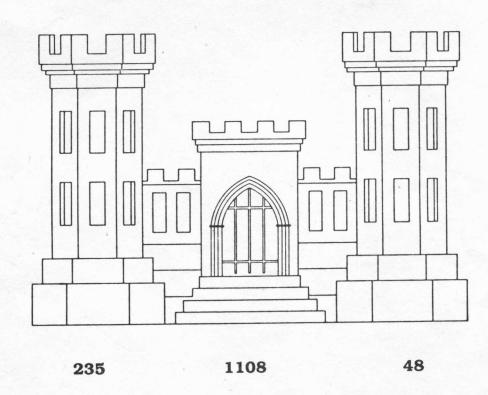




# Review of the 1108th Combat ENGINEERING OPERATIONS WORLD WAR II



# Mediterranean Theater

**Second Corps** 

with Fourth Corps

Sixth Corps

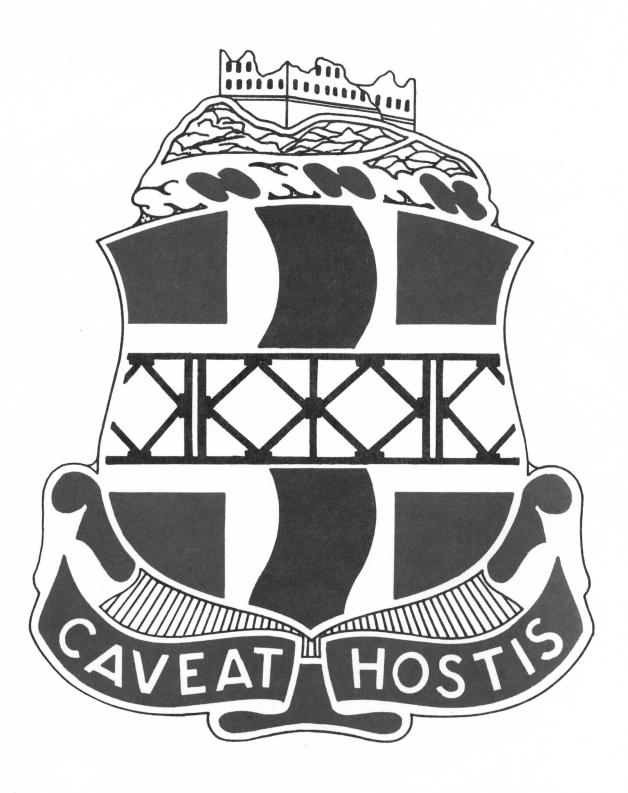
FIFTH U.S. ARMY

OPERATIONS REVIEW PREPARED WITH DATA FROM FIFTH ARMY ENGINEER AND BATTALION HISTORY FOR FORTY FOURTH YEAR REUNION









# 235TH ENGINEER COMBAT BATTALION DISTINCTIVE UNIT CREST

Born of battle during the Italian campaign of World War II, from the fall of 1943 to the German surrender in May 1945. Working with Second, Fourth and Sixth Corps, our battalion earned five battle stars for campaigns: Naples to Cassino, Volturno to Rome, Rome to Arno, Arno Winter Phase, and Po campaigns, and a Presidential Citation with award of Distinguished Unit Badge. These campaigns involved construction of over 1,000 bridges/bypasses, along with recovering mines, opening and maintaining over 2,000 miles of Corps, Division and Regimental main supply routes.

Battle costs were high. We left 33 killed in action, and Purple Hearts for 197 wounds sustained by our engineers (to April 1945).

Unit members won 2 Distinguished Service Crosses, 24 Silver Stars, 21 Bronze Stars, and 3 Soldiers Medals for their outstanding service.

However, we are assured that through excellence of execution of the Italian campaign strategy, thousands of lives were saved and success of the Normandy invasions was assured by gallantry and sacrifices of U.S. forces in Italy. Caveat Hostis.

- ESSAYONS -

Hallas R. Lipuch

24 Feb 1988

# 48 ENG. BN. CREST



#### VOLTURNO TO MAY 11TH

# A. Tactical Situation

Beyond the Volturno, the outlook for the Fifth Army was not very reassuring. To the north, stretched the most difficult terrain (tactically speaking) in Italy--about as fine a defensive sector as could be found in Europe. After reaching the river on 6 October, the Army spent a week regrouping for the attack. The British X Corps was on the left flank: the 46th Infantry Division next to the sea; the 7th Armored Division in the middle: the 56th Infantry Division on the right flank next to the American VI Corps' 3rd Infantry Division. To the east of the 3rd Division, the 34th Infantry Division held the center, and the 45th Infantry Division the right. Further east was the British Eighth Army.

The attack was scheduled for the night of 12 - 13 October 1943, and at 2000 hours on the 12th six hundred guns along the 40-mile front started firing. The Germans were set on their heels. At first, they did not have time to set off their demolition charges. As their retreat became slower, however, they had much more opportunity for destruction and used it to the greatest advantage. Abatis, booby traps, "S" mines and Tellermines, new undetectable mines of concrete, wood and plastics were the order of the day. In many places, Tellermines could not be detected because of the highly mineral soil content and the abundance of shell fragments. Nevertheless, the Allies slogged on through the fall rains and mud and edged around the persistent and omnipresent obstacles.

Soon the Volturno was crossed a second time (in its upper reaches, the river flows south before it turns and goes westward to the sea). The rain continued, washing out temporary bridges and bypasses, flooding roads and bivouac sites. Naturally, the advance was slow; so again, as had happened so often in Italy, the Germans had time to construct a defensive line. The Winter Line, which the enemy was now finishing, was contacted early in November when Fifth Army forces reached the lower Garigliano River and the mountains above Mignano and Venafro.

The drive from Salerno to the Winter Line had progressed slowly but relentlessly. The position of the Fifth Army at the beginning of November, seemed an appropriate spot in which to stop, rest and regroup. The attack on the Winter Line was scheduled for 1 December, but before that time a third corps supplemented the Army's forces. II Corps was brought into the line between the British X and the American VI Corps on 17 November 1943. The line-up then, from left to right, was as follows:

X Corps	46th Infantry Division 7th Armored Division
	56th Infantry Division
II Corps	36th Infantry Division 3rd Infantry Division
VI Corps	34th Infantry Division 45th Infantry Division

Later in November, the 1st Armored Division was added to II Corps. When the attack was made, the main force was exerted up the Liri Valley. The effort was begun with an even larger artillery concentration than the one which preceded the Volturno crossing. Eight hundred guns barked out as the Allies moved forward. The Fifth Army again advanced slowly, painfully. Often the terrain prevented the vehicular movement of supplies, so mules were used. Often the mule trains could not go forward, so pack trains of soldiers were formed. In this manner, food moved to the front and casualties were carried back to the hospitals, until Cassino was reached about 15 January. When the Fifth Army arrived below Mount Cassino, it had been still further augmented, this time by the French Expeditionary Corps, consisting of the 2nd French Moroccan Infantry Division and the 3rd Algerian Infantry Division. The Fifth had now become a cosmopolitan army with four nationalities: American, British, French and Italian.

On 17 January, X Corps launched an attack along the lower Garigliano in an attempt to take the high ground across the river. The river was crossed and bridges erected, but the offensive force was not powerful enough to maintain the complete bridgehead and was forced to make a partial withdrawal. A synchronized attack across the Rapido by Combat Command "B" on 20 January met a similar fate. By 23 January, the Fifth Army units in both sectors were again in much the same positions that they had occupied before the attack began.

On the top of Mount Cassino, the aged monastery of the Benedictines kept a vigilant eye on the fortified town below and the Garigliano and Rapido River valleys. Cassino became the keystone of the entire
operation. Spearheads dashed forward, only to be dulled and bent by German counterattacks. The enemy
also successfully parried all out-flanking attempts. After weeks of fighting, the Liri Valley was renamed
"Purple Heart Valley".

It was during this period that the operation on the beaches near Anzio was inaugurated and many Allied troops were diverted to that sector. The troops left on the Cassino front were, by now, dog-tired. They had worked and fought under the most difficult of conditions. In January and February, Cassino was rubble-ized; from 15 February on, the monastery itself came under fire, as the Americans, and then the New Zeal-anders, continued to try to force the strong point.

On 15 March, the largest attack yet attempted was unleashed against Cassino. All the air power in the Mediterranean Theater was turned loose in an attempt to smash to bits the enemy's greatest strong point. A vicious bombing a month before had done the defenders no apparent harm. Now all along the front the war on the ground paused. This was the Great Experiment. On the one hand, the classic defense of commanding terrain, seemingly impregnable to ground attack; on the other, the greatest massed air onslaught of the war in direct tactical support of ground forces.

Below on the battlefield, doughboys waited hopefully; artillerymen, ammunition piled high beside their pieces, anticipated their turn; and engineers on the muddy roads laid down their tools and halted the dump trucks. Every ear in the valley was cocked to catch the sound. A locust-like drone came from afar. An uncertain murmur swelled gradually; a steady, pulsing throb came from the south, as the specks began to appear, high and small against the sky.

First came the mediums, B 25's and B 26's, in flights of a dozen or more. High above them the fighters flashed like quicksilver, trailing vapor. The bombers came over the target and the flights turned left. Bellies opened, the planes dropped their loads, then wheeled south once more and were gone, only to be replaced by another flight. After the mediums came the heavies, the Fortresses, and around and through them pierced the endless stream of dive bombers. All morning, the hill and the valley across the river were livid with the bright orange of bursting explosives. The strikes of the first bombs were visible, but those that followed were hidden in the billowing ocean of grey and white smoke. There were more than three thousand sorties that morning, and it was hard to believe than any human being could survive such punishment and retain his sanity.

After the bombing, the cannonade began. Every field piece in the valley (American, British, New Zealand, French), ranging from 75's to 240's, joined in one of the greatest concentrations of firepower ever directed on one target. For sheer intensity, the papers said, the barrage surpassed El Alamein, Sevastopol, Stalingrad. It was an artilleryman's dream. The target was in plain view, the range point-blank, the calibration exact, the registration perfect. For over an hour, the artillery continued, until the gunners dripped sweat in the chill air. Monastery Hill seemed to jump with the terrible detonation, seemed to writhe as if under the blows of a massive club. Great holes appeared in the 16-foot-thick walls of the Abbey; its towers crumbled, and huge chunks of masonry flew through the shrapnel-ladem air.

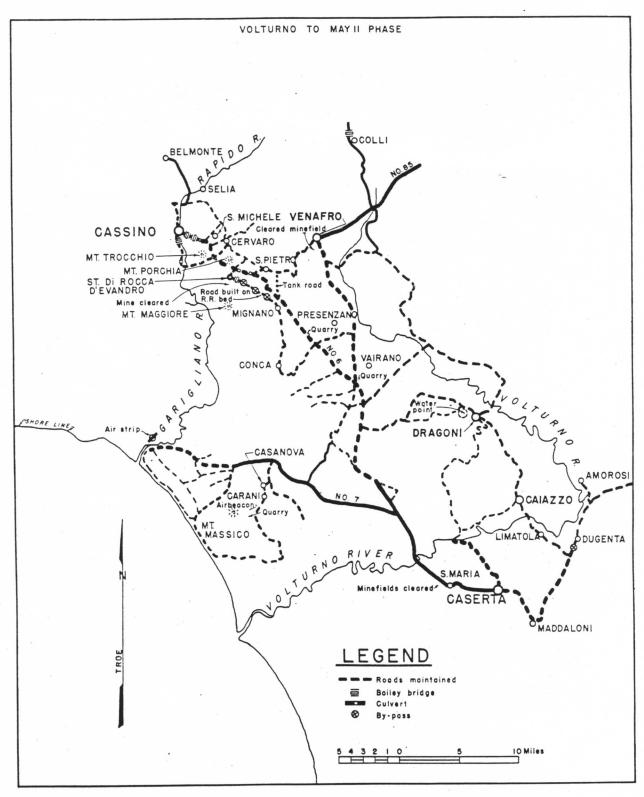
When the barrage ceased at noon, the doughboys moved in. Surely there were no defenders left with any fight in them; surely it would be but a question of bodies and prisoners, perhaps very few of either. But it did not turn out that way, Flenty of defenders remained; plenty of fight, plenty of guns, ammunition, OP's and plenty of perseverance. Machine pistols and Spandaus hemstitched patterns up and down the draws to greet the Allied infantry; the mortar crews brought out the nebelwerfers from sheltering caves; the 88's were once again ready for business as if nothing had happened. The resistance, if anything, was more spirited than before. On the night of 17 March, for example, a New Zealand captain, haggard and grey after two nights and a day of house-to-house, room-to-room fighting said, "I started out with one hundred and fifty blokes yesterday. I'm down to forty-seven now. One sniper got thirty-four of my men in a single day before we could reach him." Allied troops were still unable to capture the Cassino stronghold.

II Corps was now strengthened by the arrival of the 85th and 88th Infantry Divisions. The static period that followed was marked only by patrol activity probing the enemy defenses, and rest and preparation for a new assault. During the winter, the army had not moved north appreciably, but the terrain that was taken should not be measured by a mileage scale. The weather had been miserable, both for personal comfort and for communication. The enemy had been strong and determined. The fighting had taken place in terrain that had served the Italian War College as an army maneuvering ground. The Italians had used this area and practiced defending it, for they considered it the ideal terrain for defense. It was impregnable. No one had ever penetrated this defense. The Germans were determined that no one should now. Those were the conditions which the Allied armies in Italy had to contend with; it was through such a defense that the Fifth Army had inched.

## 1108th Engineer Combat Group

The 1108th Engineer Combat Group, commanded by Colonel Kingsley S. Andersson, arrived at Bagnoli on 10 October 1943 with the 48th Engineer Combat Battalion. The second battalion, the 235th Engineer Combat Battalion, did not land until 28 October, when it joined the group at Caserta. After a brief attachment to VI Corps, the unit was assigned to II Corps on 1 November 1943. The group's combat baptism was first received when one platoon from each battalion was attached for mine clearance work to the 109th and 120th Engineers, then operating in the vicinity of Venafro. The platoons did road work, placed culverts, cleared mines and swept mountain trails for the Rangers. Much of this work was done while subjected to sporadic enemy shell fire. The lessons learned by both platoons in these two weeks of front line duty were later incorporated into a course in mine warfare given by the group to officers and men of the First Special Service Force immediately prior to that organization's initial attack on Mount Maggiore and Mount La Difensa.

During October, the 48th Engineers, commanded by Lieutenant Colonel Andrew J. Goodpaster, maintained roads in the vicinity of Santa Maria, Maddaloni, Dugenta, and Amorosi, part of the main supply route of the Fifth Army. In November, the group and its two battalions began the maintenance of II Corps' road net and by December had assumed maintenance of all the II Corps roads except the Luora - Conca route.



1108 TH. ENGINEER COMBAT GROUP 48TH & 235TH. ENGINEER COMBAT BATTALIONS OPERATIONS

The sine qua non of a winter campaign in Italy, as far as engineers were concerned, was rock, plenty of rock. In December, the 235th Battalion operated two quarries, one at Vairano, and one on Highway #6 at the Presenzano road junction. In early December, the latter pit produced 200 - 400 truckloads of rock daily, which were used on all the road nets in corps and division areas. The battalion reconnaissance section was assigned as a permanent blasting unit to feed the demands of a rock crusher, a shovel and two bulldozers. The quarry functioned 22 hours a day (allowing two hours for servicing equipment), and was illuminated at night by giant torches after the fashion of a Roman festival in Caesar's time. Besides supplying light, however, the torches attracted a not inconsiderable amount of attention from German planes and artillery.

On 14 December, the 48th Battalion undertook the job of making the railroad from Mignano to Rocca di Evandro passable to two-way vehicular traffic. This stretch of railway, running into Cassino along a high embankment in a rough parallel to Highway #6, was at all times under direct enemy observation and heavy fire. The total distance called for was six miles and there were 13 demolitions along the way, including three blown bridges, the shortest of which was 115 feet. The road was often flanked by "S" mines, trip wires and Tellermines. During the construction period, over 300 rounds of artillery fire were received and hits were made on 2 of the 3 Bailey bridges erected. The opening of the road, called "Highway 48", provided an avenue of approach for men and supplies to the areas in front of and to the west of Cassino. This route later became one of the arteries of the attempted Rapido River crossing by the 36th Division in January.

From 20 December to 23 December, the 235th, commanded by Major F. Polich, completed a two-way bypass from Mignano to Route #6, which was the main supply route of the 142nd Infantry, 36th Division. The bypass was constructed through a stream bed in a ravine that was heavily laden with friendly artillery batteries firing continuously. The resultant counter-battery fire made the engineer work highly dangerous. Mount Porchia rose like a huge fist out of the flat plain between Highway #6 and the railroad, halfway from Mignano to Cassino. Except for Mount Trocchio further north, it was the highest terrain in the valley before the ramparts of Cassino.

On the opening days of 1944, the 34th Division was in the mountains to the right, the British X Corps west of the railroad thoroughfare, and in the center, astride the only two roads into Cassino, the 1st Armored Division had massed Task Force Allen and attachments. The Germans were on Porchia and could see everything below them. The 1108th Group was called to give engineer support to the task force on 4 January. They opened and maintained the main supply routes in the task force sector. Twice it was necessary for the 235th to attack and neutralize enemy strongpoints, so the tanks could continue to roll ahead.



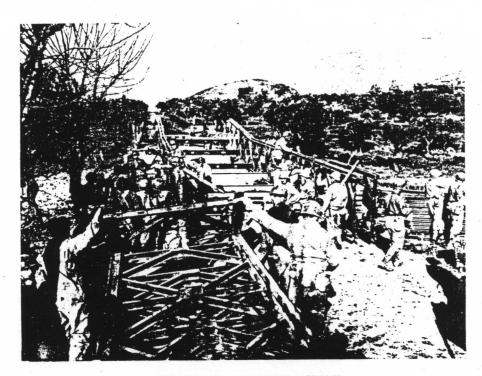
The 48th was busy converting the railroad into the two-lane road, but as the attack progressed a gap developed in the Porchia sector, and the 6th Amored Infantry had tremendous losses. The losses were so great that Companies "A", "B" and "C" of the 48th Battalion was called upon to give infantry support. They were on the mountain for three days and two nights, during which time they helped repel several counterattacks and finally consolidated the important feature. The fight was expensive, and the line companies were ready for reorganization when it was over. The gap in the left flank had been plugged and the enemy driven from the task force objective.

While the 48th was in the line as infantry, the 235th sent its line companies at various times over to the railroad and carried on the engineer work in the face of heavy and continuous fire night and day. In Fifth Army General Orders, 5 June 1944, both battalions were awarded the Presidential Unit Citation for outstanding performance of duty in action.

On 23 January, the 1108th's assignment included the following roads: "Highway 48". (the railroad bed) from Mignano northward, all approach roads to the San Angelo sector of the river west of the railroad bed, and maintenance of the San Pietro - Cervaro road. This work was equally divided until the end of the month, at which time the 235th Battalion was given the task of building a tank road into Cassino. The 48th assumed responsibility for all roads mentioned above, and prepared to build a Bailey bridge across the Rapido River at Highway #6.

The tank trail into Cassino was made from an old cart track roughly following along the right of Highway #6 from La Postanelle, five miles from Cassino. Three and a half miles north of Cassino, at the town of S. Elia, German engineers had blown the banks of the Rapido with such skill that the waters of the river were completely diverted from their normal course and flowed eastward, imundating all the flatlands south of the river as far as the highway. This resulted in the isolation of some American units, and gravely hindered the flow of supplies forward over the Cassino - Belmonte road.

On the night of 28 January, three companies from the 16th, 48th and 235th Engineers were under the direction of the 235th Battalion to make a corduroy road across 500 yards of the water-soaked fields east of Cassino. Trucks loaded with corduroy mats, hexagonal culverts and sandbags completed the job before dawn, for the site was directly under German observation. Through the dawn mist, the tanks began to move from defilade out onto the exposed corduroy. Six of them bogged down and were shelled by anti-tank fire at point-blank range. The water had by then covered the corduroy and the attack stalled. Round after round slammed into the black and burning tanks that lay broken on the field below.



235TH PUTS UP BAILEY NEAR MIGNANO

On 29 January, another attack was made, this time using the now dry, defiladed river bed that extended from S. Elia almost to the German barracks in Cassino. Seventeen tanks poured through this gap to gain a toehold in the northern edge of Cassino and punch a damaging hole in the city's flank defenses. The enemy was vitally concerned with the maintenance of the gap over the Volturno where the Route #6 bridge had been, and although the two enemy nests on the far side were cleared several times, their paratroopers always filtered in again to hold the gap and prevent any bridge reconnaissance. They successfully prevented a crossing here until the middle of March.

During February, the 48th Battalion continued to maintain its road net. The San Michele gravel pit and an air beacon were operated. The 235th's situation was much the same--maintenance of the tank road down to the river, culvert construction, artillery jobs and ditch drainage. On 15 February, the 235th Battalion was detached from II Corps and attached to the New Zealand Corps for the main effort against Cassino by the Eighth Army. Along with its work, the battalion trained in assault tactics and in attacks on fortified positions. One month later, on the morning of 15 March 1944. Dickens broke loose.

"Dickens" was the code word for the Cassino assault. That night Company "A" of the 48th was told to erect its bridge across the Rapido into Cassino. The lip of the 60-foot gap had been blown several days earlier, and when the word was given the panel trucks, ready and waiting up the highway, hurried to the site in the jet darkness. At 0430, 16 March, after four hours of work, the 80-foot, double-single Bailey was completed. Although most unpleasantly anticipated, the bridge was not too difficult in actuality and no serious casualties were suffered, only four men being lightly wounded.

Two nights later, Company "B" of the 48th built a corduroy and gravel bypass to the right of the highway bridge. Then Company "A" constructed a second Bailey bridge, a 90-foot, single-single across the Rapido. The work had to be postponed because of enemy fire and was not finished until 2200, 19 March. About 75 yards south of the river on Highway #6, a dirt road wound eastward to a walled cemetery and eventually terminated at the highway near La Postanelle. This road was of great value for bridge trains and tanks, for it offered the only covered approach to the river directly in front of the city. A stray bomb on the morning of the 15th had gouged a crater 60 feet wide in this route between Route #6 and the cemetery. The gap had to be bridged and Company "C" of the 235th began work the night of 21 March.

At midnight, everything was going well. The launching nose was underway and the panels were being fixed. Then with terrible accuracy, shells fell, creeping up from the road's intersection with Highway #6. A burst of three tore into the bridge and the men in quick succession. As the engineers tried to pull their wounded from the smoking site, another group of enemy shells poured down upon them from Cassino. The company pulled back; the casualties were nine killed and seventeen hospitalized. For the night's work, forty-four Purple Hearts were distributed in Company "C".

During the month of March, there were nine enlisted men killed, forty-three wounded and one officer wounded in the 235th. The 48th Battalion had two enlisted men killed, fifteen wounded and four officers wounded. But there were two bridges over the Rapido in front of Cassino!

By 25 March, the entire group had been relieved of attachment to the New Zealand Corps and ordered into a period of rest and training at Pirola, near Benevento. The 48th Battalion trained at Airola then at Selice until 12 May, working on Bailey bridges, pneumatic treadway bridges, minefields, flame throwing, rigging, and the construction of jeep trails.

The 235th moved to Casanova on 10 April and spent the rest of the month doing a great deal of bridging and demolition work. Bailey bridges were constructed with gin poles and on wheels. All companies spent time on the Volturno River with the Armored Force treadway bridge. Several hours were devoted to the construction and use of the snake. The battalion maintained an air beacon and operated a quarry on the north flank of Mount Massico. Maleria control in the Garigliano sector was executed by the companies in rotation up to the time of the May attack.

#### MAY 11TH TO THE ARNO

## A. The Tactical Situation

On 15 April 1944, a cover plan was put into operation to insure surprise for the next offensive, which was schedule for 11 May. The build-up of men and material was to be concealed from the enemy—a difficult task inasmuch as the Fifth Army sector had been cut to a fraction of its former size and troops and dumps were being moved into front-line positions. The Eighth Army had moved to the left (Cassino was now in its sector) and the Fifth Army was concentrated between the Liri River and the Tyrrhenian Sea. The camouflage work had to make it appear that all old positions were still occupied while all new installation had to be carefully hidden. Movement was under cover of darkness and radio activity was carefully restricted.

By the morning of 11 May, the Fifth Army was ready to strike. The day was a pleasant one, and the night that followed was very quiet—until 11 P.M. Then practically every gun in Fifth Army joined in a barrage that announced the beginning of the attack. The French Expeditionary Corps on the right flank went forward into the "Impassable" terrain, and continued right through it. The enemy's carefully prepared defense sectors were neutralized by 19 May. The Gustav Line was broken; the Hitler Line outflanked. Castelforte fell, then, in quick seccession, Scauri, Formia, Itri, and Fondi. Gaeta was bypassed. The Allies pressed their enemy closely. At Terracina, the 310th Engineers with the 19th Engineers, assigned to II Corps, were so far forward that a sudden but short—lived reversal on 22 May forced crews of two D-7 bulldozers to abandon their machines.

Meanwhile, the Anzio troops had prepared a supplementary attack and opened it on 23 May. Two days later an engineer of the 48th Engineer Combat Battalion from the Garigliano front shook hands with a fellow engineer of the 36th Engineer Combat Regiment from the beachhead. Anzio was no longer isolated, but part of the main Fifth Army front again. The Allies continued up to Rome on 4 June and headed north. By the end of June, the Fifth Army had rolled on to Grossetto. Soon Piombino was taken. The advance continued northward, but at a slower pace. Cecina and Highway #68 were reached. Leghorn fell on 19 August, and now another port was in Allied hands.

At the end of August, the Fifth had cleared the remaining land south of the Arno. Here the Army stopped. Before it was a situation comparable to the one that existed before 11 May. The Allies were on an open, flat plain. In front of them, in place of the Garigliano, lay the Arno, and beyond lay the Pisano hills and the Appennines. Troops were given a chance to rest and relax. As preparations were made for a new attack.

#### 1108th Engineer Combat Group

## 48th Engineer Combat Battalion

On 13 May, the 48th Engineer Combat Battalion, commanded by Lieutenant Colonel Dean E. Swift since ll March, began its participation in the smashing of the "Hitler Line". The battalion, a component of the 1108th Engineer Combat Group under Colonel Kingsley S. Anderson, bivouacked near Piedmont in the Garigliano River Valley and the line companies were assigned road maintenance and malaria control work. When the Fifth Army captured Spigno, the battalion was assigned the task of constructing a jeep trail over the high pass between Mount Petrella and Mount San Angelo to help supply the 88th Division troops that had broken through in that mountain sector. Because the Germans still held the western coastal strip in the vicinity of Formia and Gaeta, it was impossible to use Highway #7 as a main supply route.

Work started immediately. All available bulldozers were used and several dozer pack mules were borrowed from the infantry. Squads of men worked ahead of the dozers, blasting out of the rocks and woods a preliminary path for the dozers to follow and clear. The blasting was made both difficult and dangerous by American and French Army pack trains proceeding up the nearby mule trails, and by the stream of civilians coming down from their mountain refuges to homes in the valley below.

Supply convoys followed the dozers as they progressed. The jeep trail was beginning to approach the final stages when an order came from the 1108th Engineer Group Headquarters on 19 May, ordering the the abandonment of the of the trail and instructing the 48th Battalion to move west of Scauri. Since the 85th Division had broken through in the coastal sector, Highway #7 could now be used as a main supply route and the jeep trail would be unnecessary.

The battalion was now assigned the maintenance of roads in the Formia-Itri area. Considerable work was necessary in both towns clearing the rubble from the streets. Work was then pushed on even beyond Itri, and by the afternoon of 20 May, Highway #7 was two-way to Fondi. On 22 May, battalion headquarters moved into the Fondi railroad station, and Company "B" was assigned to support the 91st Recommaissance Squadron.

Strong resistance was put up in Terracina against the American troops. It was decided that the town would have to be outflanked, and that was possible in only one direction -- through the mountains. Company "A" began building a tank road through the high ground around the town. It proved successful, for when the tanks went up the road into the high ground and fired on the town the Germans gave up.

The next morning, II Corps troops streamed through the town and into the Pontine Marshes. For the next few days, the battalion's activities were in that area, principally up Route #7 and in the section

between the highway and the sea. The engineers assisted the reconnaissance troops as they attempted to maintain contact with the enemy, kept the supply routes open, and drained the marshes that the Germans had flooded in their attempt to impede the Allied advance.

On the morning of 25 May, the first contact with the Anzio beachhead was established. It was made by Lieutenant Francis Buckley and patrol of the 48th Engineers at Borgo Grappa, at 0731 hours. The group met a patrol of the 36th Engineers from the beachhead. By the afternoon, more than ten patrols were attempting to prevent the German rear guard elements from blowing bridges as they retreated. attempting to prevent the German rear guard elements from blowing bridges as they retreated. CONTACT
MADE BY COB 48 FNORM, LE BUCKLEY WAS EXEC & OFCOB, ENTIRE CO. MADE CONTACT—
On 27 May, the battalion was relieved of support of the 91st Reconnaissance Squadron, and its area of

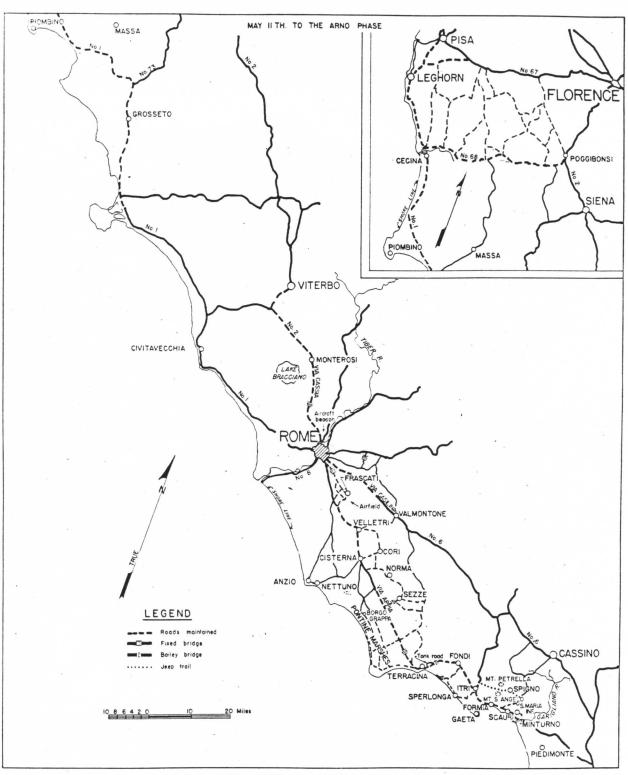
activity shifted in the direction of Sezza. While working on the road approaching Sezza, enemy fire damaged a six-ton truck, a jeep and an R-4 angledozer, but no casualties resulted. Sixty-sevem prisoners were captured by Company "B" in that area.

On 28 May, elements of Company  $^{\rm m}B^{\rm m}$  occupied the town of Norma. Roads were maintained in the area and one bridge was built. By nightfall of the 29th, all roads in the area were open to traffic. In some cases, bridges were discovered mined but not blown.

From the 29th to the 31st, the battalion was temporarily attached to IV Corps instead of II Corps. On the 31st, the 48th moved to the vicinity of Cori and commenced maintaining the road net leading toward Velletri. The battalion's mission was to follow the 310th Engineer Battalion of the 85th Division and support it in every way. This consisted principally in aiding in the construction and maintenance of the expedient dirt roads through the high ground between Loriano and Frascati. Because of the dry weather, it was necessary to sprinkle the roads frequently in order to keep the dust down. As water tankers were not available, they were improvised by placing 3,000-gallon canvas tanks on trucks and attaching these to a sprinkler bar.

As Rome was neared, the 48th worked further and further north, and on 5 June battalion headquarters moved into the Bank of Italy Athletic Club on the southern outskirts of Rome. Companies "A" and "C" moved to new bivouacs northwest of Rome and began the maintenance of roads in that area, particularly Highway #2. By 8 June, Company "A", maintaining the 85th Division supply route, was as far forward as Monterosi on Route #2.

So ended the 48th Engineer Combat Battalion's connection with the Fifth Army in the Italian campaign. Soon the battalion was engaged in amphibious training for the Allied landing on the Mediterranean coast of France.



1108 TH. ENGINEER COMBAT GROUP 48 TH. ENGINEER COMBAT BATTALION 235 TH. ENGINEER COMBAT BATTALION OPERATIONS

## 235th Engineer Combat Battalion

The second battalion of the 1108th Engineer Combat Group, the 235th Engineer Combat Battalion, worked day and night to maintain the approaches to the Garigliano bridges and to hold these bridges intact under the tremendous traffic and the shelling incident to the Allied attack across the river. Them, as the II Corps forces swept into the hills beyond Santa Maria Infante and Castelforte, the demand for supply routes became acute. The battalion commanded by Lt. Col. Allen F. Clark, Jr., since 11 March, was called upon to provide jeep trails as a substitute for Highway #7, which the Germans were holding with fierce determination. Many trails were begun and then abandoned as new stretches of this artery were taken from the enemy.

By the evening of 19 May, the battalion forward Command Post was in a shattered building in the main street of Formia. The momentum of the Fifth Army advance was now almost at peak, and the pressure on the engineers was constant. All bulldozers worked the clock around to open the road to Itri, for the capture of that town would greatly reduce the need for travelling over the slow tortuous mountain trails. Orders were given to open Highway #7 for two-way, high speed traffic. No forward boundaries were given, speed was the by-word.

On 20 May, Company "B" of the 235th was placed in support of part of the 91st Reconnaissance Squadron. The 235th helped open the twisting road from Itri to the sea at Sperlonga, then northward over the irrigation canals and around miniscule lakes to the flats before the cliff at Terracina. The movement was held there for forty-eight hours, while Anti-Tank guns were trained on the sharp bend in Highway #7, and mortar shells dropped from the heights above the water.



235TH BUILDING INFANTRY SUPPORT BRIDGE NEAR LEGHORN

On the morning of 23 May, Identenant Colonel Clark, went on foot around this hot corner into the outskirts of Terracina. For two hours he directed clearance work by two of his bulldozers. The entire party was exposed to direct enemy observation from the town and hill, and was the target of much mortar and sniper fire. The job was completed and the machines returned around the bend without a casualty. The Via Appia was then open through Terracina and the Allied forces were poised for the last thrust to Rome, fifty miles away.

The engineer assignments had overlapped not infrequently, and the engineer picture since the advance from Minturno was a bit confusing. Generally, however, the 235th followed the division engineers who repaired roads just sufficiently to allow their divisions to pass. The 235th reconnoitered, probed the trails, seeking a quick one-way route for the armor. The 48th improved the routes for two-way traffic, laid culverts, hauled gravel. Both did mine work. This combination of the 1108th Group was found to work smoothly, and was continued whenever feasible.

At Terracina, the forward area was split, however, and as the 48th opened the beach route north, the 235th continued up Highway #7. At this time, the 48th Battalion's Company "B" sent a platoon to the 91st Reconnaissance Squadrom, which relieved the elements of the 235th that had been with this organization since the breakthrough. At noon on 25 May, officers and men of the 235th working on Highway #7 met reconnaissance men of the 34th Division driving south from Cisterna.

The advance continued up the Via Casilina to Valmontone and then to Rome. During the month of June, the battalion worked for both II and IV Corps. The group and battalion commanders penetrated as far as the gates of Rome with the leading tanks on the afternoon of 3 June. Two days later, Company "A" of the 235th installed a 120-foot, triple-single Bailey bridge across a blow east and south of Rome. This was a difficult job, for the far bank of the crater had not been secured. Men of the company used rifles, machine guns and 60 mm mortars to knock out a German pocket and establish the bridgehead necessary before any work could be done.

On 6 June, the battalion moved into Rome and assumed responsibility for opening Highway #2, the Via Cassia. One company cleared mines and opened the road for one-way traffic while a second company dressed it up for two-way Corps traffic. The third company, in reserve, did the miscellaneous battalion tasks. When the 48th Battalion left on 17 June, the 23rd Artieri Battalion (Italian) was attached to the 1108th Group, but a full three months of training was necessary before it was able to function with reasonable efficiency.

From mid-June to mid-September, the 235th had to do all the engineer work for the corps. From Rome to Viterbo, the battalion opened 176 miles of road to two-way traffic, installed 38 culverts and three bridges totalling 208 feet, and built eleven bypasses. The dusty, sunbaked, dirt roads, with bypasses often through wheat fields, required oiling or constant watering. Miscellaneous engineer tasks done during this period included the moving and emplacing of eight artillery and anti-aircraft units, the construction of three cub landing strips, the preparation of two dump sites, the clearance of ten minefields, and the operation of sixteen water points, one aerial beacon and two quarries.

The battalion was then ordered to open Route #1 in close support of the 34th Division. Local material was plentiful and the work proceeded rapidly until a 290-foot bridge blow near the Piombino crossroads was reached. Three hexagonal culverts, four sections long, were placed to take care of the water. The dip was open to traffic after eighteen hours of work. From Piombino to Cecina, every culvert and every bridge over each canal was blown by the retreating Germans. At one point on Route #1, there were twelve demolitions within one mile. While on reconnaissance at Cecina, the battalion operations officer and two enlisted men were captured by the Germans.

At the site of the Cecina River, the 109th Engineers had constructed two fords across the stream, each with one-way approaches, developing a one-way traffic circuit. As soon as the bridgehead at Cecina was cleared of small arms fire, Company "C" of the 235th first built a two-way crossing by the old Cecina bridge site, then constructed a 15-foot, two-way wood stringer bridge. By using all the battalion's heavy equipment, plus two 8-yard scrapers borrowed from army engineers, the fills approaching the bridge, totalling 300 feet, were completed in thirty-six hours. Much of this work was done under harassing aerial fire.

On 4 July, Company "A" was placed in support of Task Force Ramey, whose mission was to advance along Route #6821. The other companies continued to work on Route #165 and the laterals to the east. Road maintenance and culvert and Bailey bridge construction continued for the rest of the summer, after the Arno River was reached in late July. The 235th was responsible for the engineer work along the entire IV Corps front of 55 miles. This front remained static until September.