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OPERATION ENCORE - THE 10TH MOUNTAIN DIVISION IN ACTION

LIMITED OFFENSIVE IN MOUNTAINS

18 FEBRUARY TO 5 MARCH 1945

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## I. BACKGROUND OF OPERATION ENCORE

### Date, Location, and Principal Antagonists.

Operation Encore took place from 18 February to 5 March 1945. It was a limited offensive operation designed to secure better positions for initiating a spring offensive to capture the Po River Valley. The operation took place as the Allied armies in Italy were conducting an active defense which had been assumed in October 1944 when large scale offensive operations were suspended due to a lack of sufficient ammunition, bad weather, and heavy losses. The objective of the operation was to seize a series of mountain peaks and ridges averaging 3,800 feet in height. Control of these peaks and ridges would provide a strong anchor from which the spring offensive could be launched.

The German defensive sector was held by troops of the 232nd Grenadier Division, which was thinly spread along an 18 mile front with the 1045th Grenadier Regiment holding most of the Belvedere - Torraccia Ridge, the 1043rd Grenadier Regiment in the Mount Castello area, and the 1044th Grenadier Regiment scattered along the Serriccia - Campiano Ridge and the mountains to the southwest of it. Originally intended only for rear area duty, most of the division's troops were either old men or convalescents intercepted enroute to their former units on the eastern front. In reserve were the 232nd Fusilier Battalion and elements of the 4th Independent Mountain Battalion (21:79-80).

The attack was conducted by the 10th Mountain Division consisting of the 85th, 86th, and 87th Mountain Infantry Regiments and the 1st Brazilian Infantry Division of the Brazilian Expeditionary Force (BEF).

The 10th Mountain Division had recently arrived in Italy and was the only division in the United States Army organized primarily for mountain fighting. About a fourth of its personnel had already seen service in the Aleutian Islands. The principal distinction between the Mountain Division and a standard infantry division lay in its transportation, which consisted almost entirely of horse and pack mule trains, in its artillery, which was composed of only three battalions of 75MM pack howitzers, and its organic anti-tank and quartermaster battalions. Because of specialized mountain training and comparatively light organic artillery, commanders in other theaters had declined the division's services. But to an army engaged in mountain warfare, the 10th Mountain Division's specialized training enhanced its attractiveness (29:464).

Finland's initial victories over Soviet Union armies during the winter of 1939 first aroused America's political and military leaders in highly specialized winter troops. On 6 January 1940, Louis Johnson, the Assistant Secretary of War, asked General Marshall what considerations the General Staff had given to the subject of special clothing, equipment, food, transportation, and other essentials necessary for an effective field force under conditions approximating those of the campaigns in Finland and northern Russia (16:1). While winter

training and tests were being completed by the War Department, reports attributed the success of the German Army in the Balkans and failures of the British Army in Norway and Italian divisions in Albania to the presence or absence of trained troops to operate in mountain terrain (29:1). These reports from various sources demonstrated the need for specialized training in mountain warfare were reinforced by pressure on the War Department from interested officials of the National Ski Association and the American Alpine Club. These patriotic men were highly skilled in ski and mountaineering techniques, but their natural interest and enthusiasm caused them to ignore many of the logistic difficulties which stood in the way of such specialized training (14:Chapter 1). In November of 1941, the U.S. Army set down on paper its first mountain infantry regiment (the 87th) and asked the National Ski Patrol to recruit volunteers. Two more regiments were then added as the 10th Mountain Division was activated in the summer of 1943. With its 75MM pack howitzer artillery support and few motor vehicles, the division resembled a German jaeger or light infantry division. In sharp contrast to most other U.S. divisions, the ranks of the 10th Mountain Division contained a high percentage of college-trained men.

#### Evaluation of the Sources.

No books have been written about Operation Encore. The best operations summary is found in Ernest Fisher's book *Cassino to the Alps*. The majority of sources available were unit

histories and after-action reports. Histories of the 10th Mountain Division and Fifth Army provided the most information. There are also selected readings on mountain and winter fighting and training requirements that assisted in the research. Books by Generals Mark Clark and Lucian Truscott also added insight into the operational necessity of Encore and its results. The book on the Brazilian Expeditionary Force by Mascarehas de Moraes glorifies the part played by the Brazilian Expeditionary Force making some of the information in the book questionable from a historical viewpoint. The one major area where sufficient information was not found was an analysis of the battle, its significance, and the units involved from the German perspective. A German article discussing strategy with Field Marshall Kesserling and General Westphal was of little value in this study. The order of battle of the German Army prepared by the War Department's Military Intelligence Division was the most useful article concerning participating German forces. One more problem encountered was that certain references contradicted each other on some points, particularly on the dispositions of German forces.

While there are still individuals alive who participated in this operation, they were not identified soon enough to be used as a major source of information. Mr. L. O. Grantham would have been an excellent source if we had found him sooner. He was a supply sergeant in the 86th Mountain Infantry Regiment (11). He has a substantial collection of information about the 10th Mountain Division which he has collected over the years. Mr.

Grantham joined the Division at Camp Hale and remained with it until the end of the war. He lives approximately 90 miles from Fort Leavenworth.

In studying Operation Encore, the first source that should be read is Ernest Fisher's book, Cassino to the Alps. This book deals with the Italian Campaign from the attack on Cassino in May 1944 until the war ends. Although only a few pages are utilized in discussing the operation it does give a good outline and overview of the operation. This book also discusses U.S. and German strategy and allows the reader to see how the operation planning developed, why it was necessary, and what results were obtained. The books by Mark Clark, who was the commander of Allied armies in Italy and previously Fifth Army commander and Lucian Truscott who succeeded Clark as Fifth Army commander, provide an insight into how the commander perceived the operation and on their attitude toward the units involved. The rest of the resources are basically unit histories or studies done by the Army on various aspects of training, logistics, and strategy which provide bits and pieces that allow us to piece together an understanding of the problems encountered in winter and mountain operations conducted by a light infantry division. A secondary study that results from research on Operation Encore was a fairly comprehensive view of the history of the 10th Mountain Division and its units from their organization in 1942 through Operation Encore.



## II. REVIEW OF THE STRATEGIC SETTING

### Causes of the Conflict

World War II was the most destructive war in history, damaging more property and reaching more parts of the globe than previous wars while killing nearly 16 million servicemen from all sides. Though difficult to measure, the price tag to the more than 50 nations who participated is estimated at \$1,150,000,000,000.

Major battles in Asia, Europe, North Africa, the Atlantic and Pacific Oceans, and the Mediterranean Sea were stark evidence that few areas were left untouched by this global war. New, more lethal weapons were unleashed to include the atomic bomb. Amphibious tracks, large tanks, accurate artillery, paratroopers, mountain warfare specialists, bombers, and ballistic missiles were but a few of the advanced means of war used.

Who started this war? The finger can be pointed at Germany and Japan. Their reasons for it will be addressed later. On 1 September 1939, Germany attacked Poland. In less than 3 months in 1940, Germany continued its blitzkrieg tactics by rolling over Denmark, Norway, Belgium, Luxembourg, the Netherlands, and France. Though Hitler failed to knock out Great Britain by intense bombings, in 1941 he quickly conquered Yugoslavia and Greece which had been attacked by Italy, a foe of France. Hitler then moved into Russia.

In the Pacific, Japan's expansionist plans continued with the 7 December 1941 attack on Pearl Harbor, and America entered the war. Fighting was to continue for almost 4 years until Italy's surrender on 3 September 1943, Germany's on 7 May 1945, and Japan's on 2 September 1945. It was indeed a long and costly war and one that in the end created a potentially greater nemesis - a powerful, communist Russia.

It is said that there were three main causes of World War II: the problems left unsolved from World War I, the rise of dictatorships, and the desire of Germany, Italy, and Japan for more territory and resources. One of the major problems remaining from World War I was the Versailles Treaty. The Treaty placed heavy demands on Germany, forcing her to disarm, give up land, pay reparations, and admit starting the war. Moreover, Allies occupied part of Germany and its entire economy suffered from rampant unemployment, inflation, and shortages. The Germans' hatred of the Treaty and the conditions perceived to be caused by it fueled the fire.

Many of the hopes of the German government were placed in the post-World War I League of Nations. Unfortunately, the United States never joined the League and the League had little power to either snuff out sparks of war or to answer the German government's pleas for help. With the international depression of 1929, German discontent grew and found a release in the Nazi party and its leader, Adolph Hitler. The League followed-up the Allies' disarming of Germany after World War I with several meetings that would help guarantee a lower level of armament.

Germany, in 1932, agreed to its post war armament level if other countries would reduce to that level. France refused to comply unless an international police system could be established. Again, a weak League of Nations was unable to prevail and 8 months after this meeting, Hitler had become Chancellor of Germany.

Two other problems remaining from World War I were economics and nationalism. This combined problem may have been the major one that instigated World War II. Germany, Italy, and Japan felt that France, Belgium, Great Britain, and the United States had an unfair control of most world markets and thus its wealth and people. High tariffs and the severe depression of the 1930's further aggravated the situation. Germany, Italy, and Japan felt they were not getting their share of the world's wealth, perhaps even not enough to survive. This led them to believe that they must take the lands if they could not compete fairly for the markets.

The rise of dictatorships, listed as the second major cause of World War II, manifested itself in communism in Russia, fascism in Italy, Nazism in Germany, and militarism in Japan. In Russia, Lenin then Stalin ruled through the iron hand of communism, seizing all private property, outlawing all but the communist party, and promising a dictatorship of the working people. Mussolini in Italy founded the Fascist Party, became Prime Minister, seized all powers of government and promised to return Italy to its ancient greatness. Hitler seized on the discontent of his people, the depression, and inflation to

promise a reunited "Greater Germany" with great military strength. He too had absolute control over his country. Meanwhile, Japan's militarists dominated the liberals and she once again looked toward war and conquests. These feelings were evidenced by her invasion of Manchuria on 18 September 1931. Many historians consider this act to be the start of World War II.

The third major cause for World War II is considered to be the aggressive desires of Germany, Italy, and Japan for more territories and resources. After Japan acquired Manchuria and its abundant natural resources, she turned to China. The Japanese invaded China in 1932, withdrew, and then began an economic campaign against her. Few countries, to include the United States, did little more than throw rhetoric at the problem. Many still provided war materials to Japan. Fighting began again in 1937, and by 1938, Japan had completed an economic blockade of China controlling her ports, industries, and rail centers.

Mussolini's aggression was seen in 1935 as Italy slaughtered Ethiopian forces while conquering Ethiopia. He and Hitler then turned to Spain where their backing of rebel Francisco Franco allowed Franco to organize an absolute dictatorship in Spain in 1939 similar to those in Italy and Germany. Meanwhile, in 1935 Hitler established his army, air force, and navy contrary to the Versailles Treaty. Though words were exchanged between Germany and the World War I Allies, no overt action was taken to stop him. In 1936, he moved military

forces into the demilitarized zone along the French border. Again, complaints were raised but Hitler won. By then, confident of success, Hitler turned on Austria and in 1938 reunited her with Germany. Czechoslovakia was supposedly the last territorial claim Hitler had to make in Europe, so in accordance with the Munich agreement of 1938, Czechoslovakia lost the Sudetenland to Germany. Unfortunately, there was to be another last claim. Hitler wanted Poland. In March 1939, Hitler took the remainder of Czechoslovakia, then a portion of Lithuania and in April, Italy seized Albania. Having just completed a non-aggression pact with Russia, on 1 September 1939 Germany invaded Poland amid threats from France and Great Britain. Great Britain and France declared war against Germany on 3 September 1939 and World War II had begun.

Albania, Bulgaria, Finland, Hungary, Italy, and Romania sided with Germany and Japan and became known as the Axis powers. Major leaders among the three primary Axis powers were General Hideki Tojo of Japan, Benito Mussolini of Italy and Adolph Hitler of Germany. They were ably supported by Field Marshals Von Rundstedt, Kesselring and Rommel of Germany, Marshal Graziani of Italy, and General Yamashita and Admiral Yamamoto of Japan.

The war appeared to begin in unrelated acts in both the Pacific and Atlantic. Japan's attack of China in 1937 was followed by continual fighting there until the German attacks in Europe in 1939 and 1940 gave Japan the opening to extend the war to her south. No evidence has been found to suggest any

formal joint strategic plans for Japan and Germany to act in concert to win World War II. However, both had similar goals, one called the European New Order and the other called the Greater East Asia Co-prosperity Sphere. Germany intended to establish a powerful empire by occupying territory to her east and south. She then planned to overrun France and, using an air war, force Britain to seek peace. Thereafter, she would defeat Russia, capture the Caucasus' oilfields and create the New Order. Much like a weak sister, Italy hoped to take advantage of Germany's success and grab territory for herself.

Japan hoped to cripple the U.S. Pacific fleet so that she could then overrun Thailand, Malaysia, the Philippines, and the Netherlands Indies. China would then be conquered and Japan could unite all of East Asia under the Greater East Asia Co-prosperity Sphere. Japan had no plans to invade the United States' mainland, hoping instead that a two-ocean war would exhaust the Allies' resources and make them willing to allow Japan to retain seized territories.

#### Comparison of the Principal Antagonists

When the war began, Germany and Japan had the advantage of being substantially mobilized. Germany in particular had wartime industrial plants in operation, 106 combat divisions with tanks, motorized vehicles, and heavy artillery as well as a large, well-equipped and well-trained air force. She also had 12,000 aircraft and by war's end had mobilized over 30 million men and women. She had a decided advantage as the war began.

Allied forces were made up of Great Britain, France and almost 50 other nations. The Allied Big Four were the United States, Great Britain, China, and Russia. Stalin, Churchill, Attlee, Roosevelt, Truman, and Chiang Kai-shek were leaders of the major Allied nations. Generals Eisenhower, Marshall, MacArthur, and De Gaulle, Field Marshal Montgomery, and Admirals Pound, Mountbatten, and Nimitz were but a few of the many outstanding Allied military leaders.

Though the United States did not enter the war until December 1941, it fortunately had begun the industrial mobilization process earlier. It did not have the production capacity or equipment of the Axis powers at the start of the war, but by mid-war the potential of the United States industry was being realized and it was by far outproducing the Axis powers. Moreover, the Allies mobilized double the men and women that the Axis could put in uniform, totalling 62 million. Aircraft, ships, bombs, and many other weapons systems were seemingly produced without limits.

Allied basic war strategy was first established in a December 1941 conference where it was decided to concentrate on Germany first, then on Japan. To defeat Germany, the Allies would invade Western Europe and crush the Germans against the Russians who would move westward. Italy would be eliminated by invading her from North Africa.

Japan would be invaded after the Allies seized key Pacific islands and placed bomber bases in China. The islands and bases would be the springboard for the invasion of Japan.

## Situation in the Theater

In pursuit of the strategy of giving priority to the European Theater, the United States began committing enormous resources to the campaign in North Africa. As North Africa began to wind down in 1943, the Allies considered their next step.

"In the summer of 1943 two muddled currents merged in the Mediterranean. The first was the Allied strategic problem of where to go and what to do now that the North African campaign was ending. The second was the Italian political problem of how to get out of an increasingly pointless war.

The Allies at Casablanca had decided on the taking of the island of Sicily, as a means of utilizing their strength in the theater, and of easing their shipping problems. In spite of the American desire for an invasion of the Continent, they accepted the British contention that Sicily was a valuable objective; they were also susceptible to the point that it was better to use troops in the Mediterranean to some advantage, than to withdraw them and have them cooling their heels in Britain through late 1943 and into 1944, waiting for the invasion. In this they were conscious of the immense battles being fought in Russia, and they believed rightly that the Russians would resent the downgrading of the one area where there actually was contact between Western Allied and Axis ground forces. For a variety of reasons then, most of which made good sense at the time, the Combined Chiefs of Staff agreed on Sicily as the next campaign. They did not, as they began staff planning for the invasion, consider going on to invade the Italian mainland." (26:291)

With the success of the Sicilian campaign, events occurred which produced a rift in Allied cohesion on their strategy for the prosecution of the war. Mussolini was on the verge of collapse and such a collapse could be exploited.

"The British, with their traditional interests in the Mediterranean, urged that past Allied success be exploited by an invasion of Italy or the Balkans. General Marshall wanted to withdraw maximum forces from



the Mediterranean to speed the build-up for the projected invasion of northern France. The United States Navy, its primary interest being in the war in the Pacific, demanded the transfer of scarce assault (amphibious) shipping to the Far East. Finally, during the TRIDENT and QUADRANT conferences (May and August 1943) the Combined Chiefs of Staff agreed on the major European operations for 1944. Operation OVERLORD would be the primary United States-British effort in Europe and, as such, it would command priority in men and supplies. Operations in the Mediterranean, therefore, must be designed to immobilize enough German divisions to enable OVERLORD to succeed. This could best be accomplished by forcing Italy out of the war and by threatening Germany's southern frontier; these objectives, in turn, could best be achieved by invading Italy. Possession of Italian airfields would enable Allied bombers to strike industrial areas -- hitherto relatively inaccessible -- in southern Germany and southeast Europe. Italy's surrender would cause the defection of the thousands of Italian troops on occupation duty in southern France and the Balkans, forcing the Germans to garrison those areas with their own forces. Finally, later operations would occupy Sardinia and Corsica, tightening the Allied grip on the western Mediterranean and opening the way for an eventual invasion of southern France." (27:Section 2, map 94)

When the Italian political situation became clear to Hitler, his first impulse was to order German troops to consolidate in the defensible mountain terrain of northern Italy. However, he subsequently decided to defend as much of the peninsula as possible. This decision resulted in 2 years of bloody fighting in Italy. Rome was eventually captured on 4 June 1944. However, two days later, Operation OVERLORD began, taking all publicity away from the Italian campaign (2:150). It would eventually take away supplies and replacements as well.

General Mark Clark was ordered to continue the attack to the north against heavy German resistance.

"Now, instead of waiting for Eisenhower to assure the surrender of so many Germans that those in Italy would have to throw in the sponge for lack of support, his

troops would be in on the publicity once again. Generals like to fight their troops, not to sit by while somebody else assures a victory. Major General Lucian K. Truscott, commanding Fifth Army, concurred with Clark on these grounds: "(1) The attack of Fifth Army, if launched in coordination with the attack on the Eastern and Western fronts in northern Europe...may cause the final German collapse. (2) If we succeed in destroying the Boche here, he will be unable to withdraw to the Alps and prolong the struggle there. (3) If we sit by and wait, we allow him to continue the exploitation of northern Italy. By destroying him here, we will quickly complete the liberation of all Italy." (2:150)

Throughout this period the Allies in Italy were considered in second priority to the invasion and subsequent operations being conducted in western France. In fact, Italy's priority dropped to number 3 with the prospect of a second invasion of France.

"Following prolonged (and occasionally sharp) consultations, Churchill yielded to Roosevelt's insistence. Seven divisions, including all of the French Expeditionary Force, were withdrawn from the Fifth Army, completely unbalancing Alexander's dispositions -- and jamming his lines of communications as they moved southward to prepare for the amphibious assault against southern France. This transfer stripped Alexander of his best -- in fact, his only -- mountain troops; as replacements, he could expect the American 92nd Division in September and a Brazilian division in late October. One group of bombers and twenty-three squadrons of fighters were likewise diverted to southern France. Alexander was then instructed to continue his advance to the approximate line Verona-Padua-Venice.

Meanwhile, Hitler had reinforced Kesselring with eight more divisions of varying quality (one each from Denmark, Holland, and Russia; two from the Balkans; and three -- hitherto earmarked for the Russian front -- from Germany). He also allowed Kesselring to retain the redoubtable Hermann Goring Panzer Division, previously scheduled for transfer to France." (27:Map 105)

The fact that the Italian campaign was not the first priority does not imply that little was expected on this front from the Supreme Allied Commander.

"The task before the 15th Army Group was to destroy some 30 divisions of the Nazis' Army Group Southwest before they could retire to the northeast into the Alps toward Austria and prolong the struggle.

For any force, in any terrain, the task would have been formidable. On the west, the enemy right was firmly planted on the rugged mountains. On the east he was solidly entrenched behind the Senio, Santerno, Sillaro, and Idice River, all comparatively wide and steeply banked. An attacker there faced a maze of dikes, ditches, and flooded fields. Behind these riverlines were the machine gun nests, 88's and ack-ack on the Po River's north shore; behind them was the short and heavily fortified Adige River line; and beyond that more river lines and mountains across the road to Austria.

However, he had little motor transport, less air power, and was so short of gasoline that he was reported to be using grappa -- the very best grappa, no doubt -- in some of his vehicles.

Overwhelmed in the sky, he could not defend his highways or his railways. His communications with Germany in a critical state, he grew ever more dependent on the Po Valley.

Two lines of action were open to the enemy:

a. He could fight where he stood, and if forced to withdraw, could delay successively on each river line, using floods and demolitions to slow our advance, or

b. He could attempt a voluntary withdrawal to a position behind the Po and subsequently the Adige.

Since he desperately needed the Po Valley, it was believed he would contest every foot of ground. It appeared to the Group Commander that if the 15th Army Group could achieve a quick break-through and a rapid exploitation, huge enemy forces might well be destroyed or captured before they could retire across the Po."  
(6:28)

In January 1945, the German forces in Italy were under the control of German Army Group C (the Army Group Southwest mentioned above). Field Marshal Albert Kesselring was the commander. Within Army Group C, there were a total of 30

divisions. However, it also had responsibility for the French-Italian border. Only 23 divisions faced the Allied 15th Army Group. The Allied 15th Army Group consisted of 24 divisions (20:107-108). It was commanded by LTG Mark Clark, who assumed command in December 1944 from General Alexander, a British officer (7:406).

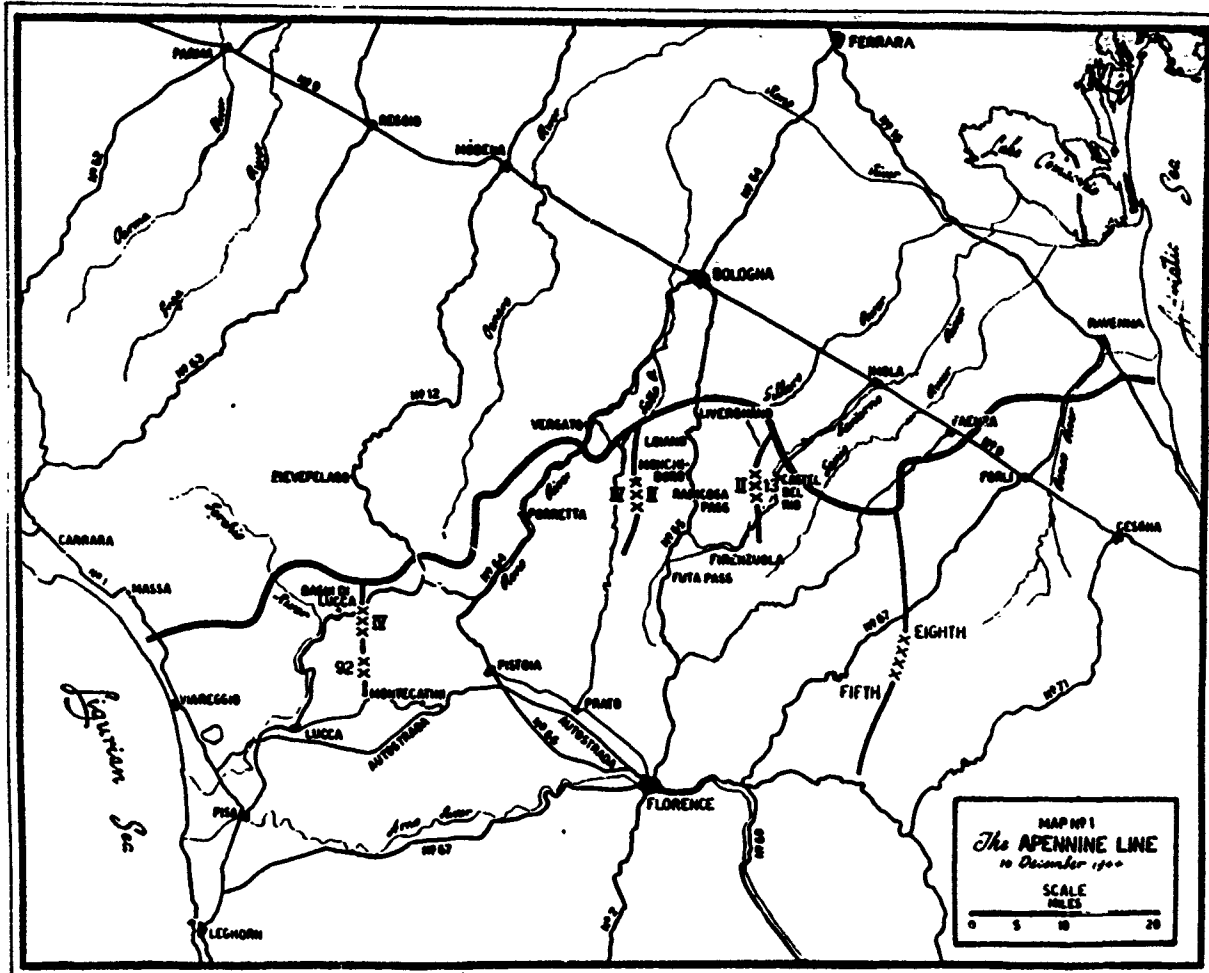
Generals Alexander and Clark planned the 1945 offensive in Italy to block the German withdrawal. Its objective -- if possible -- was to destroy the German forces in Italy before they could cross the Po. The Eighth Army was to attack first along the Adriatic coast and push northwestward. The Fifth Army, under MG Truscott, would then drive northward, capture Bologna, and advance to link-up with the Eighth Army. After the link-up, the Allies would strike north across the Po to block the last escape routes into Germany (27:106).

Operation Encore, with its initial objective of seizing Mount Belvedere, was part of the preliminaries that heralded the beginning of the 1945 spring offensive in Italy. It was designed to keep the enemy off balance and eventually became the spearhead that pointed the way to final victory in Italy (8:130).

### III. THE TACTICAL SITUATION

#### The Area of Operations.

At the end of 1944, Lieutenant General Mark W. Clark's Allied Armies in Italy were spread along the northern Apennine Mountains, mostly north of the divide, with the Fifth U.S. Army (composed of the IV and II U.S. Corps) in the west and the Eighth British Army in the east.



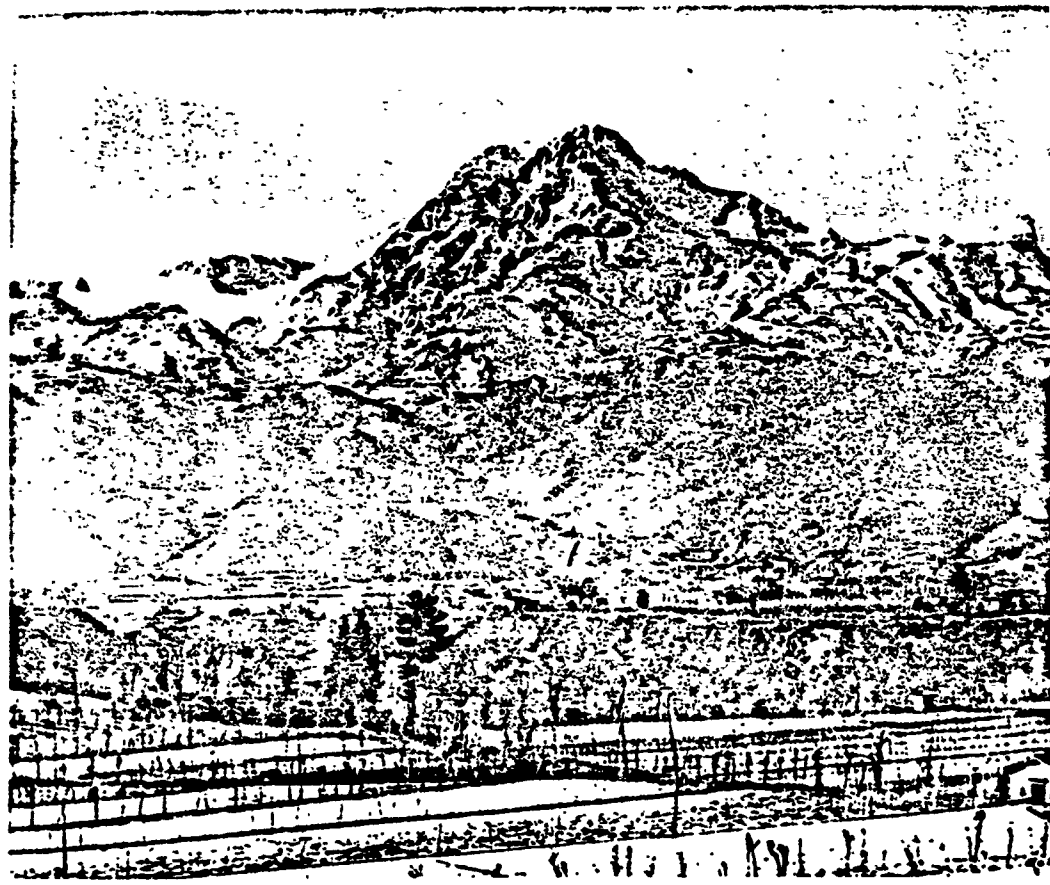
The Allied Army Line (21:6-7)

This mountain barrier, 50 miles wide, stretched southeast across Italy, separating the continental Po Valley from the comparatively narrow peninsula. From the Ligurian Sea on the west to the Adriatic Sea on the east, with only narrow coastal plains on each extremity, extended the almost unbroken line of ridges and peaks, some of which reached well over 6,000 feet in elevation. The upper slopes were covered with chestnut trees, scrub oak, and pine forests wherever the soil was deep enough. But many mountains had precipitous, bare rock slopes, razorback ridges, and sheer cliffs. The mountain mass was pierced by only a few roads sufficiently improved to provide passage for a modern mechanized army. The IV Corps battles to enter the Po Valley were fought largely along these roads (highway 1, highway 12, and highway 64) which crossed the mountains through the principal river valleys. The passes by which these roads surmounted the ridges varied from 3,000 to 4,500 feet. Most of these roads followed the line of streams, varying in size but almost all at high water stage during the greater part of the winter months. Although this road net afforded a number of routes over the mountains, it failed to provide adequate lateral communications. Secondary roads were limited in number. All roads were marked by twisting curves, sharp gradients, and narrow defiles. Bridges over mountain streams were often hard to bypass. Land slides were frequent even without the assistance of German demolition experts. As a result, units of the IV Corps were forced to utilize poor trails and to construct

many routes themselves. Many of these hastily hacked out or improved trails became practically impassible in rainy weather, and mule pack trains and soldier carrying parties were necessary to reach the troops in otherwise inaccessible mountain positions. Although the alignment of the Northern Apennines was southeast to northwest, erosion caused by numerous transverse streams cut out many irregular spurs projecting northeast to southwest. The ill-defined summit line, averaging 3000 to 4000 feet, lay toward the southwest edge of the range so that the slopes which faced the Allied forces were generally steep while those facing northeast were relatively long and moderate. The eroding effect of the mountain streams together with the irregular geologic formation of the Northern Apennines has served to divide the range into a number of compartments marked by broken ridges, spurs, and deep gorges - offering the Axis forces a series of excellent defensive positions. In contrast to the rolling, extensively cultivated hill country of central Italy, the mountains of the Northern Apennines were so rugged that movement of wheeled or tracked vehicles off the roads was seldom possible. In late September the fall rains begin. Mountain streams which virtually dry up in the summer months change to raging torrents in a few hours' time. Fog and mist, accompanying the cloudy days, often reduce visibility to near zero. By late October, snow begins to fall on the higher peaks, and in midwinter can block mountain passes to traffic for short periods. The problems of conducting offensive operations in the

mountains, difficult at best, are greatly increased once the fall rains and winter snow set in. During Operation Encore, it was bitterly cold and the ground was snow-covered. Although haze reduced visibility on the first days of the operation, the weather was marginally suitable for air operations.

The Northern Apennines, at all points, are a deep and formidable obstacle to an advance into the Po River Valley.



The Apennines in IV Corps Sector (7:427)

This mountain barrier extends from the Ligurian Alps southeast across the Italian peninsula nearly to Rimini on the Adriatic coast. They then run southward close to the coast for a short



distance before gradually swinging inland. The north side of the Northern Apennines meets the broad fertile plain of the Po River in a slightly curved line. To the south they drop away abruptly to the narrow coastal plain along the Ligurian Sea and irregularly to the plain along the Arno. At its narrowest point, between Florence and Bologna, the range is approximately 50 miles wide and individual mountains over 7,000 feet high are scattered throughout (15:307-310). The Germans had excellent observation and fields of fire over a large section of highway 64 and into the American positions east of the Reno River. In American hands, the high terrain would provide observation almost as far as the Po River Valley, about 20 miles. Thus, this high ground had to be considered key terrain. General Truscott made the securing of this high ground the objective of Operation Encore.

The most dominant portion of this key terrain consisted of two ridges whose highest peaks rose to between 3,000 and 5,000 feet. The first of the two, the Serriccia-Campiano Ridge, was known to Americans as Riva Ridge. It overlooked the left flank of the 10th Mountain Division and dominated routes of approach to the second ridge, the Mount Belvedere-Mount della Torraccia Ridge.

The Serriccia-Campiano Ridge paralleled the left flank of the division's zone of action for 4 miles. The side of the ridge facing the division was a cliff, rising in some places almost 1,500 feet above the valley floor. This cliff had to be

scaled. The snow-covered ground lying in front of this cliff offered little, if any, cover and concealment. There was nothing more than scattered clumps of stunted trees. Vehicular movement would be difficult at best because the few roads and trails crossing the area were narrow and in poor condition. Therefore, the burden of transport had to fall mainly on pack mules, full-tracked Weasels, and Jeeps. Tanks could only be brought forward as far as the town of Quericola which was more than a mile southwest of Mount Belvedere. This movement could be accomplished only with skillful handling (7:425-430).

Although the possibility existed to take advantage of fog or haze to conduct the operation during daylight hours, the limited cover and concealment, together with the excellent observation and fields of fire afforded the Germans dictated a night operation.

#### Comparison of Opposing Forces

Allied forces during Operation Encore consisted of the 10th Mountain Division and the 1st Brazilian Infantry Division. In addition to these ground forces at the commander's disposal, substantial support for air-ground operations came from the XXII Tactical Air Command. The Brazilian Air Force also provided support for the operation.

The 10th Mountain Division had a base strength of 14,101 personnel, with three infantry regiments (8:129). These regiments were the 85th Infantry, the 86th Infantry, and the

87th Infantry. The division was organized as a light infantry division, with training and equipment tailored to fighting in mountainous terrain. For example, the artillery was 75MM pack howitzers that could be broken into components for transport by mules. To provide additional combat power to the division during the attack, the following units were attached: 175th Field Artillery Battalion (105MM), A/1125th Field Artillery Battalion (105MM), 84th Chemical Battalion (4.2 inch mortars), 751st Tank Battalion, 894th Tank Destroyer Battalion, and Company A, 701st Tank Destroyer Battalion (21:147).

The Brazilian Expeditionary Force consisted of the 1st Infantry Division and its support troops. The 1st Brazilian Infantry Division consisted of 15,069 personnel. There were approximately 10,000 additional personnel in the support force. The division was organized as a regular infantry division with three infantry regiments: the 1st Infantry Regiment, the 6th Infantry Regiment, and the 11th Infantry Regiment (8:20). The 1st Brazilian Infantry Division had been in-country for some time and had already experienced combat. When committed to Operation Encore, the 1st Brazilian Infantry Division went into battle without additional attachments but was reinforced with corps artillery assets, primarily 105 MM and 155MM howitzers.

German forces opposing the Allied attack consisted of the 232nd Grenadier Division, the 714th Light Infantry Division, and the 29th Panzer Grenadier Division as the area's major reserve. The 232nd Grenadier Division was defending an 18 mile front with

three regiments on line, the 1045th Grenadier Regiment, the 1043rd Grenadier Regiment, and the 1044th Grenadier Regiment. The division reserve consisted of the 232nd Fusilier Battalion and the 4th Independent Mountain Battalion (7:428). The division was structured to operate at a strength of 11,909 personnel but was at 60 percent strength. The 714th Light Infantry Division was organized to be a light, highly mobile, non-motorized division. Its weapons were similar to those found in a normal infantry division, but it had slightly more mobility. As with most units in the theater, the division was at 60 percent strength. The 29th Panzer Grenadier Division was the major reserve (7:433). The standard panzer grenadier division consisted of two infantry regiments, an artillery regiment, and an assault gun battalion. Its firepower was comparable to a German armored division but its mobility was often greater (7:422).

An analysis of the opposing levels of technology shows that, in general, both sides enjoyed a similar level of advancement. Fire control of artillery on both sides was similar, each able to effectively mass its fires. The German Army used the light machine gun to deliver the majority of the infantry's firepower, and their light machine gun was considered to be the best in the world. An off-setting factor the Allies used, however, negated that advantage. For the first time in the Italian Theater, the artillery variable time (VT) fuze was used (15:523). This allowed artillery air bursts over varying

terrain without prior adjustment of rounds. Another technical advantage used by the Allies was the use of nylon climbing ropes to scale Mount Belvedere. Without this new lightweight rope, the assault may not have been carried out.

Logistics was primarily a problem only for the German Army. The Allied air forces had conducted both strategic and tactical interdiction of lines of communications with outstanding results. The German practice of relying on local resources for food and water reduced the effectiveness of the air campaign, but ammunition resupply was critical. A shortage of artillery ammunition was of particular concern to the Germans.



Resupply of Ammunition for Pack Howitzers (21:20-21)

The greatest problem Allied supply officers faced was keeping up

with the location of forward units so as to ensure constant resupply.

During the battle, both sides enjoyed an adequate level of command and control over their forces. In general, orders were passed and status of units reported in a timely manner. The one exception to this rule was the 1st Brazilian Infantry Division. On occasion, they experienced communication problems with their units. Overall, however, command and control was adequate for all forces involved.

In contrast to many other aspects of the battle, intelligence was one-sided. The Allies, through ULTRA, were aware of the status of German forces and their intentions. This was a strategic advantage to the Allies. At the tactical level, the Allied forces again enjoyed an advantage. A combination of aerial reconnaissance, aggressive patrolling and the use of partisans gave the Allied forces a clear picture of German dispositions.

The greatest area of disparity among the forces involved in Operation Encore was the level of training the various forces had. The 10th Mountain Division was one of the best trained divisions in the U.S. Army. It had received extensive training in Colorado in both winter and mountain warfare, and its soldiers and leaders were highly skilled and in excellent physical condition. While most of its members possessed a high degree of specialized capabilities, it had special teams trained by some of the country's best experts. An example of this were

the teams who climbed and prepared Serriccia-Campiano Ridge for the assault (7:429). The one aspect it lacked was combat experience, as Operation Encore was its first battle. This was, however, offset by its high level of training and thorough knowledge of current doctrine.

The 1st Brazilian Infantry Division, while having previously tasted combat, was not yet up to the standards set by the 10th Mountain Division. When the 1st Brazilian Infantry Division arrived in Italy, it came with a low level of training.

Prior to commitment in this battle, it had received equipment and training and had seen combat against the Germans. Although its overall training level had improved, the BEF still had problems (21:7-10).

Within the German Army, training had always been one of its major strengths. It had to be. But by 1945, training had suffered. Further, the training deficiency was aggravated by the quality of soldiers coming to the front. Most of the personnel now found in units were older or convalescents, primarily trained to perform rear area protection. The saving grace for all German units was a highly effective organization and an efficient staff system. These two factors were key in getting more out of the available German resources than most observers would have thought possible.

The final way of comparing the forces involved in Operation Encore is the most intangible - morale and leadership. The forces involved ran the entire spectrum of varying levels in

both areas.

The 10th Mountain Division had the best of both worlds. The division was created out of a specialized recruiting drive, had experienced tough, realistic training, and had drawn a high number of athletes, some of world class stature (7:425). It had weathered adversity in Colorado that had acted as a weeding-out process, and had retained only people with high motivation. In all, it was an organization of highly skilled, highly motivated people, proud to be in their division. It was particularly fortunate to be lead by a very able commander. MG Hayes, the division commander, was a former Medal of Honor winner whom General Truscott called "one of my ablest leaders" ((7:425). Hayes was always concerned for his troops, often visiting them in the hospital, and rotating battalions from the front to the rear for periods of rest. The regimental commanders possessed an equally good reputation. But effective leadership extended down to the riflemen as well. Due to the high level of motivation and quality of soldiers in the division, there were repeated instances of courageous leadership by individual riflemen.

The 1st Brazilian Infantry Division had a "mixed bag" of qualities. The morale of the individual soldier was repeatedly described in the highest terms by all observers. The soldiers would advance under heavy fire and were anxious to do their part in the war effort. The quality of leadership of the division is less clear. While the division commander described his



regimental commanders in glowing terms, he often sent members of the staff to oversee the actions of his units (20:113). But, when viewed in totality, the division had developed from a raw, untried unit into an effective fighting force anxious to fight and prove itself.

The German forces, in contrast, had somewhat different problems. Throughout the war, its leaders remained highly trained, highly motivated, and able to manage resources and situations far more effectively than most would have expected. But morale was not good. The German Army on all other fronts was on the verge of collapse, and had been in retreat in Italy for over a year. The personnel within the division were mainly older men and convalescents unfit for more mobile, strenuous fronts (7:428). German forces fought more out of desperation than motivation. However, they retained the ability to put up a stubborn defense when called upon and did so when needed.

The turbulence of 1944 drew to a close with the Allied and German forces braced for the final effort. In December, the German offensive of the Ardennes, whose objective was to break the Allied line and capture the port of Antwerp, ended in a staggering defeat. For the 2 month delay in the Allied offensive, the cost to the German forces was a loss from which the Germans would never be able to mount an effective offensive operation. Allied commanders, therefore viewed the final operations of the war in the context of the following: settling the war with Germany with a pure military solution

(unconditional surrender) and ending hostilities in Europe with the maximum number of U.S. troops available for immediate re-deployment to the Pacific.

#### Immediate Military Objectives of the Antagonists

The objectives of the Allied forces in Italy therefore would complement such a plan by preventing German forces from withdrawing and reinforcing the armies in Germany, neutralizing their ability to wage war by destroying the rich industrial area of the Po Valley.

#### Feasible Courses of Action for Each Antagonist

Allied staffs viewed several courses of action the Germans might consider. Some estimates saw no other options available to Marshall Kesselring, German Army Group C's commander, but to surrender. Others feared that Kesselring might order a general withdrawal to the north and find refuge among the former Austrian fortifications that had survived World War I. By withdrawing from Northern Italy, the Germans might then occupy a "National Redoubt" in an Alpine zone extending from Salzburg and Klagenfurt in the east to the Swiss frontier thereby attempting a last ditch stand of indefinite duration. As the Allied staffs correctly deduced, however, there were no indications of such a withdrawal and indeed the Germans continued to defend in place, falling back only if overwhelmingly pressed and using the natural barriers of the Italian mountains and the series of

river lines that dominated the northern portion of the peninsula.

Although Army Group C still maintained an unbroken defensive line in Northern Italy in January 1944, their general ability to wage an effective campaign was rapidly deteriorating.

Marshall Kesselring had moved four divisions out of Italy to other fronts, but by early 1945 the lines of communication were so badly damaged that it was impossible for the Germans to conduct a strategic withdrawal from the peninsula. Kesselring's desire was to create a more flexible strategy whereby he would be allowed to withdraw without pressure to more advantageous positions when the Allies commenced their offensive operations in the spring. Although there was no intention for a strategic withdrawal for Italy, Hitler viewed withdrawal from the present positions under Kesselring's concept as bad for morale of the troops and denied Kesselring the freedom of action to enact such a strategy (7:443). Hitler's directive and recommendation to deploy in depth in the sector with the greatest threat came on 22 February 1945. As a consequence a long standing plan for such a withdrawal, Operation Herbstnebel, was scrapped and in the view of the German Fourteenth Army's chief of staff was a death sentence for the German Army Group in Italy (7:449).

Accordingly the 15th Allied Army had missions to fix German forces in place, prepare forces for the final assaults into Northern Italy, and allow sufficient logistical build-up for such an operation. While the battle for the Ardennes raged, the

Fifth Army took good advantage of the stabilized lines and stalemate situation to re-train and re-arm the force for the final spring offensive. Accordingly no major offensive was to take place until 1 April 1945. In the preliminary attacks to that offensive, the Fifth Army would use its forces to clear German forces off the high ground overlooking highways 64 and 65 and open the way to the Po River. The commencement of these preliminary attacks fell to the 10th Mountain Division which was specially trained and equipped for such a mission. The 10th Mountain Division's mission in this plan was to attack and occupy those key terrain features which would provide the advantageous lines of departure for the Fifth Army's spring offensive (21:22-28).

Opposing the Fifth Army were elements of the 14th German Army Group whose forces held strategic and tactical high ground overlooking highway 64 and Allied positions east of the Reno River. In German possession these peaks afforded them three critical advantages. First, observation of Allied movement toward the rich area of the Po and accordingly early warning of the time and location of the main effort of the Allied offensive. Secondly, occupation of these features was astride two critical roads that led to Bologna: highways 64 and 65. Lastly, this terrain heavily favored the defender in that the peaks had a general elevation of 3,500 feet and were both easy to defend and equally difficult to assault. Accordingly the 232nd Grenadier Division initially positioned three regiments in

line across an 18 mile front. The mission of the division was occupation and defense of the peaks and ridge lines from Porretta north to points south and west of Vergato. In addition to the defensive missions, the forces additionally were tasked with observation of Allied movement.

The Fifth Army's limited objective attack would be a two-phased operation designed to clear the German forces from those peaks and open the way to Bologna. To facilitate this, the first phase would attack and secure Mount Belvedere, Mount della Torraccia and Mount Castillo. Phase two of the attack would be seizure of the ridge line from Mount Torraccia northwest of Mount Castellana and the town of Castelnovo.

#### IV. DESCRIPTION OF THE ACTION

Operation Encore was divided into two phases. Phase I was from 18 February until 25 February. During Phase I the objective of the 10th Mountain Division was the seizure of the Mount Belvedere-Mount della Torraccia Ridge. The objective of the 1st Brazilian Infantry Division was the seizure of Mount Castello. Phase II was from 1 March to 5 March. Tenth Mountain Division's objective was the seizure the high ground vicinity of Castel d'Aiano. The Brazilian Division's objective was the seizure of Castelnuovo. The action will be described by phases.

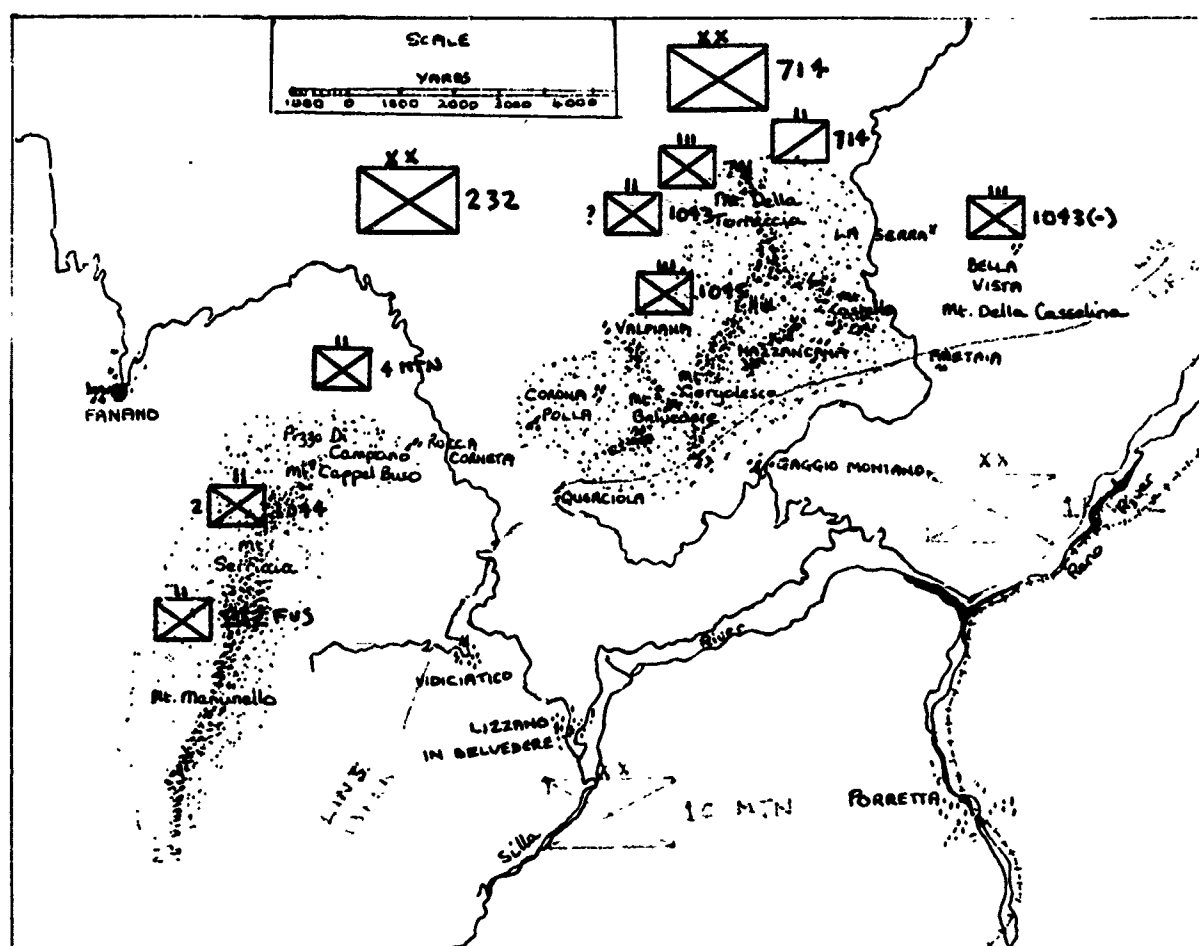
##### Phase I - Initial Disposition of Forces

The 10th Mountain Division occupied the IV Corps left flank with the majority of its troops to the rear of Lizzano in Belvedere but still in the Silla River Valley near the confluence of the Reno River. The 1st Brazilian Division was on the Corps' right flank in the Reno River Valley. Opposing the 10th Mountain Division and the 1st Brazilian Division were elements of the 232nd German Grenadier Division and 714th German Light Infantry Division. Elements of both divisions occupied the 10th Mountain Division's zone while only elements of the 714th German Infantry Division occupied the 1st Brazilian Division's zone. German soldiers from the 232nd Grenadier

### Phase I - Opening Moves By Each Antagonist

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enemy (15:512). At 1930 hours, the preliminary attack to secure the flanking Serriccia-Campiano Ridge was launched. The 1st Battalion, 86 Mountain Infantry Regiment had been selected to seize the key terrain feature in the area. Expert rock climbers of the battalion clambered up the rocks for 1500 feet and laid out ropes after them for the use of other personnel not so well trained in mountain climbing (15:513).



### Phase I of Operation Encore

This battalion, negotiating the rock wall in the darkness, caught the 2nd Battalion, 1044th Grenadier Regiment by surprise



just as it was in the initial stages of relief by elements of the 232nd Fusilier Battalion (15:513). The Germans, thus caught off-guard, gave up the tactically critical heights after offering only a little resistance. By 0600 hours, 19 February, the ridge line was secured. Not until 0655 hours, 19 February, did the German artillery become active and that was quickly silenced by IV Corps artillery.

A detailed description of the attack by the 1st Battalion, 86th Mountain Infantry Regiment is critical to understanding the operation. The battalion's attack aimed at the Serriccia-Campiano ridge directly to its front. A Company moved against Mount Manunello, B Company against Mount Cappel Buso, and C Company against Mount Serriccia. F Company, attached to the 1st Battalion, advanced against positions south of Mount Manunello to provide left flank protection, and one platoon of A Company operated independently of the battalion's right flank to take the Pizzo di Campiano spur. The attack over this seemingly impassable terrain caught the Germans completely unawares. A Company reached the ridge at Mount Manunello at 0045 hours, closely supported by F Company at 0300 hours (15:513). B Company reached the lower slopes of its objective where the first opposition was met in the form of small arms fire. After a 1 hour skirmish, the objective was seized and the German garrison was captured or killed. At 0505 hours, C Company attacked its objective, which it secured after a brief fire fight. The detached platoon of A Company reached the summit of

Pizzo di Campiano after a hard 9 hour climb and successfully occupied the ridge in that area. Before the light of dawn broke, the 1st Battalion, 86th Mountain Infantry Regiment had secured its objective (15:514)

The first enemy counterattacks against the 1st Battalion, 86th Mountain Infantry Regiment were directed against A Company's detached platoon on 19 February. Three assaults, varying in strength from platoon to company-sized, were repelled during the day. As darkness came the Germans renewed their attacks and continued to hammer at the thin line of defense throughout the night of 19-20 February. Prior to losing communications with the Battalion, the platoon called for artillery fire which blasted the Germans off the slopes. By the morning of the 20th, the platoon had killed 26 Germans, captured 7, and wounded many others. Isolated and low on ammunition, the platoon held on until reinforcements finally arrived on 21 February. Between the time it arrived on the ridge and its relief, the platoon successfully beat off seven enemy attempts to recover the position (15:514).

Counterattacks were also made against other units of the 10th Mountain Division along the ridge, but these were also repelled. Two companies of the German 4th Independent Mountain Battalion were virtually wiped out in these counterattacks (15:515). Seven .50 caliber machine guns and two 75 MM pack howitzers were emplaced on the newly seized ridge to support the main attack on Mount Belvedere (15:515).

With the left flank protected by the capture of the Serriccia-Campiano Ridge, the 10th Mountain Division secretly moved its other units into attack positions. The division plan of attack called for the 87th Mountain Infantry Regiment to move northeast up the western slope of Mount Belvedere while on its right the 85th Mountain Infantry Regiment was committed to a frontal attack against the Belvedere and Gorgolesco summits.



View From the Division's Positions to Mount Belvedere (21:80-81)

The 3rd Battalion, 86th Mountain Infantry Regiment was established on the division's right flank and had the mission of protecting this flank by seizing the village of Mazzancana. When the 10th Mountain Division reached Hill 1053, in the saddle

approximately halfway between Gorgolesco and Mount della Torraccia, the Brazilian Expeditionary Force was to attack Mount Castello. It was essential that the launching of this portion of the attack be timed correctly (15:515).

Since the enemy on Mount Belvedere had complete observation over the division position in the Silla Valley, assault troops marched eight miles during the night of 18-19 February into forward assembly areas at the base of the Belvedere-Gorgolesco Ridge. The attack jumped-off at 2300 hours, 19 February without any artillery preparation in the hope of securing initial tactical surprise by the night assault. On the left, the 1st and 3rd Battalions of the 87th Mountain Infantry Regiment crossed the line of departure along the road net near Quericola.

The 1st Battalion pressed northeast up the slope toward Mount Belvedere and north to the village of Valpiana. The leading troops of B Company advanced 800 yards before reaching the first German outpost. At the outpost, sporadic resistance groups of entrenched Germans offered sporadic resistance. They were dug in along a line of bunkers, machinegun positions, and fortified houses which extended from the summit of Mount Belvedere west to Rocca Corneta (15:516).

Extensive anti-personnel and anti-tank minefields were encountered on the western slope near Corona. The anti-personnel mines caused some casualties among the Italian partisans who were showing the Americans the best route forward.

An hour and a half after by-passing Corona at 0300 hours, the

1st Battalion, 87th Mountain Infantry Regiment reached Mount Belvedere in the face of moderate resistance and immediately began clearing a spur of the main ridge running north toward Valpiana. The Regiment's 2nd Battalion meanwhile moved around Corona after pushing through a minefield that had fortunately been uncovered by the melting snow and swung a half mile west toward Polla (15:216).



Soldiers Walk Through a Minefield near Corona (21:86-87)

Polla was taken at 1035 hours on 19 February. By taking Polla, the battallion had punched a second hole in the German's defensive line, the first being the positions on the Pizzo di Campiano. This made the German positions between Polla and

Pizzo di Campiano untenable. The 3rd Battalion, 87th Mountain Infantry Regiment moved into the center of the 87th Mountain Regiments's zone north of Corona during the morning. Throughout the day positions on the regimental front were improved and organized. Two companies of the 1st Battalion, 1044th Grenadier Regiment were dealt heavy casualties during the initial advance and during an abortive counterattack which they launched at 0400 hours (15:517).

Further to the east similar successes were achieved when the 85th Mountain Infantry Regiment sent its 3rd Battalion against Mount Belvedere and its 1st Battalion against Mount Gorgolesco. At 0100 hours, 20 February, the 3rd Battalion first encountered German resistance 300 yards below the summit of Mount Belvedere. Three hours later, leading elements had fought their way to the very top and at 0615 hours the entire battalion was on the ridge between Mount Belvedere and Mount Gorgolesco, where it was caught in an extremely heavy mortar and artillery barrage delivered by the Germans. On Mount Gorgolesco, the 1st Battalion experienced almost identical enemy reaction but by 0610 hours had cleared the summit and advanced along the ridge toward Mount della Torraccia. It was meeting increased German small arms and mortar fire as it advanced. However, German artillery was partially neutralized by previously planned counter-battery fire (15:517).

The 3rd Battalion, 86th Mountain Infantry Regiment experienced little opposition to its supporting attack on the

right flank of the 85th Mountain Infantry Regiment. It occupied the village of Mazzancana and established defensive positions about half-way up the southeastern slope of the saddle on the morning of 20 February. Company strength counterattacks were made against the battalion's positions east of Mount Gorgolesco at 1115 hours and were repelled. Several other smaller counterattacks were repelled later in the day. At 1800 hours, the 2nd Battalion, 85th Mountain Infantry Regiment passed through the 1st Battalion, 86th Mountain Infantry Regiment to continue the attack.

By the end of 20 February, the 10th Mountain Division had secured Mount Belvedere and was beginning to move its units forward to seize Mount della Torraccia. Operation Encore was well on its way to success.

#### Phase I - Continuation of the Action

Air operations for Operation Encore began on 20 February. Missions were flown primarily against German guns that were displaced immediately behind the German lines and also against command posts. The air support was particularly helpful to the 85th Mountain Infantry Regiment. During the next 3 days, the strong air support coupled with the artillery and the Brazilian support in capturing Mount Castello on the division's right flank enabled the 10th Mountain Division to complete its mission (28:466).

The Germans began their counterattacks on 21 February. The

87th Mountain Infantry Regiment successfully repelled a counterattack by 80 men at dawn. The 85th Mountain Infantry Regiment was also attacked at dawn and the Germans inflicted some casualties. The 10th Mountain Division continued the attack to the northeast. Enemy opposition was limited due to the rapid development of the attack. The 10th Mountain Division had the element of surprise on its side and was able to overpower the Germans. Much of the 10th's offensive action during this phase of the battle was characterized by bold night attacks without the aid of preparatory or supporting fires, and in many cases, the division took objectives with bayonets and grenades (28:466).

The 85th Mountain Infantry Regiment began its attack on the final objectives of Phase I, Hill 1018 and Mount della Torraccia, on the morning of 21 February. The 85th Mountain Infantry Regiment shared a defensive line with the 87th Mountain Infantry Regiment. The line of departure for the attack ran along the reverse slope of Mount Belvedere through Polla to Valpiana to the Peak of Mount Belvedere (3:20). The Germans conducted counter attacks at many points along the Belvedere Ridge line prior to the attack the Division was faced with fresh German troops from the 741st German Infantry Regiment. These counterattacks failed to gain any of the lost ground, but they did temporarily halt the Mountain Regiments' forward progress once the attack began. The 2nd Battalion, 85th Mountain Infantry Regiment, inched its way forward and by darkness



reached points below Mount della Torriccia (15:519). Hill 1018 was taken by 2100 hours, 21 February without much difficulty. The 126th Mountain Engineer Battalion provided a great deal of assistance to the 85th Regiment during its attack (2:156). In a matter of a few hours, they were able to construct an aerial tramway up Serriccia-Campiano Ridge. The tramway was over 1500 feet long and not only provided the units with much needed combat supplies, but also served as a method to evacuate the wounded. This method of evacuation cut down the time it took for a casualty to reach the aid station from 8 hours to 5 minutes. The casualty rate was very low. There were only thirty-four casualties of whom seven were killed (2:156). This part of the battle was so well planned and conducted that the 1st Battalion and F Company of the 2nd Battalion were the only elements of the 85th Mountain Infantry Regiment that took part. The 3rd Battalion and the rest of the 2nd Battalion were in reserve at the bottom of Serriccia-Campiano Ridge..

The see-saw battle for the final objective continued into 22-23 February. The Germans continued to launch strong counterattacks against all units in the 10th Mountain Division. The Division, in its first battle, was very impressive. Every assigned objective had been taken. The 85th Mountain Infantry Regiment suffered the highest casualties as they approached Mount della Torracchia. By 0900, 23 February, the 10th Mountain Division had secured its objectives and was consolidating on its positions. Heavy security measures were taken to help prevent

any counterattack that might be mounted by the Germans. During the entire first phase of Operation Encore, the 10th Mountain Division suffered 850 casualties, of which 195 were killed (3:24). The Germans, on the other hand, suffered heavy losses and had 1,200 men captured (28:468). The Germans offered less than expected resistance. During the action, artillery supported the advancing Americans by pounding the Germans continually (15:522-523).

The 10th Mountain Division's performance during Phase I of Operation Encore was outstanding. All unit member performed like combat-seasoned veterans. Not only did their valor and performance earn the respect and admiration of the Fifth Army, but also from the Army as a whole.

#### Phase I - Action by the Brazilians

The 1st Brazilian Division did not make any attack until 21 February (20:111). It had been given more time to prepare for Operation Encore than the division had been given for earlier operations. The 1st Brazilian Division's attack against Mount Castello used tactics similar to those used by the 10th Mountain Division. The 1st Brazilian Infantry Regiment attacked from the west and south (21:84) while the 11th Brazilian Infantry Regiment pushed north across the lower, eastern slopes. The attack by the 1st Brazilian Regiment was the division's main effort. The attack of the 11th Brazilian Regiment was conducted by only one battalion (20:111-112). The main effort had the

support of an engineer battalion and had tactical air support from Brazilian Air Force aircraft. The aircraft strafed German position on 20 February, the day before the attack kicked off (20:113).

The Brazilian attack in support of Phase I began at 0530 hours, 21 February. The 1st and 3rd Battalions of the 1st Brazilian Infantry Regiment attacked from positions north and east of Mazzancana and took hills below the summit within 2 hours. The Germans had had their right turned by the 10th Mountain Division's seizure of Mount Belvedere and withdrew after receiving little pressure. The two battalions converged on the summit in a pincer movement. As they approached the summit of Mount Castello at approximately noon on 21 February, they were preceded by a 15 minute artillery preparation which was fired by the 1st Brazilian Division's artillery reinforced by a battalion from IV Corps artillery (20:112). Those Germans who had not already left were blasted off the top of the mountain (21:84). The mountain was secured and being mopped by 2040 hours, 21 February.

On 23 February, the 1st Brazilian Division continued its advance, attacking toward the village of Bella Vista. This attack paralleled the 10th Mountain Division advance which was moving along the della Torriccia Ridge. The village itself was out-flanked by the 1st Brazilian Infantry Regiment and captured in the face of heavy machinegun fire. The area around La Serra and Hill 958 fell on 25 February when several pill boxes were

reduced in a determined bayonet and grenade assault by the Brazilians (21:84). The Brazilian suffered 246 casualties: 32 killed, 25 wounded, and 9 missing (15:522).

#### Phase II - Initial Dispositions

On 26 February, the 10th Mountain Division was on the Corps' left and the 1st Brazilian Division was on the Corps' right. The 10th Mountain Division was arrayed approximately as shown, with the 87th Mountain Infantry Regiment on its left, the 85th Mountain Infantry Regiment in the center, and the 86th Mountain Infantry Regiment on the right. The 1st Brazilian Division had its 1st Regiment on its left, the 2nd Battalion, 11th Brazilian Infantry Regiment in the center, and the 6th Brazilian Infantry Regiment on the right (20:119).

These dispositions were changed to support Phase II of Operation Encore. The 87th Mountain Infantry Regiment and the 1st Brazilian Infantry Regiment conducted mutual reliefs. In effect, this split the Brazilian division, putting one of its regiments on the left flank of the 10th Mountain Division and leaving its other regiments on the 10th Mountain Division's right flank (20:119). The 10th Mountain Division had been given a corridor through which it was to launch the main effort of Phase II. The Germans still had the 232nd and 714th German Divisions opposing the 10th Mountain Division. They had also brought up the Mittenwald Battalion, cadre from the German Mountain School (25:report of 26 February). There were four

## Phase II - Opening Moves of the Antagonists

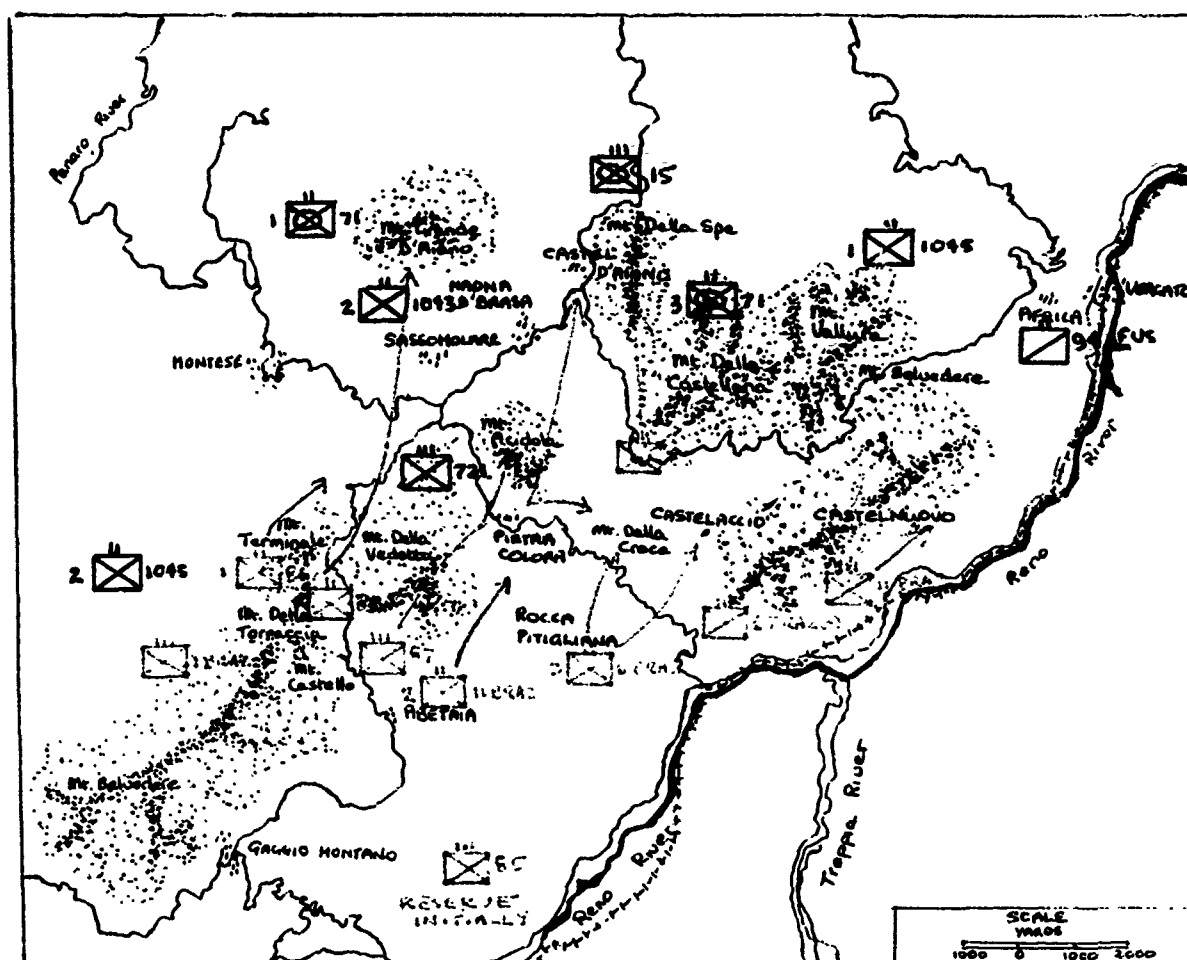
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forces was the shifting of regiments to give the 10th Mountain Division a more favorable sector for Phase II. The Germans were not idle during this period. The seizure of Mount Belvedere - Mount della Torraccia Ridge had disrupted their defensive positions. The Germans tried vainly to get Mount della Torraccia back. Battalions of the 85th and 86th Mountain Infantry Regiments were attacked by an estimated German battalion on the night of 25 February. This counterattack was accompanied by 1000 rounds of German artillery (25:report of 26 February). The counterattack was repulsed by 0430 hours, 26 February. On both the 26th and 27th of February, German mortar and artillery fire harrassed both the Americans and the Brazilians. One position was hit heavily by artillery just as the relief operation between the Brazilians and Americans was taking place, causing many casualties (25:report of 28 February). The Germans were also trying to improve their dispositions. Kesselring was aware of the heavy casualties that the 232nd and 714th Divisions had suffered during Phase I of Operation Encore. He was intending to replace the two divisions with a fresh division (7:433). Phase II of Operation Encore was to catch the Germans as they were trying to strengthen their battered units.

#### Phase II - Continuation of the Operation

Phase II of Operation Encore was intended to push the IV Corps postions to Vergato. It was originally scheduled to begin

The 1st Brazilian Division was to conduct a supporting attack, which the Brazilians thought of as a diversionary attack (20:122). Finally, the weather cleared and the attack was scheduled to begin at 0800 hours, 3 March.



As described above, the 10th Mountain Division was planning to

attack with two regiments abreast. The 86th Mountain Infantry Regiment had Mount Terminale, Mount della Vedetta, Mount Grande d'Aiano as objectives. The 87th Mountain Infantry Regiment was attacking Mount della Croce, Mount della Castellana, and ultimately Castel d'Aiano and Mount della Spe (21:524-525). At 0630 hours, 3 March the artillery began to soften-up the division's objectives. The sky was dotted with occasional air bursts, indicating that the artillery was making extensive use of variable time fuze - deadly against troops in the open (3:30). The actual attack did not start until 0800 hours. The 10th Mountain Division was making no effort to keep the element of surprise.

The 86th Mountain Infantry Regiment crossed the line of departure at 0800. Its 1st Battalion moved around the west flank of Mount Terminale, and its 2nd Battalion moved around the east flank. After the 1st Battalion had successfully negotiated enemy small arms fire, artillery, and minefields, it secured the west slope of the mountain. The 3rd Battalion, 86th Mountain Infantry Regiment was brought up to take over the west flank of Mount Terminale and provide flank security for the regiment so the 1st Battalion could continue to advance. The 2nd Battalion rapidly cleared the eastern slope of the mountain. However, it ran into stiff resistance in the village of Iola, just to the north (21:525). During this advance, the division's most famous soldier was killed. Sergeant Togle, a ski jumper, was killed by an air burst while trying to silence an enemy machine gun



(2:165). The 2nd Battalion captured the majority of the commanding officers and staff of the 2nd Battalion, 721st German Infantry Regiment when it finally captured Iola (21:525).

The tanks of the 751st Tank Battalion provided close support to the 2nd Battalion, 86th Mountain Infantry Regiment during the fight for Iola. In spite of the limited avenues of approach suitable for armored vehicles, the tanks were an essential part of the operations. The Germans had barricaded themselves in Iola where they had turned the thick-walled houses into forts-in-miniature. The tanks led the advance into the town and assisted in the destruction of the German positions (1:2). Without the tanks, the 10th Mountain Division's progress would have been substantially slower.

The 87th Mountain Infantry Regiment had also been successful. The Regiment advanced in a column of battalions against varying resistance. By noon, road blocks had been established at Pietra Colora (21:526).

Across the division's front, the enemy fell back from ridgeline to ridgeline. They did not counterattack as they had done during Phase I of the operation and as their doctrine indicated they should do. Once again, the 10th Mountain Division had attacked just as the enemy was conducting a relief-in-place. This time the 721st German Infantry Regiment was relieving the 1043rd Grenadier Regiment. Extensive use of artillery and air support directed by "Rover Joe" kept the Germans from moving in any reinforcements. They had no choice

but to fall back (21:526). After seeing these results, it is clear that the decision to delay Phase II of Operation Encore until flying weather improved was the correct decision.

After consolidating during the night, the attack began again at 0800 hours, 4 March. The division had chosen to wait for daylight to maximize the use of air power. The 86th Mountain Infantry Regiment cleared its intermediate objective by noon. At 1315 hours, it began the attack to seize Mount Grande, the final regimental objective. In a little over 2 hours, German resistance had been overcome. The 87th Mountain Infantry Regiment made slower progress. Its 1st Battalion attacked Mount Acidola while the 2nd Battalion by-passed and moved ahead to attack Madonna di Brassa. Both fell by 1600 hours. At 1000 hours, the 3rd Battalion attacked to the east against the German flank and took Mount della Croce (21:527). With the high ground secured and mopping up operations underway, the attack to seize Castel d'Aiano and Mount della Spe was begun. The 1st and 2nd Battalions of the 87th Mountain Infantry Regiment were committed in a zone one mile wide against Castel d'Aiano. By 1940 hours, the 2nd Battalion had secured covering positions on the high ground to the west of the town and the 1st Battalion entered the town lead by a tank spearhead (21:528).

On 5 March, the division made the decision to commit its reserve, the 85th Mountain Infantry Regiment. The 85th was committed to the right of the 87th and given the mission to seize Mount della Spe. The 1st Battalion attacked north

directly against the mountain while the 2nd Battalion attacked to the northeast in a flanking attack against Mount della Castellana. Both took heavy casualties. It is worth noting that on 5 March, the Division was able to get only one air support mission because of bad weather (3:34). This may have permitted the Germans to move more freely and react in a stronger manner. The fire directed against the 2nd Battalion was so intense that it fell back, regrouped, circled around to the west and launched a new attack from a different direction ((21:528). The mountain troops had certainly acted rationally, even when under fire.

The heavy defensive fires were the first indication that Kesselring had decided to reinforce the sector. The Field Marshal had been attempting to replace the two German divisions in the sector with a fresh division. Phase II of Operation Encore had caught him by surprise and was causing some concern (7:433). He may have wondered if the Allies were finally trying an envelopment after all the frontal attacks to seize Bologna had failed. Since Kesselring was unable to determine the Allies' intentions, he had no choice but to rush in his strategic reserve, the 29th Panzer Grenadier Division. It was the 15th Regiment of the Panzer Grenadier Division which made four counterattacks against the 10th Mountain Division during the night of 5-6 March (21:88). All failed. The 10th Mountain Division had captured a springboard for the Allied offensive into the Po River Valley.

## Phase II - Action by the Brazilians

The effort of the 1st Brazilian Infantry Division on the right of the 10th Mountain Division was closely coordinated with the Mountain Division's advance. The 2nd Battalion, 11th Brazilian Infantry Regiment was to maintain permanent contact with the 10th Mountain Division (20:121). The Brazilians supported the 10th by securing its right flank, mopping up enemy forces, and taking over division objectives so the Mountain Division could continue to advance (21:88). The primary objective of the 1st Brazilian Infantry Division was Castelnovo. The 6th Brazilian Infantry Regiment was to attack and seize the town; the 11th Brazilian Infantry Regiment was to seize the region northeast of the town and advance toward the town of Africa (20:123). The Brazilian attack was coordinated with the attack of the 85th Mountain Infantry Regiment (attacking to seize Mount della Spe). The attack began at 0800, 5 March and by 1910, Castelnovo had been seized. Elements of the 11th Brazilian Infantry Regiment advanced to positions which overlooked Vergato (15:530). The objective of Phase II of Operation Encore had been achieved.

## Key Events

The success of Operation Encore centered on several key events. The first key event was the decision to use the 10th Mountain Division in the theater. The Division had been a

stepchild of the Army since 1944. It appeared that there was no need for a mountain division. It was trained with II Armored Corps in April 1944 (4:10th Mountain Division) and made an assault in the Aleutians on an empty island. The Army Commanders in France did not want it because it was too light. Finally, the 10th Mountain Division was taken by the 5th Army. This was a matter of luck. The second event was the assault of Serriccia-Campiano Ridge. This caught the Germans totally by surprise. The Division used techniques which were not normally used by Allied divisions in Italy: it climbed a mountain, at night, and assaulted the German flank. The division commander MG Hays clearly used both his imagination and the capabilities of his unit to the maximum. Third, the Germans were not prepared for an assault by a fresh division. The 10th Mountain Division was the only fresh division in the theater. It was up-to-strength and ready for a hard fight. Fourth, both Phase I and Phase II caught the Germans just as they were relieving their units. The attacks multiplied the confusion, and coordinated fire support prevented the Germans from stabilizing the situation. Again, this was a matter of luck. There is nothing to indicate that the attacks were timed based on intelligence. The intuition of the commander was the key, perhaps. Finally, the 10th Mountain Division knew when to shift from surprise night attacks to a bold pursuit during daylight. The operations in Phase I were dramatically different from those in Phase II.

### The Outcome

Operation Encore was a clear success for the Allies. They did have many advantages over the Germans: more supplies, more fire support, and fresher units. But, the Allies had had these advantages for months before the operation began. Operation Encore was a success because an elite unit was used in an imaginative manner at the point and time where the Germans were weakest. It may have been lucky, but whatever the circumstances, the entire operation functioned like clockwork.

## V. ASSESSMENT OF THE SIGNIFICANCE OF THE ACTION

### Immediate Significance

Operation Encore was a success for the Allied forces in all measures. The purpose of this climactic offensive was to mortally pierce the entire German defensive structure which had been constructed between the Pamar and Reno Valleys. The conquest of this watershed from Mount Belvedere to the Castel d'Aiano resulted in the seizure of bases and observation points which were essential to the future offensive against Bologna (20:108). The German situation as described by German Colonel Adolf Heckel sets the scene for the Allied victory.

"...The difficulties in supplying the forces with arms and ammunition had been increased to such extent that substantial shipments for the rehabilitation of those divisions could not be expected. At the beginning of 1945, the shortage of ammunition made it necessary to prohibit temporarily the firing of artillery ammunition except in case of a major enemy attack. Fuel had become so scarce that the shifting of operational reserves had become nearly impossible. Most serious, however, was the air situation in Italy. The employment of German fighter planes or bomber formations was out of the question and the lack of fuel made it impossible to undertake reconnaissance into the depth of the enemy assembly area and of Italian harbors, which were of importance for incoming and outgoing shipments.

In view of these weaknesses, Army Group C considered it impossible to put up any lasting resistance against the expected major offensive in the spring of 1945, which would be launched by an enemy who had at his disposal unlimited quantities of arms and ammunition." (13:4-5)

The winter of 1944 to 1945 was particularly harsh in the area and resulted in large accumulations of snow. The German High Command anticipated an offensive in the spring after a portion of the snow had melted. Toward the middle of February, when the area was covered with deep snow, the 10th Mountain Division surprised the Germans by making a strong attack against the 232nd Infantry division. Field Marshal Kesselring characterized the division as being highly efficient (18:148).

As previously stated, control of the key terrain features was essential for the success of future operations, particularly for the Battle of Bologna. In addition, the Operation Encore objective included highway 64 which was one of the two main routes leading to Bologna on the Fifth Army's front. Future operations into northern Italy would require control of this and other routes which were thinly spread throughout this rugged region. Once the Allies were able to control the Apennines, then only the Po Valley, with relatively few natural obstacles, lay between them and the Alps.

The primary German strategic consideration was to utilize Italy as an advanced front in the defense of the German homeland (19:5). The German defeat during the operation was a serious blow against this objective. The German homeland was coming into the reach of the Allies. To protect this avenue, the German High Command was forced not to let this become the forgotten front. Soldiers and supplies which were becoming critical on all fronts had to be divided up. A portion of them



had to be invested in northern Italy. Operation Encore increased the requirement on the German war machine.

Kesselring's statement that Operation Encore was a battle for the possession of the entrance to the Po Valley at the worst possible point for the Germans, both operationally and tactically, reveals the impact of the loss (7:433). German assets were strained here as well as throughout the theater. The offensive was initiated weeks before the Germans anticipated it and forced the movements of German units when they could least afford it.

#### Long Term Significance

As a result of the seizure and occupation of Mount Belvedere and Castel d'Aiano by the 10th Mountain Division, the IV Corps held the high ground and thus the observation posts overlooking the Po River Valley (13:4-5). The success of Operation Encore caused the German Army Group C to lose the combat effectiveness of the 232nd Grenadier Division and the 714th Light Infantry Division. The German Army Group C commander did not want to fight a decisive battle at the time and place chosen by IV Corps (18:149). It caused the loss of men, equipment, and supplies planned for use in the German spring campaign. The battle was for the gateway to the Po Valley, the possession of which was necessary for the sustainment of German forces in Italy. Because of the 10th Mountain Division's victory, the IV Corps and 5th Army had

achieved a distinct advantage for the launching of its spring campaign. The German Army Group C had been dealt the first fatal blow of the battle for northern Italy.

Operation Encore did not win the war. However, it facilitated the spring offensive of the 5th Army which resulted in the liberation of Italy (7:433-434). It ranks as a significant supporting combat action, which was necessary for the later rapid advance of the 5th Army. Also, it allowed Allied forces to move closer to the German homeland, thus enhancing the pincer effect of the Allied forces in France and Italy as Germany became more isolated from the rest of Europe. Finally, if there ever was a serious consideration by the Germans of occupying a national redoubt with their forces in Italy, Operation Encore reduced its chances of success (7:443).

#### Military Lessons Learned

For the first time during the war, troops specifically trained and equipped for a specific environment - mountains - were employed. The training conducted by the 10th Mountain Division prior to deployment was used during Phase I of the operation and, using mountain climbing techniques, allowed the assaulting battalions to achieve tactical surprise. In addition to application of special environmental skills, the principles of attacking enemy weakness, seizing key terrain, and indirect approach are evident. Training in sub-freezing temperatures, and operating in snow and ice fields during training, acclimated

the troops to conditions found during Phase I of the operations.

The advantages given to the well-trained attacker during the conduct of a well-planned night attack were evidenced by the success of the initial assaults. The keys to the success were the training of the Division and the planning prior to the attack.

Logistics, specifically resupply of rations and ammunition, was of particular concern to Division planners. The narrow and winding mountain trails could not be easily negotiated by resupply trucks. As a result, pack mule companies, Weasels, and Jeeps were used to resupply the battalions defending against counterattacks on the mountains and ridges. The continuous effort of Division logisticians to push resupply forward and the employment of the transport modes noted above was successful.

Much of the equipment with which the division trained and fought was civilian designed, in particular; the climbing ropes, snap links, pitons, and other mountain climbing gear.

The operation offers several tactical lessons. The conduct of patrols prior to the assault and following seizure of assigned objectives was near universal throughout the operation.

In the case of the former, patrols were conducted to secure friendly troop concentrations and to find the enemy. In the latter case, patrols were conducted to provide early warning of enemy counterattacks and to maintain pressure on the Germans as they withdrew. Given the risk associated with discovery of the initial assault while the assaulting forces were exposed on the

sheer wall of the ridge, and in order to achieve tactical surprise, an unsupported attack was planned.



Ski Patrol of the 10th Mountain Division (7:426)

The assault was successful, and attests not only to the abilities of soldiers and leaders, but also to the planning which contributed to the achievement of tactical surprise. The indirect approach, an approach for which the division was specifically trained, was the key to the success of Phase I of the operation. Registration of targets prior to conduct of the assault, responsive counter-battery fires following the seizure

of the assigned objectives, allocation of pre-planned air sorties, and a responsive on-call air support system were hallmarks of the operation. The coordination and execution of fire support means were significant contributing factors to the success of the operation.

The Division continued to use its lessons learned throughout the operation. Patrolling continued to be extensive; not only as a precursor to an attack, but also during consolidation and reorganization. The integration of fire support, to include the 4.2 inch mortars of the Chemical Corps units, was prevalent in subsequent operations.

There are some contemporary applications of the lessons learned in Operation Encore. The continuing development of special operation forces, training, doctrine, and equipment may be attributed to the organization and training of the 10th Mountain Division and its successful conduct of this operation. The conduct of operations by the Division reads, in most instances, like a text book in the areas of patrolling, achieving tactical surprise, conducting unsupported and supported night attacks, and integrating fire support. Those tactical lessons were not necessarily developed by the 10th Mountain Division; however, they were learned and applied. The application served to affirm the correctness of those tactics and techniques.

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