perimeter defenses by providing fires on the surface of the fort.<sup>33</sup> (Map 4)

The *schwerpunkt* of the German offensive was in the Ardennes sector where the motorized corps of Panzer Group Kleist would force a breakthrough for Army Group A. The German advance into Holland and Belgium by Army Group B was a secondary attack, designed to quickly overrun the Low countries and draw French and British mobile forces forward out of prepared positions. A rapid advance in this sector would reinforce the Allied preconceptions of a German main effort through this region, drawing forward vital reserves. This would allow Army Group A, moving through the difficult terrain of the Ardennes, to concentrate against second rate French units in fixed positions as it forced a crossing of the Meuse. Sixth Army was tasked as part of Army Group B to advance through Holland into Belgium. The bulk of 7th Parachute Division and the 22nd Airborne Division were tasked with supporting the advance of the northernmost 18th Army into the defended interior of Holland. They were specifically tasked with seizing key bridges, airfields and attacking critical nodes in support of the advance of ground forces using parachuting, airlanding and close air support.

Assault Detachment Koch was given a separate mission of neutralizing the fortress of Eben Emael and seizing the three bridges over the Albert Canal in support of the advance of 6th Army. Fourth Panzer Division (4 PzDiv) was given the responsibility for linking up with the parachutists at the

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<sup>33</sup> Mrazek, p. 30.

bridges and was supported by a special purpose unit (zbV 100) of the Brandenburg Regiment who would seize the bridges over the Meuse in Maastricht and spearhead the advance to the Albert Canal. Sixth Army assigned a special battle group composed of Infantry Regiment 151 (IR 151) and Engineer Battalion 51 with reducing the fortress and securing the Canne bridge.<sup>34</sup> Artillery support for the Assault Detachment was provided by Luftwaffe Flak Battalion 'Aldinger' (two batteries of 88mm guns) advancing with the ground units and close air support (CAS) was provided by Henschel 123's (Hs 123) of an elite training unit (II/LG2) and Junkers 87's (Ju 87) of Dive Bomber Group Two (StG 2). Aerial resupply was preplanned and would be to be conducted by Heinkel 111's (He 111).<sup>35</sup>

Eben Emael itself was authorized a garrison of 1,200, but only some 650 were available for the defense of the fortress at the time of the attack. On 10 May 1940, the offensive (1st) battery was assigned 206 personnel of whom some 25 percent were absent. The defensive (2d) battery was assigned 242 with 79 men absent. With the 223 men of the relief force located at Wonck, about four miles away, total forces available to the garrison were about 650 men broken down as 18 officers, 62 noncommissioned officers and 570 enlisted. The fort, the bridge at Canne and the locks at Lanaye were under the command of the fortress commander, Major Jottrand.<sup>36</sup> The two northern bridges were under the control of Commandant Giddeloo whose headquarters were located at the caserne of Lanaeken.<sup>37</sup>

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<sup>34</sup> Telford Taylor, The March of Conquest, (New York: Simon and Schuster, 1958), p. 214.

<sup>35</sup> Cajus Bekker, The Luftwaffe War Diaries, (Garden City, New York: Doubleday and Co., 1968), p. 99.

<sup>36</sup> Mrazek, p. 30-31.

<sup>37</sup> Ibid., p. 139.

Assault Detachment Koch was divided into four elements for the operation. Each element was assigned to a specific target. (Figure 1) Additionally, the Luftwaffe would support the seizure of the two northern bridges by a strike on the Belgian headquarters in Lanaeken by four Ju 87's at H-Hour. CPT Koch and his command element accompanied the Concrete assault group. Each group was further divided into squads, both infantry and engineer, which received specific missions. Granite detachment comprised ten squads each assigned one position on the fortress as well as one alternate target. (Map 5)

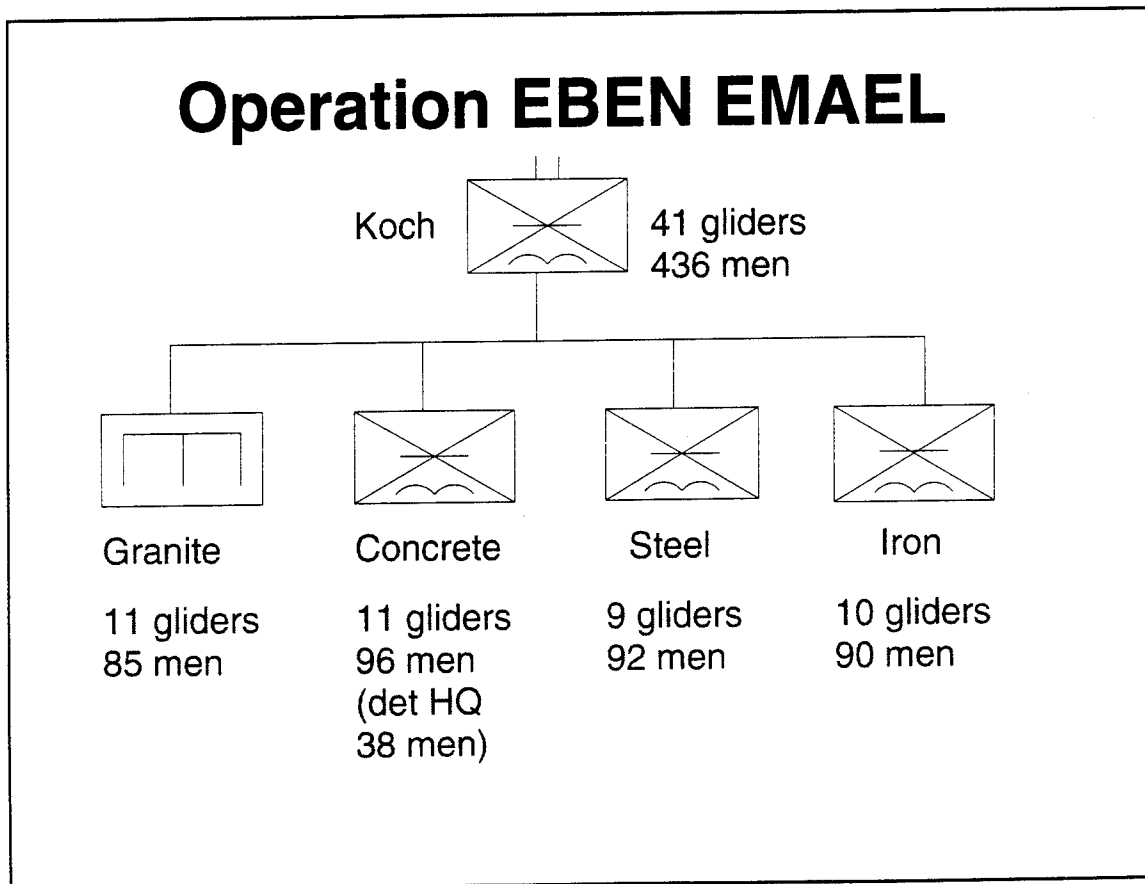


**Figure 1.** Assault Detachment Koch.

The operation commenced at 0330 10 May when 41 Junkers 52 transports (Ju 52) lifted off towing 41 DFS-230 gliders carrying some 436 men of the assault detachment. At least two gliders of the Granite force, one carrying the element leader, broke tow lines and failed to insert at H-hour. Nowhere was surprise complete. The Belgians were alerted as early as 0030 by the movement of German units towards the border. By 0315 the surface defenses of the fort were manned and warning shots by the fort's battery commenced shortly before the assault force lifted off from airfields inside Germany. The bridges were similarly alarmed and at H-hour all were manned as well as the northern command post (CP) at Lanaeken. Shortly after the first gliders touched down, the four Ju 87's hit the northern CP, killing Commandant Giddeloo and twenty of his headquarters personnel. The northern bridges were without command.<sup>38</sup>

Major Jottrand arrived at the fortress sometime before 0100 and, upon receiving reports of the attack, ordered the bridge at Canne and the lock at Lanaye to be blown. Failing to hear the expected explosions, he again called the bridge. Although the officer in charge was absent and the noncommissioned officer in charge reluctant to act, Major Jottrand ordered him to destroy it. Thus, as the last gliders of detachment Iron touched down, the Canne bridge collapsed into the canal.<sup>39</sup>

The Germans reported anti-aircraft fire from the forts batteries but the nine remaining gliders of the Granite force landed without losses. Within 20 minutes the sappers knocked out the two gun positions sited to fire the north as well as several others. Although the squad assigned to knock position 24 failed to reach the objective, SGT Wenzel, the platoon

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<sup>38</sup> Ibid., p. 109.

<sup>39</sup> Ibid., pp. 82-84.

sergeant, disabled the guns with hand-placed demolitions.<sup>40</sup> Detachments Steel and Concrete enjoyed similar successes. The Veldwezelt bridge was captured within 10 minutes of landing by LT Altmann's Steel detachment and the Vroenhoven bridge was seized with similar alacrity by LT Schacht. Concrete's bridge was ready for traffic less than an hour after landing.<sup>41</sup> Captain Koch was soon in contact with all elements but Iron after establishing his CP in a blown casemate near the Vroenhoven bridge. Thus, approximately one hour after H-hour, the detachments had successfully accomplished the first part of their mission. (Map 6)

With two of three bridges in their hands and the fortress artillery neutralized, the Assault Detachment consolidated and secured their objectives against Belgian counterattack. The Granite force received reinforcements, scheduled and unscheduled, when additional demolitions were dropped on the fort by He 111's and LT Witzig's glider landed near the Granite CP at 0630. During the next 19 hours the engineers reduced more positions and defended their foothold on the surface of the fort, with close air support hitting both fortress positions and ground reinforcements. Engineer Battalion 51 established radio contact with the Granite force when CPT Koch passed the engineers their frequency.<sup>42</sup> lead

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<sup>40</sup> Mrazek, pp. 104-107.

<sup>41</sup> Schacht, Gerhart, "A first hand account of the German Airborne Assault on Eben Emael", German Military Science Review (May 1953), copy in US Army Military History Institute, Carlisle, Pennsylvania, no page numbers, only notes, p. 2.

<sup>42</sup> Major Charles E. Kirkpatrick, "The Attack on Eben-Emael, A Conversation with Oberst a.D. Rudolf Witzig," (Washington: Center for Military History, unpublished interview, 1988), p. 38. (Hereafter cited as Witzig interview)

elements, after two failed crossings, first established physical contact between 2400 and 0200.

Within three hours all resistance ceased in the vicinity of the Vroenhoven bridge and the first elements of Brandenburg unit zbV 100 linked up there at 1230. At the blown Canne bridge site, elements of Iron detachment crossed to the west bank and established a foothold on the far side at 1600. By late afternoon, elements of the engineer battalion reached the blown bridge. Lead elements of 4 PzDiv reached the two northern bridge sites as early as 1430 that afternoon and by 2130 its rifle brigade was in possession of the bridges. That evening the engineers crossed the canal and, by midnight, the main body of the engineer battalion was on the far side.<sup>43</sup>

Belgians on the perimeter defenses stubbornly resisted the combined group of assault engineers and glidermen who attempted to reduce their positions throughout the early morning. The gliderborne sappers, who interdicted position 17 to support the first engineer assault crossing, now assisted in reducing positions on the western side of the fortress. Positions 4, 3, 6, 13 and 30 were attacked by combined groups of Witzig's men, infiltrated engineers and the heavy guns of the engineer battalion positioned near Loverix at dawn. By 0830, the Granite force was relieved and turned its positions over to the engineers. The engineers and IR 151 completed reduction of the fort, which surrendered at 1145.<sup>44</sup> (Map 7)

Apart from the blown bridge at Canne, Assault Detachment Koch achieved almost perfect success. Casualties totaled 25 killed and some 65 wounded. The Granite force lost six killed

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<sup>43</sup> Schacht, p. 5 and Mrazek, p. 147.

<sup>44</sup> Mrazek, p. 16.

and 20 wounded overall, with two killed and 12 wounded in the first fifteen minutes of the assault.<sup>45</sup>

### **3. Holland to Greece**

Assault Detachment Koch quickly returned to base where it remained while the campaign in the west concluded. The 7th Parachute and 22nd Airborne Divisions concluded their operations in Holland as they were relieved by advancing ground forces. Experiences in Belgium and Holland validated the German use of gliders as a component of airborne operations, as missions in Holland suffered heavy losses in both transports and special purpose units.<sup>46</sup> Additionally, parachutists found themselves outgunned after the initial phase of the operation as they held critical positions against the more heavily armed Dutch. This experience led the Germans to develop lightweight light artillery and anti-tank guns for employment in future operations.<sup>47</sup> Planning and reorganization followed as the Germans capitalized on these lessons learned and prepared for the invasion of England. The Luftwaffe created the XI Air Corps under recently promoted LTG Student, severely wounded in Holland, to control all airborne forces, including transports and specialized troops. The existing formations expanded with the 7th Parachute Division being brought up to full tables of organization with three full parachute regiments and associated specialist troops. Specialized troops directly under control of Corps included the Parachute Engineer and Machine Gun Battalions as well as the Assault Regiment, the successor to Assault Detachment Koch. Although plans for invading England were shelved, a new

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<sup>45</sup> Ibid., p. 109.

<sup>46</sup> Bekker, 142.

<sup>47</sup> Lucas, Storming Eagles, p. 38.

challenge unfolded as the Germans turned towards the Balkans in 1941.

#### **4. The Assault Regiment**

The success of Koch's detachment convinced the Germans of the value of a specialized assault unit within the Parachute Corps. The detachment was therefore expanded to form the Assault Regiment. Command of this elite unit was placed in the hands of MG Meindl, a former artilleryman who commanded airborne units with distinction in Norway. Major Koch, recently promoted after his performance in Belgium, led the first (I Bn) of the four battalions of this unit which was organized to spearhead airborne operations through a combination of glider and parachute tactics. All battalions were authorized to be manned at levels above normal for even the elite parachute corps and, additionally, the regiment's fourth battalion consisted exclusively of airborne heavy weapons and engineers. Volunteers for the unit were drawn from experienced parachutists and others selected from volunteers throughout the army.<sup>48</sup>

#### **5. Operation MERCURY**

Luftwaffe leaders began considering an airborne assault on the island of Crete as early as October 1940 in support of proposed German operations in the Mediterranean.<sup>49</sup> The Germans forward deployed a airborne brigade group based on the 2FJR, for airborne operations during Operation MAITA, the campaign

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<sup>48</sup> For details on the Assault Regiment see Ian Stewart, The Struggle for Crete, (London: Oxford University Press, 1966), pp. 161 and 165. For the expansion of Assault Detachment Koch see Roger Edwards, German Paratroops in World War II (New York: Doubleday and Co., Inc., 1974), p. 80.

<sup>49</sup> Callum MacDonald, The Lost Battle: Crete 1941, (New York: The Free Press, 1993), p. 59.

in Greece.<sup>50</sup> As the Germans advanced through Greece, the 2FJR seized the bridge over the Corinth Canal on 27 April 1941 by combined parachute and glider assault in an attempt to trap retreating Commonwealth forces. Although the combined assault was successful, the bridge was blown immediately after seizure by the British and the drop was too late to trap a large number retreating troops. (Map 8)

Hitler issued his directive to take Crete on 25 April 1941, code named Operation MERCURY. The Luftwaffe was tasked with overall command, with the army and navy playing supporting roles. (Figure 2)

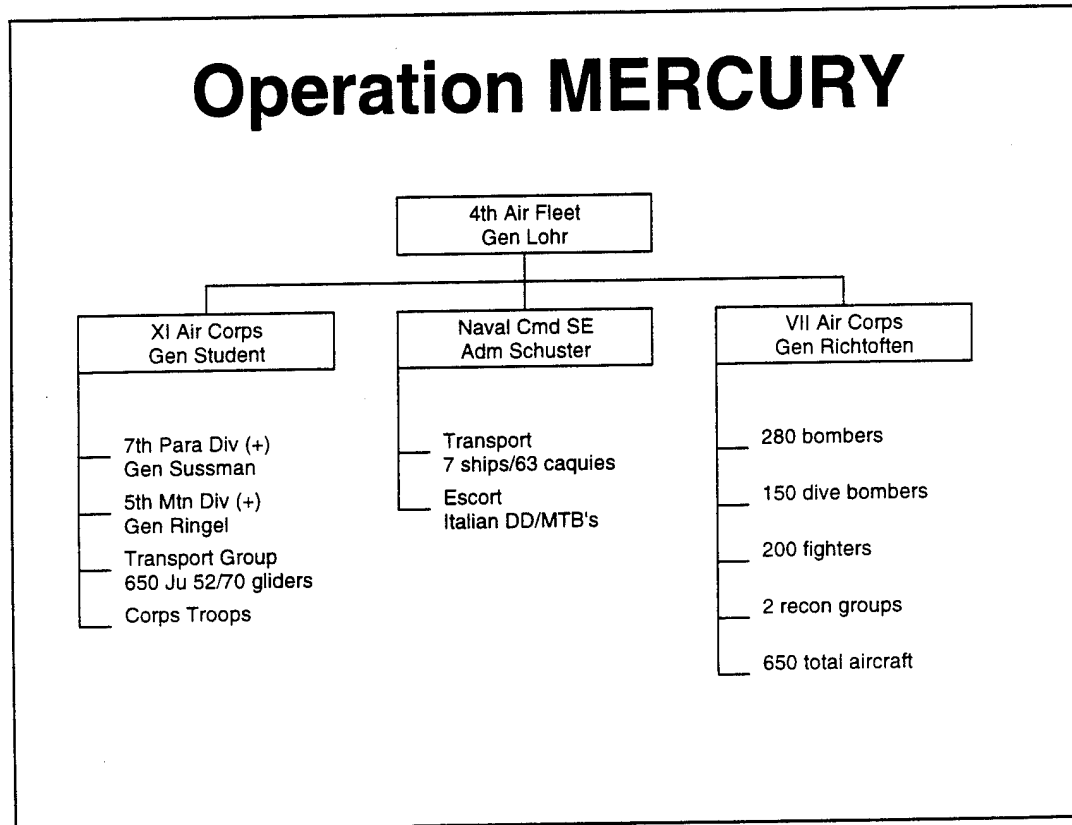


**Figure 2.** Command relationships: Operation MERCURY.

<sup>50</sup> Lucas, Storming Eagles, p. 41.

As opposed to the Luftwaffe's desire for a solely airborne operation, Hitler insisted on a seaborne echelon for the invasion. Also, the entire operation was subordinate to and designed not to conflict with the upcoming BARBAROSSA operation.<sup>51</sup> The Luftwaffe designated the 4th Air Fleet, under General Lohr, as the headquarters responsible for the assault. Lohr had at his disposal the XI Air Corps (Student) providing assault troops, VIII Air Corps (Richthofen) for air support and army elements from the reinforced 5th Mountain Division (MG Ringel), to replace his airlanding element, the 22d Airborne Division, which was unable to reach Greece. The Navy provided transport for the seaborne echelon with chartered and captured Greek sailing vessels and liaison with the Italian Navy provided surface escorts.

As the campaign in Greece concluded and forces redeployed for their upcoming roles in BARBAROSSA, the Germans received only scanty intelligence on the island and its defenses. Aerial reconnaissance revealed little activity, few defenses and gave scant detail on the terrain of the island. The Germans believed the island was defended by an under strength division while evacuees from the Greek campaign were being taken off at night. When combined with the shattered remnants of the Greek Army evacuated from the mainland and a minuscule RAF force, the Germans felt confident of their success.<sup>52</sup>

The German debate on operational technique for the assault centered around their previous doctrinal debate and bureaucratic politics. General Lohr wanted to employ assault elements in a *schwerpunkt* to seize a critical airfield, then introduce follow-on forces and roll up the island defenses. He preferred Maleme airfield area for the location of the initial attack. Lieutenant General Student, on the other

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<sup>51</sup> MacDonald, p. 62.

<sup>52</sup> Stewart, p. 89.

hand, favored an almost simultaneous drop of his entire airborne force in a coup de main to seize the three critical airfields and port area. Student, only recently recovered from his wounding in Holland, but very much in favor, aggressively pursued an airborne-exclusive option for taking the island. The resulting compromise, favoring Student's alternative but limited by lift capability, envisioned a sequential assault from west to east, beginning with simultaneous attacks on Maleme by Group West and Canea-Suda Bay by Group Center, designated as the main effort. Eight hours later, drops would occur on the two eastern airfield at Heraklion and Retimo. Follow on forces were scheduled for introduction in all areas.

The Assault Regiment was tasked with the seizure of Maleme airfield as well as detaching two glider companies to knock out critical nodes for the capture of Cania for Group Center. (Figure 3) Major General Meindl, commander of the Assault Regiment, also commanded Group West. His forces were to be inserted at H-hour by both parachute and glider after extensive airstrikes on the Maleme airfield and surrounding defenses. Follow on forces included a seaborne echelon with a reinforced battalion of mountain infantry with heavy weapons scheduled to land on D+1 on the Maleme beaches and an airlanding echelon also consisting of mountain infantry and motorcycle elements to be brought in as soon as he secured the airfield. Meindl's plan envisioned seizing critical nodes around the airfield by gliderborne assault with parachute elements landing off the objective, assembling and launching a concentric attack to seize the airfield itself. Detachments would be dropped to block his unprotected west and southern flanks.

After detaching two companies to Group Center, Meindl allocated I Battalion(-) under Major Koch and elements of III Battalion under the Regimental Operations Officer (Ia), Major

Braun to the gliderborne seizure of critical points around the airfield. II Battalion under Major Stentzler would be dropped west of the Tavronitis river and provided the western security detachment while the bulk of III Battalion under Major Scherber would drop east of the airfield. The bulk of IV Battalion under CPT Gericke would drop west of the river and support the attack on the airfield with heavy weapons from that direction while providing its pioneer company for southern security.<sup>53</sup>

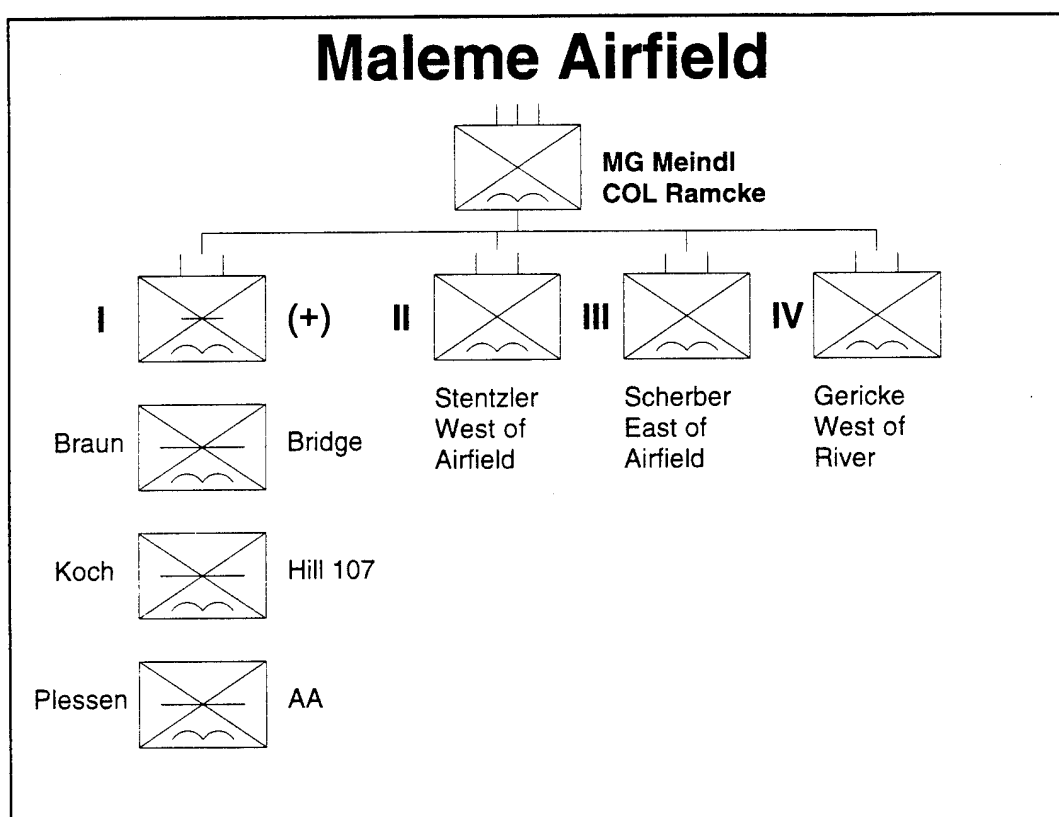


**Figure 3.** The Assault Regiment.

The Germans not only grossly underestimated the number and caliber of troops defending Crete but also provided the

<sup>53</sup> Stewart, p. 162.

Commonwealth forces almost near perfect intelligence through Ultra decrypts. With some 40,000 troops in varied states of efficiency from the Greek campaign, General Freyberg, the New Zealander who commanded the Commonwealth forces on the island employed a full brigade to defend the Maleme area. The British command in the Mediterranean were fully aware of the impending airborne assault from decrypted signals, however, Freyberg was somewhat limited in positioning his forces due to possibly compromising the ULTRA secret.<sup>54</sup>

The 5th NZ Brigade under Brigadier Hargest was charged with defense of the area and 22d Battalion under LTC Andrew occupied the airfield and key terrain in its vicinity. Only the area west of the Tavronitis river remained unguarded. In support of 5th Brigade were assorted units fighting as infantry, such as the Field Punishment Center, 7th Field Company (engineers) and 19th Army Troops Company as well as Royal Air Force (RAF) personnel stationed at the airfield itself. Artillery support was provided by three troops of improvised artillery consisting of three Italian 75mm howitzers, two British 3.7-inch howitzers and four French 75mm guns respectively. In support were two and a half troops of Light Anti-Aircraft (AA) (ten bofors guns) and Royal Marine detachments manning two 3-inch AA guns and two 4-inch coast defense guns. Finally, two Infantry (I) tanks of the 7th Royal Tank Regiment (RTR) were dug in above the airfield as a reserve.<sup>55</sup> Although the New Zealanders had lost a great deal of equipment, particularly among heavy weapons and signals,

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<sup>54</sup> MacDonald, pp. 138, 144 and 160.

<sup>55</sup> D. M. Davin, Crete (Official History of New Zealand in the Second World War 1939-45), (London: Oxford University Press, 1953), pp. 64-5.

22d Battalion had a strength of 20 officers and some 600 enlisted on 20 May 1941.<sup>56</sup>

The Germans employed extensive aerial preparation for the assault on Crete and Maleme airfield. Aerial preparation began on 14 May with strikes against RAF operations at the three airfields, AA positions and British shipping. By 19 May, the commander of VIII Air Corps, General Richtofen announced that only a few AA positions remained, the Luftwaffe now possessed air superiority over the island and could strike at will.<sup>57</sup>

#### **6. Maleme Airfield**

H-Hour over Maleme airfield for the Assault Regiment was 0715 (British time) and was preceded by an hour of scheduled airstrikes by fighters and bombers of the VIII Air Corps. Although these strikes inflicted heavy casualties on the light AA around the airfield and restricted movement of ground units, the New Zealand ground defenses were little affected by these attacks.<sup>58</sup>

The initial insertion of the Assault Regiment met with several mishaps. (Map 9) The glider detachments were the first to land and suffered heavy casualties. The Plessen detachment successfully knocked out the light AA guarding the river mouth but lost its commander and was repulsed by C Company. The survivors regrouped under direction of a doctor under cover of the riverbank. Similarly, the Braun detachment captured the river bridge and overran the RAF camp on the edge of the airfield but was repulsed by D Company and likewise lost Major Braun killed. The Koch detachment met with the least success, coming down on the slopes of Hill 107 where it

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<sup>56</sup> Davin, p. 98.

<sup>57</sup> MacDonald, p. 79.

<sup>58</sup> See Stewart, pp. 147-152 for a graphic depiction of the pre-assault bombardment.

was decimated by the New Zealanders in dug in positions. Major Koch was severely wounded and survivors of his detachment sought cover of the river south of the bridge under command of the detachment medical officer.<sup>59</sup>

The drop of the supporting parachute elements met with mixed results. The II Battalion dropped accurately west of the river and assembled successfully with few casualties. Similarly, IV Battalion landed intact with three companies west of the river. Its pioneer company landed further to the south near its security position. To the east, III Battalion dropped somewhat north of its planned Drop Zone (DZ) along the coast, right into the middle of the remainder of 5th Brigade. The bulk of the battalion, some 400 men, were lost in close quarters action shortly after landing. All officers were either killed or wounded, including the battalion commander. Only small elements of two companies, scattered in the drop to the south and west were spared.<sup>60</sup> The coup de main to seize the Maleme airfield had failed.

As he gathered reports from his units, MG Meindl realized his initial assault failed and proceeded with plans to attack the airfield concentrically with his parachute battalions. Early in the engagement, however, he was wounded. Nonetheless, he directed Major Stenzler with two companies from II Battalion to move to the south for an encircling attack on the hill while he personally directed the three companies of IV Battalion and survivors of the glider assault force in a direct assault exploiting the limited success of capturing the river bridge.<sup>61</sup> Although this attack made some limited gains, overrunning a platoon of C Company and bringing

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<sup>59</sup> Ibid., pp. 163-4.

<sup>60</sup> Ibid., p. 165.

<sup>61</sup> Ibid., p. 165.

pressure on Hill 107 from the south, by nightfall 22d Battalion still held its positions overlooking the airfield. (Map 10) Stenzler's flanking move was held up by a platoon of 21st Battalion posted above the river on the southwest slope of the hill. It was unable to reach the base of the hill until late in the evening, where it halted, exhausted. Late in the afternoon at 1700, LTC Andrew sent the two I tanks into action with makeshift infantry support, consisting of his reserve platoon augmented with volunteer anti-aircraft gunners, causing a panic among German defenders at the bridge.<sup>62</sup> One tank suffered mechanical malfunction and withdrew while the other bottomed out and was abandoned after passing under the river bridge and heading north under fire from all directions. The makeshift infantry and dismounted crews withdrew with heavy casualties.<sup>63</sup> Nonetheless, promised reinforcements from both 21st and 23d Battalions were expected as well as from the 28th (Maori) Battalion in reserve at Platanias yet to be engaged.

By dusk, 22d Battalion remained in control of Hill 107 and Maleme airfield. Both the coup de main and concentric assault had been repulsed at Maleme as well as in other sectors. Back in Athens, LTG Student received reports from his units with alarm. The situation at Maleme was echoed by the other sectors where casualties were heavy and gains few. Nowhere did the Germans control the needed airfield. A failed landing attempt on Maleme airfield at midday by two Ju 52's carrying an airfield control party confirmed what the Assault Regiment reported. Nonetheless, that night Student decided to shift his main effort to Maleme. Early the following morning he sent another Ju 52 with CPT Kleye to make a personal reconnaissance. Although his aircraft was somewhat damaged

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<sup>62</sup> Ibid., p. 172-3.

<sup>63</sup> Davin, p. 110.

during his short stay, Kleye confirmed the tenuous hold of the remnants of the Assault Regiment on the western end of the airfield. Student marshalled his remaining reserves, two and a half companies allocated during planning as well as two additional companies from II/2FJR who were bumped from the initial drop into Heraklion. These reinforcements were placed in charge of Student's liaison officer to the Mountain Division, Colonel Ramcke, a grizzled World War I combat veteran and late comer to the paratroopers at age 51. Student planned to drop them the next day to assist the Assault Regiment in seizing the airfield to allow immediate airlanding of the mountain infantry.<sup>64</sup> That night, also, the first seaborne flotilla was delayed removing the possibility of scheduled seaborne reinforcement.

Unknown to the Germans, however, decisions were being made which were to give them control of the key terrain overlooking the airfield. Shortly after midnight, LTC Andrew ordered the remnants of his A and B Companies off Hill 107 and pulled them back closer to the 23d Battalion. Almost simultaneously, two relief companies, one from the 23d and one from the 28th approached 22d Battalions positions. The 23d Battalion company occupied positions vacated by Andrew but, with no one to support, withdrew back to their own perimeter. Similarly, the Maori company advanced along the coast road to eastern side of the airfield. Unable to link up with any elements of 22d Battalion, they retired back along the coast road. Lieutenant Colonel Andrew made the decision to withdraw his battalion which, due to poor communications, he believed almost wiped out. He failed to receive promised reinforcements and contact had been lost with his forward companies. At approximately 0430, the last members of D

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<sup>64</sup> MacDonald, p. 196.

Company, vainly searching for their battalion CP, withdrew from the hill to the positions of 23d Battalion.<sup>65</sup> (Map 11)

Sometime during the early morning, but no later than 0800, elements of the Gericke and Stentzler groups linked up atop Hill 107. Captain Kleye's Ju 52 also landed that morning and, at 0800, six Ju 52s set down near the mouth of the river with an unauthorized delivery of ammunition and arms. One of these aircraft also evacuated the wounded commander of the Assault Regiment.<sup>66</sup> (Map 12) They were followed shortly by a drop of a parachute anti-tank company which landed unmolested west of the river. Gericke used these reinforcements to clear the airfield, a task he was unable to accomplish until 1600. At 1530 a second group of parachutists from II/2FJR began dropping east of the airfield. These parachutists suffered the same fate as the III battalion the day before. Falling on top of the New Zealand Engineers and the 28th Battalion, they were virtually annihilated, only a party of some 80 men reaching Pigos that evening. A second group, consisting of two and a half companies under Colonel Ramcke, landed west of the river at about 1900 near the Regimental CP where Ramcke took charge of the battle. Meanwhile at 1700 hours, with the airfield still under artillery fire, lead elements of the II Battalion/100 Mountain Infantry Regiment (II/100) and the Regimental Headquarters under Colonel Utz began airlanding at Maleme airfield. By darkness, with all but 12 aircraft landing at the airfield and over 20 aircraft wrecked from crashes or artillery fire, Colonel Ramcke had sufficient forces in the airhead to begin offensive operations.<sup>67</sup> (Map 13)

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<sup>65</sup> Accounts of the failed reinforcement and withdrawal of 22d Battalion can be found in Stewart, pp. 176-180.

<sup>66</sup> MacDonald, p. 204.

<sup>67</sup> Ibid., pp. 207-209.

Even with the destruction of the seaborne echelon that night by the Royal Navy, the balance was beginning to tip in the favor of the Germans. An early morning attack by elements of the 20th and 28th Battalions supported by three light tanks managed to reach the edge of the runway near the beach but failed against unlimited enemy air support and stubborn defense by isolated parachutists. Airlanding of mountain infantry continued during the attack with some coming straight off the transports into a desperate defense of the airhead. By the end of the day there were some 137 wrecked transports around the field, which was kept clear by an airfield clearing party using a captured Bren gun carrier and prisoners of war. A less organized counterattack by elements of 21st Battalion at 0700 made progress almost to the banks of the Tavronitis before being driven back by the fresh mountain infantry. Continued introduction of three mountain infantry battalions into the airhead on the 22d and the arrival of General Ringel increased pressure on the New Zealand southern flank. Led by Colonel Utz, the mountain infantry enveloped the defenders out of their positions along the high ground and out of artillery range of the airfield. These units also effected linkup with isolated elements of Group Center. With the failure of this counterattack to retake Maleme airfield, the battle of Crete was for all intents and purposes over. (Map 14)

Although the battle on Crete lasted until 1 June, the role of the Assault Regiment as an airborne spearhead ended with the introduction of the 5th Mountain Division. In fact, General Student was de facto relieved of his responsibilities for the battle by his superiors in favor of General Ringel because of the initial failure of his plan.<sup>68</sup> Casualties during the operation were higher than the Balkans campaign to date with some 4,000 total killed. Casualties among the

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<sup>68</sup> Ibid., pp. 209-210.

airborne units were particularly heavy. The Luftwaffe reported some 2,164 killed or missing and 2,097 wounded.<sup>69</sup> Of its approximately 2,130 men, the Assault Regiment reported 50 officers and 1,000 men killed.<sup>70</sup> Losses included the brigade major and one battalion commander killed as well as the regimental commander and one battalion commander seriously wounded. All the officers of II Battalion were either killed or wounded and some companies were annihilated in the fighting. Elements of the Regiment saw limited action on the eastern front individually, but it saw no further actions as a unit. Its battered remnants were used as cadres for the new 2d Parachute Division which was raised under General Ramcke in Brittany in 1943.<sup>71</sup> German airborne units saw no further large scale employment in airborne roles for the remainder of the war. Although their establishment would grow to Army size and eventually include eleven parachute and even armored formations, they were primarily employed as shock troops, defending key positions against allied attacks. They were used sparingly in small groups for airborne operations in Tunisia, Sicily, Italy, the island of Leros in the Rhodes and finally in the Ardennes during the ill-fated counteroffensive.<sup>72</sup>

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<sup>69</sup> Conrad Seibt, "The Crete Operation", in World War II German Military Studies, Volume 13 (New York: Garland Publishing, 1979), p. 97.

<sup>70</sup> Losses for the Assault Regiment taken from Stewart, pp. 161 and 476.

<sup>71</sup> Lucas, Storming Eagles, pp. 172-3.

<sup>72</sup> Ibid., pp. 170-6.

## B. ANALYSIS

Both Eben Emael and Maleme Airfield are examples of integrated operations. Also, both illuminate the German approach to the conduct of integrated operations from an organizational standpoint.

The operation to capture the fortress at Eben Emael is often cited as a "classic" special operation.<sup>73</sup> Conversely, the airborne assault on Crete, was cited by many as "the graveyard of the German parachutists" and a misapplication of the airborne concept.<sup>74</sup> Eben Emael, however, was less of a unilateral special operation than an integrated operation. Maleme airfield likewise saw employment of the same unit to seize a critical node for introduction of further follow-on forces which were necessary to conquer the island. Both are thus better examined under the paradigm of integrated operations.

### 1. Integrated Operations

The success at Eben Emael was in part responsible for the decision to plan for and execute Operation MERCURY. Assault Detachment Koch's success, as well as experience in Holland, gave the Germans confidence in their operational capability to conduct integrated operations using select elements of the Parachute Corps. The German Army correctly ascertained, as had the Allies, the folly of fixed fortification against

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<sup>73</sup> For two examples see McRaven, pp. 41-113, and Lucas, Kommando, pp. 53-69. McRaven calls the operation "...one of the most decisive victories in the history of special operations..." in his thesis which deals mainly with special operations of a direct action nature conducted at the strategic or operational level of war. Lucas, in his study of German special operations in World War II, devotes an entire chapter to a detailed account of the seizure of the fort.

<sup>74</sup> These views are widespread in the literature associated with the battle, from both sides. For an example see Stewart, pp. 484-8.

modern, mobile warfare. In fact, the purpose of the entire advance into Holland was to draw forward allied mobile reserves to establish conditions under which the German *schwerpunkt* could exploit the needed breakthrough in the Ardennes.<sup>75</sup> The "sickle" plan allowed the Germans to avoid the Maginot line defenses, draw the allied mobile reserve out of position and focus the German heavy point of Panzer Group Kleist against second rate French units defending the weaker defenses of the Meuse.

The seizure of Albert Canal bridges and neutralization of Eben Emael similarly avoided direct assaults on fortified areas until insuring a rapid advance of armored columns facilitated by gliderborne, parachute and unconventional assets. The mission of the assault detachment first and foremost was to seize the Albert Canal bridges, the bridges in Maastricht being allotted to zbV 100.<sup>76</sup> Granite's mission was to neutralize artillery fires on the bridges. As Witzig himself stated, "No one wanted more from us than silencing the artillery on the fort."<sup>77</sup> He also noted the Belgian batteries were entirely inadequate for the task. He stated, "... the 75mm guns could not reach the bridges they were supposed to protect. That's crazy."<sup>78</sup> Only the 120mm guns in the central cupola could reach the bridges, and Witzig noted, "...what good were only two guns for the three bridges?"<sup>79</sup>

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<sup>75</sup> For the overall concept of the German plan in the West see Taylor, pp. 216-218. For a revisionist interpretation of the objectives of the "sickle" plan see R.H.S. Stolfi, Hitler's Panzers East, (Norman: Oklahoma University Press, 1993). Finally, for the intent of the Eben Emael operation within the overall context of the advance into Holland see Witzig interview, p. 21.

<sup>76</sup> Schacht, p. 3.

<sup>77</sup> Witzig interview, p. 20.

<sup>78</sup> Ibid., pp. 41 and 54.

Additionally, the Germans assigned a special task force, drawn from General Headquarters (GHQ) and Army reserves to the relief of the Iron and Granite detachments. Infantry Regiment 151 was a 61st Infantry Division unit, being held in Army reserve and Engineer Battalion 51 was a GHQ unit.<sup>80</sup> Fourth Panzer Division, spearhead of Hoepner's XVI Panzer Corps, tasked its rifle brigade to linkup with the Steel and Concrete detachments and facilitate the follow on of the panzer columns.<sup>81</sup> Therefore, the entire operation was directed at facilitating the advance of the Panzer Corps rapidly into Holland, a task which demanded first, seizing and protecting the bridges and second, neutralizing northern fires of the fort.

The Germans also correctly assessed that more conventional means would be needed to hold the positional gains achieved by the assault detachment. The scheduled drops of supplies and heavy machine gun sections at the bridges, the availability of CAS after the initial assault and the pushing forward of the Flak battalion to deliver artillery fires all were designed to assist the special units in holding their positions against conventional counterattacks by Belgian forces. All accounts of Eben Emael refer to the ability of the Ju-87's to interdict the movement of Belgian reinforcements to counterattack the Granite force.<sup>82</sup>

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<sup>79</sup> Ibid., p. 41.

<sup>80</sup> See Taylor, p. 214 for overall task organization. Ian Hogg, German Order of Battle, 1944 (London: Arms and Armour Press, 1975), p. 90 lists the units as well as their sub-units and W. Hubatsch, 61.INF Division (Bad-Nauheim: Podzun-Verlag, 1961), p. 140, details the organization of division elements for the operation.

<sup>81</sup> Taylor, p. 214.

<sup>82</sup> See Mrazek, Witzig interview, p. 36 and Schacht, pp. 1 and 3 for accounts of German CAS during the operation.

Additionally, the Flak battalion provided particularly effective counter battery fire against Belgian artillery which took the bridge at Veldwezelt under fire shortly after its capture by the Steel force.<sup>83</sup> The Germans were especially successful in maintaining the positional advantage gained by their special units until arrival of follow on forces.

In the intervening phase of transition, however, the Germans suffered heavily and felt their positional advantage slipping. With the exception of the Iron detachment, all elements of the assault detachment accomplished assigned tasks within an hour of landing. The Iron detachment suffered particularly heavy casualties, including its commander, as it was forced to cross the canal under fire to secure the far bank for arrival of the engineers.<sup>84</sup> Granite detachment's initial casualties were slight, two killed and 12 wounded, and linkup appeared imminent when the first force reached Witzig between 1000 and 1200 hours the first day. These reinforcements were from the other lost glider carrying the squad originally assigned to destroy position 24, which had landed in Germany. Sergeant Maier's squad proceeded to the bridge overland, arriving on the east bank of the Albert Canal where they made contact with Witzig. Actual relief by the engineers did not occur until the following day at 0800, costing the detachment another four killed and eight wounded. The engineers also suffered casualties in crossing the canal and assaulting the entrance to the fort.<sup>85</sup> It was during this

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Interestingly, the assault detachments had no radio communications with the supporting aircraft, relying on scheduled targets, visual signals and prioritized targets of opportunity.

<sup>83</sup> Schacht, p. 4.

<sup>84</sup> Ibid., p. 4.

<sup>85</sup> Witzig interview, p. 56.

period, after the emotional surprise of the glider assault had worn off and the Belgians began to mount conventional counterattacks and counterbarrages, that accounts reflect the slim degree by which the Germans held onto gains on the surface of the fort.<sup>86</sup> Early relief at the other bridges, as early as 1300 hours by some accounts, narrowed this vulnerability for the other detachments.<sup>87</sup>

Operation MERCURY and, in particular, the seizure of Maleme airfield was also an integrated operation, albeit on a larger scale. The assault element was of regimental (approximately 1,860 men) strength, as opposed to the battalion size element of some 500 which took part in Eben Emael. It featured the gliderborne I Battalion (I Bn) employed against critical nodes to facilitate the introduction and employment of follow-on forces. Tasks assigned to I Bn included knocking out the AA sites at the mouth of the Tavorinits river, seizing the river bridge, the camp on the south edge of the airfield and Hill 107, all by gliderborne assault. The failure of Koch's detachment in particular, had severe repercussions for Group West and, in fact, XI Air Corps. The follow on parachute battalions were forced into a concentric attack on the airfield without the commanding ground of Hill 107 resulting in repulse and heavy losses. The minor successes gained in knocking out the AA batteries and capturing the bridge, gained with heavy losses, allowed the Germans to exploit slight advantages gained initially in the conventional struggle for the airfield which followed.

The Germans suffered from several disadvantages in a conventional struggle for the airfield. The New Zealanders possessed a superiority of numbers, a limited armor and

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<sup>86</sup> See both Witzig interview, pp. 38, and Mrazek, pp. 123-134.

<sup>87</sup> Schacht, p. 4.

artillery capability and an established defensive network centered on the critical terrain overlooking the airfield. The Germans initially had almost no reserve to throw into the fight, having allocated almost their entire force to initial insertions or the seaborne element.<sup>88</sup> They additionally proved unable to divert any reinforcements to the Maleme area from other sectors. The assault regiment, therefore, was forced to fight it out with their New Zealand opponents on the first day alone.

German advantages, however, were numerous and quickly brought into play. The overwhelming air superiority enjoyed by the parachutists hindered the employment of the New Zealanders superior numbers, especially reserves, until nightfall. Similarly, both artillery and armor were vulnerable to the roving fighters and dive bombers of the VIII Air Corps. Finally, the remaining two battalions of the assault regiment were in relatively good shape after landing. The VI Battalion, in particular, with its heavy weapons, was well suited in providing valuable support to the lightly armed parachutists. Therefore the Germans, in spite of their mistakes in preparation and initial execution, were postured favorably for conducting the mission under more conventional terms.

Before the Germans could bring overwhelming conventional combat power to bear, however, they first had to muster their limited resources to overcome their initial setbacks. Thus, Meindl and, after his evacuation, Gericke, concentrated all their efforts on the seizure of Hill 107. All remaining assets of the regiment were directed at seizing this key piece of terrain. In spite of the disastrous effects of the initial drop, the regiment possessed almost continuous communications

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<sup>88</sup> Stewart, pp. 254 and 259, note 23.

with XI Air Corps in Athens.<sup>89</sup> The New Zealanders, on the other hand, were unable to communicate with either their higher headquarters reliably, or more importantly, their companies defending the airfield.<sup>90</sup> Again, during this period of transition in the battle, the frictions of war had debilitating impacts on the New Zealand commanders, leading them to evacuate Hill 107, virtually conceding the airfield, and, in fact, the island, to the Germans.

Both Eben Emael and Maleme airfield were integrated operations. At Eben Emael, special units accomplished critical tasks initially, allowing the introduction of follow on GPF which completed the overall mission and fulfilled the intent of the mission. At Maleme airfield, special units failed to seize the decisive initial advantage and, during much of the transitionary phase of the battle, the issue was in doubt. However, the employment of follow on forces, first in the form of the parachutists, heavy weapons and CAS, exploited small gains made by the special unit. Finally, the arrival of the mountain infantry provided the overwhelming combat power to secure the airfield and, eventually, the island.

## **2. Organization Theory**

The Germans successfully employed forces that were institutionally autonomous from GPF and, in fact, from other SOF. They were employed by special headquarters until linkup with follow on GPF. The units were specialized in their training, although other, more specialized SOF, were available in the case of Eben Emael. Additionally, at Maleme airfield, the original plan envisioned the Assault Regiment remaining under control of XI Air Corps until completion of the campaign.

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<sup>89</sup> Ibid., p. 253.

<sup>90</sup> Davin, p. 104.

### **a. Institutionalization**

Both Assault Detachment Koch and its descendant, the Assault Regiment, were controlled by the Luftwaffe. Personnel were drawn from the Parachute Corps and administered by their higher tactical headquarters, 7th Parachute Division and then XI Air Corps. Operationally, they were controlled separately from other tactical units of their size, but remained under control of special headquarters. During Eben Emael, Koch was under control of VIII Air Corps until linkup and the XI Air Corps controlled the Assault Regiment until the arrival of MG Ringel, commander of the mountain troops at Maleme airfield. The growth of the Assault Detachment into the Assault Regiment implies the Germans recognized the need for such elements to be outside the tactical chain of command, yet permanently organized.

Even in inception, Koch's detachment was in no way an ad hoc unit. Built around his own parachute company, it was more appropriately, a task organized unit. Witzig's platoon, the only engineer platoon in the embryonic division, was only administratively attached to II Bn/FJR1 for lack of any other supporting headquarters. He later remarked, "...it was not particularly difficult to separate from II Bn/FJR1...and attach myself to Koch's command."<sup>91</sup> Additionally, in spite of poor intelligence on the target, it had more than adequate preparation time. Witzig considered 14 days the minimum training period necessary to complete the mission.<sup>92</sup> In fact, they had over seven months.

The Assault Regiment was an expanded version of Koch's element which benefited from many of the lessons learned at Eben Emael and in Holland. Designated as Corps troops, the regiment was commanded by a Major General (German

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<sup>91</sup> Witzig interview, p. 6.

<sup>92</sup> Ibid., p. 14.

equivalent of a brigadier general), organized with more heavy weapons than a normal parachute regiment and authorized an excess in personnel. It had a fourth battalion, not present in a FJR, which possessed specially developed heavy weapons including mortars, machine guns, light artillery and anti-tank guns, all air deliverable. This gave the regiment a self sufficiency not found in normal parachute regiments.<sup>93</sup> Recognized as the elite within the elite, its missions on Crete included not only the Maleme airfield, but it also detached two companies to assist Group Center in knocking out critical nodes for the seizure of Cania and Suda port.

Additionally, the Parachute Corps itself became highly institutionalized. Successes early in the war gave it a preeminent status, particularly with the political leadership. Student's aggressive pursuit of the opportunities in the Mediterranean indicate he saw further prosecution of the war in that theater as beneficial to the growth of the strategically mobile airborne arm. The increasing institutionalization of Student's organization ran afoul of bureaucratic resistance from the more conventionally minded GPF commanders, both in the Army and Air Force. Their sights were directed on BARBAROSSA and the employment of massive GPF. Rising institutionalization and correspondingly aggressive pursuit of missions undoubtedly led planners at XI Air Corps to plan Operation MERCURY with a significant degree of motivated bias. This in turn led to significant planning errors. Student placed little faith in his seaborne echelon, or the mountain infantry, instead relying on his parachute and assault regiments to seize Crete in a coup de main. When this failed, integration of follow-on forces was significantly jeopardized and successes only gained by bold and daring

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<sup>93</sup> U. S. War Department, Handbook on German Military Forces, (Baton Rouge: LSU Press, 1990), p. 109.

action on part of junior leaders and the poor decisions of their opponents.

**b. Functional Specialization**

The German forces assigned to these two operations were functionally specialized within their parent organizations, but not the most specialized units available for the mission. For the Eben Emael mission, other, more specialized units from Brandenburg Regiment could have possibly have been used. This however, would have required parachute and glider training for these skills were unavailable in the Brandenburg Regiment at this time.<sup>94</sup> Although the impression is given in much of the literature that Assault Detachment Koch was composed of personnel specially selected for the Eben Emael mission, interviews with the key commanders present a different picture. Koch's force was based on his 1st Company from 1FJR, formerly an army mixed infantry/engineer company, which had transferred to the Luftwaffe. Witzig's platoon, also often characterized as a specially selected force, was automatically assigned to the mission because, "...this was a particularly engineer mission ... assaults on prepared fortifications..." and "...simply because there were no other engineers in the airborne forces..."<sup>95</sup> Brandenburg units, such as those assigned seizure of the bridges in Maastricht, were much more functionally specialized than the parachutists. Brandenburg units were selected from ethnic Germans who possessed

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<sup>94</sup> Lucas, Kommando, pp. 43-4 details the training of Brandenburg units of this period. They apparently never developed the capability to insert units by airborne means, with the exception of very small groups (squad or section) size. They seemed to have relied on the Parachute Corps or SS Parachute Battalions to provide reinforcement for large operations. For examples of these type operations see pp. 99-126.

<sup>95</sup> Witzig interview, p. 2.

proficiency in foreign languages, employed disguises and were highly trained in sabotage and other direct action tactics.<sup>96</sup>

German parachutists were, however, much more specialized than their western counterparts as a rule. Not only were they trained in parachuting, they were also required to pack their own chutes, a task for support personnel in the more logistically equipped western armies. Glider troops were considered infantry who used gliders as a means of getting to combat in the U.S. and British armies, and, as such, line infantry units were converted into glider infantry units with additional training.<sup>97</sup> The Germans viewed the glider troops as specialized assault elements and, as such, established them as an elite within an elite. Parachute training was a prerequisite for joining the Assault Regiment and entrance required an additional selection beyond that normally experienced by even the elite parachutists.

After Eben Emael, Koch's unit was expanded into the Assault Regiment. The glider troops of I Bn, led by Koch himself, were viewed as an elite within an elite. They were trained in both glider and parachute infiltration, equipped for specialized assault tasks and were trained in combat demolitions in addition to their infantry and infiltration training.

As a result of the experience in Crete, however, the Germans modified their approach to training and organizing these assault units. In a post operation evaluation,

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<sup>96</sup> Lucas, Kommando, pp.43-4.

<sup>97</sup> James E. Mrazek, The Glider War, (New York: St. Martin's Press, 1975), pp. 103-7. Training for glider infantry in the United States Army was conducted by the Chief of Infantry and glider troops received no incentive pay as did their paratrooper counterparts. There was, Mrazek states on p. 107, "...no great enthusiasm amongst the new glider troops."

commanders expressed a need for more infantry training, stating that parachutists should be trained infantry first, a parachutist second. Additionally, they recommended employing larger gliders to bring in heavy weapons and even tanks to support the lightly armed troops who inevitably faced heavy counterattacks from firepower rich conventional forces.<sup>98</sup>

Thus, while creating very specialized units within the Parachute Corps, the Germans attempted to integrate forces within this autonomous organization. By mixing the highly specialized gliderists, parachutists and heavy weapons, as well as multiple means of delivery, the Germans tailored a force capable of conducting independent operations. Their high degree of specialization, however, as stated in their own after action reports, reduced their ability to integrate with GPF.

### C. SUMMARY

The German experience in integrated operations at Eben Emael and Maleme airfield highlight the use of special units to seize critical nodes facilitating the introduction of follow on forces. While some form of moral surprise was undoubtedly achieved at Eben Emael, the robustness of the plan and actions of key leaders were critical in its success. More than adequate preparation time allowed the Germans to innovate a bold and audacious plan, allowing them to achieve numerical superiority at the decisive point, an advantage they were able to sustain until the arrival of follow-on forces. With less than adequate time, poor preparation and a motivated bias to conduct MERCURY, the Germans gained an impressive victory but at a prohibitive cost. Their coup de main, launched against an alert and informed enemy, was unable to achieve numerical

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<sup>98</sup> W. Gaul, The German Occupation of Crete (Operation 'MERKUR'), unpublished report (Naval Postgraduate School Library, Monterey, CA: undated), p. 27.

superiority at the critical points. The Assault Regiment was forced into a conventional struggle for the airfield. The surviving leaders of the regiment however, demonstrating the robustness of such units, ruthlessly exploited minor gains, securing a means to introduce GPF, turning defeat into victory.

The unit employed in both cases was highly specialized (too specialized according to one review of the Crete experience) and employed under near autonomous command and control. In Belgium, control of the special units reverted to GPF control at linkup. In Crete, however, the use of the parent special headquarters to control the entire operation was shelved for a more integrated approach. Rising institutionalization created bureaucratic problems for the fledgling organization, placing them in a position to pursue missions in a manner for which they were ill-suited. Difficulties in integrating forces occurred both within their service and across service lines. The doctrinal advantages of such an organization, in developing innovative tactics and techniques of integrated operations, were lost at Maleme airfield.

### III. AMERICAN RANGER OPERATIONS (1942-1944)

#### A. BACKGROUND

The American military's first experiments with special units in World War II were, in part, inspired by the British Commandos. The British employed this special unit in amphibious raids against the German-held coastlines in France and Norway. The United States Army and Navy observed the activities of the British Combined Operations Headquarters (COHQ) after Dunkirk with more than just polite interest. The Navy was working to solve the problem of securing bases for the fleet in the impending conflict with Japan in the Pacific. The Marine Corps, one of the Navy's proponents for amphibious warfare, was changing from a small, flexible force of companies and battalions which performed counterinsurgent duties in the Banana Wars, to larger, more conventional units capable of conducting amphibious assaults against enemy held islands.<sup>99</sup> The Army likewise recognized that it would have to adapt to this global conflict. The army would expand from a frontier constabulary into a modern, mechanized force capable of bringing war to the German and Japanese homelands.<sup>100</sup>

Amphibious warfare would play a key role in both theaters and the COHQ was testing tactics and techniques the American military knew would be useful. Additionally, the COHQ and the Commandos were one of the few tools by which Britain could take the war to occupied France until she was ready to reenter the continent. With the Pearl Harbor attack, military cooperation between the two states increased. With a procession of defeats at the hands of the Japanese, domestic

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<sup>99</sup> Jeter A. Isely and Philip A. Crowl, The U.S. Marines and Amphibious War (Princeton: Princeton University Press, 1951), pp. 21-44 and 71.

<sup>100</sup> Russell F. Weigley, Eisenhower's Lieutenants (Bloomington: Indiana University Press, 1981), p. 727.

political pressures for an American response encouraged senior military planners to create American "Commandos".<sup>101</sup> Out of these dual military and political demands would rise two of Americas first experiments with special units: Army Rangers and Marine Raiders.<sup>102</sup> The Raiders were first developed for amphibious raiding requirements and inspired alternatively by Chinese Communist guerrilla tactics, Marine experiences in Latin America as well as the actions of the Commandos.<sup>103</sup> The Raider experience was short but eventful, with raider battalions seeing action on Makin, Guadalcanal and a score of lesser islands during the Solomons campaign. The Marine Corps eventually disbanded the Raiders as requirements for amphibious operations in the Pacific demanded larger, more heavily armed units for assaults against fortified islands. The Army, however, would choose to hold onto and temporarily expand its special units, finding different missions for them to perform.<sup>104</sup>

The Army saw the Rangers' purpose as twofold. General Marshall tasked Colonel Lucian Truscott, American Liaison to COHQ, to fashion an American force to participate in amphibious raiding alongside the Commandos and gain combat experience.<sup>105</sup> Marshall's concept envisioned battle experienced soldiers returning to their original units to

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<sup>101</sup> David W. Hogan, Jr., The Evolution of the Concept of the U.S. Rangers, 1942-1983, Duke University doctoral dissertation (Ann Arbor, Michigan: University Microfilms International, 1986), pp. 48-51.

<sup>102</sup> Roger A. Beaumont, pp. 51 and 60.

<sup>103</sup> See Jon Hoffman, Once a Legend (Novato, California: Presidio, 1994), pp. 131-164 and Updegraph, pp. 2-4 for a summary of the origins the Raiders.

<sup>104</sup> Hogan, US Army SOF in WWII, pp. 17-18.

<sup>105</sup> King, pp. 5-8.

teach tactics and techniques to the mass army being assembled in the United States, an army that would have to eventually perform a forced entry onto the European continent and confront the battle hardened German Army.<sup>106</sup> Thus, no permanent headquarters for this force would be established. The "Rangers", as Truscott named them, were trained at the Commando depots and employed by COHQ. A small contingent accompanied the Commandos on the Dieppe raid on 19 August 1942. Shortly thereafter, in September, the 1st Ranger Battalion, under Major William Orlando Darby, completed training and was ready for employment.

### **1. The 1st Ranger Battalion**

As preparations for Operation Torch increased and cross channel raiding opportunities diminished, the existing Ranger force was tasked to participate in the invasion of North Africa. Assigned to Task Force Center under Major General Terry Allen and the 1st Infantry Division (1ID), 1st Ranger Battalion spearheaded landings at Azew by knocking out coastal batteries and capturing key French fortifications. They were selected for this mission because of their special training in amphibious operations, mountain climbing, night attacks and infiltration.<sup>107</sup> The battalion task organized to accomplish several missions. Two companies would seize Fort de la Pointe, with B Company establishing a beachhead perimeter and A Company conducting the assault. The remainder of the Battalion would seize Fort Superieur, with C, E and F Companies forming the assault force and D Company using four 81mm mortars in support.<sup>108</sup> On 8 November, the Rangers

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<sup>106</sup> Hogan, dissertation, pp. 40-41.

<sup>107</sup> COL (ret) Jerome J. Haggerty, U. S. Army Rangers in World War II, Fordham University doctoral dissertation (Ann Arbor: University Microfilms International, 1982), p. 111.

executed their assault tasks with success against token French resistance. Shortly thereafter, General Allen tasked LTC Darby to provide 1ID units with support in reducing French garrisons at LaMacta and St. Cloud. These missions were conventional in nature, capitalizing on the Rangers high morale and flexibility rather than their specialized ability.<sup>109</sup>

The Rangers were withdrawn to garrison Azrew on 12 November and soon after recommenced their training regime. With almost three months out of action, Darby increased training on infiltration skills, emphasizing the use of colored lights and rapid movement in columns.<sup>110</sup> After receiving and training replacements, the battalion(-), under 1ID control, conducted a night raid on the Italian outpost of Sened on 11 February, killing or wounding 75 Italians and capturing 11 at the cost of one killed.<sup>111</sup> After skirmishing with Italian units from defensive positions, the Rangers were placed in Corps reserve. Shortly thereafter, however, II Corps ordered 1ID to attack towards Gafsa and El Guettar. The Rangers again used their night infiltration techniques to their advantage capturing Gafsa almost unopposed with Combat Teams (CT) 16 and 18 of 1ID. Their next attack was another infiltration and night raid on the Djebel el Ank Pass. With an accompanying heavy mortar company, the Rangers successfully infiltrated along a previously reconnoitered route and attacked the Italian garrison from behind in coordination with an advance by CT 26. Suffering only one officer wounded, the

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<sup>108</sup> Haggerty, p. 114.

<sup>109</sup> King, p. 14.

<sup>110</sup> King, pp. 14-15 and Haggerty, p. 118.

<sup>111</sup> King, p. 15.

Rangers and infantry took over 1000 prisoners.<sup>112</sup> The Rangers were withdrawn before the Kassarine counterattack, but were involved with the 1ID in defensive battles against the German counterattack from 23-27 March. In April, the Rangers were detached from 1ID and reverted to Corps control. After this, the Rangers underwent a major reorganization.

## **2. The Ranger Force**

Acting on recommendations from field commanders and Ranger leaders, the Chief of Staff of the Army authorized an expansion of the Rangers. The 3d and 4th Battalions were formed in North Africa using cadres from 1st Battalion and in theater volunteers. The 2d Battalion was raised in the United States at Camp Forrest, Tennessee effective 1 April 1943 to meet requirements made by COSSAC (Chief of Staff, Supreme Allied Commander) planners for employment in the upcoming invasion.<sup>113</sup> A second battalion, designated 5th Ranger Battalion, was raised at Camp Forrest on 1 September 1943, also for the ETO.<sup>114</sup> Meanwhile, the 2d (Provisional) Ranger Battalion, formed largely from assets of the 29th Infantry Division then in England was redesignated the 29th Ranger Battalion. It was disbanded on 15 October 1943 after participating in a few raids with Commandos under direction of COHQ, and personnel returned to their units.<sup>115</sup> No higher headquarters were authorized for the Rangers, despite appeals from the field.<sup>116</sup> Lieutenant Colonel Darby controlled all

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<sup>112</sup> Ibid., p. 19-20.

<sup>113</sup> Ronald Lane, Rudder's Rangers (Manassas, Virginia: Ranger Associates, 1979), p. 15.

<sup>114</sup> Hogan, dissertation, p. 127.

<sup>115</sup> Ibid., p. 100.

<sup>116</sup> Ibid., p. 115.

three battalions in North Africa while maintaining command of 1st Battalion himself.

The Ranger force was employed on Operation HUSKY in accordance with the previous pattern established in North Africa. The 1st and 4th Battalions were designated Force X and attached to 1ID for the landings at Gela. After the landing, they became involved in the heavy tank-infantry fighting in the town during the German counterattack. The 3d Battalion, meanwhile, was attached to 3ID, now under Major General Truscott, and silenced enemy gun positions in support of the division's main landing at Licata. Afterwards, the battalion conducted an infiltration attack on Porto Empedolce capitalizing on techniques learned in North Africa.<sup>117</sup> After the Sicilian experience, Darby formed a cannon company (four halftrack mounted 75mm howitzers) to increase the organic fire support of the Rangers.<sup>118</sup> This "upgunning" of the Rangers was in response to encounters with German tanks during the Sicily landings making the Rangers more compatible with regular infantry units.

The Rangers were soon committed again, this time in support of the landings at Salerno. Darby commanded a combined Commando-Ranger force, with an ad-hoc staff, landing on the northern (left) flank of the invasion on 9 September 1943 with 2 and 41 Commandos (CDO) attached. The three Ranger Battalions landed on Maori beach successfully, but suffered heavy casualties in their attack and defense of the Chuzini pass. The Rangers suffered 28 killed, 66 wounded and nine missing in two weeks of fighting before being relieved by the 143rd Infantry Regiment on 23 September.<sup>119</sup> After being

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<sup>117</sup> King, p. 233 and Haggerty, p. 199.

<sup>118</sup> King, pp. 27-28.

<sup>119</sup> Haggerty, pp. 168-9.

briefly attached to the 82d Airborne, the Ranger force reverted to 5th Army reserve on 8 October. Stiffening German defenses and a shortage of infantry soon sent the Rangers back into the line. All three battalions were involved in heavy fighting before being reunited at Lucrino on December 15th to prepare for their next mission: Operation SHINGLE. The landing of VI Corps at Anzio by 5th Army was envisioned as an amphibious envelopment of the German Cassino line and the Rangers were again called to spearhead the landing. (Map 15)

### 3. Cisterna

The Ranger force for Operation SHINGLE consisted of the three Ranger Battalion, the 509th Parachute Battalion, the 83rd Chemical Mortar Battalion (-) and Company H, 36th Engineer Combat Regiment under a new headquarters, the 6615th Ranger Force (Provisional). (Figure 4) The Ranger force was tasked by VI Corps to assault Yellow beach, reduce coastal batteries, seize the port and clear the beach between Anzio and Nettuno for follow on landings.<sup>120</sup> Also landing were Truscott's 3ID to the south and the British 1st Infantry Division to the north. The landings on 22 January were almost unopposed in the Rangers sector, with light opposition across the beaches. (Map 16) By 25 January, the Rangers were attacking to maintain contact between the two divisions as they advanced inland.<sup>121</sup> On 28 January the Ranger Force was attached to 3ID to support the long awaited VI Corps attack towards the Alban Hills.<sup>122</sup> This attack was designed to sever

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<sup>120</sup> VI Corps, VI Corps Operations in the ETO, (Washington: Office of the Chief of Military History, General Reference Branch), p. 2.

<sup>121</sup> Carlo D'Este, Fatal Decision (New York: Harper Collins, 1991), p. 148.

<sup>122</sup> Nathan W. White, From Fedala to Berchtesgaden. A History of the 7th United States Infantry in World War II (Brockton, Massachusetts: Keystone Press, 1947), p. 10.

Highway 7, a major German supply route to Tenth Army units defending the Cassino line.

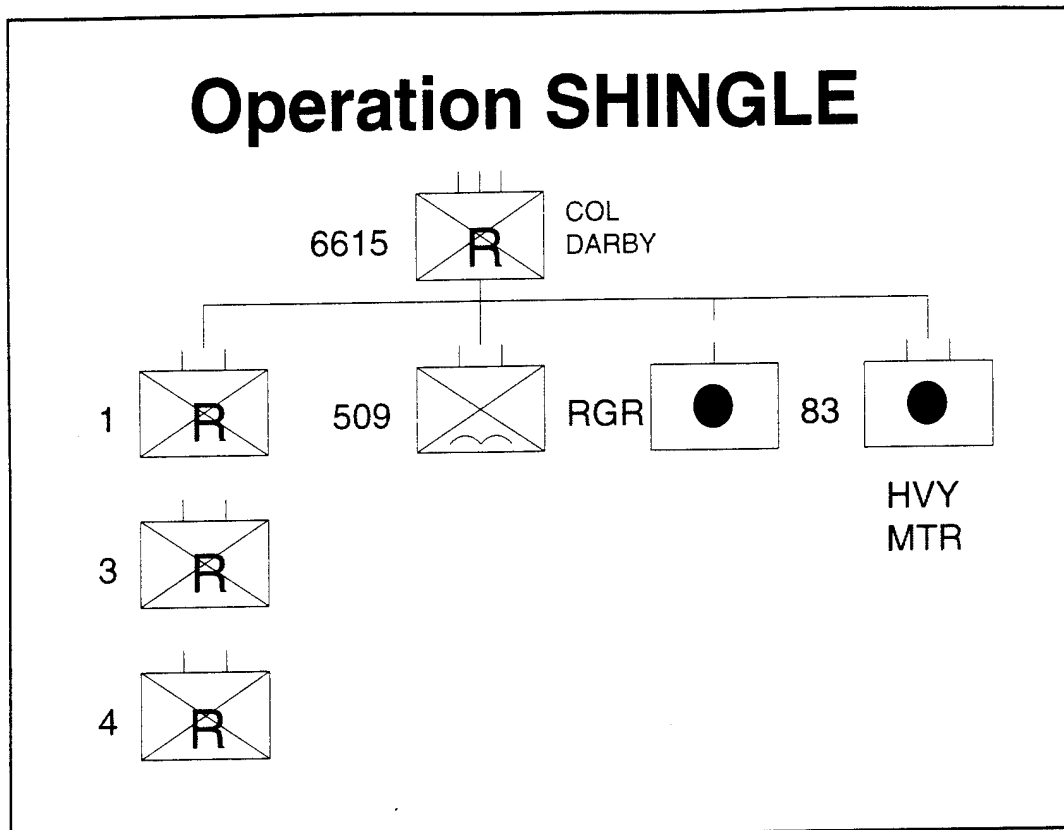


**Figure 4.** The 6615th Ranger Force (P).

The situation facing the 3ID and VI Corps on 26 January was somewhat vague. The Corps was aware that German reinforcements were moving into the area, correctly identifying the two motorized divisions enroute from Southern France and even specifying some miscellaneous units.<sup>123</sup> The 3ID Division G-2, as late as 29 January, however, reported that the Herman Goring Panzer Division plus scattered elements from other units were in defensive attitude, positioned

<sup>123</sup> VI Corps, p. 9.

loosely and poorly organized. Patrolling was not aggressive and the G-2 noted that friendly patrols penetrated the enemy outpost line.<sup>124</sup> The 3ID attack was to support the main attack by the British division with American armor support to the west. The Rangers were assigned the mission of spearheading the 3ID attack.<sup>125</sup> (Map 17) The Ranger mission was to,

...cross LD at 0100 30 January 1944, move rapidly by infiltration, seize Cisterna Di Littoria and destroy enemy force therein. Hold Cisterna area until relieved.<sup>126</sup>

Darby broke his force down into two elements. (Figure 5) Two battalions, 1st and 3rd, would infiltrate one hour prior to H-hour to capture Cisterna. One hour later, 4th Battalion, with armor and artillery support, would attack up the road to link up with the Ranger Force and clear a route for 3ID elements attacking in support of the Ranger force. Two regiments of the 3ID, the 7th and 15th would attack to seize objectives in on the roads leading into Cisterna. The 509th Parachute Battalion supported the 7th Infantry on the left while the 504th Parachute Infantry Regiment would conduct a diversionary attack on the right along the Mussolini Canal. The 30th Infantry was held in reserve by the division commander, MG Truscott. H-hour was 0200.<sup>127</sup>

Initially, 1st and 3rd Battalions infiltrated successfully behind the German front lines, in spite of

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<sup>124</sup> White, p. 77.

<sup>125</sup> D'Este, p. 174.

<sup>126</sup> Haggerty, p. 188.

<sup>127</sup> White, p. 77 and Donald G. Taggart, History of the Third Infantry Division in World War II (Washington: Infantry Journal Press, 1947), p. 114.

unforeseen enemy activity and problems with movement and control. Although later reports indicate the Germans spotted

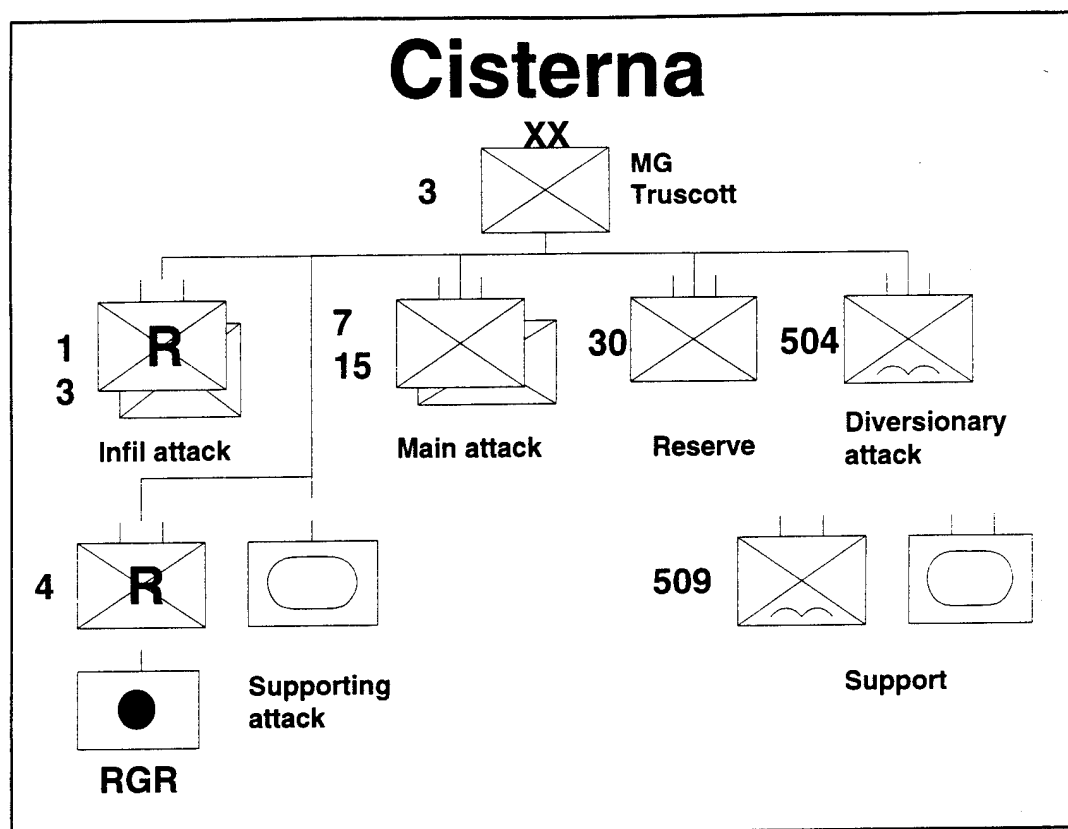


Figure 5. The 3d Division (reinforced).

infiltrators early on in the attack, the Rangers were able to bypass or surprise several German units enroute to Cisterna. Movement was difficult and the battalions suffered several breaks in contact, possibly due to the high number of recently trained Rangers.<sup>128</sup> During one of these breaks, the 3d Battalion commander was killed in a chance encounter with a

<sup>128</sup> King, pp. 35 and 40.

German tank, which was knocked out.<sup>129</sup> As the 1st Battalion approached Cisterna, it encountered German units in strength occupying the town and surrounding area. Reports later indicated that enemy units were massing in the area for an impending counteroffensive against the beachhead, with at least one parachute battalion occupying the town itself, as well as numerous tanks and self-propelled anti-aircraft guns.<sup>130</sup> Heavy fighting broke out when 1st Battalion attempted to assault the town. The 1st Battalion Commander was wounded, again in close quarters combat with an armored vehicle, the battalion's assault repulsed and the battalion pinned down just outside the town. The 3d Battalion was strung out behind the lead battalion, in column and still along the ditch, but elements of three companies were able to fight their way forward. Unfortunately, as the Germans began to mass armor and bring artillery into direct fire on the exposed Rangers, the expected relief failed to arrive. Both battalions were virtually annihilated in close quarters combat, with only six Rangers returning to American lines of the 767 who set out that morning for Cisterna.<sup>131</sup> (Map 18)

The 4th Battalion followed the other two battalions but proved unable to clear the road to Cisterna, even with tank destroyer and cannon company support. Across the rest of the 3ID front, increasingly tough resistance centered on numerous farmhouses which were well supported by armor and artillery.<sup>132</sup> Casualties were heavy among all the assault units and particularly in 4th Battalion, which suffered some fifty

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<sup>129</sup> William O. Darby and William H. Baumer, We Led the Way (San Rafael, California: Presidio Press, 1980), p. 162.

<sup>130</sup> Taggart, p. 120.

<sup>131</sup> Darby, p. 170.

<sup>132</sup> Taggart, p. 118.

percent.<sup>133</sup> Although the fighting around Cisterna would drag on as the Germans launched an offensive of their own, the role of Rangers in specialized fighting was over.

One fatal action virtually destroyed the Ranger force of the entire Mediterranean theater. Survivors of the Ranger force were either returned stateside to train other units or transferred to the First Special Service Force, a combined Canadian-American special force, which soon arrived in the beachhead. However, in England, other Rangers were preparing for the Normandy invasion which would see Rangers again employed in integrated operations.

#### **4. The Provisional Ranger Group**

As early as July of 1943 COSSAC planners for the Normandy invasion determined the need for Ranger units to support the invasion. Several subsidiary assaults were planned to support the main landings, including tasks assigned to airborne, commando and rangers units. The planners identified strong coast defense batteries in the vicinity of Grandcamp and Maisy, for which they allocated one parachute battalion and two ranger battalion. The forces were to conduct a combined airborne and amphibious assault to knock out these coastal batteries and protect what was then the right flank of a three division assault.<sup>134</sup>

Planning continued, including expansion of the assault force to five divisions. In January of 1944 a group of recently arrived 2d Ranger Battalion officers were called to First Army headquarters, the overall command for the American component of the invasion force. Here, LTC James Rudder and his executive officer, Major Max Schneider were first informed

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<sup>133</sup> Hogan, dissertation, p. 144.

<sup>134</sup> US Army War College, "Operation OVERLORD: COSSAC estimate", in Selected Readings, AY 1988 (Carlisle, Pennsylvania: US Army War College, 1988), p. B-46.

of their D-Day mission. Rudder's 2d Battalion would be joined with 5th Ranger Battalion to form the Provisional Ranger Group which would be allocated to MG Gerow's V Corps for the assault. Their mission was,

...to destroy Coastal batteries at Point du Hoe (sic) by simultaneous assault up the cliffs and by flanking action from Omaha beach.<sup>135</sup>

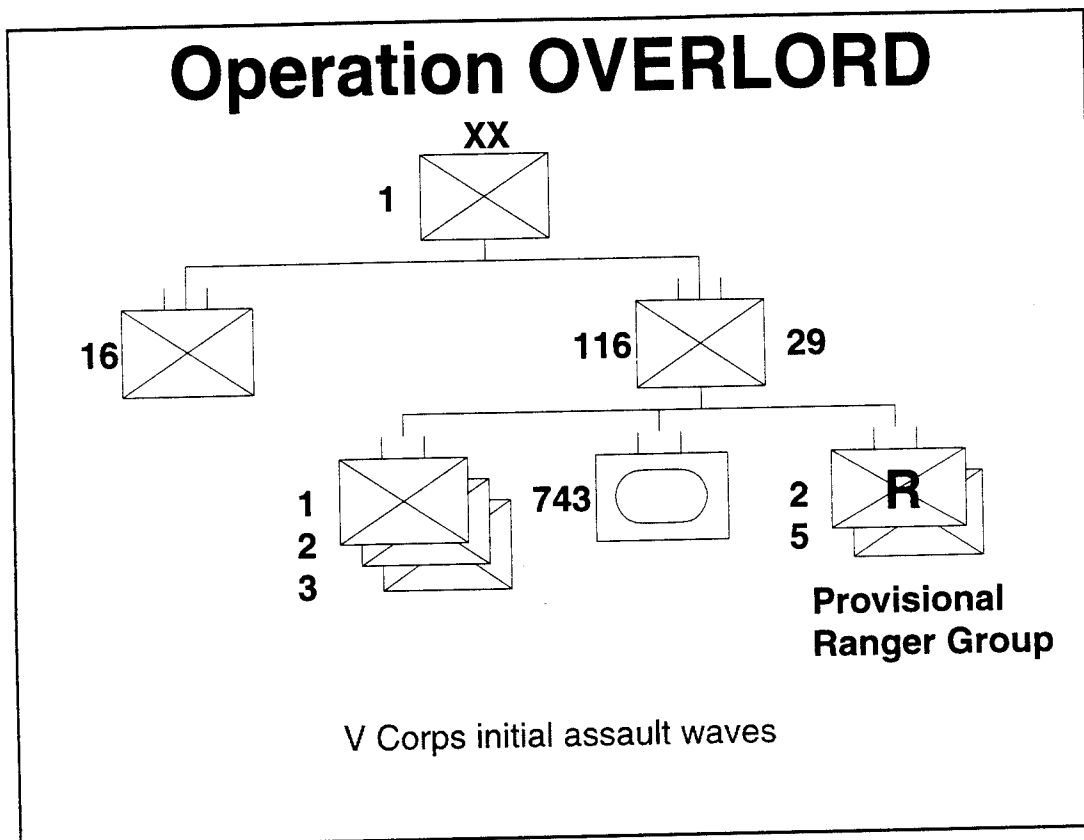


**Figure 6.** The 1st Division (reinf).

The Ranger officers conducted their planning for the operation using the COHQ planners that were available to

<sup>135</sup> V Corps, p. 46.

assist them.<sup>136</sup> The Rangers would be attached to the 116th RCT of the 29th Infantry Division, which was temporarily attached to the 1st Infantry Division for the assault. (Figure 6) The entire V Corps assault element was designated "Force O" and elements supporting the Ranger mission included a battalion of the 116th Infantry, an amphibious tank platoon, naval gunfire and air support parties.<sup>137</sup> Pre H-hour fires on the batteries included both aerial bombing and naval gunfire. (Map 19)

Colonel Rudder and Major Schneider organized the Ranger group into three task forces for the reduction of the coastal battery on the point and the strongpoint and radar station vicinity of Point de la Percee. (Figure 7) Task Force A, consisting of D, E and F Companies of 2d Battalion would conduct an H-hour assault directly against the Point, scaling the 80 foot cliff to seize and destroy the batteries. Meanwhile Task Force B, under Schneider and consisting of A and B Companies of 2d Battalion and his entire 5th Battalion, would await a signal that the assault had succeeded. If so, they would land, push inland to cut a highway a mile or so from the beach, and hold this position, protecting both the point and the right flank of Omaha Beach. If the initial assault were unsuccessful, Task Force B would proceed to Beach Dog Green, land and attack to seize the point overland. Task Force C, consisting of C Company of 2d Battalion was assigned the task of knocking out the strongpoint at Point de la Percee about 800 meters west of the Vierville draw. They were scheduled to follow A Company of the 116th Infantry (A/116) ashore at beach Dog Green and up the Vierville draw and, from there, attack overland to reduce the strong point. If A/116

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<sup>136</sup> US Army War College, "First Army Report of Operations", in Selected Readings, AY 1988 (Carlisle, PA: US Army War College, 1988), p. A107.

<sup>137</sup> V Corps, p. 33 and Lane, p. 2.

proved unable to seize the draw, C Company was to assault directly up the cliffs on Beach Charlie with supporting fires from an amphibious tank platoon scheduled to land in the first wave. (Map 19)

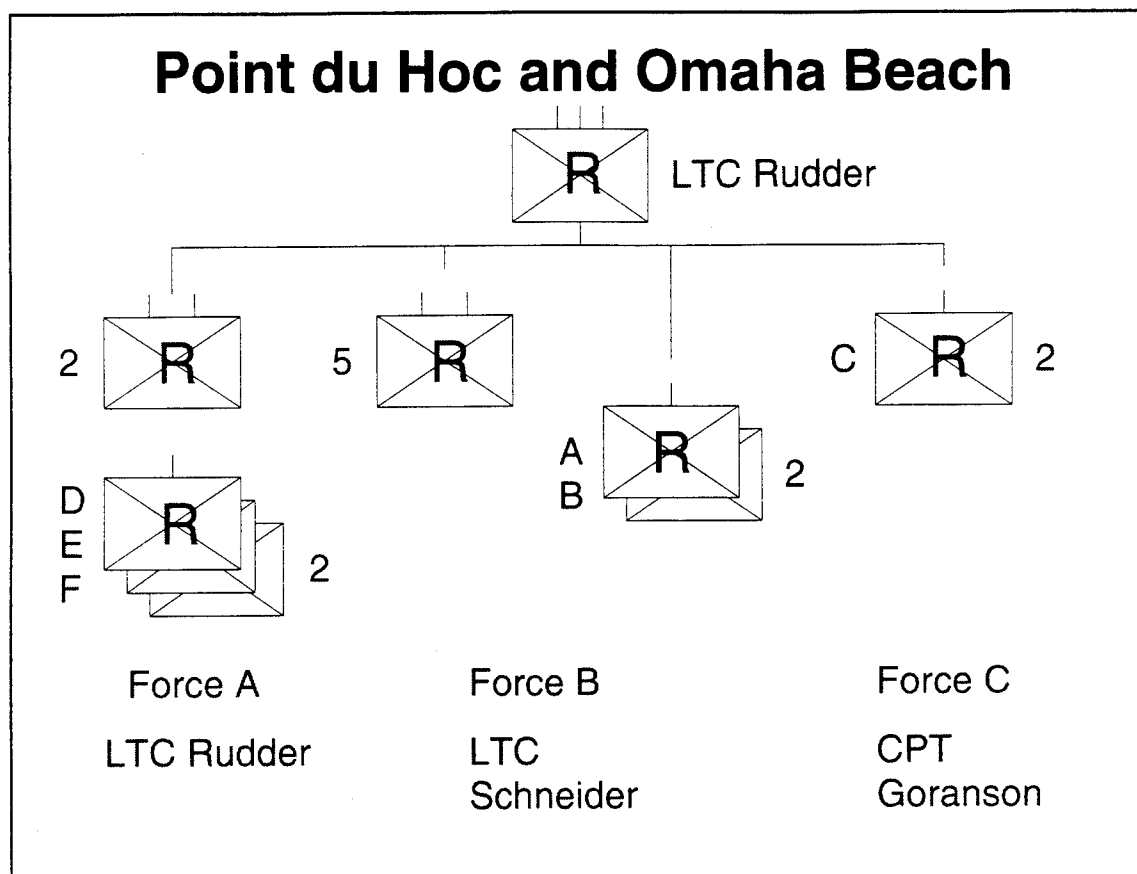


**Figure 7.** The Provisional Ranger Group.

### 5. Point du Hoc and Omaha Beach

The battery at the Point consisted of six 155mm guns with ranges of 22 to 25,000 yards (14 miles) capable of firing into the transport areas for both Omaha and Utah beaches. The guns belonged to a battery of the 832nd Army Coastal Battalion and defended by some 200 infantry of the 726th Regiment of the 716th Division. The bulk of the battery's defenses were oriented toward an overland attack, with minefields, barbed

wire and strongpoints positioned to defeat an attack from that direction. Additionally, the battery possessed three 20mm anti-aircraft batteries and the entire position was directed by a concrete observation post which was positioned on the edge of the cliffs and dominated the beaches below. The battery was bombed extensively by allied air and designated the priority target in the pre-invasion fire plan and, as such, received attention of the battleship *USS Texas* and her 14inch main battery.<sup>138</sup> (Map: 20)

The Rangers plan was to land D company on the western side of the point, with E and F Companies landing on the eastern side. Each company was broken down into boat teams and assigned specific section tasks for reducing the battery and securing the point against counterattack until the arrival of Force B. LTC Rudder with a small command element would accompany Task Force A while recently promoted LTC Schneider commanded Force B. Both elements were accompanied by naval gunfire support parties and elements of a joint assault signal company. (Map 21)

Launching as scheduled, the frictions of war soon began to take effect on the Ranger group, as they did all over Omaha beach that day. On the run in, Force A lost one LCA carrying the D Company Commander, which swamped and had to be left to the mercy of the sea. Navigational errors by the guide boats put Force A off Point de la Percee shortly before H-hour, an error corrected by Colonel Rudder but forcing the Rangers to make a parallel run up coast to reach their objective. As pre H-Hour fires lifted at 0630, *HMS Talybont* intervened between 0645 and 0700 with 4-inch and 2-pounder fire on the cliffs.<sup>139</sup> Under fire from coast defenses, one of the supply boats was

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<sup>138</sup> Lane, pp. 72-3.

<sup>139</sup> War Department, Small Unit Actions (Washington: Center of Military History, 1982), p. 8.

hit by 20mm fire before the destroyer *USS Saterlee* intervened to suppress enemy defenses for the Rangers belated landing at 0710. With Force A behind schedule, Colonel Schneider waited ten minutes past the allotted time before receiving the signal to proceed with the alternate plan and land on Omaha Dog Green.

Meanwhile Colonel Rudder's force landed on the eastern portion of the Point under fire from Germans on the cliffs and automatic weapons located on the eastern end of the position. Effective naval gunfire from *Saterlee* suppressed the enemy and the Rangers were up the cliffs using a combination of ropes and ladders within 30 minutes. Approximately 15 Rangers were killed or wounded on the beach and the Ranger sections proceeded with their assignments without consolidating at the top of the cliffs.<sup>140</sup> (Map 22) Colonel Rudder sent the signal for Colonel Schneider to proceed with the alternate plan and then lost all radio communications. The advancing Rangers discovered the empty casemates soon after arriving on the cliffs and continued their advance to the highway. After consolidating here, at approximately 0830, two Ranger patrols discovered the missing guns and destroyed them using thermite and fragmentation grenades.<sup>141</sup> Thus, by approximately 0900, the three Ranger companies accomplished their primary assignment, with only light losses, and held an important position protecting the right flank of Omaha beach. Up to now, the Rangers had suffered some 30-35 casualties of their 225 man assault force. (Map 23)

Meanwhile, back on Omaha Beach the initial assault waves were encountering heavy resistance centered on German strongpoints covering the beach exits. As C Company followed A/116 in the leading assault wave onto Beach Dog Green, they

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<sup>140</sup> Small Unit Actions, p. 11.

<sup>141</sup> Ibid., pp. 30-34.

were able to observe the failure of that costly assault.<sup>142</sup> The C Company commander, CPT Goranson, decided to switch to the alternate plan, which called for C Company to scale the cliffs to attack the position from the seaward side.<sup>143</sup> Landing on the edge of the disaster which was occurring to A/116, C Company took heavy casualties crossing the beach, but reached the cliffs and made their way up 300 yards eastward, picking up a section from B/116. Once up the cliffs, C Company engaged German defenders manning a strongpoint overlooking the draw and, in an engagement lasting most of the day, successfully reduced the position with naval gunfire support, fulfilling the bulk of their D-day task.<sup>144</sup> Company C lost 39 of 65 Rangers on Omaha Beach that day, almost all on the beach.<sup>145</sup>

Companies A and B of 2d Battalion, originally scheduled to be the first reinforcing elements to land at the Point, landed instead just east of the Vierville draw. Both lost heavily landing on Beach Dog White. Company A lost all its officers and the B Company commander directed the remnants of both companies. One element attempted to attack up the beach toward the Point but was halted by strongpoints overlooking the draw. They then moved up the bluffs, some of the first Americans to do so that day, and with elements of the 116th, cleared both the draw and village of Vierville.<sup>146</sup> Colonel Schneider, coming hard on the heels of the 116th's first

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<sup>142</sup> A/116 was stopped virtually at the water's edge by heavy defenses covering the Vierville draw. Casualties were as high as two-thirds. See War Department, Omaha Beachhead (Washington: Center of Military History, 1984), pp. 45-47.

<sup>143</sup> Lane, p. 111.

<sup>144</sup> Ibid., pp. 111-114.

<sup>145</sup> Ibid.

<sup>146</sup> Ibid., pp. 99-107.

assault waves with his 5th Battalion, witnessed the disaster off the Vierville draw and directed his boats to land east of Dog Green. They landed here virtually unmolested and, linking up with elements of the 116th and General Cota of the 29th Division assaulted to the top of the bluffs. Here they became involved in the struggle to clear the village and draw with A and B Companies of 2d Battalion, all under the direction of General Cota. This was not completed until darkness, with the Ranger force occupying defenses protecting the right flank of the small beachhead. (Map 24) One platoon however, led by LT Parker of 5th Battalion, upon reaching the assembly area, believed he had been left behind by the rest of the battalion as it proceeded according to plan to the Point. He moved west, bypassing enemy resistance, taking some twenty prisoners, arriving at Force A's forward positions on the highway just before dark at 2100, convinced his battalion was right behind him.<sup>147</sup>

The Rangers at the point faced increasing pressure as it became evident the landings off Omaha were not proceeding according to schedule and the Germans began to react. Colonel Rudder, twice wounded himself and confronted with increasing German activity against his lightly armed and dispersed force, contemplated withdrawing his forward elements into the tighter perimeter currently being maintained around the Point by the F Company commander, CPT Masny. (Map 25) The forward position on the highway consisted of some 60 Rangers and 3 errant paratroopers from the 101st Airborne and was positioned along the hedgerows south of the highway overlooking a small valley to the south.<sup>148</sup> This force was led by lieutenants from all three of the companies who co-located in a hasty command post. It was this group that LT Parker reached with 23

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<sup>147</sup> Small Unit Actions, p. 48.

<sup>148</sup> Ibid., p. 39.

Rangers and news that 5th Battalion was enroute. Meanwhile, enemy anti-aircraft positions on both flanks of the battery position proved difficult to reduce and were bringing fire on the small toehold at the point as well as supporting two counterattacks.<sup>149</sup> Only imaginative use of Ranger mortars and naval gunfire support, controlled using a navy signal lamp, kept the enemy at bay. Finally at 1100, an attached forward observer from the 58th Armored Field Artillery Battalion directed fires of British destroyer which destroyed the eastern position.<sup>150</sup> Nonetheless, believing 5th Battalion enroute and conscious of his mission, Rudder left the highway position in place. (Map 26)

German counterattacks commenced on the highway position at approximately 2330 and by daylight the remnants of the forward force had fallen back on the point. Some 40 Rangers were lost, many captured in their positions, when the Germans penetrated the uncoordinated position and rolled up the defenders. Some Rangers hid out for two days before linking up with forces on the point.<sup>151</sup> Nonetheless, the failure of the relief force and exposed nature of the highway position cost Rudder a substantial part of his already reduced battalion.

Reorganizing survivors of the highway position into the perimeter around the point, the Rangers used naval gunfire to keep the Germans at bay throughout the next day. A flight of P-47's threatened to strafe the Point, but was dissuaded by an American flag hastily hung over the cliffs.<sup>152</sup> Two landing

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<sup>149</sup> Ibid., p. 43.

<sup>150</sup> Ibid., p. 36.

<sup>151</sup> Lane, p. 169.

<sup>152</sup> Lane, p. 169 and George Clark, The Narrative History of Headquarters Company, p. 61.

craft with a platoon from F Company, 5th Battalion and supplies reinforced the Point during the day.<sup>153</sup> By nightfall, a patrol from 5th Battalion reached the point. They carried news that the relief force was located astride the highway about 1,000 yards away and would relieve forces on the point in the morning.<sup>154</sup> The relieving force, composed of the 116th Infantry, the rest of the Ranger Group and tanks of the 743d Tank Battalion relieved the point the next day at 1200. Even then, a number of Rangers were killed when mistaken for Germans by tanks attached to 2d and 3d Battalions of the 116th.<sup>155</sup> (Map 27)

Ranger casualties, like those of most of the units involved in the Omaha Beach assault were heavy. The 5th Battalion, after an almost bloodless landing, lost 73 of 450 involved in the fighting.<sup>156</sup> The 2d Battalion reported losing 77 killed, 152 wounded and 70 missing, some of whom later returned.<sup>157</sup> Companies A and B of 2d Battalion lost about half their strength, while C Company lost 38 of 64 Rangers in its efforts to reduce its objective.<sup>158</sup> The companies engaged at the Point lost over half of the 225 Rangers in the assault force. Their contribution to the success of the mission was substantial as they accomplished all their assigned missions

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<sup>153</sup> Lane, p. 166 and Omaha Beachhead, p. 126.

<sup>154</sup> Lane, pp. 167-8.

<sup>155</sup> Ibid., p. 170.

<sup>156</sup> Haggerty, p. 218.

<sup>157</sup> Clark, p. 62.

<sup>158</sup> Edwin Sorvisto, 2d Ranger Battalion, 'Roughing it with Charlie' (Plsen, Czechoslovakia: Novy Vsetisk, 194?), p. 29.

in spite of casualties that stopped many units in their tracks on D-Day.<sup>159</sup>

The Ranger actions on D-Day were the high point of integrated operations for Ranger units employed in Europe in World War II. The remainder of the campaign saw them primarily used as security forces for prisoner of war cages or headquarters, reinforcements cavalry reconnaissance units or, most frequently, line infantry. Both battalions participated in the reduction of the fortified city of Brest and the 2d Battalion saw extensive fighting in the Huertgen forest. It was left to the 5th Battalion to conduct the last integrated operation of the campaign, a night foot infiltration to facilitate the advance of 10th Armored Division into the Saar-Moselle region in February 1945.<sup>160</sup>

## **B. ANALYSIS**

The Rangers were used almost exclusively for integrated operations during their brief but eventful existence. Trained primarily as infantrymen, they specialized first in amphibious raiding, but later widened their capabilities to include night foot infiltration. They were controlled almost exclusively by GPF commanders, although a special headquarters (COHQ) participated in their selection, training and some of their mission planning. However, their lack of a permanent headquarters insured that operational control remained firmly in the hands of GPF commanders, and that they remained institutionally immature and bureaucratically weak.

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<sup>159</sup> Max Hastings, Overlord (New York: Simon and Schuster, 1984), p.94.

<sup>160</sup> King, pp. 43-54, uses the 5th Rangers mission at Zerf as a case study in his work.

## 1. Integrated Operations

Both Cisterna and Point du Hoc are critical benchmarks for the Rangers of World War II. Cisterna is often cited as the classic misuse of a special unit in a conventional role.<sup>161</sup> The whole campaign at Anzio received extensive criticism, the Corps commander was relieved and the battle there dragged on until the eve of the Normandy invasion. Cisterna is seen as a severe setback in a poorly run campaign.<sup>162</sup> Point du Hoc, on the other hand, is touted as, "... a textbook example of a Ranger-type mission..." and an example of proper employment of SOF.<sup>163</sup> The heavy losses among the force which assaulted the cliffs is often used to support the notion that special operations are inherently high risk and dangerous operations.

Both operations can be better evaluated using the model of integrated operations. Initially, the Ranger infiltration at Cisterna was highly successful as these two lightly armed battalions penetrated German lines much further than the main attack by some ten Ranger, parachute and infantry battalions with armor support which participated in the 3ID (+) attack. Although both battalions experienced difficulties enroute, both reached the objective area at daylight relatively intact. The 1st Ranger Battalion Commander, when he spotted the heavy buildup of German forces, still felt he could modify his attack plan and use his positional advantage to assist the main attack.<sup>164</sup> Similarly, 2d Bn (-) reached the tops of the cliffs at Point du Hoc with relatively small loss. Counting

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<sup>161</sup> For "misuse" see Shaun Darraugh, p. 21 and CPT Daniel P. Bolger, "Special Operations and the Grenada Campaign", Parameters (December, 1988), p. 49.

<sup>162</sup> King, p. 39, quotes General Mark Clark, then commander of the 5th Army, on his criticisms of the employment of Rangers in the Cisterna attack.

<sup>163</sup> Hogan, dissertation, p. 165.

<sup>164</sup> D'Este, pp. 163-164, quoting the 1st Battalion Commander, LTC Dobson.

the personnel lost on the swamped and hit landing craft, the Rangers were still able to put some 180 men atop the objective of the 225 in the 3 company assault force. The special nature of the attack did not stop at the clifftop either. Without waiting to reorganize or consolidate, the Ranger sections moved out to attack their assigned positions to the limit of advance beyond the battery without waiting for orders, in spite of the confused and delayed landing. "My platoon couldn't wait for nothing...", remarked 1SG Lommel, about casualties, and "...we in Company D depended a lot on speed."<sup>165</sup> Not only did this maintain the momentum of advance, it made it extremely difficult for the enemy to defend against the rangers.<sup>166</sup> By 0900,

...a plan based on confidence in the ability of small, pick-up groups to work independently toward main objectives...was rewarded by success.<sup>167</sup>

The heaviest Ranger losses in both these operations began once the battle was fought in conventional terms.

Clearly, the two Ranger Battalions at Cisterna were unable to stand up to German armor and artillery in their exposed locations. The description of Rangers attacking flak-wagons and tanks with grenades, bazookas and mines highlights the inherent weakness of special units in conventional struggles.<sup>168</sup> Even the Rangers at Point du Hoc suffered from similar disadvantages when they assumed the defense of the point, albeit against a less well-equipped enemy. Colonel Rudder's force defended both the point and the highway

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<sup>165</sup> Ronald Drez, Voices of D-Day (Baton Rouge: LSU Press, 1994), p. 267.

<sup>166</sup> Small Unit Actions, p. 21.

<sup>167</sup> Ibid.

<sup>168</sup> King, pp. 32-39.

position with three companies, a task which was planned for both battalions. At the forward position, they were hampered by a lack of unity of command, exposed and isolated from the main position and were insufficiently manned. Their expedient command arrangements, spreading reinforcements throughout the line without regard to unit cohesion and use of vigorous patrolling and captured weapons, were attempts to make up for these deficiencies. The Rangers, however, proved unable to hold the exposed highway position, even with reinforcements, and fell back to the Point. Losing some 40 personnel at the highway, they suffered their heaviest losses of the action after they achieved their primary mission.

Finally, the transition between the specialized tasks and the more conventional phase of the mission again proved to be the most difficult part of the operations. 1st and 3d Battalions, of course, were caught waiting for a relief that never reached them. GPF proved unable to develop the combat superiority necessary to overcome the potential advantage lost by the special operation gone awry. Their inability to push forward to the trapped battalions doomed them to their fate. The seizure of the critical node at Cisterna proved beyond the capability of the special unit and therefore the GPF were forced to conduct their attack without the positional benefits of having two battalions astride the enemy's main line of communication. However, it seems unlikely that the seizure of Cisterna would have altered the outcome of the engagement. Although the trapped Rangers may have held out longer in the town, the casualties suffered by all the assault battalions in the main attack, not just to 4th Battalion, indicate the Germans possessed numerical superiority throughout their position. The plan was fundamentally flawed in its estimate of the enemy strength. At Point du Hoc, the Rangers gained an initial advantage but, encouraged by the arrival of a platoon from 5th Battalion, decided to maintain a perimeter too large

for the reduced battalion to effectively hold. This exposed the battalion to defeat in detail and cost the assault force its greatest casualties of the engagement. Thus, in both cases, the delay between scheduled and actual arrival of GPF heightened the vulnerability of the special unit. In the Cisterna case, it proved fatal.

## **2. Organization Theory**

These case studies of WWII Rangers highlight a peculiar tradition in the organization and employment of American SOF. Americans generally disdained military elites as well as large standing armies. Consequently SOF are often raised for specific wartime contingencies and disbanded as soon as their mission requirements disappear or peacetime arrives. Some units are able to hang on, mostly because of the efforts of dynamic leaders to find new roles for their units. The bulk, however, confronted by conservative and conventionally minded commanders, are short lived.<sup>169</sup> A closer examination of the Rangers in terms of institutionalization and functional specialization will demonstrate how this tradition effected the WWII Rangers.

### **a. Institutionalization**

Throughout the period described, Ranger commanders, GPF commanders familiar with their capabilities and even Army commanders lobbied for the creation of a Ranger headquarters.<sup>170</sup> Commanders such as Truscott, intimately familiar with not only Ranger capabilities, but also the workings of COHQ were particularly vocal. Overall control of the Ranger force was at best ad hoc, with a Ranger headquarters only being authorized shortly before Cisterna.

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<sup>169</sup> Hogan, US Army SOF in WWII, p. 136.

<sup>170</sup> Calls for a Ranger headquarters were numerous and can be found in King, pp. 21-22, 27-31 and 73-75 and Hogan, dissertation, pp. 115 and 176-7.

This headquarters was less of planning apparatus than a formal recognition of the informal tactical control being exercised over the force by Darby.<sup>171</sup> Command and control of these special units remained firmly in the hands of GPF commanders, and proper and improper use was more a function of individual proclivities than doctrine or training. Truscott consistently employed the Rangers in their specialized roles while more conventionally minded commanders, such as Allen and Clark preferred to employ them as "shock troops" in more conventional roles.

Throughout this period, the Rangers were forced to do their own replacement training. The few Ranger training commands established stateside were designed to teach Ranger techniques to selected individuals of line infantry units rather than provide trained replacements to the Ranger battalions.<sup>172</sup> Therefore the Rangers were constantly struggling to keep up their strength with trained replacements, eventually establishing their own replacement training element drawing from assets of the three battalions in Italy.<sup>173</sup>

No Ranger or special headquarters existed to promulgate a doctrine addressing Ranger employment on integrated operations. Limited involvement by COHQ in the Normandy operation can be judged to have been successful. However, for the remainder of the war, Ranger operations were characterized by unimaginative employment and frequent misuse.<sup>174</sup> The WWII Rangers therefore represent a

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<sup>171</sup> King, pp. 21-2.

<sup>172</sup> Replacement issues, such as training, administration and the relationship between overseas battalions and stateside training organizations can be found in Hogan, dissertation, pp. 92-94 and Lane, 14.

<sup>173</sup> Hogan, dissertation, pp. 112-113.

decentralized institutionalization of SOF, operational control resting almost entirely with GPF commanders.

**b. Functional Specialization**

Rangers, as mentioned, were trained primarily as infantrymen with additional specialized training. Additionally, as the war progressed, they focused on infantry type missions over any specialized capabilities. Some claimed the speed march was the essence of the rangers ability to defeat the enemy. This is hardly a special capability, albeit an important one. While this was in keeping with their most common means of employment, it heightened the chances for misuse as conventional infantry. Not that Rangers were just "super infantry". Rangers were screened by the same exacting standards used by the airborne forces, without the jump qualification.<sup>175</sup> However, according to one of their former commanders, their special skills were more in attitude than capability.<sup>176</sup> The fanatical resistance of the cut off battalions at Cisterna and the speed by which the individual sections moved across Point du Hoc represent actions physically within the capability of most units. However, it was the Ranger attitude, epitomized by men like Darby and Rudder, which made the Rangers truly a special force.

**C. SUMMARY**

Although designed for unilateral special operations, amphibious raiding on the Commando model, the Rangers soon became the special force of choice for American integrated operations in World War II. The Rangers placed great emphasis on preparation time before an operation. Realistic training,

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<sup>174</sup> Hogan, US Army SOF in WWII, p. 135.

<sup>175</sup> Hogan, dissertation, p. 127.

<sup>176</sup> Haggerty, p. 297.

extensive reconnaissance and detailed planning characterized Ranger operations throughout the period covered. This preparation allowed them to employ special means of infiltration to arrive at the decisive point with numerical superiority. They sought to achieve some element of surprise in their operations and demonstrated a robustness that often allowed them to sustain advantages until relief by GPF. Unfortunately, at Cisterna, overwhelming numbers were clearly on the side of the Germans and the Rangers suffered accordingly. At Point du Hoc, initial success was almost squandered by heavy casualties sustained as the Rangers were tied down in a conventional defense awaiting relief by GPF. Both these operations highlight the dual nature of integrated operations and the crucial role in integrating the two battles.

The success of the Rangers fostered the acquiring of different specialties, although not beyond the infantry charter of the original battalion. They evolved from a specialized unit into a unit whose specialty was based more on attitude than capability. Institutionally, they remained immature, with planning and control of integrated operations resting firmly in the hands of GPF commanders. This bureaucratic weakness ensured high levels of integration with GPF. In fact, the longer the Rangers existed, the more they began to resemble the conventional units they fought alongside. Although a headquarters familiar with integrated operations was to make a substantial contribution to the success of the Normandy operation, the lack of accurate intelligence to tactical commanders doomed the Ranger force at Cisterna. They also suffered from poor replacement training and a lack of a coherent doctrine. Therefore low specialization and institutionalization contributed to high levels of integration, but established less than optimal conditions for integrated operations. Although many of these

proclivities can be attributed to American military tradition, a more contemporary set of cases highlighting a different approach will now be examined.

#### IV. U. S. ARMY RANGERS (1974-1989)

##### A. BACKGROUND

After the frustrating experience of the Vietnam war, the Army rushed to realign its forces for a more conventional mission in the postwar era. With the decline of SOF in the force structure, GPF were being reoriented towards a more conventional defense of Western Europe under the auspices of NATO.<sup>177</sup> However, the Army recognized the value of special units with the capability to conduct world wide deployments on short notice and direct action type missions.<sup>178</sup> Two operations in the early seventies demonstrated the need for such units: the Son Tay raid and the Mayaguez rescue attempts. While both were unilateral rescue attempts, one conducted by a specially selected SOF and the other by available GPF, their conduct demonstrated the need for standing units capable of such missions. In spite of an overall reduction of forces, both SOF and GPF, the Army in particular took steps to revitalize select SOF elements as early as 1974.<sup>179</sup>

##### 1. The 1st and 2d Battalions, 75th Infantry (Ranger)

In 1973 the Army Chief of Staff, General Creighton Abrams, decided to reactivate the Ranger battalions as austere light infantry organizations capable of deploying at a moments notice and fighting anywhere.<sup>180</sup> They were organized along infantry tables of organization with fewer personnel and manportable equipment. They were controlled directly by

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<sup>177</sup> Hogan, Raiders, pp. 196-7 and Colonel William Boykin, "Special Operations and Low-Intensity Conflict Legislation", Individual Study Project (Carlisle, PA: US Army War College, 1991), p. 5.

<sup>178</sup> Hogan, Raiders, p. 200.

<sup>179</sup> Boykin, p. 6.

<sup>180</sup> Hogan, Raiders, p. 200.

Forces Command (FORSCOM), although planners envisioned them being employed by Corps headquarters. The 1st Battalion was raised at Fort Benning, Georgia and transferred to Hunter Army Airfield near Fort Stewart, Georgia in January 1974. The 2d Battalion was raised and stationed at Fort Lewis, Washington in October of that same year.<sup>181</sup>

Other SOF were also created or revitalized during this period. In response to the successful German rescue of a hijacked Lufthansa jet in Mogadishu, Somalia, in 1979, the Army Chief of Staff,

...approved the activation of a new Army special operations unit which would prepare for a variety of special missions including counterterrorism.<sup>182</sup>

This unit was seen as filling a void between current capabilities of Special Forces and Rangers.<sup>183</sup> The unit was known as Delta Force and was activated in November 1977 at Fort Bragg, North Carolina.<sup>184</sup> It had just completed its certification in 1979 when it was called on to participate in the ill-fated Iranian rescue mission. Rangers of 1st Battalion were employed during the Iranian rescue mission in April of 1980 to support the ad hoc task force of SOF and GPF elements assembled to rescue the American hostages. The failure of this operations would bring increasing changes to SOF, particularly with regard to SOF command structures.

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<sup>181</sup> Ibid., p. 203.

<sup>182</sup> Boykin, p. 4.

<sup>183</sup> Charlie Beckwith, Delta Force (New York: Harcourt Brace and Jovanovich, 1983), pp. 106-7.

<sup>184</sup> Boykin, p. 4.

## 2. Special Operations Commands

The failed rescue attempt and ensuing reports identified the need for,

...an institutionalized command and control structure for joint contingency cooperation, with dedicated forces from the several services.<sup>185</sup>

Shortly thereafter, the Joint Special Operations Command (JSOC) was established to,

... serve as a command-and-control headquarters for high-risk overseas contingency operations, and an administrative headquarters for such dedicated strike forces as might be assigned.<sup>186</sup>

JSOC was assigned to Fort Bragg and was to control SOF elements from all the services. The Army also established the 1st Special Operations Command (1st SOCOM) in 1982 to consolidate all Army SOF under one headquarters.<sup>187</sup> 1st SOCOM was also assigned to Fort Bragg and was organizing when a crisis on the Caribbean island of Grenada occurred.

## 3. Grenada

JSOC was alerted by the Joint Chiefs of Staff (JCS) on 20 October 1983 to capture the island of Grenada, establish a new government and rescue the American citizens on the island.<sup>188</sup> JSOC was commanded by Army Major General Richard Scholtes and was designated JTF 123 for the operation. Initially it was named the supported command, indicating that GPF assets would be made available to support the JTF. The initial JTF plan envisioned a night operation beginning at 0200 with Ranger

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<sup>185</sup> Ross Kelly, Special Operations and National Purpose (New York: The Free Press, 1989), p. 3.

<sup>186</sup> Ibid.

<sup>187</sup> Boykin, P. 7.

<sup>188</sup> Major Mark Adkin, Urgent Fury (Lexington, Massachusetts: Lexington Books, 1989), p. 136.

Battalions seizing the islands two airfields and Delta Force rescuing American citizens. Navy Sea, Air, and Land Teams (SEAL) and Air Force Combat Controllers would conduct reconnaissance prior to the invasion and provide terminal guidance for the insertion of the Ranger force.<sup>189</sup> Commander in Chief, Atlantic Fleet (CINCLANT) would provide the follow-on forces to relieve the JTF by H+4 hours.

Debate within the Joint Chiefs soon changed the initial command structure. On Friday, 21 October, the JCS directed that CINCLANT would be the supported command. JTF 123 provided a planning cell to CINCLANT and planning continued at Fort Bragg as unit planners arrived. Admiral Metcalf, commander of 2d Fleet, was designated as the JTF 120 commander. As such, JTF 120 would control all elements, other than SOF and select air assets, including Navy, Marine and any Army elements required to support the invasion. JTF 123, in the meantime, assigned 1st (1/75) and 2d Ranger Battalions (2/75) the missions of seizing the Point Salines and Pearls airfields respectively. On Saturday, 22 October, all the elements conducting unilateral special operations received either a change of mission or change in task organization.<sup>190</sup> Additionally that day, elements of the 82d Airborne Division at Fort Bragg were assigned to Admiral Metcalf's forces as TF 121 under the division commander, Major General Trobaugh, to provide a ground force for the operation.<sup>191</sup> Since JTF 120 had no Army component commander, Major General Schwarzkopf was named as the deputy JTF commander and dispatched from his

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<sup>189</sup> Major Gordon Bonham, "Airfield Seizure: The Modern Key to the Country", Monograph for the School of Advance Military Studies, US Army Command and General Staff College, 1991, p. 18, and Adkin, pp. 136-7.

<sup>190</sup> Adkin, pp. 136-7.

<sup>191</sup> Ibid., p. 134.

command at Fort Stewart, Georgia to the JTF with two staff officers and some radio operators.<sup>192</sup> (Figure 8)

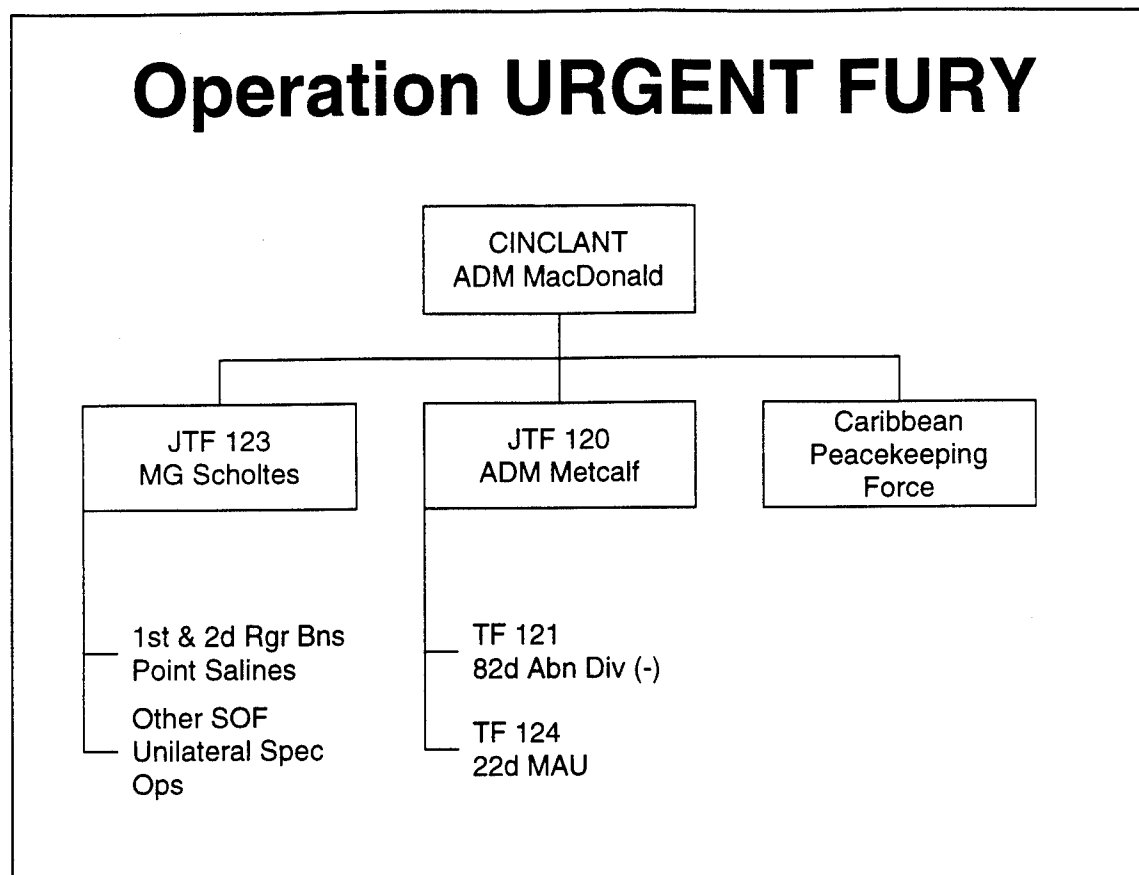


**Figure 8.** Command relationships: URGENT FURY.

Early on the morning of the 23rd, JTF 123 began inserting its reconnaissance elements. Another change in command structure and missions occurred when the JCS were briefed on the details of the bombing of the Marine barracks in Beirut. A Marine Amphibious Unit (22d MAU) was diverted to the island on the 20th. On the 23rd 22d MAU was directed to the northeast side of the island. Joint Task Force 123 would now seize the southern half of the island and 22d MAU, as part of

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<sup>192</sup> Ibid., p. 135.

TF 124, would seize the north. The 2d Ranger Battalion, originally scheduled to take Pearls airfield, would now follow 1st Battalion into Point Salines and from there attack to seize Calvigny barracks, a JCS directed target. (Map 28)

On 24 October the JTF 123 commander, MG Scholtes, attended a briefing given by Admiral Metcalf, the JTF 120 staff, and representatives from the state department. Numerous mission changes ensued from this conference, particularly concerning the selection of H-hour. All unilateral special operations were changed based on state department direction. Additionally, MG Scholtes was briefed on the Caribbean Peacekeeping Force (CPF) which was scheduled to be brought in by air at H+2.

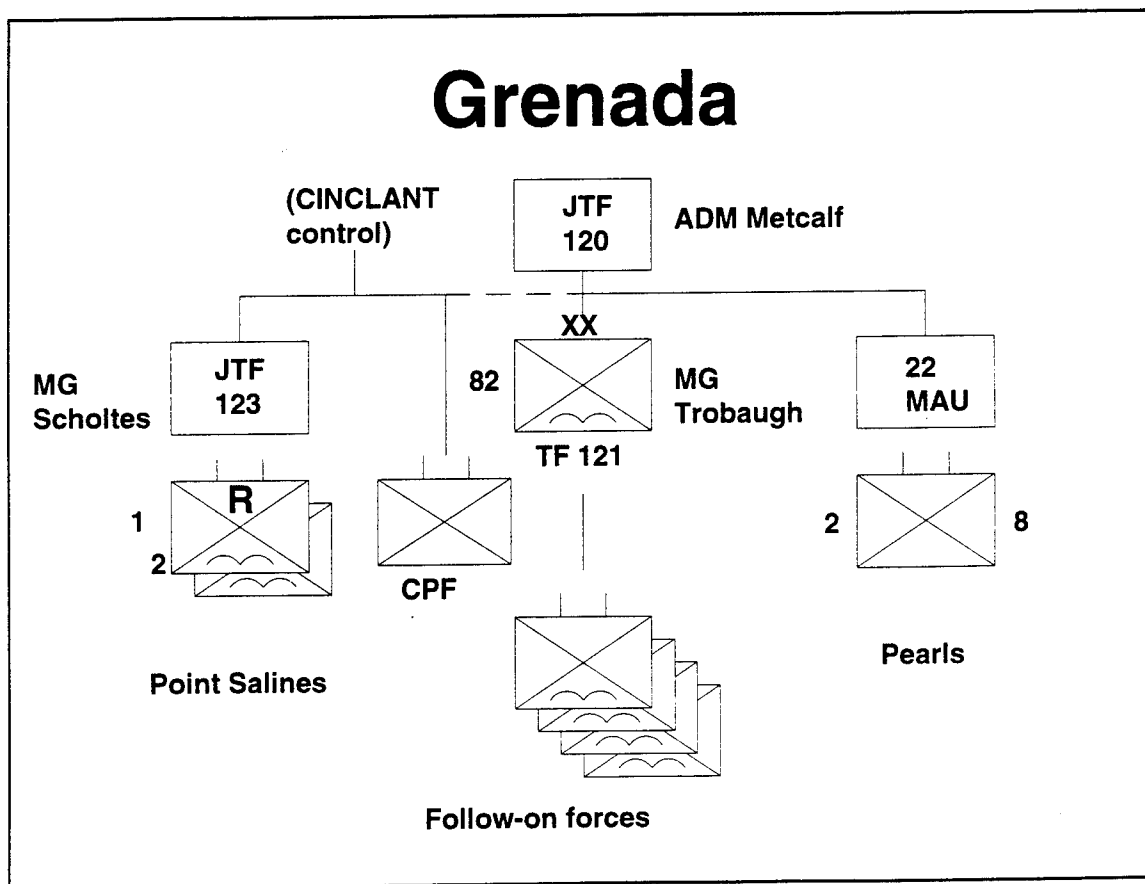


**Figure 9.** Ground forces on Grenada.

Despite protests by SOF commanders, H-hour was moved from 0130 to 0500 based on the use of marine helicopters in the assault on the northern end of the island. The Rangers launched from their departure airfield at approximately 2100 hours, some two hours early.<sup>193</sup> Neither battalion was at full strength. Due to a limitation of airframes, each battalion could only employ about half of its personnel. The 1st Battalion, with its C Company detached to support other SOF, went into action with two 150 man rifle companies and a 50 man headquarters element. The 2d Battalion was limited to some 250 personnel, with its three rifle companies bringing 50-80 personnel each and a 50 man headquarters element.<sup>194</sup>

Intelligence estimates of the strength and composition of the forces defending the islands and the Point Salines airstrip were vague. It was believed that the Peoples Revolutionary Army (PRA) forces of Grenada were 1,200 strong, with a militia of anywhere from 2,000 to 5,000 and a small, lightly armed police force. Cuban forces were estimated at 30-50 military advisors and some 600 construction workers, the latter having received some remedial para-military training. It was known that the PRA possessed anti-aircraft artillery (12.7mm and 23mm guns) as well as armored personnel carriers (BTR-60s). Estimates varied widely on the posture and amount of resistance these forces would offer, especially at Point Salines, where resistance was expected to be minimal. Calvigny barracks, on the other hand, was believed to be heavily defended.<sup>195</sup>

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<sup>193</sup> Ibid., p. 201.

<sup>194</sup> Ibid., 194-5.

<sup>195</sup> Ibid., pp. 139-140.

#### 4. Operation URGENT FURY

While the Rangers were airborne, a number of changes occurred which delayed H-hour. An AC-130 orbiting over the runway, believed to be clear, confirmed it was blocked shortly before H-hour. This required the entire Ranger force to rig for parachute assault instead of the planned airlanding of the bulk of the two battalions.<sup>196</sup> Due to a series of communications difficulties within and between aircraft, not all the Rangers were ready to jump at H-hour. A further delay of 30 minutes ensued when the lead MC-130 lost its avionics and had to abort its role as flight lead. The aircraft then rearranged themselves in flight to allow another MC-130 to assume that crucial role. Thus, not only was the jump delayed, but the insertion plan of the lead battalion was now irrevocably altered.<sup>197</sup>

The lead MC-130, now commanded by LTC James Hobson, commenced its run over the airstrip at 0531 dropping a platoon from B Company, 1st Battalion (B-1/75) and elements of battalion headquarters including the Battalion Commander, LTC Wes Taylor.<sup>198</sup> Heavy anti-aircraft fire caused the following two aircraft to abort their drops and an AC-130 moved in to suppress the anti-aircraft fire north of the runway.<sup>199</sup> Rangers already on the ground commenced clearing the runway and engaging enemy positions. At 0552 the next aircraft

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<sup>196</sup> Ibid., p. 203.

<sup>197</sup> Bonham, p. 21.

<sup>198</sup> Numerous sources indicate that there was a pre-H-hour insertion of SOF which compromised the Ranger airborne assault. Although it is difficult to reconcile the differing accounts, Ranger participants indicate they were met by alerted opposition during the insertion. For differing versions of pre-H-hour activities see Bonham, p. 20; Adkin, pp. 202-3 and Richard Gabriel, Military Incompetence (New York: Hill and Wang Press, 1985), pp. 163-5.

<sup>199</sup> Adkin, pp. 202-203.

dropped elements of A-1/75 and was followed at 0634 by the last MC with the remainder of A Company. By 0705 the remainder of 1/75 was on the ground with 2/75 immediately following. By 0710 all elements were on the ground with only one ranger wounded on the jump.<sup>200</sup> Meanwhile, at 0700 hours the runway was cleared and Rangers began assaulting the high ground to the north.<sup>201</sup> (Map 29)

At 0730 A-1/75 attacked to clear the runway and suffered one killed. Company B, 1/75 cleared the terminal and control tower in the vicinity of camp hill killing one Cuban and taking 22 POWs. By 1000 both battalions were in position. (Map 30) The 1st Battalion had seized its assault objectives of fuel tank hill, Calliste and the True Blue campus, securing some 130 students by 0700.<sup>202</sup> The 2d Battalion moved to occupy the terminal, the old camp and high ground north of the runway, where it remained in reserve. Meanwhile, at 0740, the C-130's carrying the Ranger jeep and bike teams landed to establish blocking positions around the airhead and reinforce the lightly armed rangers with mounted machineguns and additional recoilless rifles. Shortly thereafter, at 0930, a jeep team from 1st Battalion drove into an ambush losing four Rangers killed with only one survivor.<sup>203</sup> Two bike scouts from B-1/75 were also hit and wounded just outside B Company's position near the fuel tank hill at 1000.<sup>204</sup> It was not until 1500 that B Company was able to rescue and evacuate the

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<sup>200</sup> I bid., p. 200.

<sup>201</sup> Bonham, p. 21.

<sup>202</sup> Department of the Army, 'Lessons Learned: Grenada' (Washington: Center for Military History, General Records Branch), pp. III-16.

<sup>203</sup> Adkin, pp. 224-5.

<sup>204</sup> "Lessons Learned: Grenada", p. III-16.

wounded scouts, impelling the surrender of some 150 Cubans.<sup>205</sup>  
(Map 31)

At approximately 1045 elements of the CPF began arriving, linked up with a somewhat surprised 2/75 north of the runway and were assigned to guarding prisoners. By 1405 lead elements of the 82d Airborne began landing to prepare to relieve the Rangers. During the initial landing of troops from 2/325th Infantry, at approximately 1540, the airfield was attacked by three BTR-60's which were destroyed by fires from Ranger recoilless rifles and an AC-130.<sup>206</sup> By midnight, MG Troubaugh only had one complete infantry battalion and three howitzers, with elements of his second battalion, 3/325th, arriving during the early morning. In the face of heavier than expected resistance and failure of several of the unilateral special operations, Admiral Metcalf decided to detach the two Ranger battalions from JTF 123 and assigned them to Troubaugh. Nonetheless, elements of the 82d relieved 1/75 in place from 1630-2230 that night.<sup>207</sup> JTF 123 elements departed shortly thereafter. Ranger casualties for the first day were five killed and six wounded.<sup>208</sup> (Map 32)

There was some confusion initially in the attachment of the Rangers to Trobaugh's task force. Nonetheless, on the morning of the 26th his two airborne battalions pushed out of the airhead and attacked towards Little Havana at 0630.<sup>209</sup> (Map 33) The two Ranger Battalions were kept in reserve. At approximately 1000 hours, the 2/75 commander, LTC Ralph Hagler, was notified by General Trobaugh that his unit would

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<sup>205</sup> Adkin, pp. 218 and 223.

<sup>206</sup> "Lessons Learned: Grenada", p. III-16.

<sup>207</sup> Ibid.

<sup>208</sup> Adkin, p. 230.

<sup>209</sup> "Lessons Learned: Grenada", p. III-16.

undertake the rescue of American students at the Grand Anse Campus. Lieutenant Colonel Hagler employed all three of his small companies in a heliborne raid, with lift assets and gunship support provided by the MAU's Helicopter Squadron. Capitalizing on intelligence gathered through earlier patrols and direct phone connections to the students, 2/75 executed a near flawless raid at 1605, rescuing some 233 students in 26 minutes.<sup>210</sup> One Marine CH-46 was damaged by a blade strike on infiltration and another was lost on exfiltration. There were no friendly casualties but one Ranger squad was left behind and later exfiltrated to a vessel offshore. (Map 34)

October 27th saw two more airborne infantry battalions, artillery and elements of the 82d Combat Aviation Brigade arrive at Point Salines to reinforce TF 121. At midday, the JCS directed Admiral Metcalf to task TF 121 to attack Calvigny Barracks. The Task Force was directed at 1220 to, "... seize the area before dark...".<sup>211</sup> The 2d Battalion, reinforced by C-1/75 returned from detached service, was assigned to 2d Brigade of the 82d for the assault since, "...no airborne battalions were available near the pickup zone..."<sup>212</sup> and it had been an original "D-Day mission for Rangers."<sup>213</sup> Lift assets were from the 82d Aviation Battalion, recently arrived on the island. H-Hour was set at 1630 hours and, because of expected heavy defenses, a 30 minute preparation was scheduled. Fires would be provided by 105mm howitzers firing

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<sup>210</sup> US Army Training and Doctrine Command, "Operation Urgent Fury Assessment" (Fort Leavenworth: Combined Arms Command, undated), p. vii-15.

<sup>211</sup> "Lessons Learned: Grenada", p. III-18.

<sup>212</sup> Ibid.

<sup>213</sup> Department of the Army, "AAR/Lessons Learned: Operation Urgent Fury" (Fort Bragg, North Carolina: 82d Airborne Division, 1984), p. 3.

from Point Salines, naval gunfire from the USS Caron and close air support from AC-130's and A-7's.<sup>214</sup> The Rangers were briefed to expect 600 Cubans defending the complex with anti-aircraft support. (Map 35)

H-hour was delayed 15 minutes due to ineffective artillery and naval gunfire. Close air support pounded the objective and was followed closely by the UH-60's of the 82d Aviation Battalion. Landing on the southern camp boundary, two of the first four Blackhawks overshot their landing points and collided causing the fourth to crash. Three Rangers were killed and four seriously wounded in the accident.<sup>215</sup> The remainder of 2/75 cleared the barracks area without encountering any enemy.<sup>216</sup> On this tragic note, the role of SOF forces in Grenada ended. Both battalions redeployed stateside the following day.

#### **5. Grenada to Panama**

Critical analysis of the Grenada Campaign came from all directions.<sup>217</sup> However misguided some of it may have been, DOD and Congress took steps in the intervening period to make major changes to both SOF capability and command and control. Some Congressmen called for a separate service for SOF, while others wanted to increase the capability of regional commanders to conduct special operations. Proposals also provided for the National Command Authority (NCA) to have "direct and immediate" access to SOF. Testimony of MG Scholtes, recently retired in 1986, highlighted the

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<sup>214</sup> Adkin, p. 282-3.

<sup>215</sup> Ibid., p. 284.

<sup>216</sup> Ibid., p. 285, quoting LT Thomas, 2/75.

<sup>217</sup> A summary of the critics of URGENT FURY is presented in Bolger, "Urgent Fury and its Critics", Military Review 66 (July 1986) pp. 58-69. One of the most critical is Gabriel, pp. 184-6.

difficulties of integrating forces during URGENT FURY.<sup>218</sup> In 1986 Congress directed,

...creation of a unified combatant command for special operations missions which would combine the special operations missions, responsibilities and forces of the armed forces.<sup>219</sup>

In the Goldwater-Nichols Act of that year, Congress made unprecedented changes to the entire command and control structure of the U. S. military as well as providing for the establishment of the United States Special Operations Command (USSOCOM). Congress followed with the Nunn-Cohen Act later that year, which clarified their vision of an organizational focus and streamlining of command and control of SOF and established deadlines for the implementation of its directives.<sup>220</sup> Meanwhile, while command issues were being debated and decided in the halls of Congress, steps were being taking to improved the capability of SOF at the unit level.

#### **6. The 75th Ranger Regiment and USSOCOM**

In 1984 the Army completed its long delayed plan to activate a third Ranger battalion, as well as a regimental headquarters, both at Fort Benning, Georgia. Additional expansion took place across the SOF community as Special Forces were expanded by the addition of a new group and bringing up to strength previously undermanned organizations. Numerous other special operations related activities were also created or reinvigorated during this period, including psychological operations and civil affairs units as well as

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<sup>218</sup> Boykin, pp. 22-27.

<sup>219</sup> Ibid., p. 8.

<sup>220</sup> For details on the intent and implementation of these acts see Henry L. Koren, Jr., "Congress Wades into Special Operations", Parameters (December 1988), pp. 62-74 and Boykin, p. 7.

expanding the SOF aviation capability.<sup>221</sup> Additionally, within the GPF, the Army allocated resources to convert several standard infantry divisions into Light Infantry Divisions (LID), capable of worldwide deployment in a fashion similar to existing elements of the Army's XVIII Airborne Corps. These changes and expansions would soon be tested in an area familiar to U. S. forces: the isthmus of Panama.

#### **7. Operation BLUE SPOON**

America's problems with Panamanian dictator Manuel Noreiga became evident in the late eighties and numerous contingencies were developed featuring military intervention. Debate in military circles focused on overall control of the Joint Task Force which would be employed to conduct the contingency if needed. Southern Command (SOUTHCOM) preferred the Panama based United States Army South, while the JCS favored the U. S. based XVIII Airborne Corps.<sup>222</sup> Meanwhile, however, SOF elements, in conjunction with SOUTHCOM were heavily involved in preparation for a 'coup de main' to depose the dictator, extradite him for drug charges and disarm the Panamanian Defense Forces (PDF). This plan, known as Operation BLUE SPOON, was constantly revised by planners as events in Panama and Washington updated the situation and mission. A failed coup attempt in Panama, violence directed against U. S. servicemen and their families and domestic political concerns heightened the scope of the intervention. The decision to use XVIII Airborne Corps as the JTF headquarters placed the Joint Special Operations Task Force (JSOTF), assigned the key spearhead role for the intervention,

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<sup>221</sup> Hogan, Raiders, p. 223.

<sup>222</sup> Thomas Donnelly, Margaret Roth and Caleb Baker, Operation Just Cause (New York: Lexington Books, 1991), pp. 15-20.

as well as the conduct of numerous unilateral special operations, under their control. (Figure 10)

The commander of the Corps and the JTF, General Carl Stiner, was a former commander of JSOC, and was intimately familiar with tactics and capabilities of the JSOTF.<sup>223</sup> The JSOTF Commander, Major General Wayne Downing, was the original commander of the 75th Ranger Regiment in 1984.<sup>224</sup> While the

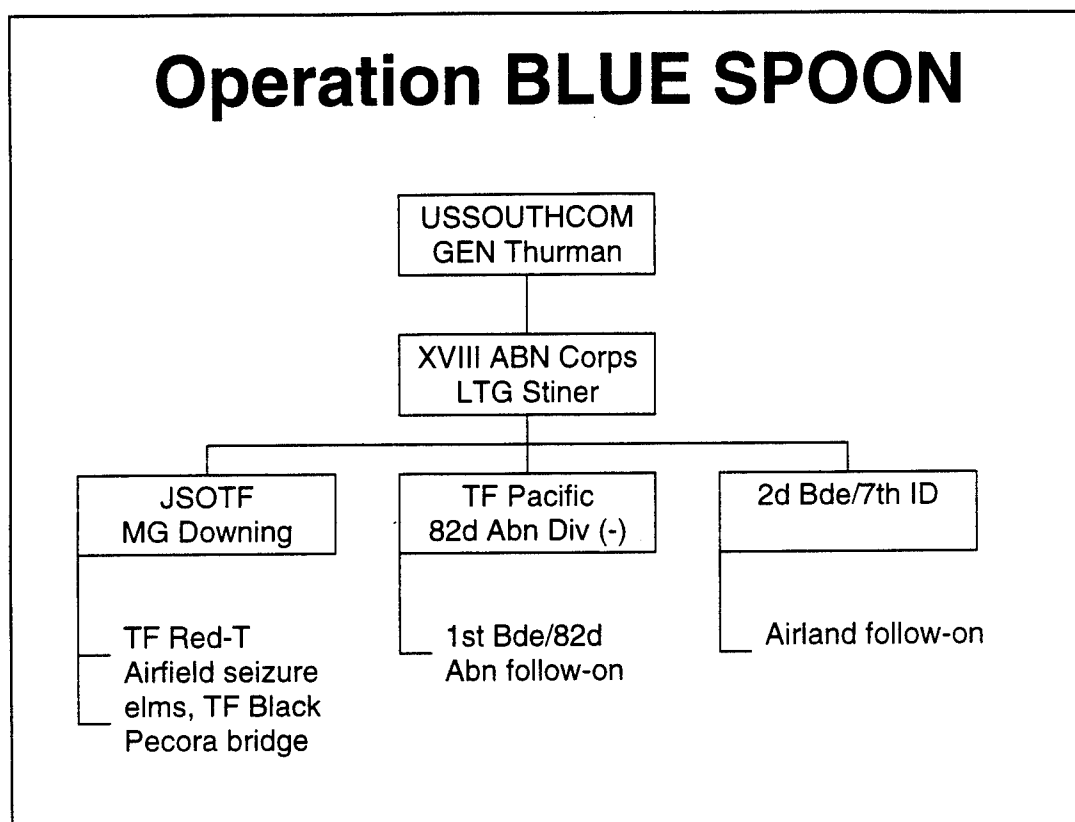


**Figure 10.** Command relationships: BLUE SPOON.

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<sup>223</sup> Donnelly, pp. 39-41 and LTG (ret) Edward M. Flanagan, Battle for Panama (Washington: Brassey's, 1993), p. 35.

<sup>224</sup> Flanagan, p. 63.

JSOTF would conduct numerous unilateral special operations associated with the intervention, the largest component, the 75th Ranger Regiment was assigned the role to facilitate the entry of follow-on forces of the JTF by seizing Torrijos-Tocumen airfield. (Map 36)

#### **8. Torrijos-Tocumen**

The bulk of two Ranger battalions were committed to a seizure and denial of the Rio Hato airfield against elements of the 6th and 7th Companies of the PDF. Colonel Kernan, 75th Ranger Regimental commander, assigned 1st Battalion, reinforced, the mission to seize the Torrijos-Tocumen airfield and international airport complex. (Figure 11) The mission given Task Force RED-T was,

...conduct an airborne assault D-day H+0003 (200103R December 1989) to seize Omar Torrijos/Tocumen Airport and eliminate PDF in sector; to clear Tocumen Airport for airland operations; to be prepared to conduct battle-turnover to JTFSOUTH; to be prepared to conduct follow-on combat operations as directed; and, on order, to redeploy to CONUS.<sup>225</sup>

The objective consisted of the Tocumen PDF military airport, garrisoned by elements of the 2d PDF Company and defended by three anti-aircraft machine guns and a 23mm anti-aircraft cannon and the Torrijos International Airport (IAP). The Torrijos and Tocumen runways ran parallel and the international terminal was located in between.<sup>226</sup> Battalion 2000, a modern, infantry formation equipped with nine armored cars which played a key role in putting down the abortive coup in 1988 was approximately 45 minutes away. (Map 37)

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<sup>225</sup> Ibid., pp. 157-8, quoting 75th Ranger Regiment Command Briefing notes.

<sup>226</sup> Ibid., p. 157.

Although there were at least four different airfield seizure missions during the initial phases of the operation, only Torrijos-Tocumen was critical for the introduction of follow-on forces. Howard Air Force Base, the incountry staging base for many prepositioned elements, was unable to accommodate the massive airflow necessary for the rapid build

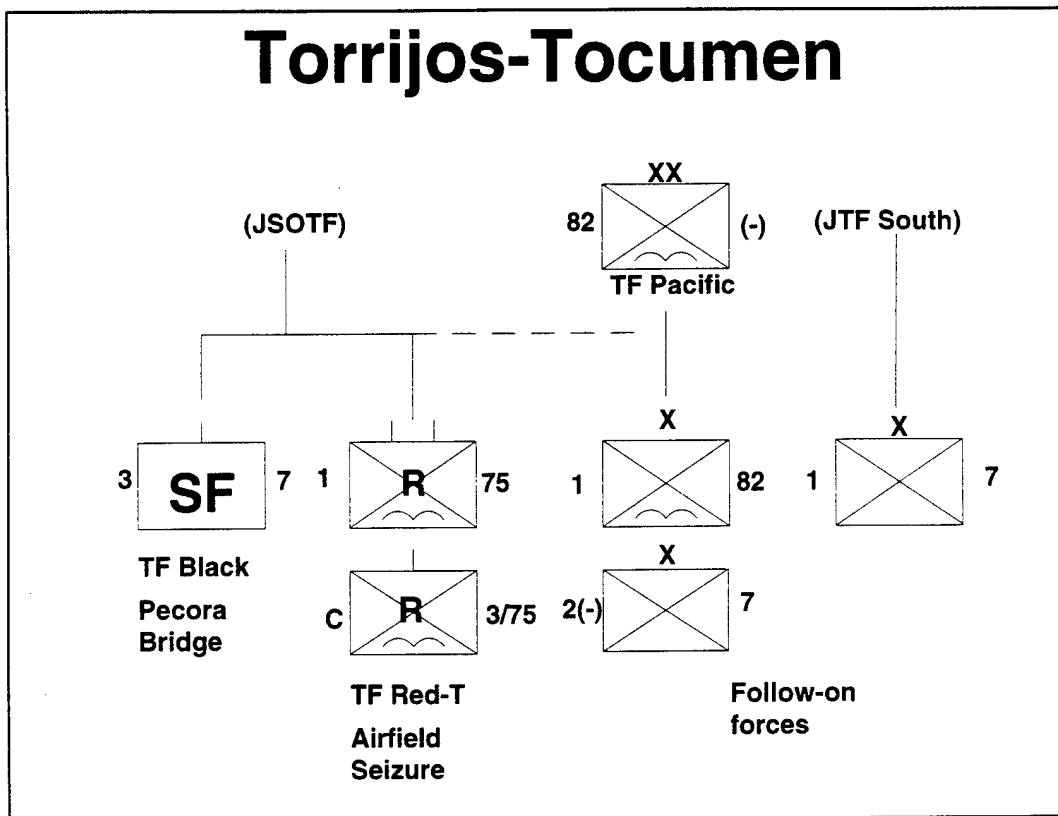


**Figure 11.** Ground forces at Torrijos-Tocumen.

up and was potentially vulnerable to PDF indirect fire.<sup>227</sup> Torrijos-Tocumen was also crucial because it was the country's only international airport, garrisoned by a unit loyal to Noriega, located astride the principal route of Battalion 2000

<sup>227</sup> Bonham, p. 21.

to the PDF headquarters and, finally, was an ideal transload site for follow on air assault operations.<sup>228</sup>

The mission commenced at 0100 hours on 20 December 1989 at which time helicopter gunships and AC-130's, already prepositioned at Howard Air Force base, initiated suppressive fires on known PDF locations. At 0103 elements of 1/75(-) parachuted onto the Tocumen runway while B-1/75 and C-3/75 dropped on the international airport runway. Insertion was completed in three minutes as 1/75(-) secured the objectives around the PDF airfield without contact with the previously dispersed 2d Company. Company B, 1/75 derigged predropped vehicles and established blocking positions on the perimeter of the airfield complex after overcoming resistance of the airfield guards. Company C, 3/75, assigned to secure and clear the international airport terminal, encountered elements of the 2d PDF among two flights of recently offloaded civilians. In the ensuing action, the Rangers killed eight PDF soldiers, took 54 prisoners and secured 374 civilians.<sup>229</sup> (Map 38)

Meanwhile, at 0208 hours, elements of 1st Brigade, 82d Airborne Division, the initial follow-on force, began their drop. (Map 39) Originally supposed to insert at H+45, these elements were delayed by an ice storm at their departure airfield at Pope AFB in North Carolina. The remainder of the drops including vehicles and light tanks were delayed, occurring between 0458 and 0800, with some being dropped east of their planned drop zones.<sup>230</sup> The Rangers reported the runway cleared at 0520 and as early as 0745 the JSOTF commander began tasking the Ranger companies for follow-on

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<sup>228</sup> Ibid., p. 30.

<sup>229</sup> Ibid., p. 31.

<sup>230</sup> Flanagan, p. 164.

missions. Elements of the 82d were prepared to conduct their follow-on air assault operations by 1115 and at 1130 began to expand the perimeter around the airfield complex.<sup>231</sup> By 1515 the first elements of 5/21st Infantry of the 7th Infantry Division (LID) began arriving to assist in securing the airfield and begin security missions throughout the countryside.<sup>232</sup>

In support of operations on the airhead, but under the control of Task Force Black, a team from 3/7th Special Forces Group inserted to conduct surveillance of the Pecora bridge at H-hour. This bridge was located along the route Battalion 2000 was expected to take to reinforce the airfield. Enroute to insertion, the team spotted lead elements of the Battalion moving towards the bridge and, landing only moments ahead, successfully interdicted the enemy employing anti-tank weapons and fires from an AC-130 aircraft.<sup>233</sup>

## **B. ANALYSIS**

The employment of U. S. Army Rangers in Grenada and Panama have been characterized as special operations as well as conventional airborne assaults.<sup>234</sup> The involvement of other SOF in both facilitating the entry of the Rangers as well as unilateral special operations conducted during the campaigns remain obscured by operational security, wild speculation and hearsay. However, by examining the airfield seizures of both Point Salines and Torrijos-Tocumen, these operations can be better characterized as integrated operations.

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<sup>231</sup> Ibid.

<sup>232</sup> Ibid., p. 198.

<sup>233</sup> Ibid., pp. 76-80.

<sup>234</sup> See Bolger, "Special Operations and the Grenada Campaign", p. 56 for a characterization of the ranger missions in Grenada as "conventional".

## **1. Integrated Operations**

Both operations, particularly in their original incarnation, envisioned using the highly trained Rangers to seize critical airfields paving the way for the introduction of follow-on forces. Both plans envisioned the precise delivery of specially trained parachute clearing forces to be followed by an airlanding of assault elements, all at night and synchronized with numerous unilateral special operations being conducted simultaneously at H-hour. Special reconnaissance, both distant and on target, were planned and fire support was to be delivered by numerous platforms from different services. The planners recognized that the use of these tactics would allow the Rangers to potentially gain temporal, spacial and moral advantages over the defenders. This advantage would be translated into an advantage of decisive combat superiority with the rapid introduction of follow-on forces.

These two operations varied greatly in execution, however. URGENT FURY was plagued by initially by an inability to reconcile SOF and GPF plans for the assault. The movement of H-hour and constant changing of the unilateral SOF missions robbed these unique forces of their ability to capitalize on detailed planning and the advantages of attacking at night. The SOF elements involved in the integrated operation were forced to surrender significant advantages in employing their specialized training and tactics. Although Ranger losses in the jump were light, insertion of two battalions was delayed, all assault objectives were not seized and the planned transition to GPF was delayed.

BLUE SPOON, however, benefited from the primacy of SOF both in the planning and the crucial spearheading role for the invasion. The JSOTF headquarters, in close cooperation with GPF, controlled the initial operations, facilitating the ability of Ranger elements to exploit special tactics and

training to gain advantages over the defending forces. Although the initial insertion was compromised and H-hour moved forward, these frictions were overcome as the Rangers conducted a near perfect airfield seizure with few casualties, facilitating the arrival of follow-forces.

In both cases, the build up of follow-on forces would allow the final objectives of the campaigns to be realized. However, in URGENT FURY, there were numerous problems with integrating SOF and GPF which impacted on the mission. Although 2/75 was able to conduct the Grand Anse raid under control of a GPF headquarters and with support from a GPF aviation unit from another service, the Calvigny raid proved to be a more difficult task. Again under control of GPF, the Rangers were paired with another GPF aviation unit for the air assault which resulted in heavy casualties. The ability of 2/75 to work successfully with the Marine helicopter squadron stands in sharp contrast to their problems with the 82d CAB at Calvigny.

During Operation BLUE SPOON, Rangers were used for a myriad of follow on operations in coordination with both SOF and GPF headquarters and in cooperation with various units. Although numerous minor problems occurred, in comparison with URGENT FURY, these missions were generally within the capability of the SOF and represent the high point of integrated operations to date.

The transition from SOF to GPF preponderance in both operations carried perhaps the greatest chance for mishap. URGENT FURY however, was characterized by numerous problems which occurred during this critical period. The late introduction of the Ranger force into Point Salines, the change in mission from a night to daylight airborne assault, insured that the bulk of the Ranger force would be engaged in a conventional styled operation. The difficulty of securing the airstrip in the face of alerted resistance made the

Calvigny barracks mission impracticable. The arrival of the CPF was a surprise to members of 2/75. Members of 2/75 first thought they were Cuban reinforcements when they initially debarked from their aircraft. More seriously, the Rangers heaviest casualties were suffered when their unarmored jeeps and bikes moved to expand the airhead. Four Rangers were killed and three wounded from these elements alone. Finally, the delayed introduction of follow on forces insured that the bulk of the SOF, in this case the Rangers, would remain on the island under GPF control until adequate forces were available to complete the mission. Instead of being relieved at H+4 as originally planned, or departing with the rest of JTF 123, the Rangers were attached to Troubaugh's TF 121. This attachment was not without confusion. Both Ranger Battalion commanders as well as the TF commander report different times varying from about 1900 on the 25th to 0630 on the 26th as the time they were informed of the new command relationship. Thus critical time was lost in integrating the next days missions.<sup>235</sup>

The transition from SOF to GPF at Torrijos-Tocumen was similarly marked by problems. None of these, however, created the difficulties present in Grenada. Planners recognized that the greatest threat to the mission lay not in the airfields garrison, but rather in reinforcing elements of Battalion 2000. The rapid introduction of follow-on forces from 1st Brigade of the 82d Airborne division, in spite of misdrops of some personnel and heavy equipment, reduced the Rangers' window of vulnerability to the more heavily armed Panamanian reinforcements. With a 0103 H-hour for the Rangers and a 0210 drop of initial follow-on GPF, the 82d assumed control of the

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<sup>235</sup> Adkin, p. 229.

airhead at 0700. The introduction of further follow-on forces, in the form of the 7th ID, commenced at 0800.<sup>236</sup>

In summary, the airfield seizures of Point Salines and Torrijos-Tocumen can both be viewed as integrated operations, rather than either special or conventional operations. Both highlight the complementary nature of SOF and GPF as an operation transitions from one of specialized assault to one in which conventional measures such as numbers, firepower and mobility will insure accomplishment of the operation's final objectives. Both also demonstrate the vulnerable nature of the transition period as SOF, utilizing advantages gained during the initial phase of the operation, transfers the battle to the preponderant GPF. These GPF then seek to exploit these advantages to rapidly conclude the operation.

## **2. Organization Theory**

The U. S. military underwent numerous changes in both the composition and command and control of SOF during the years between 1983 and 1989. Fundamental changes, some imposed from outside DOD, affected both the institutionalization and functional specialization of the SOF which were engaged in integrated operations during this period. In the end, SOF existed within its own unified command, and higher levels of integration than experienced before were to become commonplace.

### **a. Institutionalization**

Both the establishment of JSOC, resulting from the Holloway commission's recommendations, and the Congressionally mandated establishment of USSOCOM in 1987 heightened the institutionalization of SOF. These changes cut across service lines and established SOF as an effective "sixth service". Although not the organization envisioned by certain

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<sup>236</sup> Donnelly, pp. 202 and 212 states that the 7th ID began arriving at 0800.

visionaries, it was certainly a significant improvement over previous peacetime command arrangements. Its mixed performance in Grenada can in part be attributed to its organizational immaturity. Not only were the senior Navy officers in charge of the operation unfamiliar with the organization's existence, but many of the senior Army leaders involved had only a cursory knowledge of the command's capabilities. Thus, although the creation of tactical command for joint special operations potentially facilitated the performance of SOF on unilateral special operations, it failed to ensure the integration of SOF and GPF during integrated operations.

The Congressionally mandated establishment of USSOCOM cannot be considered without addressing the unified command plan also promulgated by Congress in 1986. This act, in itself, fundamentally altered the way the American military conducted command and control of its elements. That the establishment of USSOCOM increased the institutionalization of SOF is unmistakable. Since its establishment a multitude of subordinate headquarters have been established for the training, administration and control of SOF both within the command, and for those forces forward deployed with the theater CINC's. These headquarters and their associated functions give the United States the, "...largest, most multidimensional, and most diversely capable SOF establishment in the non-communist world."<sup>237</sup> These comments, written in 1989, could now probably be extended without argument. Critical to the success of BLUE SPOON was the early involvement in planning and the crucial spearhead role of the JSOTF. The employment of this headquarters guaranteed the primacy of initial special operations as well as synchronization of both integrated and unilateral special

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<sup>237</sup> Kelly, p. 2.

operations. The close links between the JSOTF and the primary GPF headquarters, XVIII Airborne Corps, insured a smooth transition between SOF and GPF. Increased institutionalization, when combined with individual commanders' proclivity for special operations, served to facilitate the integration of SOF and GPF.

**b. Functional Specialization**

The revitalization of select SOF in the seventies began a trend toward increasing specialization that continued throughout this period. The reactivation of the Ranger battalions in 1974 and the creation of Delta are only indicators of the heightened specialization in all areas of the SOF community. Both of these units have flourished since their inception, with the Rangers gaining an additional battalion and regimental headquarters in 1983. However, as early as URGENT FURY, it became evident that the most likely contingencies for the Rangers involved working with units, such as the Marines, that they previously had not envisioned. Even without crossing service lines, as in the Calvigny barracks mission, there was obviously a great deal of strain between the SOF and GPF employed.

The fundamental infantry training of the Rangers facilitated much of the integration that occurred during the relief in place at the airfield and the follow-on missions. The 1st Battalion executed an unrehearsed night relief with elements of 2/325 without incident because, in the words of the Ranger commander, "... it was a basic infantry mission."<sup>238</sup> The ability of 2/75 to quickly plan and execute the Grand Anse raid is also attributed to their superior infantry skills, rather than their specialized training. Again, if there were specialized skills apparent, they seem to be less physical

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<sup>238</sup> Interview with BG Wesley B. Taylor, ASD/SOLIC, (former commander 1/75 in Grenada), Washington, D.C., 17 November 1994.

than moral. Commanders at all levels were highly laudatory of the Rangers initiative, boldness and daring in all phases of the operation.

The Rangers themselves established a niche as the force of choice for integrated operations during this period. Previously dedicated to the support of select special operations only, the Rangers are now seen as the force within SOF which can provide connectivity with GPF. The Rangers, almost exclusively among the SOF community, have become less specialized over time. This tacit recognition of the importance of integrated operations, however, fails to address the continuing trend in SOF towards greater specialization. Ranger success at Torrijos-Tocumen can also be attributed to a mixture of proper planning and superb infantry training. The handoff between Rangers and 82d was, by that time, a routine task, which was executed in the face of some fairly significant frictions of war. The Rangers' ability to integrate their operations with GPF contributed significantly to the rapid introduction of follow-on forces and the eventual success of the campaign.

### **C. SUMMARY**

The increasing institutionalization and specialization of these SOF are a result of experiences both in unilateral special operations, as well as integrated operations.

The integrated operations examined in this case study succeeded because of several considerations. Overwhelming numerical superiority in both cases made the eventual outcome determinate. Only the enemy's ability to inflict casualties and the length of the operation were in question. Integration problems, as in Grenada, occurred when SOF lacked the time and command structure to ensure its proper employment. Even in the absence of surprise, SOF were able to gain a crucial initial advantage. The delay in introducing follow-on forces

ensured that SOF would be exposed to unnecessary losses in their window of vulnerability and employed later in conventional roles.

BLUE SPOON allowed SOF to be involved in the planning process early on and within a command structure familiar with the capabilities of SOF. The operation at Torrijos-Tocumen, in spite of some significant frictions with infiltration of follow-on forces, was extremely successful. Detailed preparation allowed SOF to gain an initial advantage and the rapid introduction of follow-on forces worked to reduce their vulnerability. Again, defying conventional wisdom, this occurred in spite of the lack of total surprise.

Organizationally, SOF have become more specialized and institutionally mature. Visionaries within the Army saw the potential of highly specialized forces in the aftermath of the Vietnam war and set in motion the creation of these forces in spite of declining force structure. Failure in a unilateral special operation (RICE BOWL) impelled DOD to establish a joint command to control these forces. Increasing specialization and institutionalization were proceeding in the same direction. After a decidedly mixed performance in Grenada, both Congress and DOD addressed increasing both the capability, and command structure for SOF. Organizationally, SOF were allowed to grow and develop mature institutions. Doctrine, training and command procedures were formalized during this period.

BLUE SPOON provided a test case for these new command arrangements and force capabilities; one they conducted with impressive success. In particular, the Ranger organization expanded commensurate with the overall growth of SOF. Conversely, however, with the trend towards increasing specialization among SOF, the Rangers have actually become less specialized. Increasingly, they have become identified as the "connectivity force" between SOF and GPF. The question

now is whether or not the present organization of SOF is best suited to the challenges of the future.

## **V. CONCLUSIONS**

### **A. INTEGRATED OPERATIONS**

The six operations in this study are best examined as "integrated operations". Integrated operations differ from unilateral special operations or conventional operations in their duality, employment of complementary assets and particular vulnerabilities that will be experienced by the SOF. The cases examined have highlighted the interdependency of these dissimilar forces, the need for rapid introduction of follow-on forces and the dangers that occur in the transition between the "special" and "conventional" phases of these battles. Integrated operations employ a combination of special and conventional tactics and the cases examined reflect this duality. Additionally, the employment of these dissimilar forces places some restrictions on the employment of SOF, restrictions it normally would not face in a unilateral special operation. Finally, integrated operations tend to be inflexible in the initial phase due their complex nature, but demand increasing flexibility as the operations progresses.

#### **1. Operational Environment**

Assault Detachment Koch's operation to neutralize the Eben Emael fortress and seize the Albert Canal bridges demonstrates the duality of an integrated operation. The initial phase of the operation was conducted rapidly with extreme precision and was followed by a period in which GPF exploited advantages gained initially by SOF. While the insertion of all the detachments was extremely precise and assaults intricately planned, attempts to hold their gains were more reminiscent of conventional operations than special ones. At the fortress itself, Witzig noted that the relieving engineers launched a standard attack to reduce the fortress as

opposed to employing advantages gained by the Granite Force.<sup>239</sup> The Granite force was not the only detachment to use special tactics in this operation. All three of the bridge detachments conducted the same extensive planning, task organizing and rehearsing for which the assault on the fortress primarily has been noted. In fact, the Germans attribute success at the two northern bridges to the virtual landing of the glider teams on top of their objectives, while at Canne, the gliders were forced into landing some distance away, allowing the Belgians to destroy the bridge.<sup>240</sup> The use of decentralized tactics to keep the enemy off balance in the fortress was valuable, but the security of the sappers depended more on the CAS and relieving engineers than their own actions.<sup>241</sup>

Similarly, the Rangers at Point du Hoc employed specialized tactics and techniques to not only scale the cliffs, but to seize the battery position and advance to the

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<sup>239</sup> Witzig interview, p. 56.

<sup>240</sup> See Schacht, pp. 2-4 for details on the rehearsals of bridge detachments, their task organization and the integration of forces on these locations. Their extensive planning was in part due to their excellent intelligence. Unlike the fortress, for which Witzig possessed no "secret plans" (See Luttwak, pp. II-7 to II-9 for his assertion that the Germans possessed the blueprints to the Eben Emael fortress), German intelligence had plans for the bridge demolitions and defenses, allowing Koch and his subordinates to make detailed plans and conduct rehearsals on similar bridges in Germany making rapid seizure of these bridges and disarming their demolitions possible. Witzig, pp. 33-36 and 46, stated that his intelligence was, "...not really sufficient...(and)... not particularly good..." with regards to the fort. He only had aerial photographs and plans to other forts available for his planning. More detailed information existed at higher levels but was not available to him.

<sup>241</sup> Schacht, pp. 3-6 and Witzig interview, pp. 36-38.

highway. During this phase of the operation they suffered comparatively low casualties. Once they became engaged in defending their positions against enemy counterattacks, they used select counterattacks, captured weapons and aggressive patrolling to keep the Germans at a distance. They then used naval gunfire to augment their firepower-poor organization against the Germans.<sup>242</sup> The dual nature of integrated operations are reflected in this reliance on heavy fire support in keeping enemy GPF from recapturing key terrain. It is also an indication of the criticality of integrating dissimilar forces for such operations. Special Operations Forces often require GPF support early in the operation to maintain the positional advantages seized initially.

Of course, SOF employed on integrated operations almost always face restrictions not normally considered during unilateral special operations. The fact that they are cooperating with an ultimately preponderant GPF insures that planners will at least consider their employment proportional to their commitment. SOF ideally will capitalize on the tactics and techniques that make it special. GPF planners in URGENT FURY, unfamiliar with SOF capabilities and the ability of forces to integrate, critically hampered SOF with unneeded restrictions.<sup>243</sup>

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<sup>242</sup> Small Unit Actions, pp. 39 and 63 for a discussion of the effects of naval gunfire on German counterattacks.

<sup>243</sup> Much has been made over the movement of H-hour from a planned 0200 to 0500 on URGENT FURY. While most of the literature blames this on the Marines inability to employ their rotary wing assets at night, in fact HMM261 was fully NVG (night-vision goggle) qualified. The problem lay with the JTF staff and planners and their coordination with USAF planners who planned the initial insertion of the Rangers. Interview with BG John J. Maher (former S-3, 1/75) by CPT Mike Kershaw, San Jose, California, 8 November, 1994; Interview with BG Wesley B. Taylor (former CDR, 1/75), Washington, D.C., 17 November 1994 and Briefing notes, "Urgent Fury", by LTC (ret) Digger O'Dell (USMC-former D/J3,

Finally, integrated operations occur at a pace commensurate with their degree of complexity. Initially the operation will require detailed planning, resulting in limited flexibility once the engagement commences. The Germans noted this in their appraisal of Operation MERCURY. As they attempted to reinforce the battered Assault Regiment at Maleme they were unable to divert already airborne units headed for different areas and were forced to scrounge reinforcements from bumped parachutists to reinforce their scanty reserve. They noted the inflexibility of airborne operations at the time of execution, noting that such an operation is, "...as rapid in execution as it is time consuming in preparation."<sup>244</sup>

Similar difficulties were noted by the Rangers parachuting onto Point Salines. For the 2d Battalion in particular, the airfield change required a total change of plans. The entire Ranger force at Point Salines conducted their mission under fundamentally different conditions than those which were initially planned. As opposed to a night, precision airfield seizure, the Rangers executed a daylight airborne assault against an alerted enemy. In this situation, the Operations Officer of the 1st Battalion noted that the, "...templated planning process for the airfield seizure..." was a hindrance, and discarding it, "...helped in planning contingencies against METT-T (Mission, Enemy, Troops, Terrain and Time) considerations..."<sup>245</sup>

Two more examples of initial inflexibility of execution can be found in the two World War II Ranger cases. As noted

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JSOC), who verified Marines NVG qualifications for JTF 123 on 23 October 1983.

<sup>244</sup> Department of the Army, "Airborne Operations: A German Appraisal" in World War II German Military Studies (New York: Garland Publishing, Inc., 1979), pp. 41-42.

<sup>245</sup> Written comments from BG Maher interview.

earlier, the lead battalion commander of the infiltrating Rangers at Cisterna became aware of the density of German forces in the objective area early in the infiltration. He debated altering the plan by reducing the depth of the infiltration and attacking early to reduce the distance between the attacking main force and infiltrating Rangers. The detailed plan for the operation, however, made no allowance for this contingency. Unable to communicate with the Ranger force commander, he continued with the planned mission.<sup>246</sup> Similarly, the complexity of the Ranger operation at Point du Hoc necessitated the landing of a small force initially at the Point in the expectation that reinforcements would arrive on schedule. This permitted little or no room for flexibility. The bulk of the combat power available to the Ranger commander, as a result, was diverted to a slow, costly overland movement to the Point. This inflexibility resulted in heavy losses amongst the small assault force defending the Point.

These operations were all initially characterized by detailed planning, rapid execution, and corresponding inflexibility. Actions by commanders were therefore especially crucial in overcoming the frictions of war generated by the complex nature of the initial portion of the operation. Leaders at all levels developed contingencies to meet this challenge, demonstrating the robustness of SOF in these engagements. The issue of leadership and command in integrated operations will be revisited again once the role of SOF in integrated operations is more fully explored.

## **2. Conditions for Success**

Each of these integrated operations was characterized by several conditions which impacted on the success of the operation. While innumerable factors influence any complex

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<sup>246</sup> D'Este, pp. 163-4.

operation, only a few have been consistently identified as significantly impacting on the success or failure of these operations. It may be useful to look first to conventionally accepted conditions of success for unilateral special operations.

Unilateral special operations are the subject of more myth than serious study. This is partly a result of the secrecy which surrounds such operations, as well as the general unfamiliarity of the conventional military with the actual capabilities of the SOF assigned to these missions. Whatever the case, most of the scholarly studies of these operations focus on the crucial role played by intelligence and surprise in determining success.<sup>247</sup> One recent study proposed that special operations succeed in spite of being outnumbered and attacking fortified positions by employing the principles of speed, simplicity, surprise, security, purpose and repetition.<sup>248</sup> Without addressing unilateral special operations in detail, a task beyond the scope of this work, it is illuminating to consider how SOF in integrated operations achieve success in the "special" phase of these engagements.

#### **a. Numbers**

The best strategy is always to be very strong; first in general, and then at the decisive point. Apart from the effort needed to create military strength, which does not always emanate from the general, there is no higher and simpler law of strategy than that of keeping one's forces concentrated. No force should ever be detached from the main body unless the need is definite and urgent.<sup>249</sup>

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<sup>247</sup> Luttwak, et al., A Systematic Review of Special Operations.

<sup>248</sup> McRaven, The Theory of Special Operations.

<sup>249</sup> Clausewitz, p. 204.

One myth of special operations is that they attack outnumbered. A closer examination of forces involved in these cases indicates that, while SOF may reverse Clausewitz's dictum, they do so only by emphasizing "concentration of forces in space and their unification in time". The ultimate success of the Ranger operations at Point Salines and Torrijos-Tocumen were based on both overall and local numerical superiority. The enemy's ability to bring heavier firepower to bear in the short term and inflict disproportionate casualties represented the window of vulnerability the Rangers confronted on these operations.

At Point du Hoc and Eben Emael, the assaulting SOF sacrificed superiority in general to achieve superiority of numbers at the decisive point. On the fortress itself, the sappers took advantage of the Belgians' limited manning of the manpower intensive fortification, their lack of modern AA and surface defenses, and related lack of available infantry to counter the surface attack. While outnumbered in general, the Germans outnumbered the Belgian artillerymen at the decisive point, the few surface exits to the fort. Their bold actions against those few openings kept the Belgians pinned down inside the fort while, more critically, the scheduled strikes against the main entrance and reinforcing infantry prevented the Belgians from gaining a superiority of numbers over the lightly armed sappers on the fort's surface. Similarly, the Rangers at Point du Hoc rapidly scaled the cliffs and attacked across the objective to gain superiority of numbers at the decisive point over the shocked German defenders. The German's ability to pin down the forces on the Point and overrun forces later at the highway indicate an overall superiority of numbers and firepower in general. However, the Rangers likewise proved robust enough to maintain their critical positions until the arrival of GPF.

The actions at Cisterna and Maleme highlight the

potential disaster that can occur when SOF encounter numerically superior forces at the decisive point. In both cases, SOF suffered disproportionate casualties, at Cisterna virtual annihilation, and at Maleme very near so. While planners of both operations can be accused of motivated bias or wishful thinking, the results virtually eliminated these two elite units from further combat.

### **b. Surprise**

Surprise is always desired and yet seldom achieved and therefore should never be critical to success.<sup>250</sup>

Clausewitz, after commenting on the universal desire for numerical superiority, turns to a desire which he says is,

...no less universal: that to take the enemy by surprise. This desire is more or less basic to all operations, for without it superiority at the decisive point is hardly conceivable.<sup>251</sup>

In other words, everybody wants surprise. Neither SOF nor GPF have an exclusive claim to surprise, as we have seen. Surprise is multidimensional. It is often described in both strategic and tactical terms as well as spacial, temporal and moral terms. In reassessing the operations in these cases, surprise in no case was complete and, in certain cases, was simply nonexistent. The Belgian defenders of Eben Emael and the Albert Canal bridges were fully alerted prior to liftoff of the glider force and engaged the gliders with AA fire during their infiltration. At the same time, the German mode of infiltration, the speed of the attack, and their utilization of advanced weaponry gave them advantages of moral surprise the Belgians could not overcome, especially when

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<sup>250</sup> Maher interview.

<sup>251</sup> Clausewitz, p. 198.

coupled with excellent integration. At Maleme, by contrast, the New Zealanders were fully aware of German intentions and successfully repulsed the coup de main, inflicting almost debilitating casualties on I Bn. The robustness of the German plan is what established the conditions for its later success, not the element of surprise.

Rangers at Cisterna almost certainly possessed a tactical surprise of spacial and temporal dimensions in their infiltration. However, the Germans, fully aware of the balance of forces in the immediate area, possessed the moral advantage of being in a position of strength. At Point du Hoc, the Rangers gained spacial surprise by their route and method of attack. Each of these two examples, however, highlight the fleeting nature of surprise in integrated operations. It is often achieved at some level, but must be reinforced rapidly with augmentation and follow-on forces.

URGENT FURY and BLUE SPOON both suffered from a loss of surprise. At Point Salines surprise was lost in tactical terms and at Torrijos-Tocumen in strategic terms. The Rangers succeeded in both cases due to the limited strength of the opposition, the inability of the enemy to exploit information, and a reserve of infantry tactics. This allowed the Rangers at Point Salines to rapidly transition from a nighttime airfield seizure to a daylight airborne assault with little disruption. This again demonstrates a robustness of SOF in integrated operations not normally associated with more surgical SOF.

### **c. Time**

In all of the operations examined in this study there is a strong correlation between preparation time and mission success. Eben Emael, Point du Hoc, and BLUE SPOON were deliberate operations conducted with the benefit of an extended planning sequence. Cisterna and URGENT FURY were both planned in a week or less. Although the Germans had

slightly more time to plan Operation MERCURY, staging forces forward in the midst of redeployments for BARBAROSSA created an environment of hasty preparation.

The inherent complexity of integrated operations indicate that preparation is critical for operational success. Extensive mission preparation, especially detailed planning, extensive rehearsals and concentration of forces are necessary to conduct integrated operations with ease. In Crete, the Germans were ill-informed of the islands' garrison in spite of total air superiority. At Cisterna the Rangers were denied the opportunity for pre-attack reconnaissance. During URGENT FURY the Rangers failed to receive critical intelligence available to higher headquarters. In each case plans were developed with inaccurate information and the SOF component of the operation suffered accordingly. Standing forces, however, are less dependant on time possessing organic planning headquarters.

#### **d. Command**

Proper command and control of SOF in integrated operations certainly contributed to the overall success of each case was reviewed. While the cases examined here do not present strong enough evidence to determine the sufficiency of command alone, even the most rudimentary involvement of SOF planners, such as at Point du Hoc, contributed to success. Their total involvement during Eben Emael and BLUE SPOON were critical to the success of the mission. SOF planners fell victim to motivated bias at Crete and Cisterna, as well as having inadequate preparation time. Bureaucratically weak SOF often lack the ability to properly plan operations. URGENT FURY highlights the difficulty faced by SOF when working with GPF planners unfamiliar with their capabilities and ability to integrate.

Integrated operations place heavy demands on leadership. In all the cases examined leaders made crucial

acted to decisively to influence the outcome of the action. At Eben Emael, SGT Wenzel discovered that the 120mm guns were not knocked out and demolished them himself. Captain Gericke and Colonel Ramcke rallied remnants of the Assault Regiment at Maleme to seize and hold Hill 107. Both Ranger Battalion commanders were casualties leading their battalions at Cisterna and LTC Rudder personally accompanied the assault force up the cliffs at Point du Hoc. Ranger commanders led jumps in both Grenada and Panama. While overall centralized control of an integrated operation may be in the hands of a centralized, GPF command, SOF's critical role demands that leaders be up front to see the battle and make crucial decisions based on personal observation. Command, specifically specialized planning and personal leadership, seems to present a strong correlation for success and failure on these operations.

Thus three conditions necessary for the success of SOF in integrated operations have been identified, as well as one possible sufficient condition. SOF will always seek to exploit surprise, but can often succeed with less than total surprise by developing robust plans. Achieving numerical superiority at the decisive point can be achieved, often at the expense of overall superiority. However, often, it must be augmented and sustained by rapid integration of follow-on forces. Finally, deliberate operations stand a greater chance of allowing SOF to exploit unique capabilities. Contingency operations, conducted in haste, are more apt to expose SOF to defeat in detail or excessive casualties. A mature and experienced SOF command, however, insures that SOF will be assigned to tasks commensurate with its capabilities, vastly increasing the chances of success in integrated operations.

### **3. SOF in Integrated Operations**

The cases examined highlight the crucial role SOF plays in integrated operations. In contrast to unilateral special operations, which are performed independent of conventional operations, integrated operations employ SOF to seize an initial advantage crucial to the successful introduction of GPF. There are, however, two distinct engagements to be fought, one "special" and the other "conventional" in nature, as well as two opportunities to lose superiority, and possibly the battle. These engagements are often separated by a *period of transition*, never scheduled, but recognizable to the experienced planner. This period potentially holds the greatest dangers for the operation and a corresponding window of vulnerability for SOF. In one manner of speaking, integrated operations are multilateral events, with sequentially scheduled tasks for complementary assets and interdependent conditions for success.

Integrated operations initially resemble a special operation rather than a conventional one. Success or failure in the initial phase can determine the nature of the remainder of the operation. In two instances, the special units employed failed to gain initial success outright. At Maleme airfield, the I Bn under Major Koch, as well as the glider detachment under the Regimental Ia, were decisively defeated in their bid to stage a coup de main on the airfield. This is not to suggest that portions of their operation did not succeed. Lieutenant Plessen's detachment successfully eliminated the AA guarding the river mouth and Major Braun's detachment successfully seized the bridge. However, both detachments were repulsed in their efforts to seize the key terrain overlooking the airfield and Major Koch's detachment was driven from the hill with terrific casualties by the New Zealand defenders. Their slim foothold on the bridge allowed the two parachute battalions dropped west of the river to move in force against the hill in a concentric attack, an attack

that was conventional in nature and repulsed initially by the New Zealanders. Only the perseverance of the remnants of the attackers and a series of incredibly poor decisions by the New Zealand command put this terrain in the hands of the exhausted Assault Regiment.<sup>252</sup>

In a similar vein, at Cisterna the initial failure of the two infiltrating Ranger battalions placed them in a precarious position behind German lines and jeopardized the 3rd Division's main attack. Although they were able to partially infiltrate to their objective area, they were unable to seize Cisterna and subsequently forced into an unequal contest with alerted German forces. Like the Assault Regiment at Maleme, the Rangers initial supporting effort, in the form of 4th Battalion reinforced with tank destroyers and the cannon company, could not generate the combat power needed to overcome German resistance in their conventional assault along the Isola Bella road. Unfortunately for the trapped Rangers, and in contrast to the New Zealand command at Crete, the German command recognized their position of positional superiority over the cut off battalions and exploited it. These two cases identify SOF's crucial role in integrated operations. Failure in the initial phase places the entire operation in jeopardy, potentially resulting in the destruction of highly trained SOF and placing GPF in an almost

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<sup>252</sup> See Stewart, pp. 246-7 for comments by CPT Gericke on the Assault Regiment's ability to seize and hold Hill 107 during that first critical night. As noted in his work, the Germans did not occupy the critical hill until at least three New Zealand units had occupied and evacuated it. MacDonald, in his work asserts that the only contact they made in occupying the hill was among the two advancing groups, one, in fact, led by a doctor. See MacDonald, p. 202 for Gericke's comment that his tired forces on Hill 107, "...would not have been able to withstand an energetic counter-attack in battalion strength." In fact, it took them until at least 1600 that day to clear the airfield, which the New Zealanders had already evacuated.

insurmountable position of inferiority.

Two of the cases examined feature the proper use of SOF to gain an initial advantage within their capability and lead to an almost near perfect integration of forces, albeit under significant frictions of war. The German operation at Eben Emael and the Albert Canal bridges was a sequential employment of special units in tasks critical to the advance of GPF. Conventional wisdom aside, the initial seizure of the bridges was the key activity and experienced success on two out of the three objectives. The ability of the German Air Force to knock out the northern CP controlling the two northern bridges, gave the Concrete and Steel detachments the necessary window of confusion to exploit. The blowing of the southern bridge at Canne somewhat diminished the neutralization of Eben Emael, since it was the only bridge that the fortress effectively covered. However, the Germans, effectively tasking Granite force with a task suited to their means, only intended for the sappers to neutralize the north firing artillery of the fort. It was the job of the special task force comprised of IR 151 and Engineer Battalion 51 to reduce the fortress, an operation which was, interestingly enough, planned without the assistance of the Granite force. Early linkup at the northern bridges insured that Koch's men were exposed to Belgian counterattacks for a minimum period of time, while Witzig's men were vulnerable until finally relieved in the early morning hours of D+1. It is also interesting to note that the Germans placed their most important units on the northern two routes, specifically 4th Panzer Division, the spearhead of Hoepner's Corps and the 6th Army, while the relief of the Iron and Granite detachments was left to a special task force. The Germans recognized the importance of the two northern bridges to their advance and the only tertiary importance of the fortress as a possible impediment.

Similarly, the airfield seizure of Torrijos-Tocumen allowed the U.S. to rapidly introduce forces into Panama, and specifically, the Panama City area. Opening another major airhead to support the overtaxed and relatively vulnerable Howard AFB allowed the JTF to not only introduce but also transload and assault into different parts of the region. Rapid introduction of follow-on forces ensured that the SOF employed to seize the critical node would be exposed to a minimum window of vulnerability. Therefore, the two most successful cases examined are highlighted by SOF accomplishing critical tasks appropriate to their capability and the rapid introduction of GPF to both exploit the advantages gained by SOF and to reduce their window of vulnerability.

Two of the cases, however, are not as clear and reveal how problems in one phase contribute to the outcome of the operation and affect SOF. In URGENT FURY the initial mission was delayed and compromised, resulting in SOF conducting a daylight parachute assault against an alerted enemy. The insertion delay virtually guaranteed a slow buildup of forces and SOF's inability to accomplish all D-day tasks. This slow buildup also insured that the Rangers would find themselves under control of GPF following D-day. On the other hand, the Rangers at Point du Hoc experienced almost complete success in the initial phase of their operation. However, late arrival of relieving GPF heightened their vulnerability. The bulk of the Ranger casualties did not occur in scaling the Point or even finding the guns, as conventional wisdom would lead one to believe. Rather, the Rangers suffered their heaviest casualties in defending an overextended perimeter with inadequate resources. Therefore, these two integrated operations reflect the interdependency of SOF and GPF. Initial success is no guarantee of final success. Problems, in these cases delays, on both the front and back end of the operation create difficulties for SOF and widen their window

of vulnerability.

Integrated operations are multilateral events, employing both SOF and GPF in complementary roles. The sequential employment of forces allows SOF to gain a critical advantage to be exploited by rapid introduction of GPF. Integrated operations are, in effect, two distinct engagements with a potential window of vulnerability for SOF in the crucial transition between the two distinct engagements. It is this transition that challenges the integration of forces, specifically measured in terms of training and organization. The SOF role in integrated operations is crucial and, recognizing the nature of such operations, can often be much more robust than normally assumed.

## **B. ORGANIZATION THEORY**

Each of the three case studies examined a SOF organization which conducted multiple integrated operations. These organization varied widely both in their degree of institutionalization and functional specialization. Each organization will now be compared in terms of these two variables and the degree to which each affected that organization's ability to conduct integrated operations.

### **1. Institutionalization**

The German Parachute Corps were, in fact, an autonomous organization almost exclusively devoted to integrated operations. They were highly institutionalized, possessing their own training, administration and semi-autonomous headquarters. Problems of integration were evident at Eben Emael, more at the fortress than at the bridges. The relieving task force conducted a deliberate, conventional attack to reduce the fortress, instead of fully exploiting the gains made by the SOF. During Operation MERCURY, problems with integration across service lines hampered XI Air Corps in their attempts to employ a viable seaborne echelon. The

initial repulse at Maleme, as well as failures across the island, led higher commanders to effectively remove Student from control of the battle, replacing him with Ringel, a GPF commander.

The World War II Rangers, by contrast, were poorly institutionalized. Attempts to create headquarters, a training base, and rudimentary administrative functions resulted in ad-hoc arrangements. Operational control of these forces remained firmly in the hands of GPF commanders. Although they proved to be the SOF of choice for integrated operations, proper employment was based on individual commander proclivities rather than the Rangers' organizational culture. They suffered from frequent misuse accordingly, with only rudimentary involvement of special planners (COHQ) at Point du Hoc.

The modern Rangers are much more institutionalized than their World War II predecessors. They are centrally controlled by a special headquarters, although they received a great deal of administrative and logistical support from GPF. Among SOF, however, they have become the defacto "connectivity" force for integration with GPF. They are still, however, somewhat "fenced" from GPF for most contingencies.

## **2. Functional Specialization**

The German Parachute Corps was a highly specialized organization and its assault units examined here represent the highest degree of specialization within the organization. While there were units of greater relative specialization than these (particularly the Brandenburg units), they were far more specialized than their allied counterparts. When faced with conventional combat at Maleme airfield, their high degree of specialization caused them problems integrating forces. These experiences led the Germans to conclude that their airborne forces had become overly specialized. German after action

reports stressed a need to focus on the ground combat aspects of airborne operations, rather than the means of infiltration.

The World War II Rangers were the least specialized of the organizations examined. Although initially developed for unilateral "commando" operations, they soon became experts in night infiltration and amphibious spearheading, capitalizing on infantry skills. They worked closely with GPF and experienced correspondingly high levels of integration, as well as misuse. Throughout the period examined, the Rangers adapted to the changing needs of GPF commanders and enhanced their skill base to support their most likely missions.

The modern Rangers rival the Germans in their level of specialization, although they have a firm infantry foundation. This foundation proved to be the key to integration during URGENT FURY. Within the SOF community, however, the Rangers are seen as the connectivity force with GPF, because of their relatively low specialization in special operations. Thus Rangers can expect to be continued to be called on for integrated operations.

### **3. Findings**

The implications from this analysis are complex. No single organization perfected integrated operations within the period examined. However, several lessons are clear. The German example highlights the need for a special headquarters to control the training, selection and administration of SOF dedicated to integrated operations. The German Parachute Corps established a reputation virtually unmatched in the war for combat effectiveness, sustained far after the period examined in this study. They pioneered modern airborne operations, employing innovative tactics and techniques and setting the stage for the massive allied airborne operations later in the war. An autonomous headquarters played a great part in both enhancing combat effectiveness and developing innovative doctrine.

The World War II Ranger experience highlights the dangers of placing SOF under the operational control of GPF commanders without a corresponding special headquarters to assist in planning, training and administrative requirements. The high degree of integration experience by the Rangers was offset by their frequent misuse. Additionally, combat effectiveness was affected by their organizational immaturity which proved unable to provide sufficiently trained replacements.

The modern Rangers have their own specialized headquarters and receive extensive training and administrative support from within the SOF organization. GPF commanders, however, still remain ill-advised on SOF capabilities and limitations. The high degree of integration on BLUE SPOON was in part due to extremely lengthy preparation time and personal relationships of key SOF and GPF commanders. Neither of these conditions is presently accounted for in the present organization. Many of the problems of URGENT FURY, especially with reference to integration across GPF and service lines are still being struggled with today.

#### **4. Recommendations**

There are several alternatives to reorganizing SOF to meet the challenges of integrated operations. One alternative is, of course, to retain the organization that was proven on BLUE SPOON. This clearly represents the most advanced organization to date and has fostered the development of an unmatched standing SOF. However, the unique situation of the Panama crisis certainly represents the lesser, rather than a greater, challenge. Thus it is useful to consider the other cases for more difficult challenges.

One alternative which would increase the level of cooperation between SOF and GPF would be to reduce the size of SOF and assign the bulk of SOF directly to the GPF. Special mission units (SMU) would be retained under the direct control of a SOF specific headquarters while "white" SOF, particularly

those currently used for integrated operations, would be under the control of GPF commanders. Proficiency of the SMU's would undoubtedly increase, as they would possess a command solely dedicated to their training, administration and control. This realignment closely resembles the WWII Ranger example and would undoubtedly foster integration, but would expose these SOF to many of the same problems of misuse as faced by their WWII counterparts.

A second alternative would see the creation of two organizational divisions within SOF. More surgical SOF would be controlled by a SOF-specific headquarters, while "white" SOF would be under SOF-specific control for training and administration. Within the SOF community, there would be two vertical divisions, between surgical SOF and "white" SOF. Select GPF commanders would then exercise operational control (OPCON) of SOF for integrated operations.

Many of the necessary command and control arrangements for this alternative have already been implemented. Under USSOCOM direction, theater commanders have Special Operations Commands (SOC) and even Corps level Special Operation Command and Control Element (SOCCE) giving them a rudimentary ability to assist GPF commanders in the planning and execution of both unilateral special operations as well as integrated operations. These arrangements, as well as the frequent deployment of JSOTF's, increase the ability of commanders to integrate forces.

One method of controlling SOF for integrated operations may be through a proposed Special Operations Group (SOG). This combination of Special Forces and Ranger assets would be directly under the operational control of a theater CINC and provide SOF unit to meet his requirements.<sup>253</sup> One problem with this proposal is that it places SOF devoted to indirect

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<sup>253</sup> Harned, p. 149.

action and others devoted to direct action under a headquarters which presently conducts indirect action almost exclusively. However, as a concept for command and control of forces for integrated operations, it warrants further study.

Another method currently being tested is the AJFP initiative. While increasing integration between SOF and GPF across service lines, AJFP commits SOF assets to forward basing and limits employment of these assets elsewhere once shipboard. AJFP also places SOF in an ad-hoc task organization, which lacks the institutional longevity of the proposed SOG and entails recreating SOF task forces (JSOTF) for the work up of each deploying Carrier Task Group.

While the focus of this study has been on SOF, any reorganization of SOF assets must be accompanied by commensurate adjustments within the GPF. The Germans at Crete fell victim to "wishful thinking" and felt their special units could conquer the island alone. Today it is recognized that SOF and GPF will be involved increasingly in cooperative operations. Anticipating the needs for SOF in future integrated operations is difficult, but not without precedent.

Bold enterprises, such as the landing of airborne sappers on the strategic fortress of Eben Emael and at the Albert Canal bridges-achieved a temporary paralysis of the enemy, but required swift advance by the Army as reinforcement. The lightly armed airborne units were themselves too weak to follow up their initial success.<sup>254</sup>

Whatever form the closer relationship between SOF and GPF takes, it must be followed by some modifications to GPF organization. Cooperation, when it occurs between SOF and GPF, is almost exclusively limited to "light" forces. Although these are the forces which are currently the most likely to cooperate with SOF in integrated operations, as the

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<sup>254</sup> Bekker, p. 142.

cases in this study show, rapid follow-on of heavier forces is often a requirement for success. In order to forestall the "upgunning" of SOF assigned to integrated operations, as happened with Darby's Rangers, heavier forces, such as light armor units, should be closely integrated with SOF.

### **C. CONCLUSIONS**

Integrated operations are an arena that exists between the more commonly accepted paradigms of conventional and special operations. Integrated operations are multilateral operations by dissimilar forces which conduct differing engagements. SOF in integrated operations, unlike those in unilateral special operations, conduct their initial missions under restrictions driven by the preponderant follow-on role of GPF. Additionally, while these operations are initially rapid and inflexible, as the operation evolves, they demand robust command functions to adapt to a changing combat environment.

SOF's role in integrated operations are crucial. Their objective is to win the front end of the battle, facilitating the rapid entry of follow-on forces. A defeat for SOF initially can put GPF in a position of subsequent inferiority that they will often be ill-positioned to overcome. Similarly, actions delaying the introduction of follow-on forces widen the window of vulnerability for SOF and can cause initial success to be squandered.

SOF succeeds in integrated operations when they achieve superiority in numbers at the decisive point. Although some form of surprise is always desired, a robust plan can overcome disadvantages lost surprise dissipates. Sufficient time, particularly in preparation, is necessary to turn accurate intelligence into detailed planning and extensive rehearsals. Extensive preparation, of course, is no guarantee of success. A strong correlation, however, exists between the time

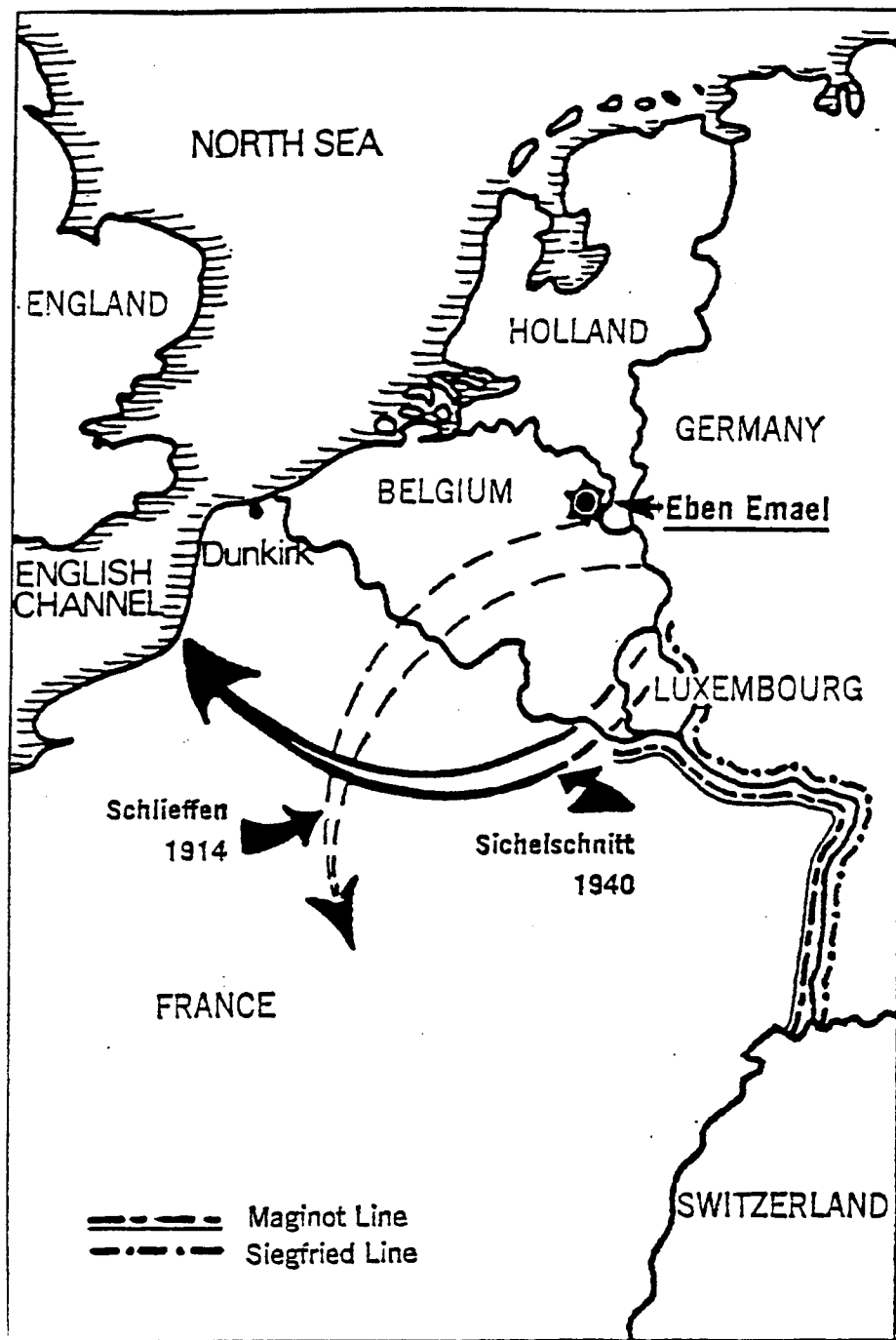
available for preparation and mission success. Finally, commanders at all levels are crucial in determining the proper utilization of SOF. Although no one factor is sufficient for success, the role of commanders in assessing the capabilities and limitations of SOF and their assigned missions is critical.

Finally, SOF varied greatly throughout these cases in their level of institutionalization and functional specialization. The ability to integrate operations is often hampered by organizational barriers between forces involved in operations. Autonomous organizations, with correspondingly high levels of institutionalization, had great difficulty integrating their operations. Bureaucratic growth led to the development of a motivated bias towards mission assessment. This led, in part, to the pursuit of missions unsuited for their unique capability alone. Bureaucratically immature and weak organizations experienced high degrees of integration, but suffered from inconsistent utilization. This misuse often resulted in SOF capability being diminished gradually through inappropriate mission taskings. In its other form, omission, SOF simply were often not employed in ways that capitalized on their abilities, and opportunities were wasted. From the standpoint of functional specialization, less specialized SOF were better able to integrate than more specialized, surgical SOF. Thus organization theory supported the current organization of SOF and GPF, with a few recommendations.

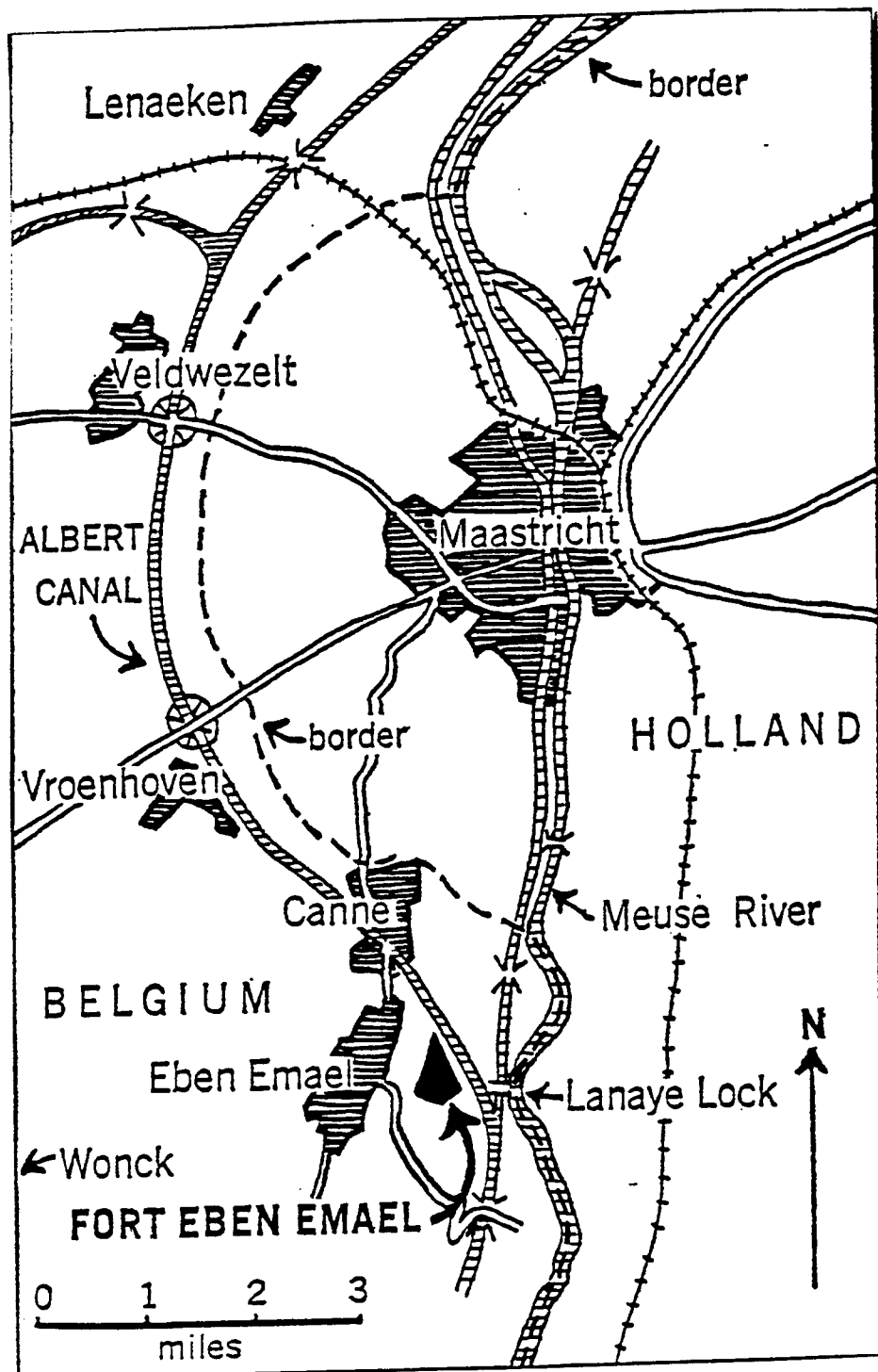
This study shows that a higher level of integration would be achieved if barriers between select SOF and GPF were reduced. The SOF command should maintain training and administrative control over select SOF and provide GPF commanders with command and control assets to properly employ them as the need arises. Other, more surgical SOF should be retained under the sole control of a SOF-specific headquarters. GPF commanders would then have greater

effective operational control over SOF, heightening their ability to integrate forces.

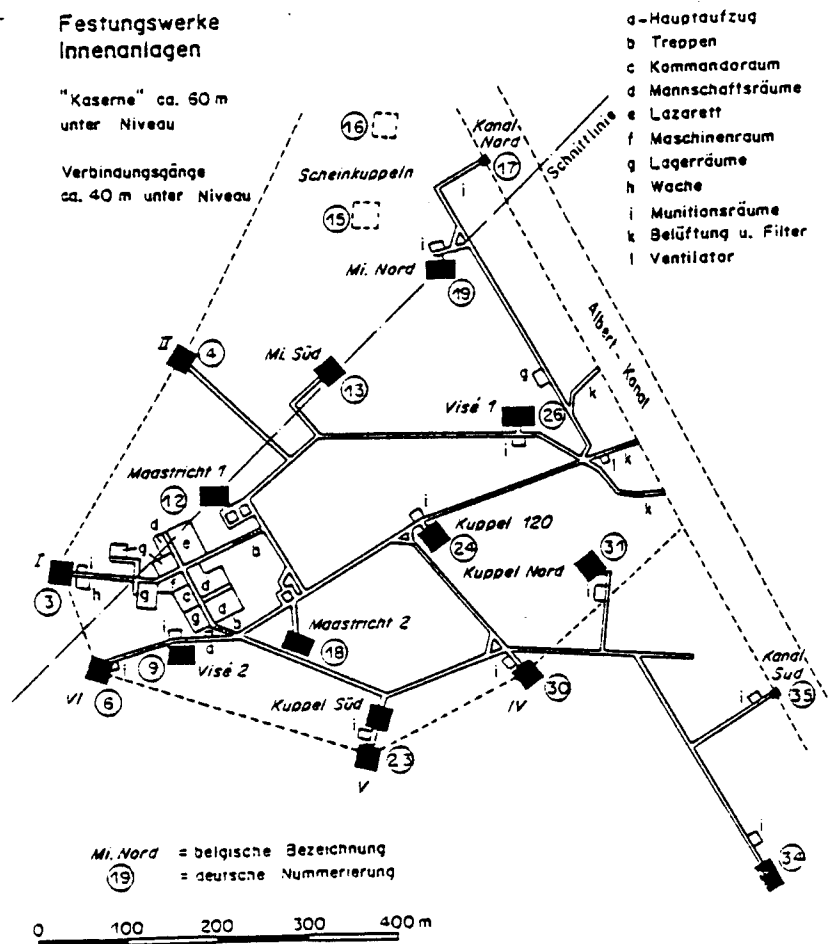
APPENDIX. MAPS, PHOTOGRAPHS AND DIAGRAMS



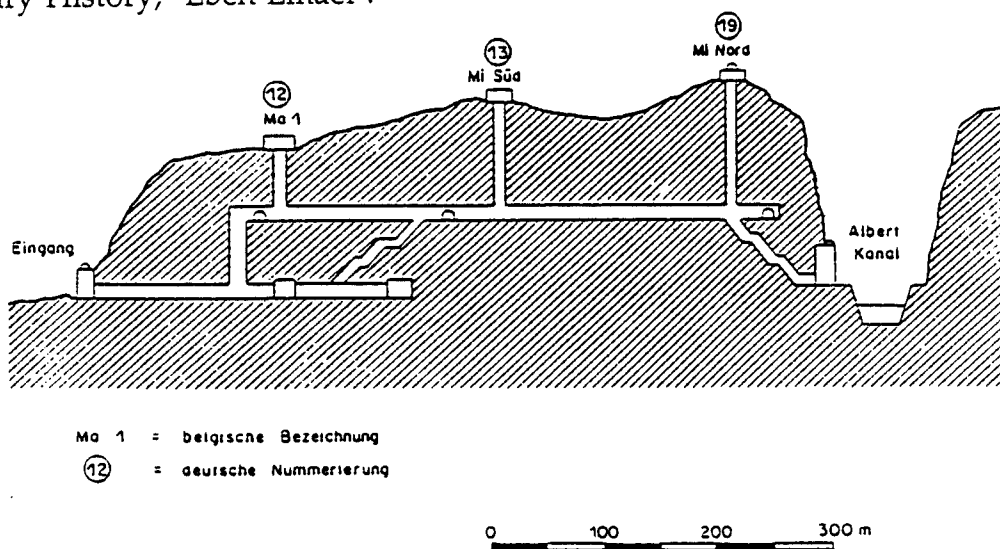
Map 1. The strategic importance of Eben Emael. From Mrazek, The Fall of Eben Emael.



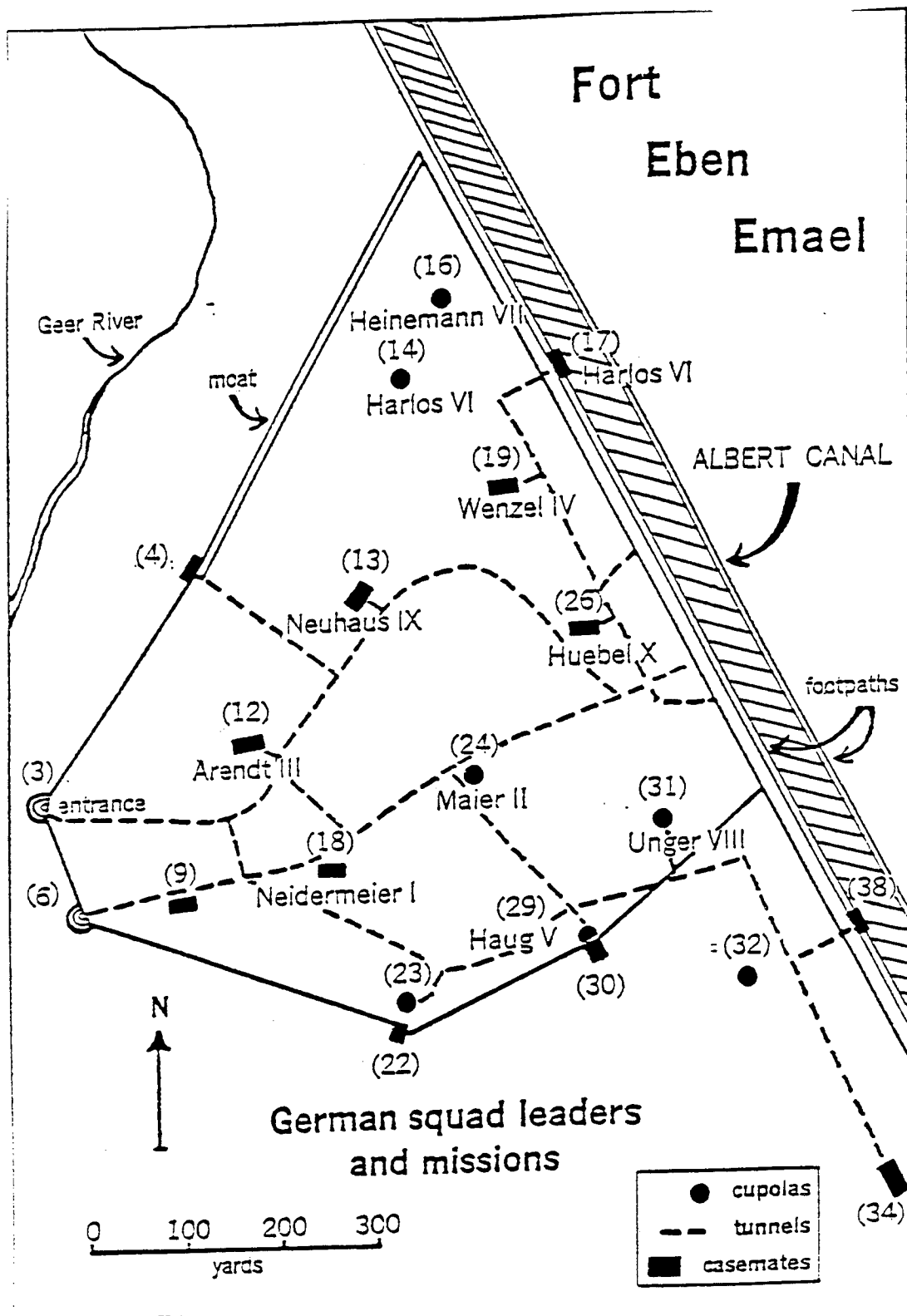
Map 2. The location of Fort Eben Emael. From Mrazek.



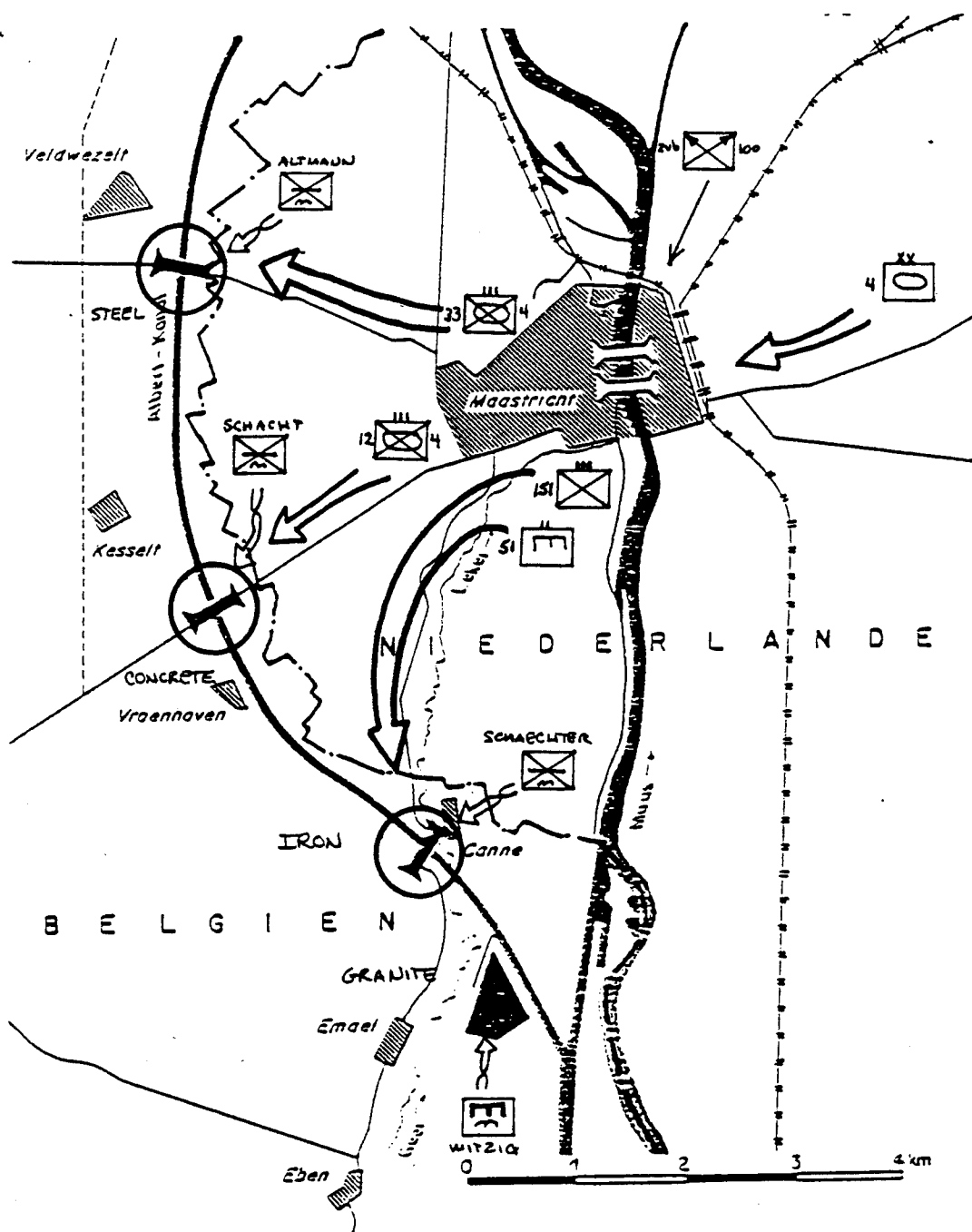
Map 3. German map of fortress. Dummy positions are indicated by hatched lines. "Kuppel 120" indicates revolving 120mm guns in position 24. From Center for Military History, "Eben Emael".



Map 4. German schematic of fortress. From Center for Military History.



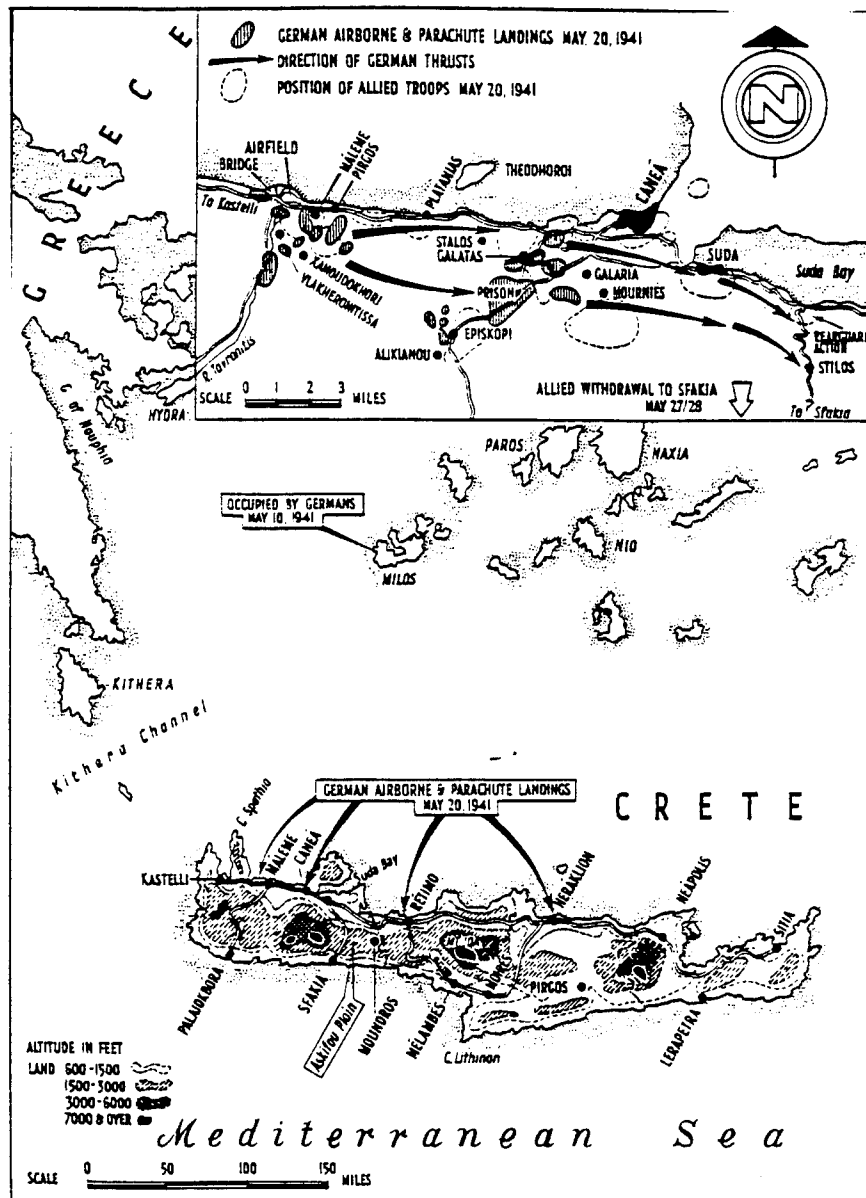
Map 5. German squad leaders and missions. From Mrazek.



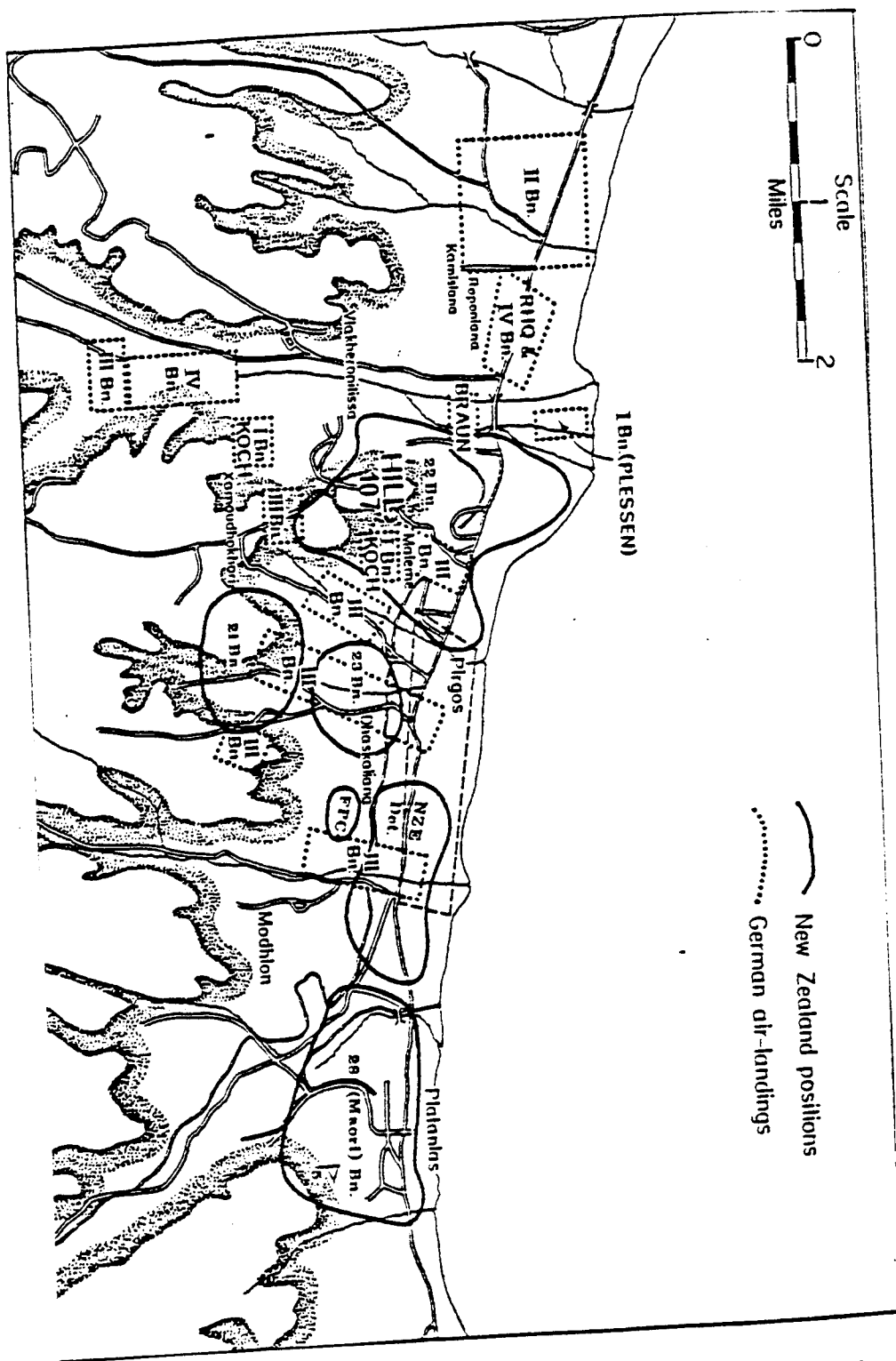
Kamofraum Eben-Emael und Albert-Kanal-Brücken

Map 6. Unit assignments for assault and relief operations. After Center for Military History.

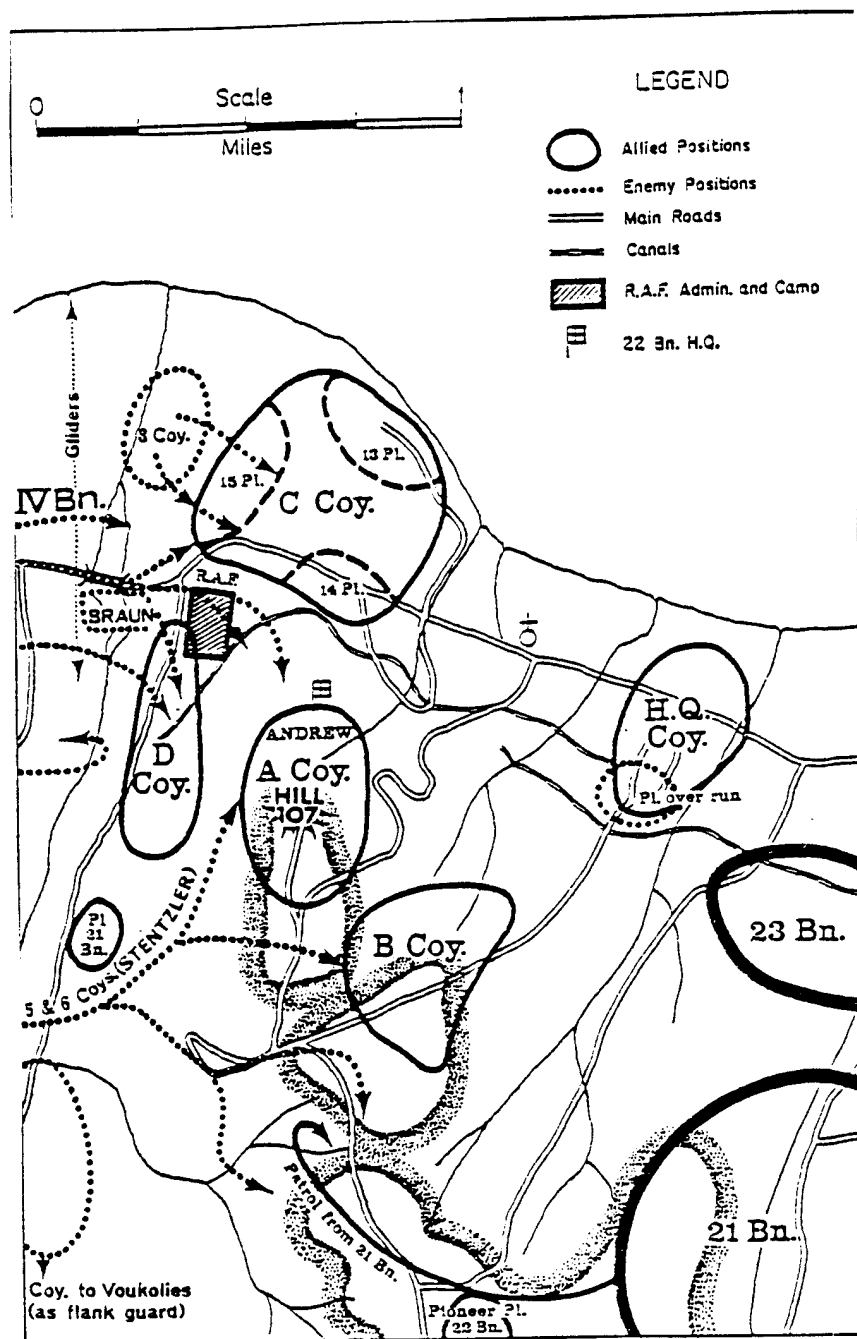




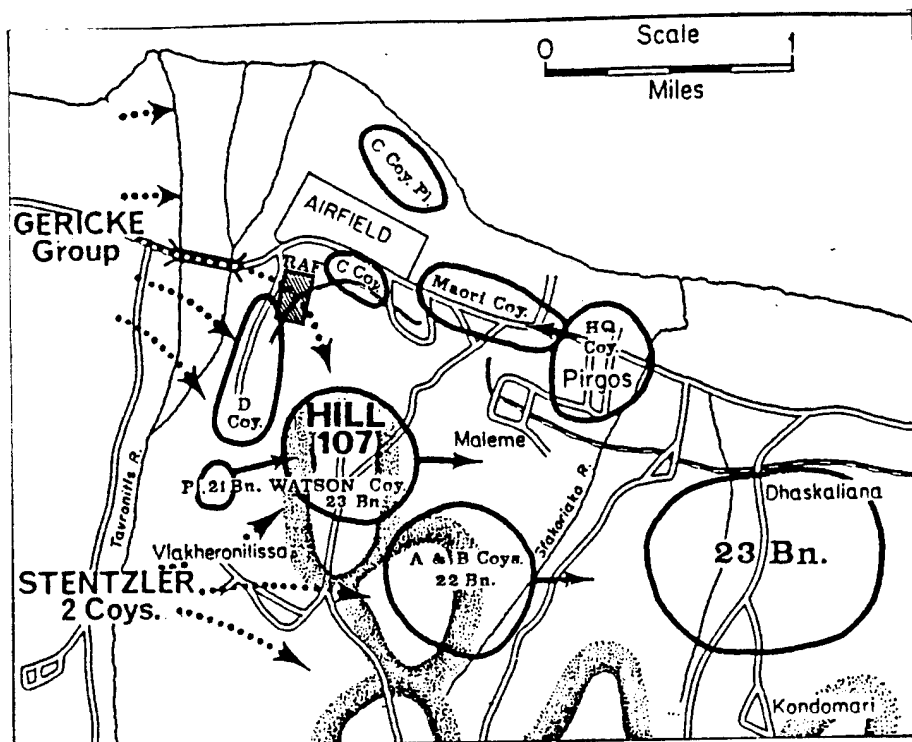
Map 8. Operation MERCURY. From Volkmar Kuhn, German Paratroopers in World War II.



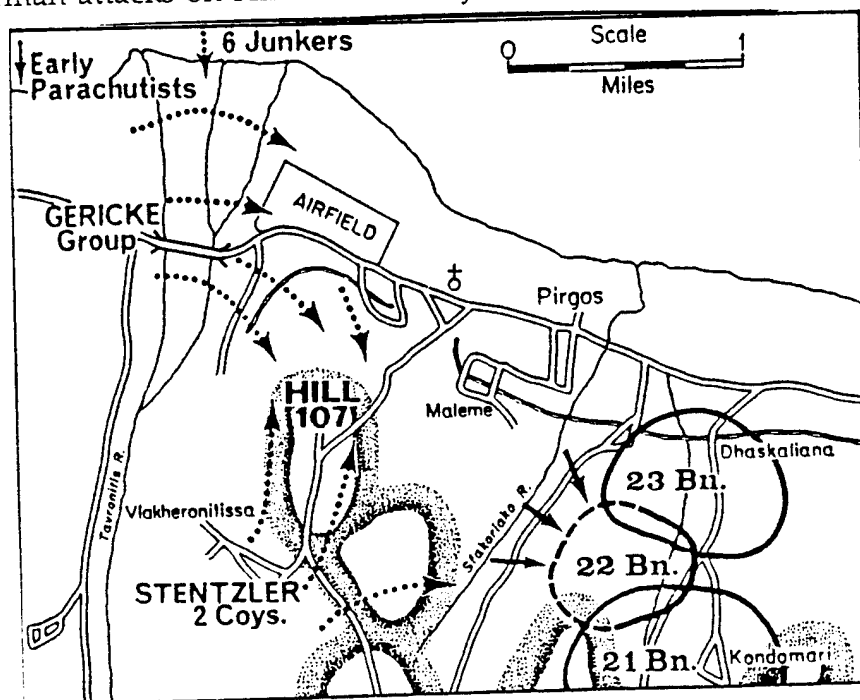
Map 9. German landings and New Zealand defenses at Maleme: 20 May. From Ian Stewart, The Struggle for Crete.



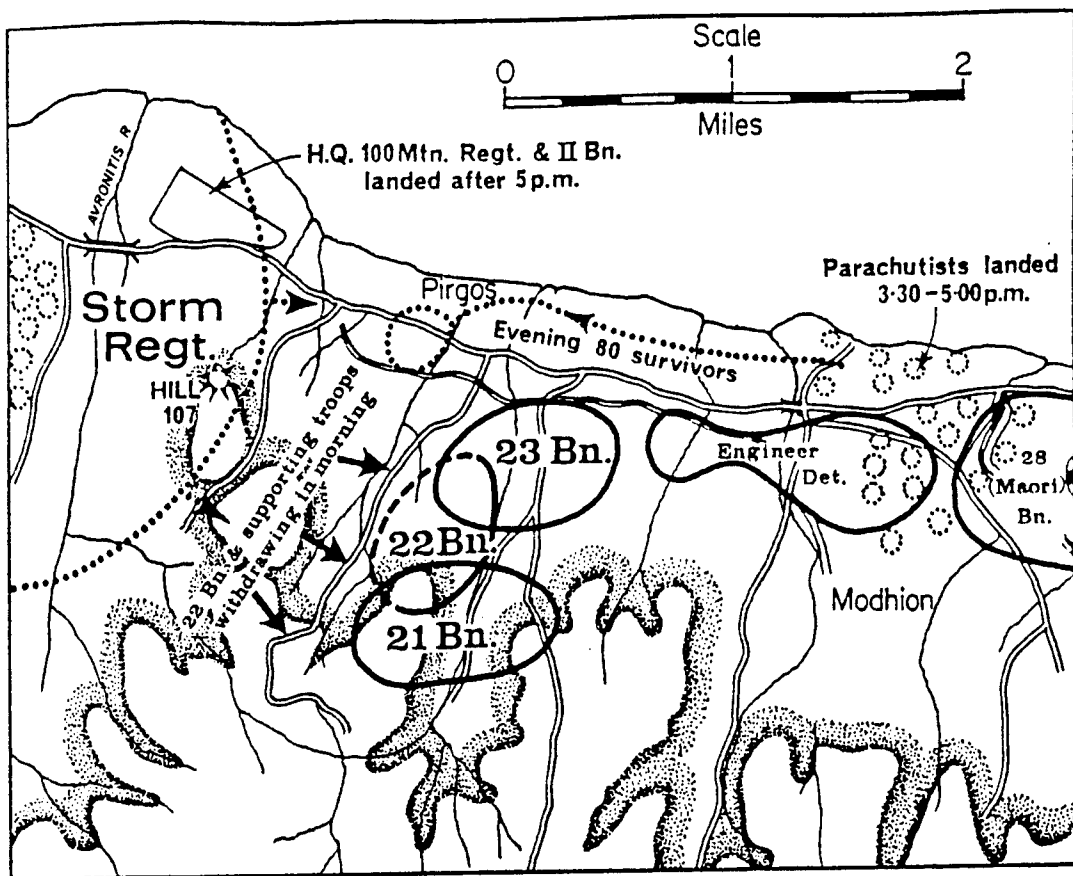
Map 10. Initial landings and attacks of Assault Regiment, 20 May. From Stewart.



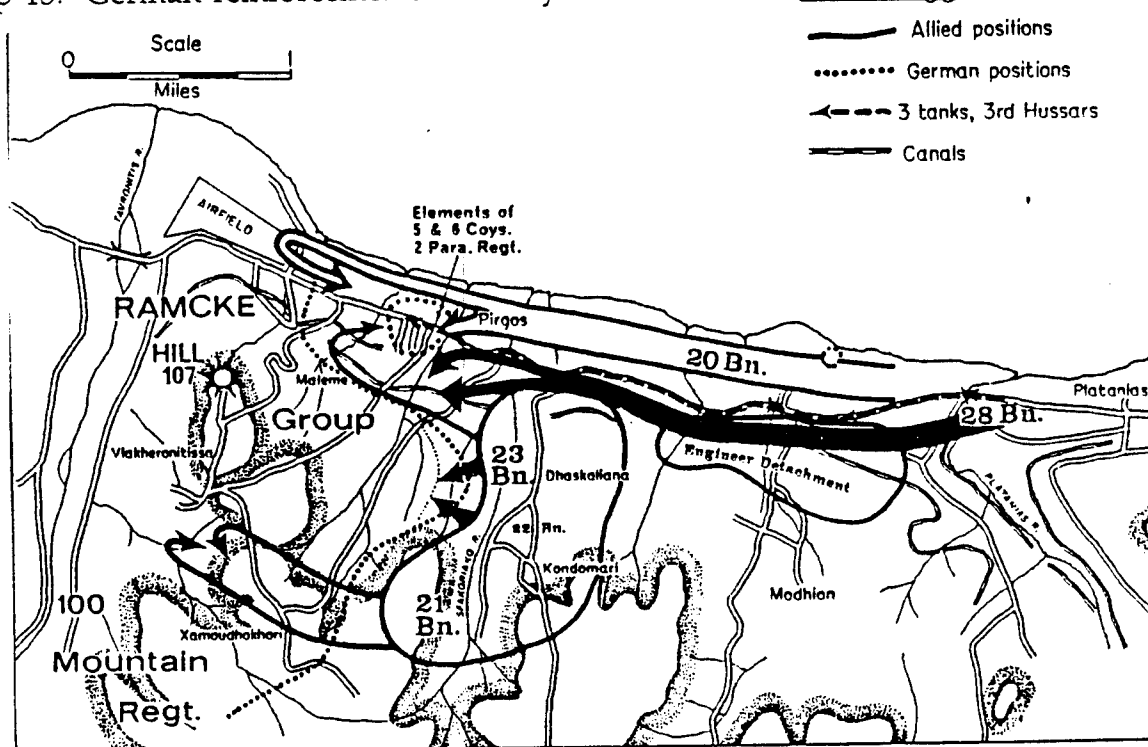
Map 11. German attacks on Hill 107: 20 May. From Stewart.



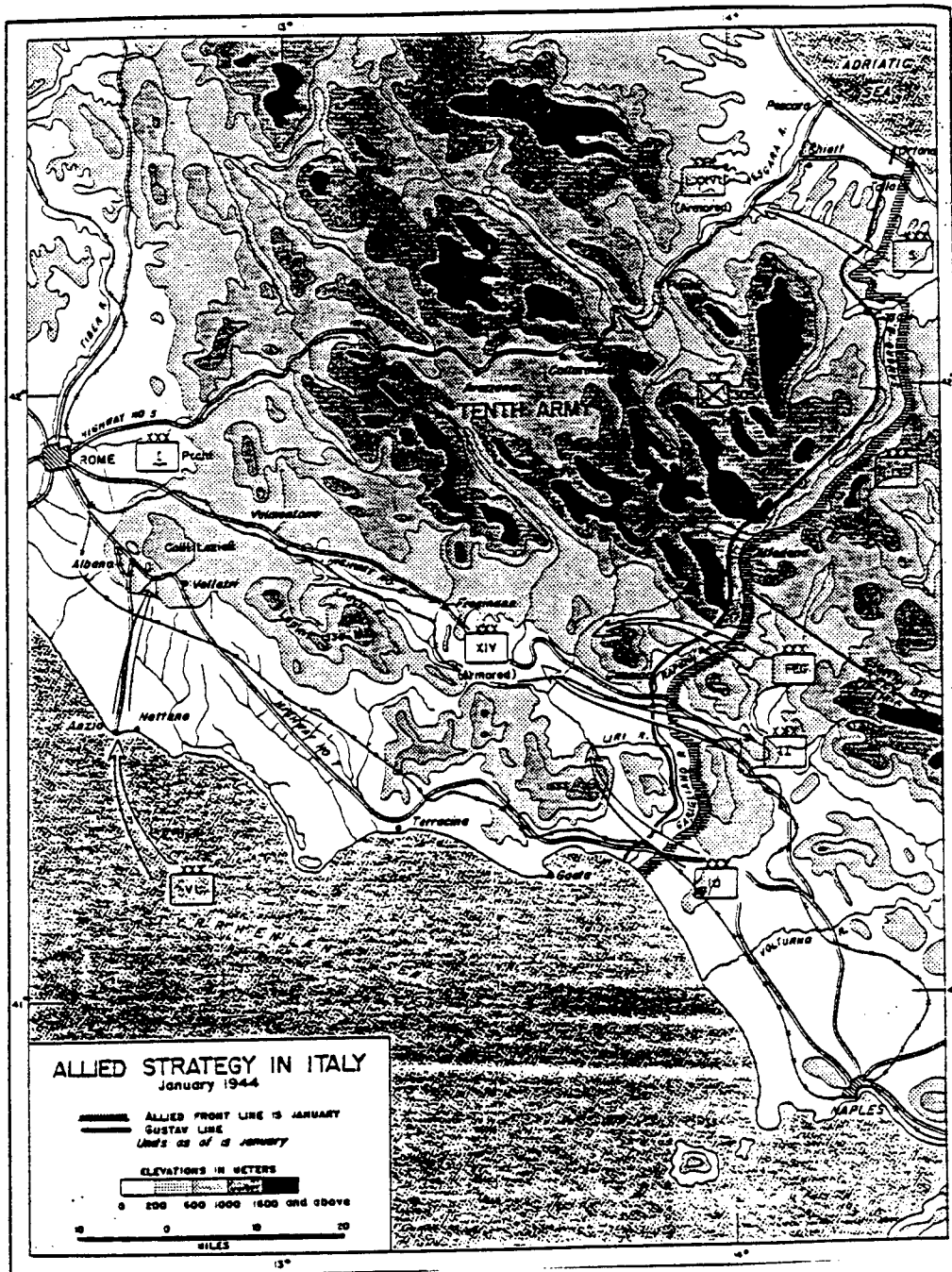
Map 12. The Germans occupy Hill 107: 0800, 21 May. From Stewart.



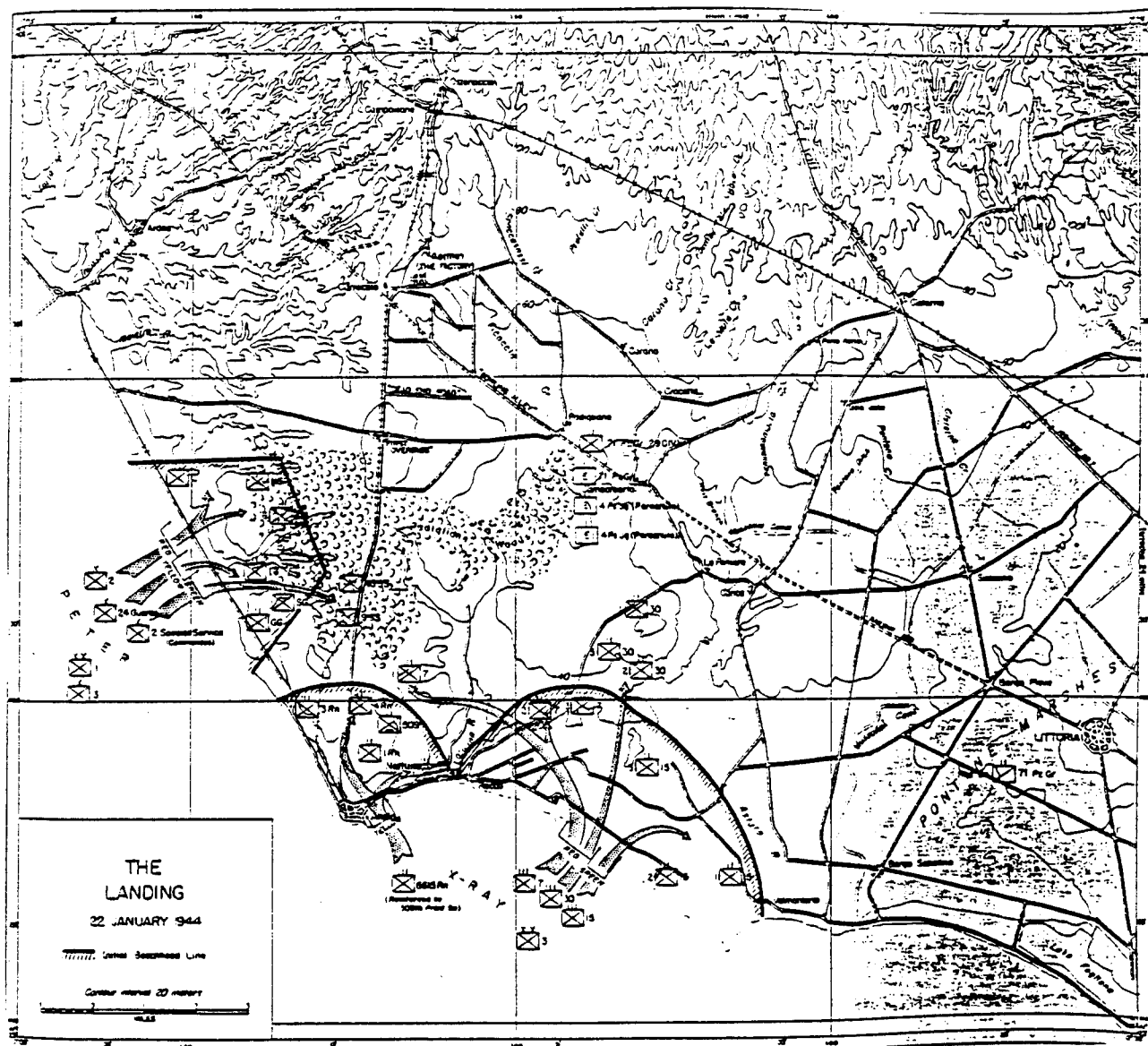
Map 13. German reinforcements: 21 May. From Stewart, *The Struggle for Crete*.



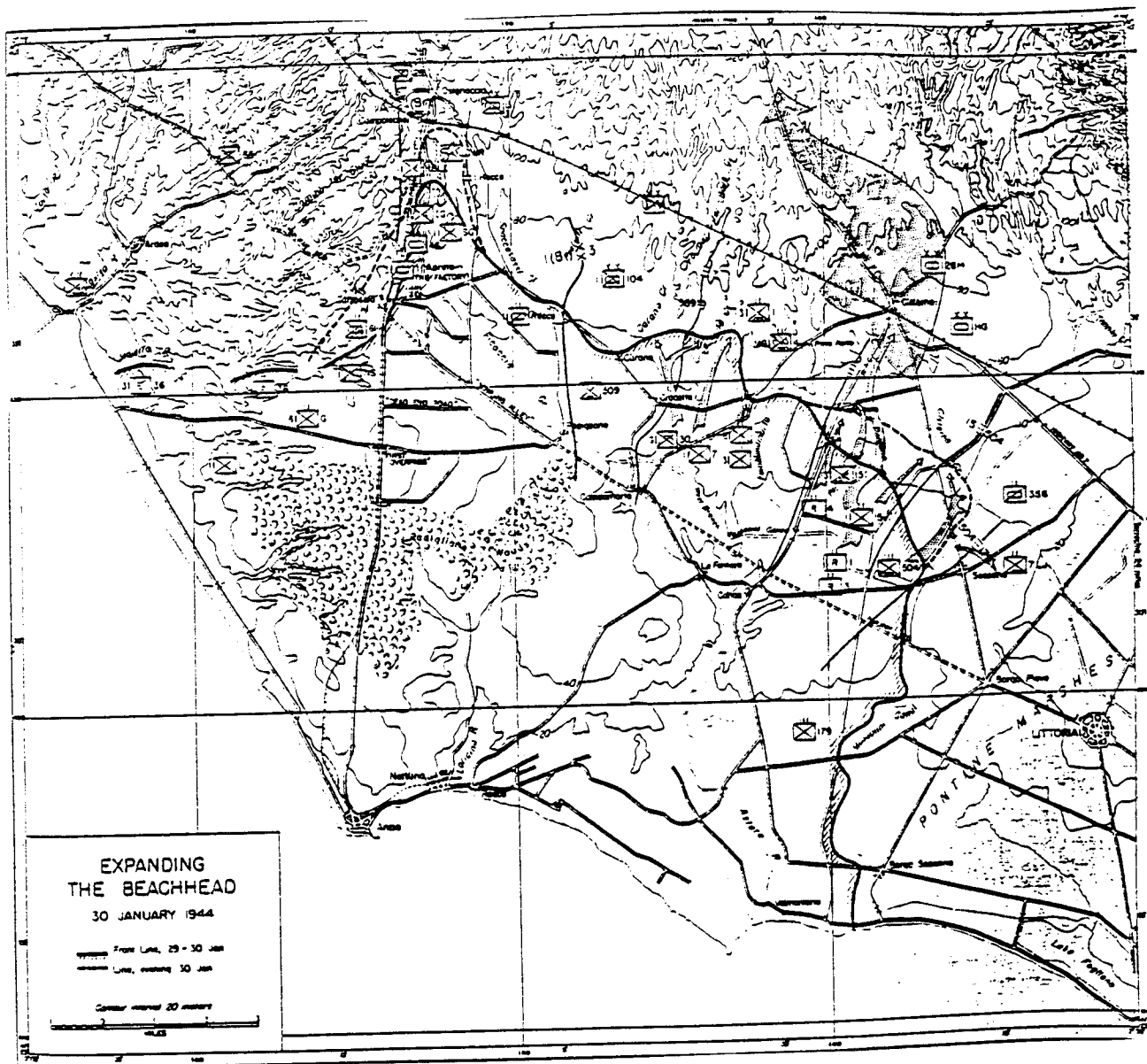
Map 14. New Zealand counterattacks: 21-22 May. From Stewart.



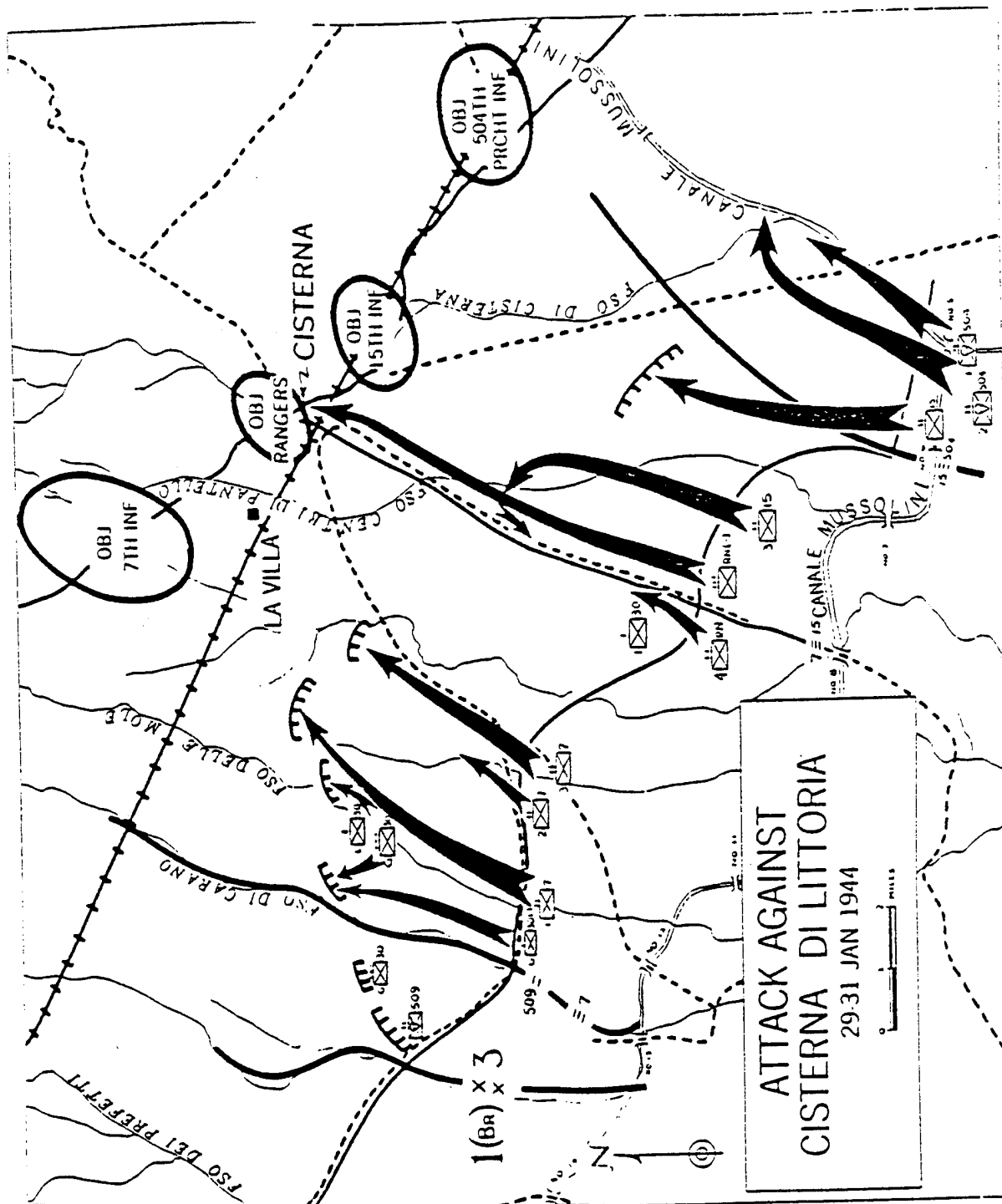
Map 15. Allied strategy for landing of VI Corps at Anzio: January 1944. From War Department, Anzio (Washington: Center of Military History, 1984).



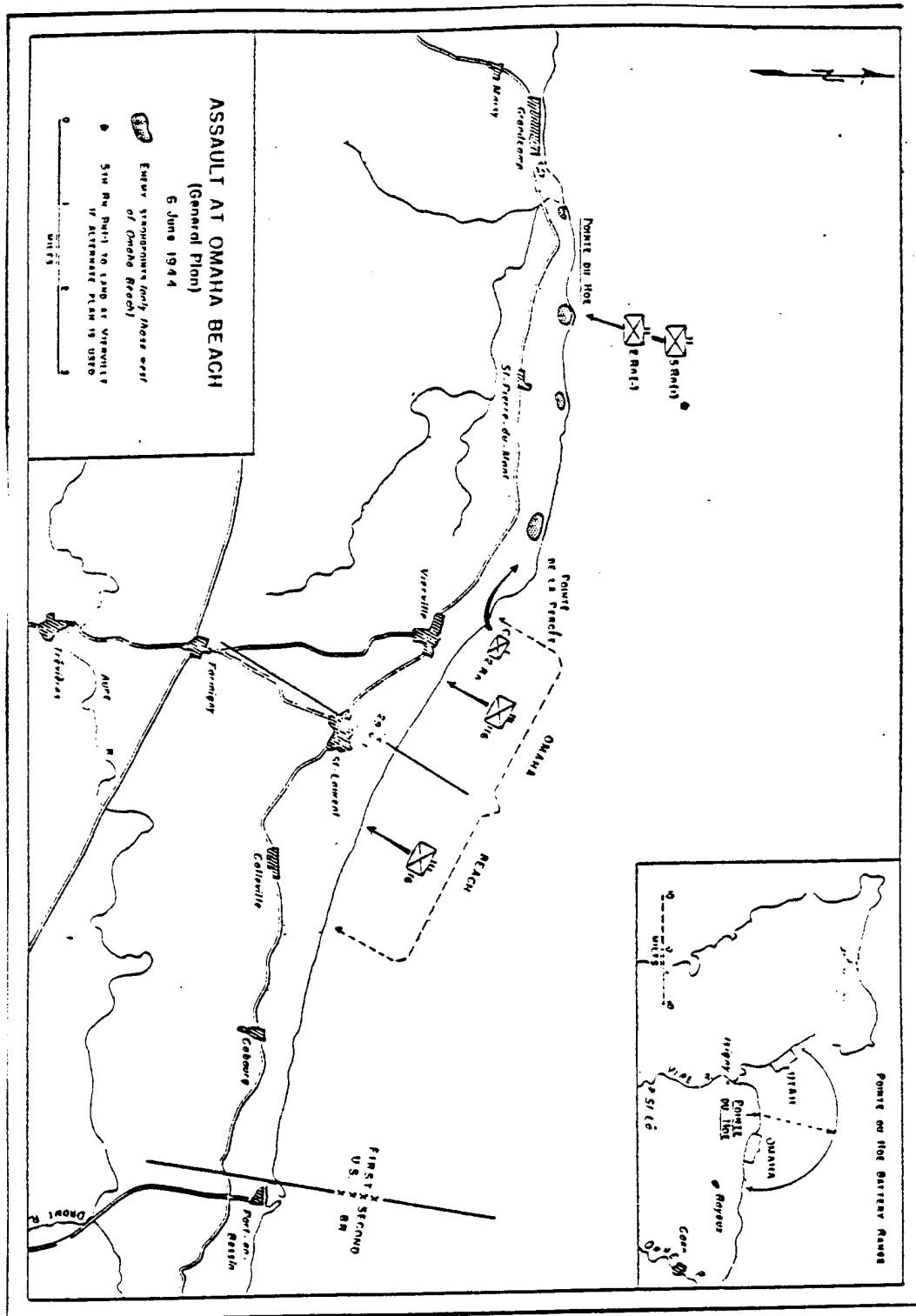
Map 16. The SHINGLE landings: 22 January 1944. From Anzio.



Map 17. VI Corps attack plan: 30 January 1944. From Anzio.



Map 18. The attack on Cisterna: 29-31 January. From Donald Taggart, History of the Third Infantry Division in World War II.



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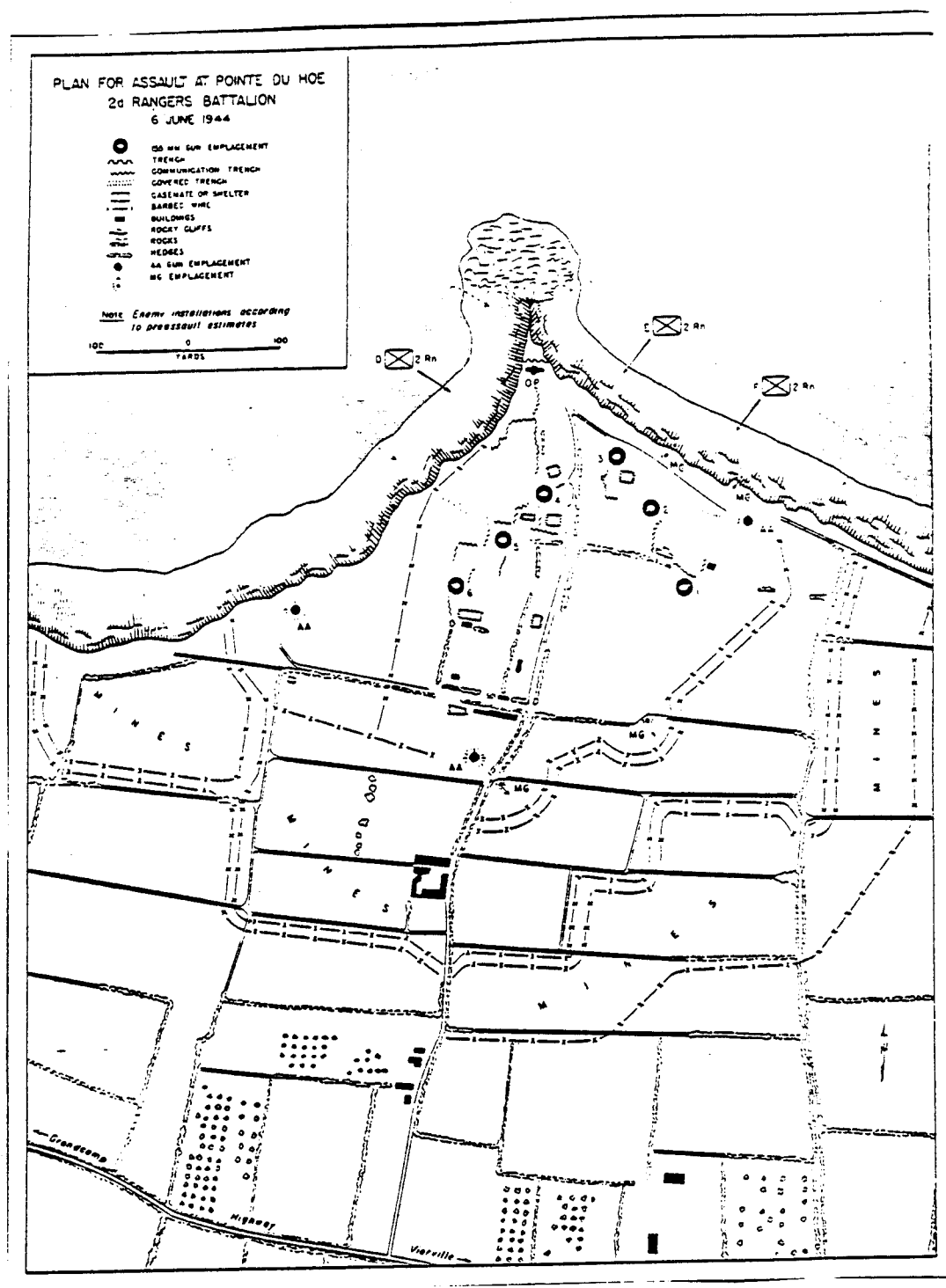
6-155MM (6.1") GUN

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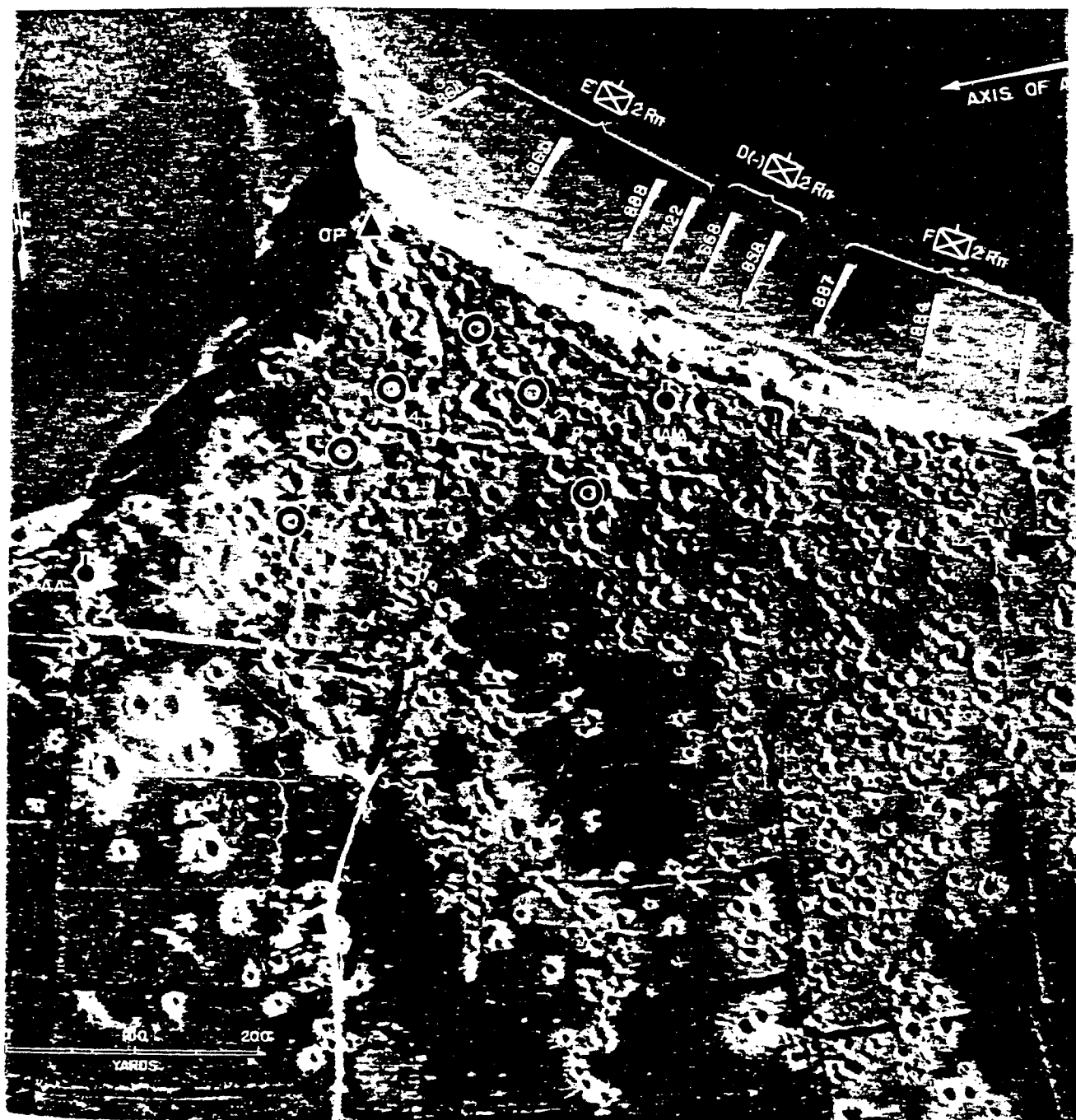
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IS OBSERVED AT POSITIONS 2,3,4, & 5.



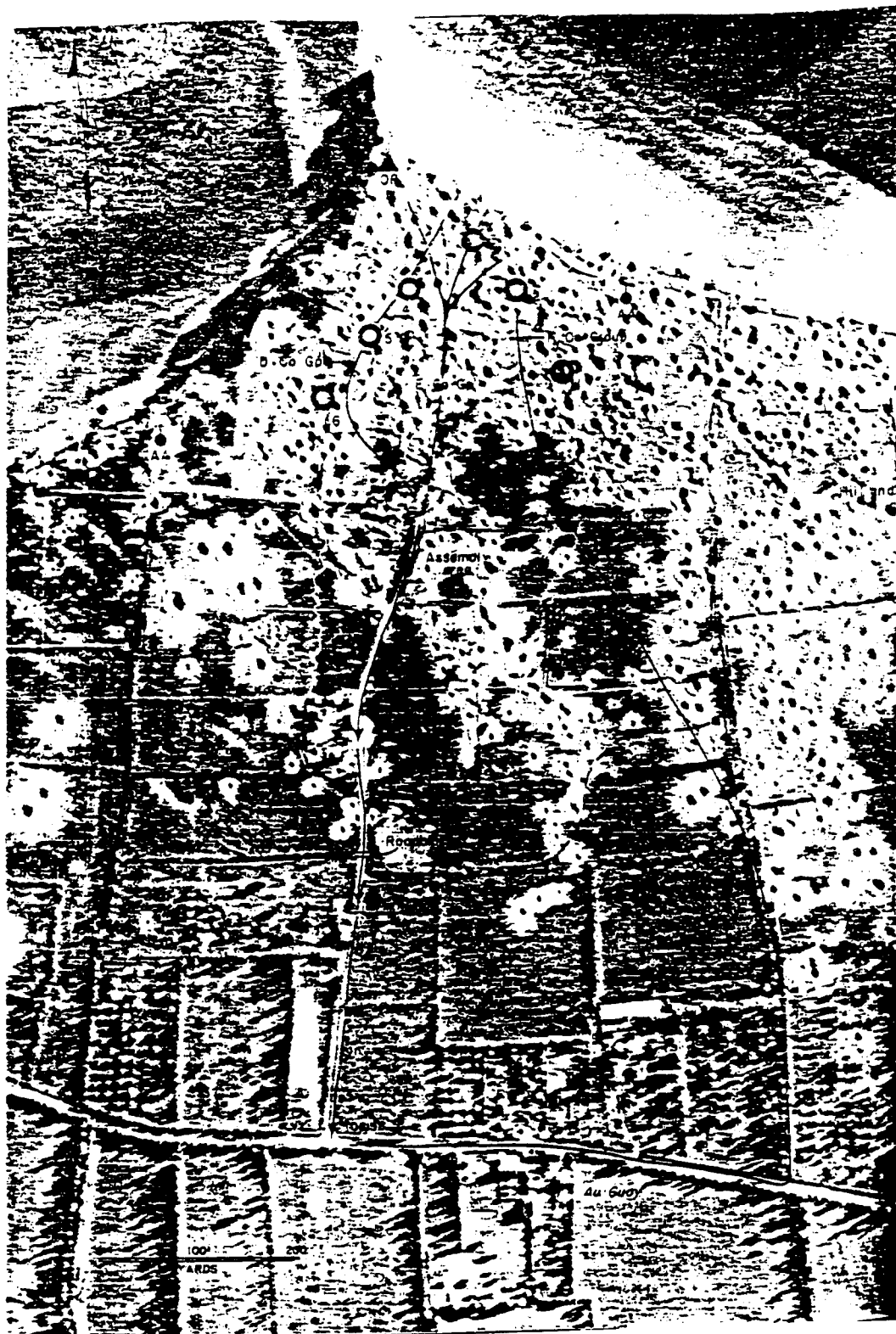
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Map 21. Ranger assault plan: Point du Hoc. From Small Unit Actions.

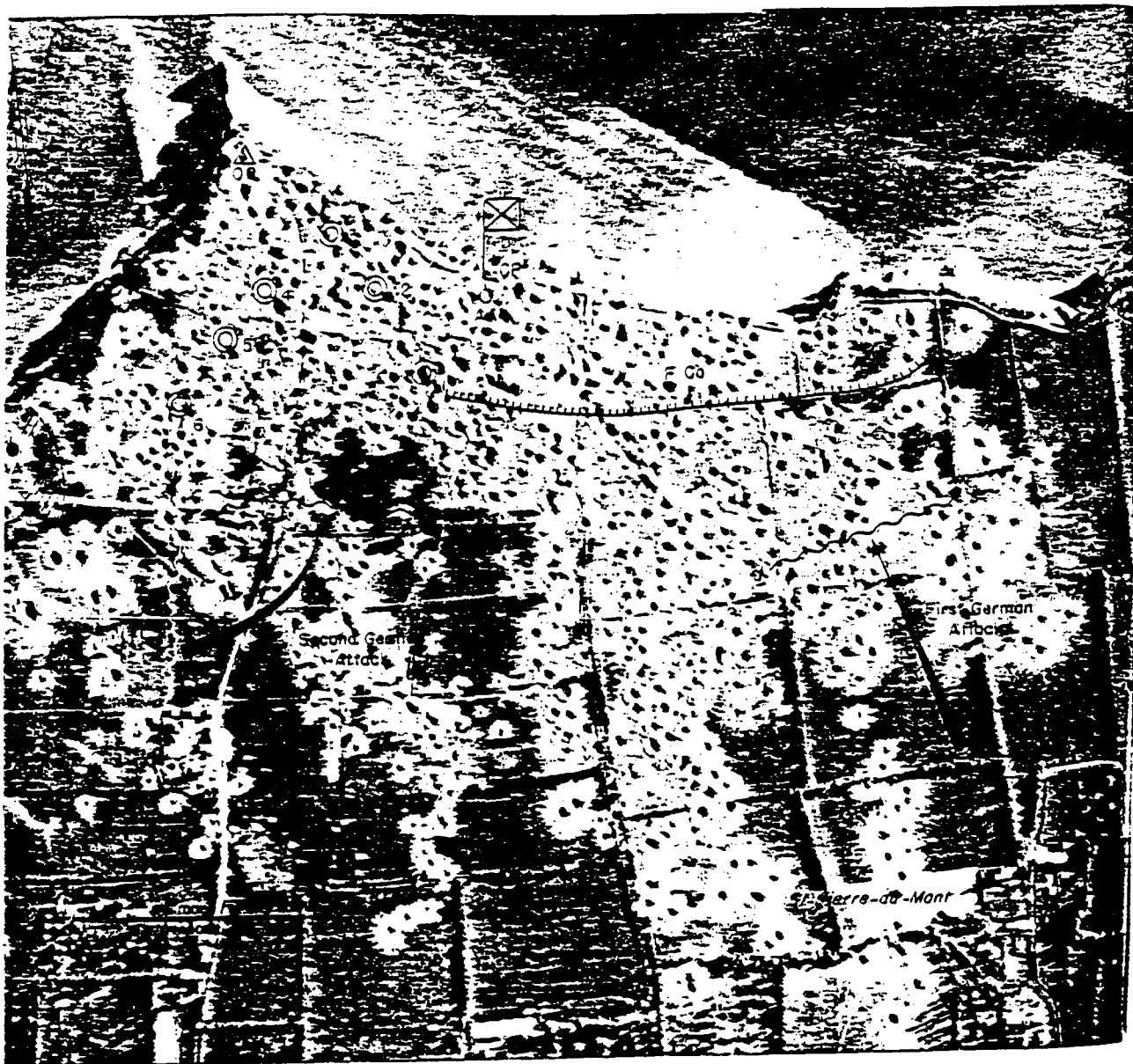


Map 22. Actual landings of Ranger companies: Point du Hoc. From Small Unit Actions.

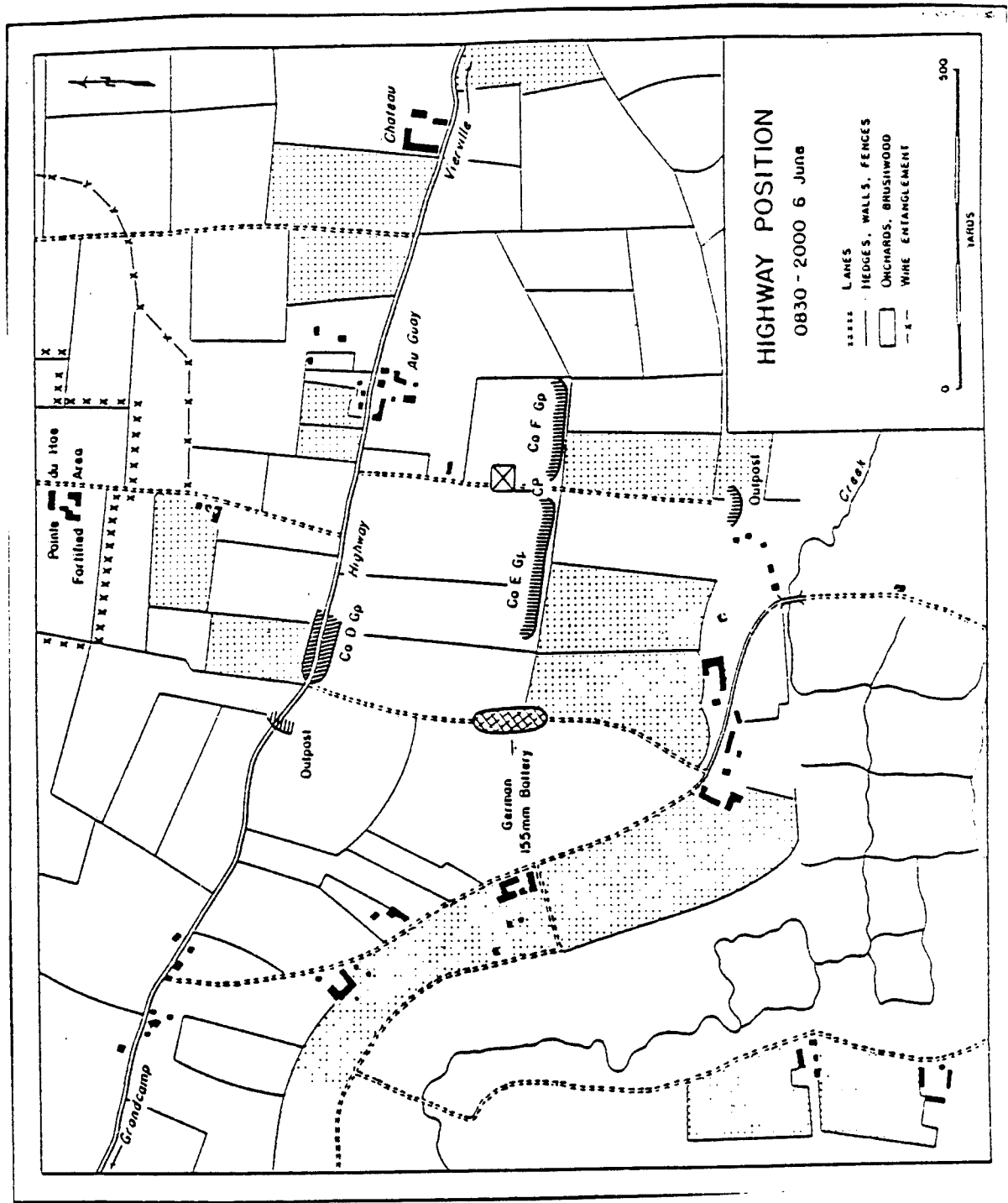


Map 23. The Rangers advance to the highway. From Small Unit Actions.

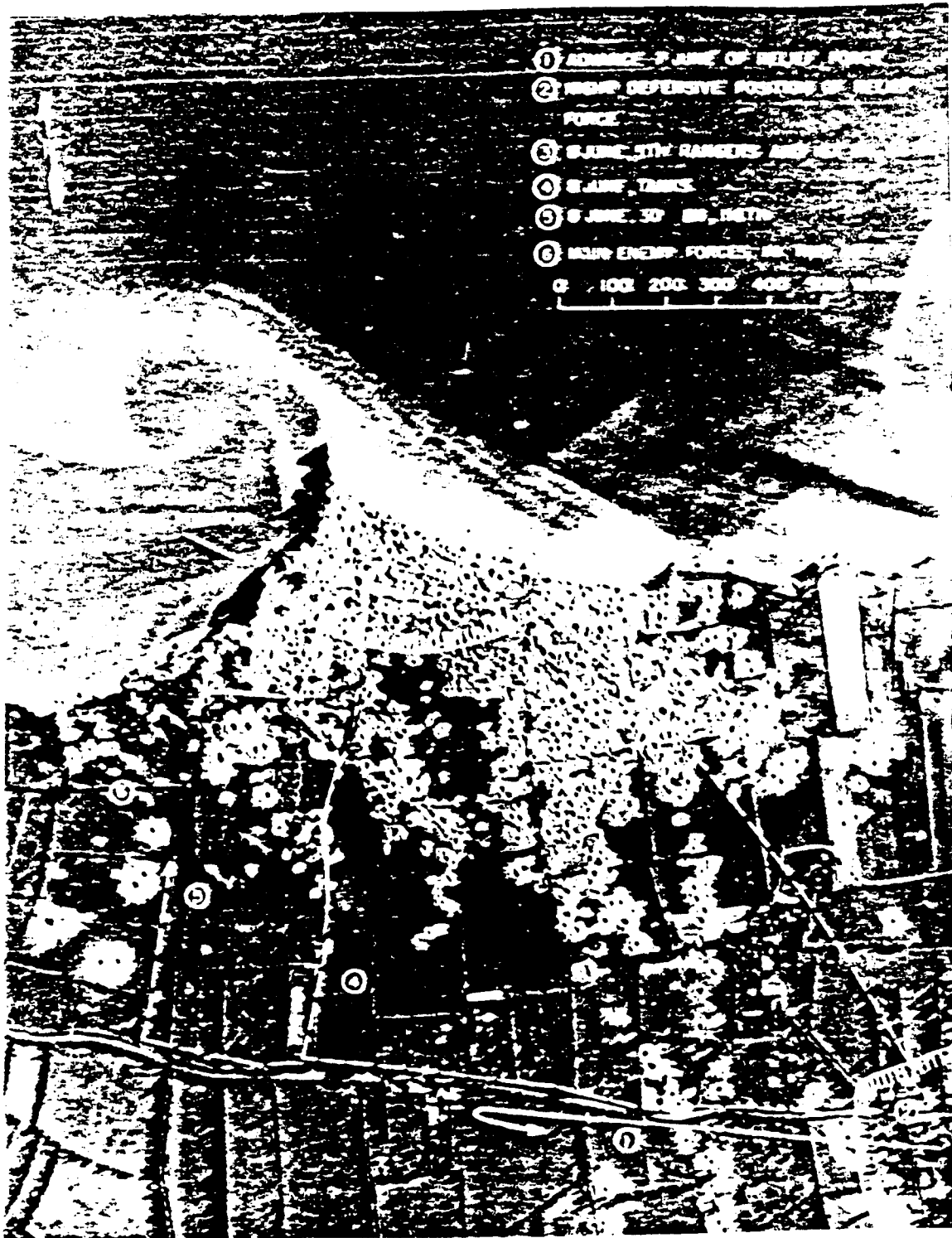




Map 25. German counterattacks on the Point: 6 June. From Small Unit Actions.

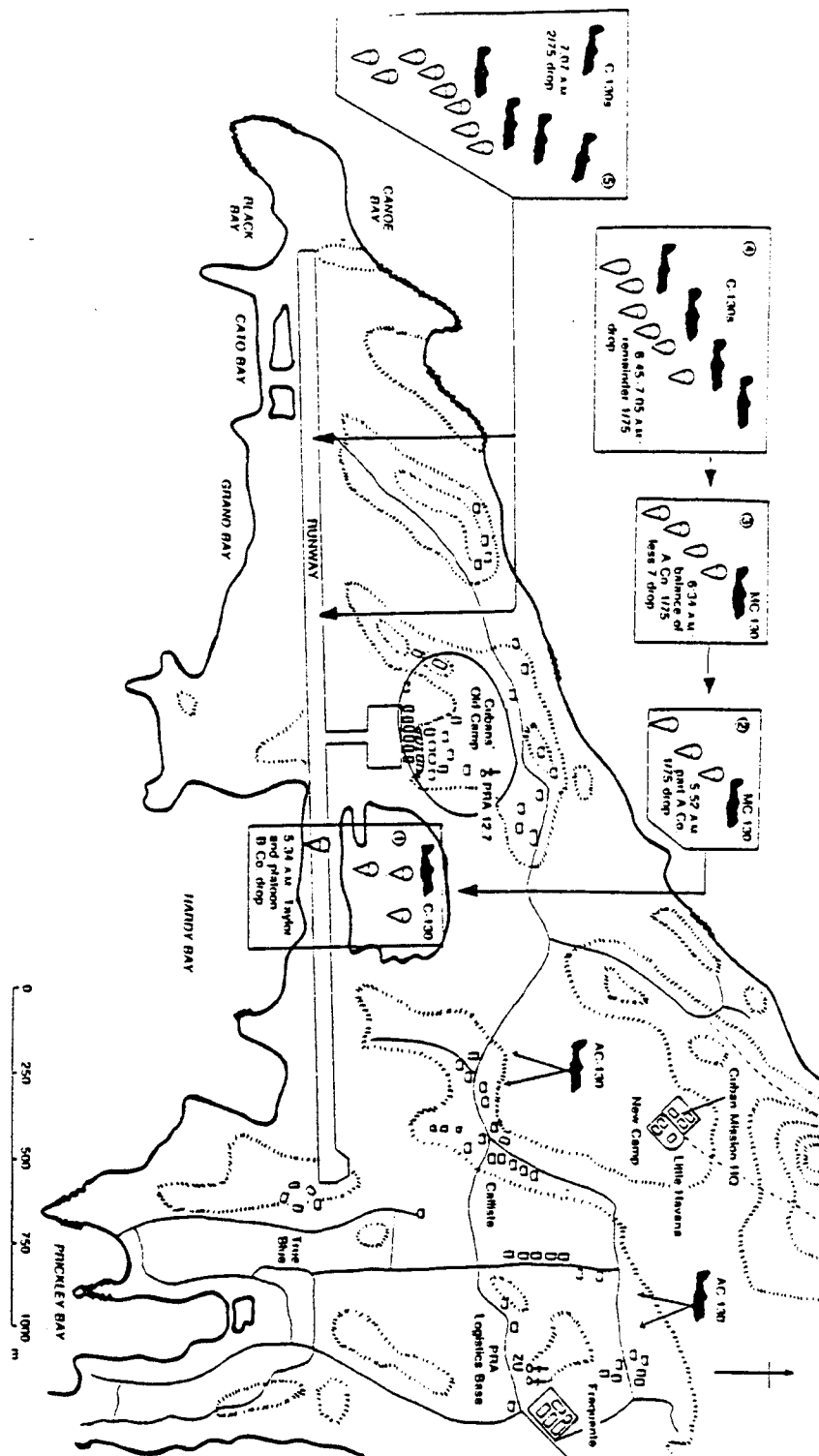


Map 26. The highway position. From Small Unit Actions.

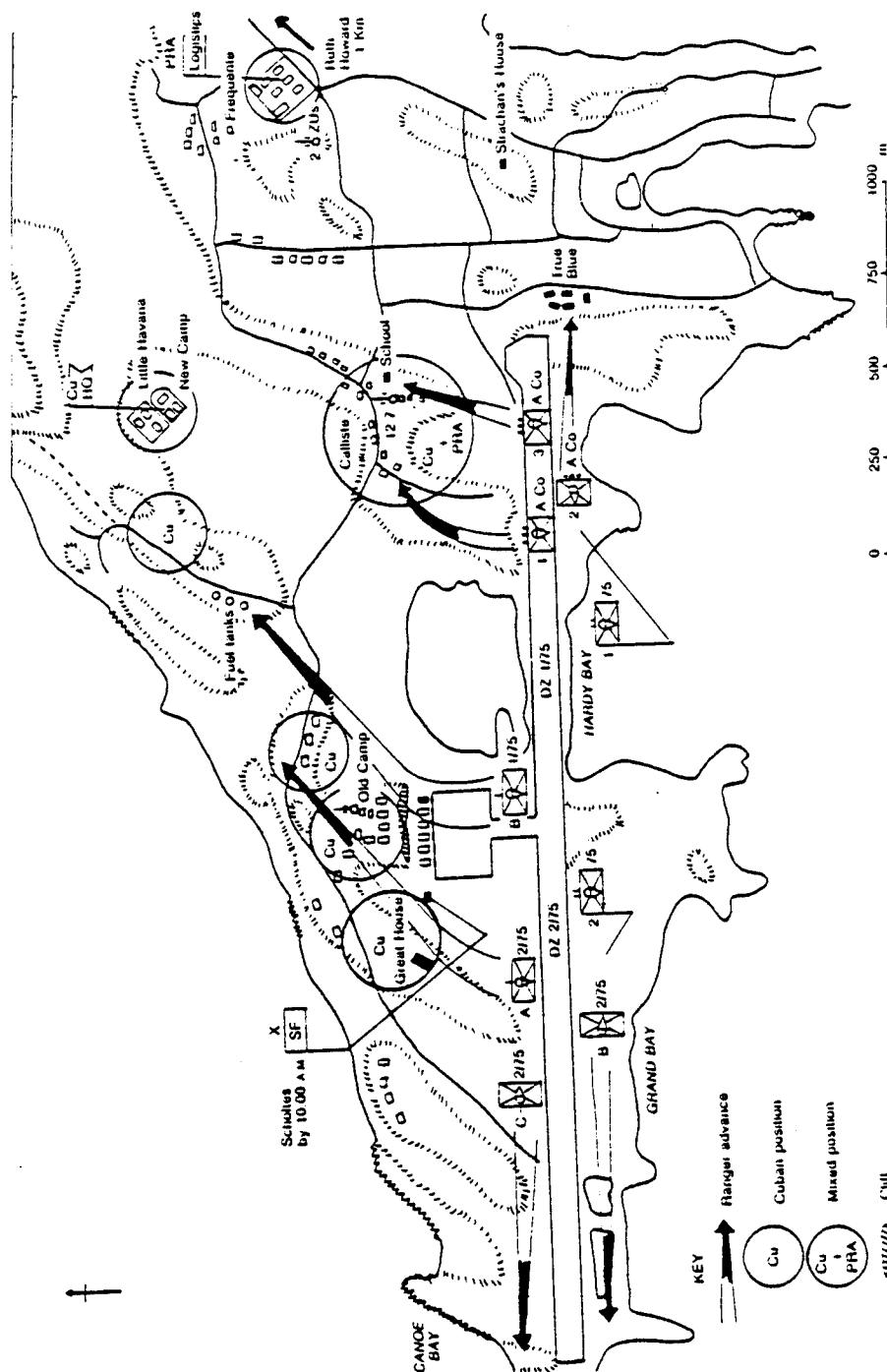


Map 27. Relief of Ranger force at the Point. From Omaha Beachhead.

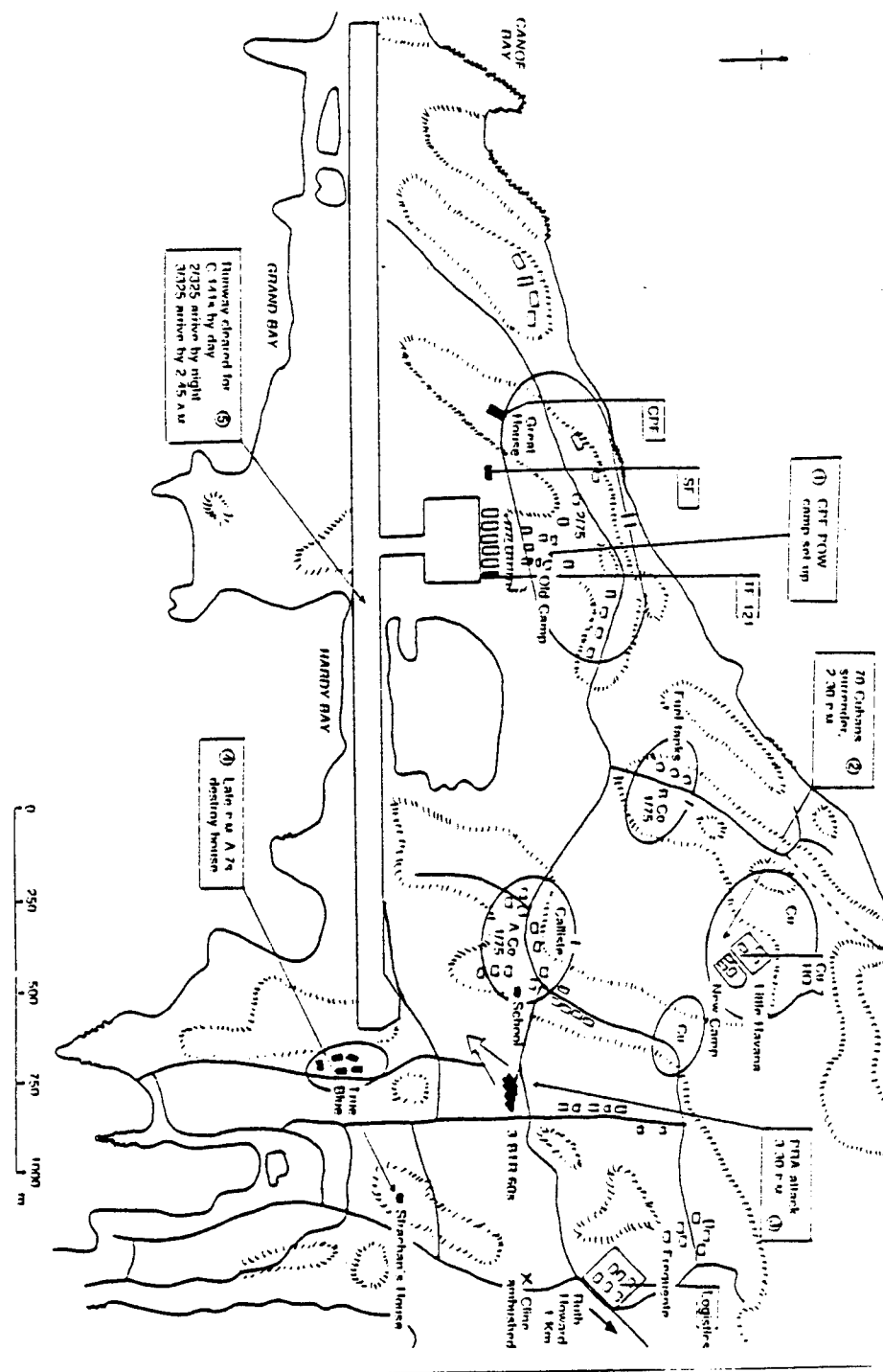




Map 29. The Ranger drop on Point Salines: 25 October. From Adkin.

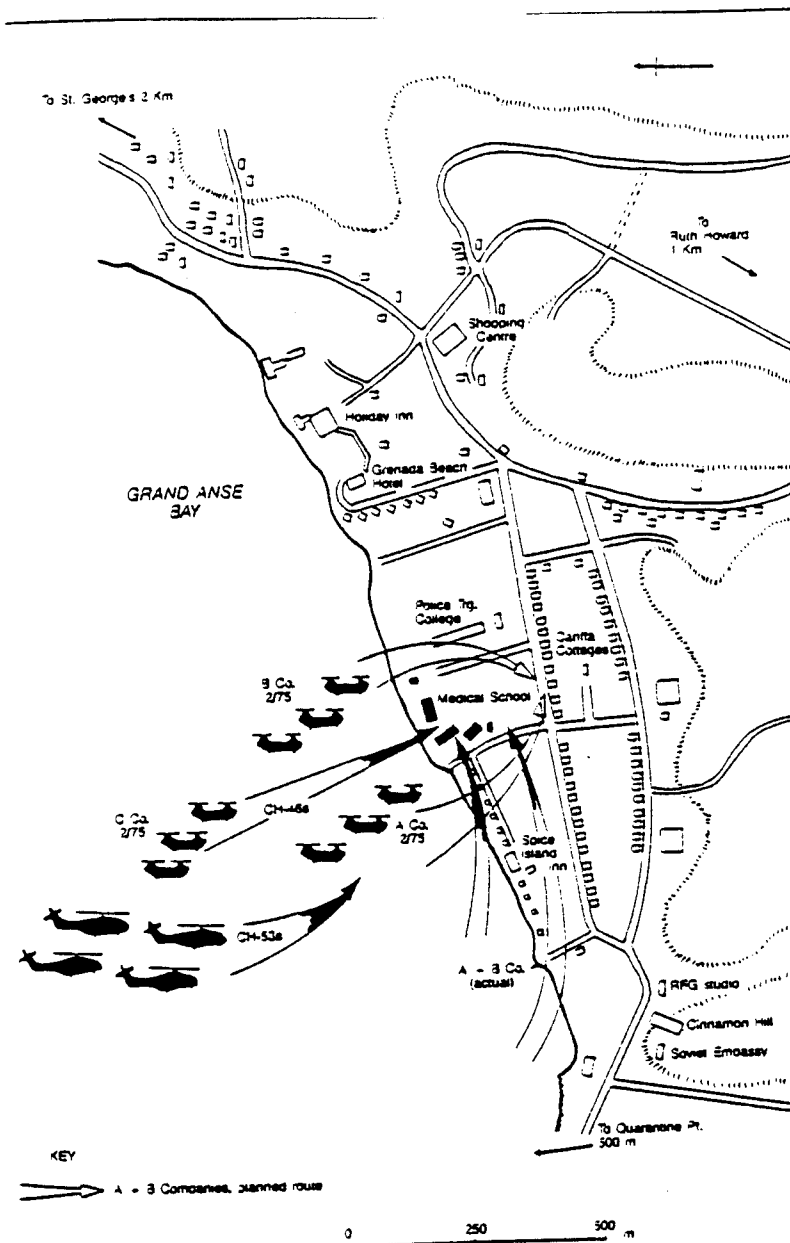


Map 30. Rangers seize assault objectives: 0700-1000 25 October. From Adkin.

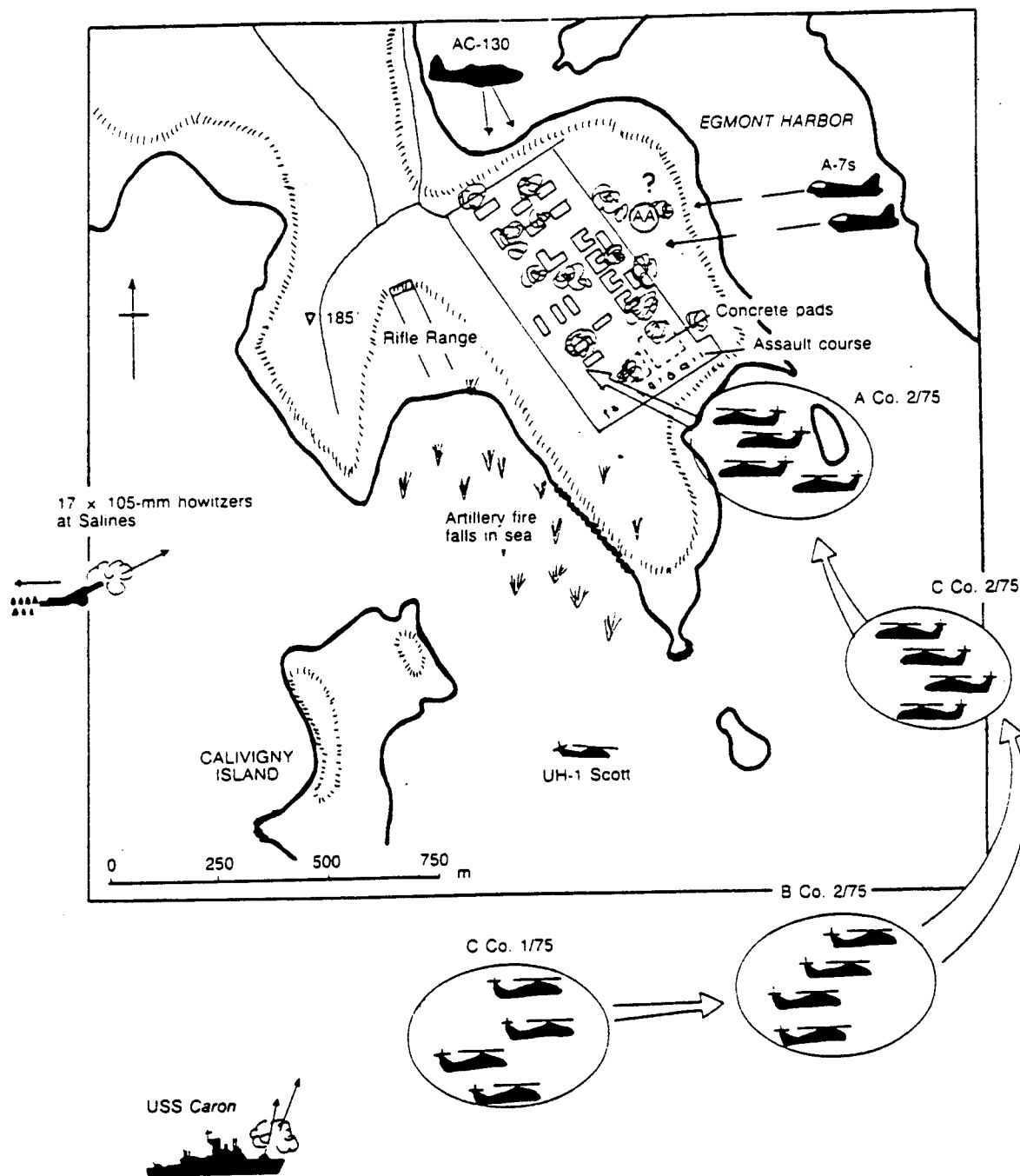


Map 31. Situation at Point Salines: 1900 25 October. Rangers are on initial assault objectives and initial follow-on forces are arriving and moving into position. From Adkin.

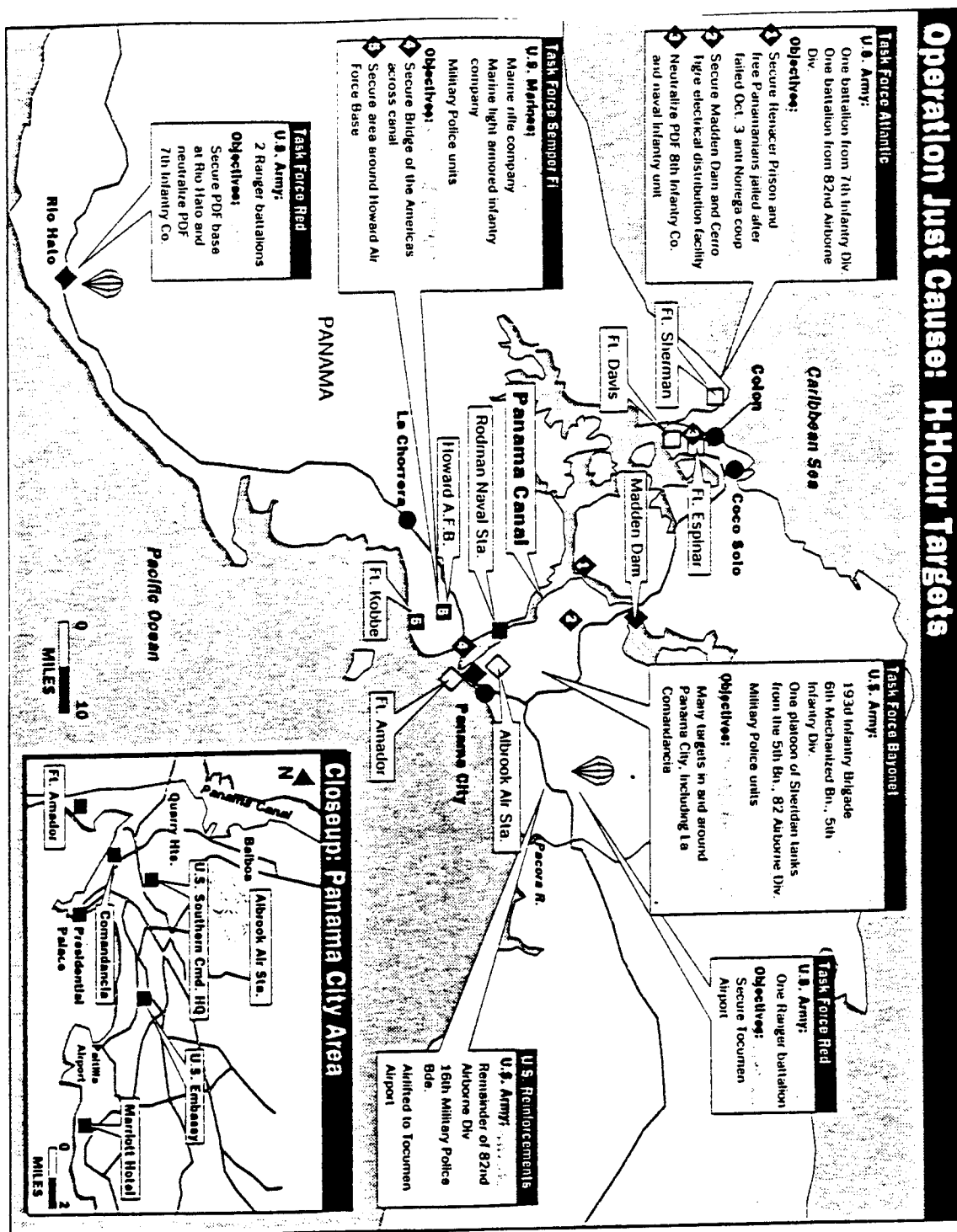




Map 33. 2d Battalion raid on Grand Anse campus: 26 October. From Adkin.



Map 34. Ranger air assault on Calivigny barracks: 27 October. From Adkin.



Map 35. Operation JUST CAUSE: H-Hour targets. From Thomas Donnelly, et al., Operation Just Cause.

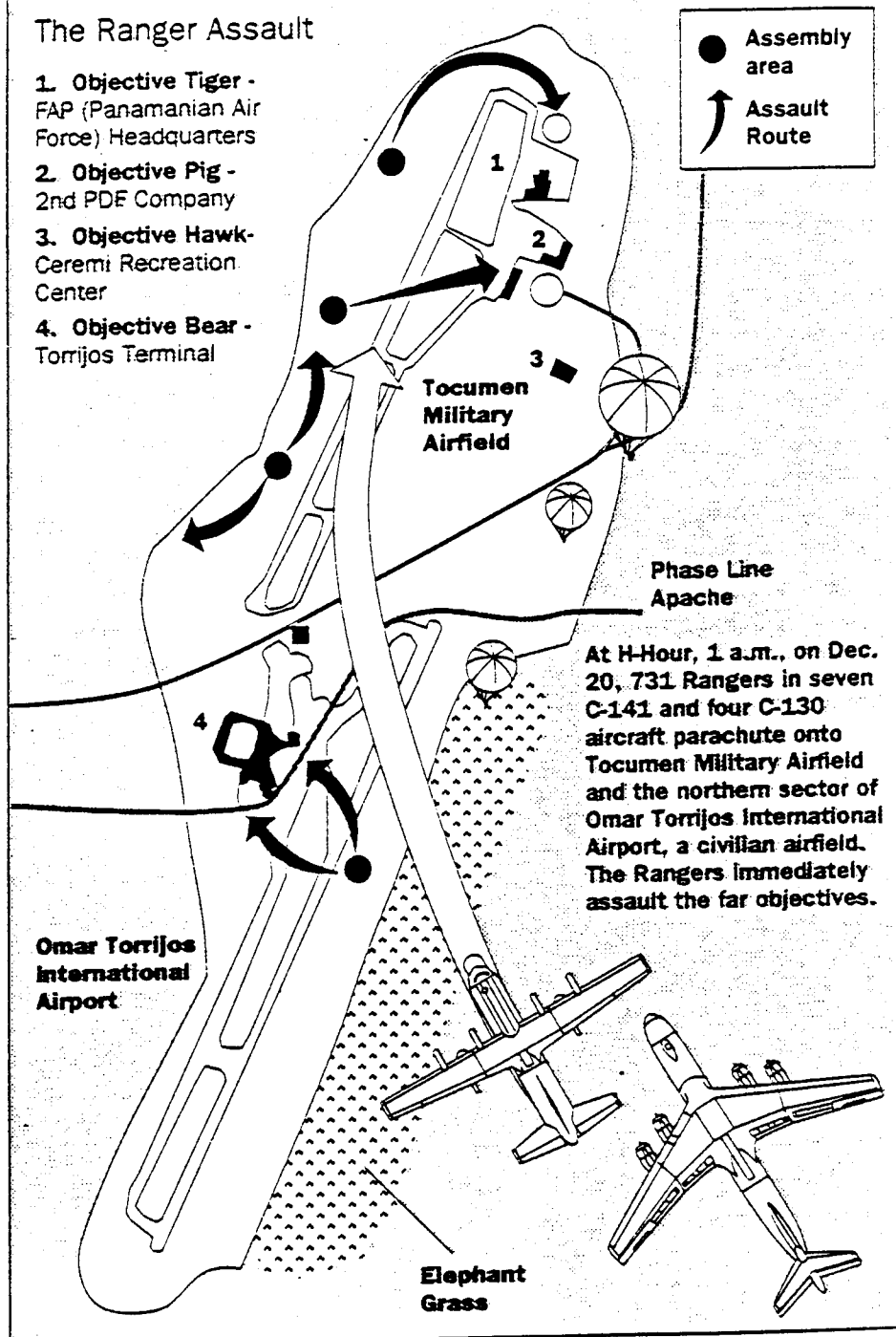
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## Torrijos/Tocumen: Ranger Assault

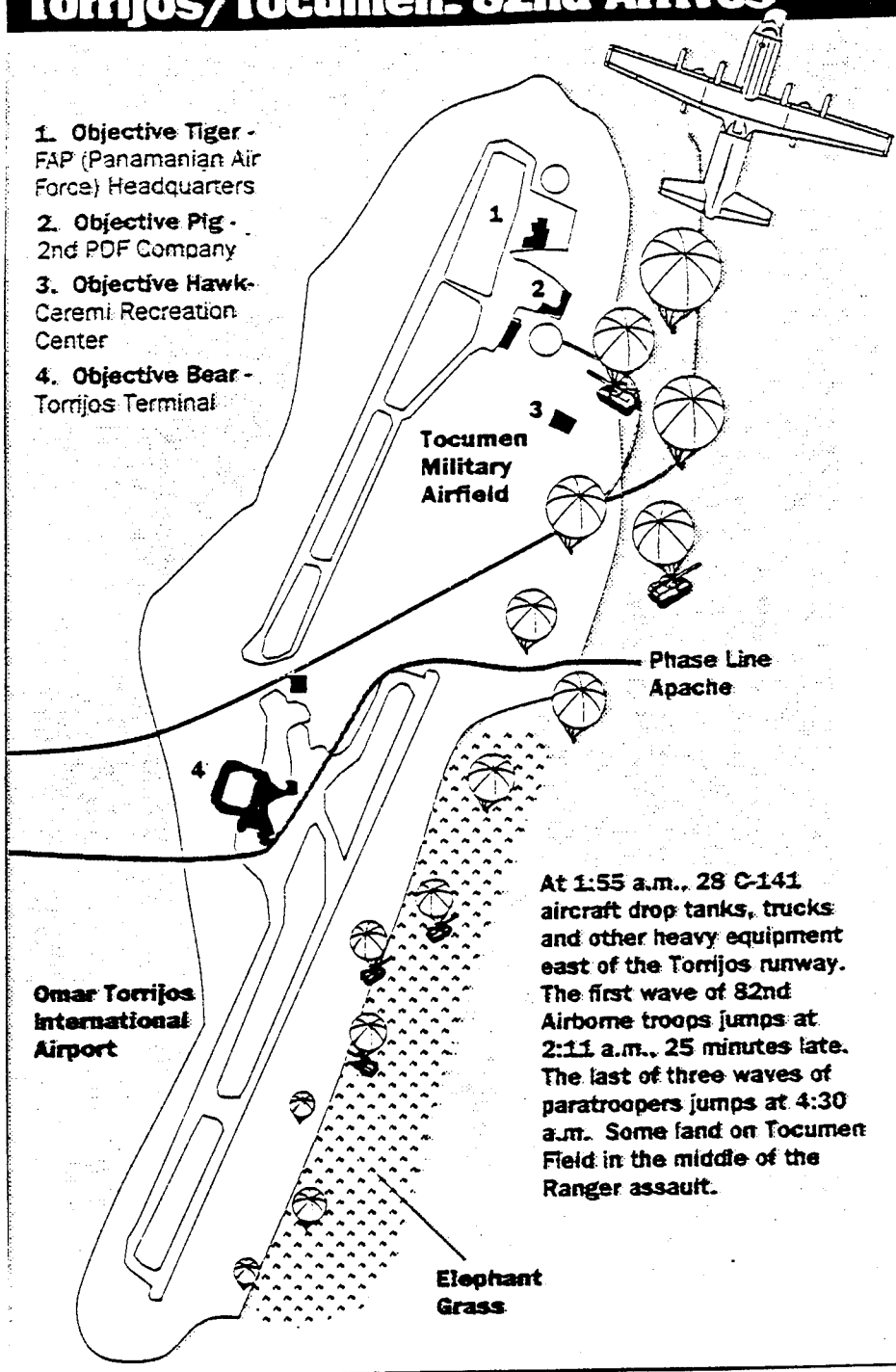
### The Ranger Assault

1. Objective Tiger - FAP (Panamanian Air Force) Headquarters
2. Objective Pig - 2nd PDF Company
3. Objective Hawk - Ceremi Recreation Center
4. Objective Bear - Torrijos Terminal



Map 37. Ranger drop onto Torrijos-Tocumen. From Donnelly, Operation Just Cause.

## Torrijos/Tocumen: 82nd Arrives



Map 38. Drop of 1st Brigade, 82d Airborne Division onto Torrijos-Tocumen. From Donnelly.



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