

Stabilization of the Lines

BY 23 July Fifth Army units along the Arno had cleared out almost all the enemy strongpoints and centers of resistance on the south shore of the river. By that date the French on the right of Fifth Army had been completely relieved by units of the British 13 Corps, and American commanders were ready to put into effect the orders calling for regrouping and resting of the troops. A halt was necessary for tactical and administrative reasons. Past experience at Salerno, the Volturno, the Garigliano, and Anzio had shown that for any assault on prepared German positions to succeed it must be well planned and executed with overwhelming superiority at places where the terrain and the element of surprise would most aid the attacker. In view of the formidable obstacles lying ahead in the Gothic Line such planning and accumulation of supply would necessitate a considerable period of relative inactivity on the front line coupled with intensified activity in the rear. Supply, in particular, presented problems which could not be solved overnight. Though Leghorn was in our hands, it was not yet open; our lines of communication stretched far to the rear, to Piombino, Civitavecchia, and even farther south. During the pursuit these lines had sufficed, but a formal attack required more certain and speedy delivery of a greatly increased supply load.

As always, our troops could use the rest period caused by the delay. The push up from the Garigliano had been a long one; troops had been on the move northward more than 200 miles. The short periods of relaxation allowed units along the way a refreshing change but had not been sufficient. Clothing and equipment of all kinds required replacement or repair. Extensive patching during the course of battle had carried the Army to the Arno. Now overhauling in third and fourth echelon maintenance was needed by almost all the mechanical equipment.

When troops were relieved from the line, special service units provided motion pictures for entertainment, and a number of stage shows were brought over from

the United States. Many organizations were able to obtain sections of beach where troops could swim and bask in the warm summer sun. Mail delivery was carried out by air, much of it being flown from America to forward airfields. A liberal pass system was set up, and thousands of officers and men were allowed to attend rest centers organized by Fifth Army in Rome. American beer arrived for distribution. From both the material and morale side everything possible was done to prepare the troops for the coming battles.

A. *REGROUPING OF TROOPS*

As this period began, the 34th Division held the seaward flank with its lines extending inland almost 15 miles from the mouth of the river to the town of Cascina; outposts in the southern portion of Pisa were the most advanced units of the Army. The 91st Division held the center of the Army front. Its sector was about 12 miles wide, running between Cascina and Angelica, a small village just west of San Romano. The 88th Division held the right sector from Angelica to the new Army boundary, a short distance east of San Miniato. The width of this sector was about six miles, but the right of the 88th Division was echeloned to the rear inasmuch as 13 Corps had not pushed forward as far as the American units. The 34th and 91st Divisions were under IV Corps and the 88th Division under II Corps which had taken command of the right sector on 25 July.

Long-range Allied plans called for Eighth Army to form the base of the next push with the main effort to be made against the Gothic Line on the eastern side of the Italian peninsula and in the center north of Florence. The western side was to be reduced to a holding sector; there the troops were to maintain an active defense and follow up any enemy withdrawal. The lines as already established were thinly held by the three infantry divisions, but it was desired to relieve these divisions as fully as possible from front-line duties in order to rest them for the coming operations in which II Corps would supplement the attacks of Eighth Army on the eastern flank with a push through the mountains. General Clark's orders to employ troops ordinarily used in support roles to hold the lines were soon carried out throughout the entire IV Corps sector; in the new sector assigned to II Corps it proved possible to rotate the infantry battalions holding the lines.

1. *Task Force 45.* The first step in the relief of the 34th Division, carried out on 26 July, was the formation of Task Force 45, named for the 45th Antiaircraft Artillery Brigade, the headquarters of which took command of the new unit. During the early part of the campaign this brigade and attached units had been furnishing antiaircraft defense for most of the combat divisions in Fifth Army and for main

supply routes and lines of communication in the IV Corps zone. The necessity for such defense declined with the virtual disappearance of the German air force. The few enemy planes venturing forth were usually out of range or too fleeting in their operations to be engaged by ground artillery of light caliber. It therefore became feasible to use the personnel of many of these units to relieve the infantry.

Created on 26 July by IV Corps order, Task Force 45 consisted of the 91st Antiaircraft Artillery Group, the 107th Antiaircraft Artillery Group, and the 2d Armored Group. The 91st Group was made up of the 435th Antiaircraft Artillery Automatic Weapons Battalion; the 439th Antiaircraft Artillery Automatic Weapons Battalion; the Reconnaissance Company, 894th Tank Destroyer Battalion; and the 673d Medical Collecting Company. Troops in the 107th Group were the 536th Antiaircraft Artillery Automatic Weapons Battalion; the 898th Antiaircraft Artillery Automatic Weapons Battalion; the 91st Reconnaissance Squadron, minus Troop B; and the 671st Medical Collecting Company. The 2d Armored Group, initially in task force reserve, consisted of the group headquarters, the British 39th Light Antiaircraft Artillery Regiment, minus one battery (battalion); the 751st Tank Battalion, less its assault guns; Company B, 805th Tank Destroyer Battalion; the 434th Antiaircraft Artillery Automatic Weapons Battalion (self-propelled), minus a detachment; and the 34th Division Artillery. Corps artillery units later relieved the 34th Division Artillery.

The time permitted for infantry training of the antiaircraft troops was short. With the exception of the 439th Antiaircraft Artillery Battalion the battalions had been performing antiaircraft missions until 24 July when they were ordered into bivouac to begin intensive infantry instruction. The 439th Battalion had been relieved of its assignment on an antiaircraft mission on 9 July and during 11-23 July had been engaged in antiaircraft artillery firing and training at the Fifth Army firing point at Santa Marinella, near Rome. On 24 July, after completing only half its scheduled training, this battalion was moved north to go into the line as infantry. The artillery equipment of all battalions was stored, and necessary infantry equipment borrowed from the 34th Division. Each battery was reorganized as an infantry company: 3 batteries were converted into rifle companies of 4 platoons each with each platoon composed of 2 former gun sections of 15 men; 1 battery in each battalion was set up as an infantry heavy weapons company. Training was directed by regular infantry officers attached for that purpose. Initial training before going into the line was as short as two days for the 898th Battalion but training continued throughout August. Troops in reserve received infantry instruction from the time of their relief until their turn to re-enter the lines again came around. Members of the armored reconnaissance units making up part of the task force had generally been

fairly well trained in fighting on foot before they took over this assignment. The tanks and tank destroyers were used chiefly in an artillery role.

2. *Task Force Ramey.* The often-changed troop list of Task Force Ramey was altered again on 31 July when it took over the sector occupied by the 91st Division. Most of its troops were veterans, and no difficulty, such as had to be overcome in the conversion of the antiaircraft men in Task Force 45, was encountered in the composition of this force. Headquarters, 1st Armored Group, assumed the command functions in this sector and initially held it with the following troops: Headquarters, Combat Command B; the 11th and 14th Armored Infantry Battalions (1st Armored Division); the Reconnaissance Company, 805th Tank Destroyer Battalion; the 757th Tank Battalion, less assault guns; Troop B, 91st Reconnaissance Squadron (Reinforced); and the 91st Division Artillery. The 1st Armored Division Artillery subsequently relieved the 91st Division Artillery.

When the 91st Division was relieved by Task Force Ramey, it was detached from IV Corps and came under control of II Corps. The division was then shifted to the east and took over the narrow sector which had been held by the 88th Division. The 88th Division moved into a rest area northeast of Volterra. II Corps also had control of the 85th Division, which was grouped behind the 91st Division west of Montaione. The 85th Division had not been in action since shortly after the capture of Rome and had made several moves northward behind the general advance of Fifth Army. These changes placed three of the four infantry divisions then making up Fifth Army under command of II Corps. The 34th Division was under direct Army control while the reorganized 1st Armored Division was attached to IV Corps. This division, less units attached to Task Force Ramey, was bivouacked southeast of Cecina completing its reorganization. It moved to the IV Corps area where General Harmon turned over command of the division to Maj. Gen. Vernon E. Prichard, and orders putting into effect the new Tables of Organization for armored divisions were published the same day. The new 1st Armored Division came out of the shake-up a streamlined unit, about two-thirds the size of the old division with many changes in all its components. The new organization had been worked out by armored force experts in the United States over a year previously, but this was the first armored division to be reorganized in the field.

When elements of the 1st Armored Division returned to the lines along the Arno River, the division was quite a different organization from the one which was relieved in the Volterra vicinity about three weeks previously. On 20 July General Harmon turned over command of the division to Maj. Gen. Vernon E. Prichard, and orders putting into effect the new Tables of Organization for armored divisions were published the same day. The new 1st Armored Division came out of the shake-up a streamlined unit, about two-thirds the size of the old division with many changes in all its components. The new organization had been worked out by armored force experts in the United States over a year previously, but this was the first armored division to be reorganized in the field.

Chief among the changes was the elimination of the regiments, two armored and one armored infantry, and substitution of battalions in their place. The 1st Battalion of the old 6th Armored Infantry became the 6th Armored Infantry Battalion, the old 2d Battalion became the 11th Armored Infantry Battalion, and the old 3d Battalion was redesignated the 14th Armored Infantry Battalion. Three tank battalions replaced the two armored regiments. The 1st Armored Regiment shrank to the 1st Tank Battalion and the 13th Armored Regiment to the 13th Tank Battalion, while surplus personnel from the two old regiments formed the 4th Tank Battalion. The 81st Armored Reconnaissance Battalion was increased by two troops and became the 81st Cavalry Reconnaissance Squadron, Mechanized. The 16th Armored Engineer Battalion was reduced by two companies. Another change in designation saw the Maintenance Battalion renamed the 123d Ordnance Maintenance Battalion. The Supply Battalion was disbanded, and most of its vehicles and personnel were incorporated into quartermaster truck companies.

Armored strength of the division was sharply reduced by the changes. In the old armored regiments there were 2 battalions of medium tanks and 1 battalion of light tanks, each battalion having 3 line companies of 17 tanks each. The new tank battalions consisted of three medium and one light company each, thus reducing by three medium and three light companies the total division tank strength. New types of equipment, however, were introduced. First shipments of the latest model medium tank, carrying a high velocity 76-mm gun in place of the 75-mm gun, were received. Assault guns of the battalion headquarters companies became 105-mm howitzers mounted in medium tanks, replacing the M-7 or self-propelled 105-mm howitzer, a turretless vehicle. The latter weapons were retained in the field artillery battalions, which were not altered in number of guns, though their personnel was reduced.

The month of August was no less a period of regrouping for the German forces than for our own. Though Fifth Army had halted at the river, the Allies still possessed the initiative, and it was necessary for the enemy to regroup in accordance with what he knew or could divine of our plans. At the beginning of the month the 16th SS Panzer Grenadier Division held the seacoast sector, the 26th Panzer Division was thinly committed to the east, and the 65th Grenadier Division and the 3d Panzer Grenadier Division were next in line toward the enemy's left. The 20th GAF Field Division was coast-watching at Viareggio. Other battered units slipped into the mountain wall to lick their wounds. Knowing that sooner or later the Allies would again take the offensive and faced with the fact that he could not count on any outside help, Marshal Kesselring needed a mobile reserve to meet an attack from any point. He had the choice of creating such a reserve by robbing the line or of disposing his mobile units in the line to have them ready to move on short notice.

He chose the latter course, relieving the greater portions of the 26th Panzer Division and the 3d Panzer Grenadier Division. These organizations nominally held sectors, but to relieve the regular divisional troops the independent Infantry Lehr Regiment was attached to the 26th Panzer Division and the 956th Grenadier Regiment (362d Grenadier Division) to the 3d Panzer Grenadier Division. Kesselring also relieved completely three of his better panzer grenadier divisions, the 15th, 29th, and 90th, pulling them back to the protection of the Apennines. Before August passed developments in the west forced the withdrawal of the 3d Panzer Grenadier Division entirely. It was rushed to France, while the 90th Panzer Grenadier Division went to the north to guard against the threat of invasion of north-western Italy by the American Seventh Army in France.

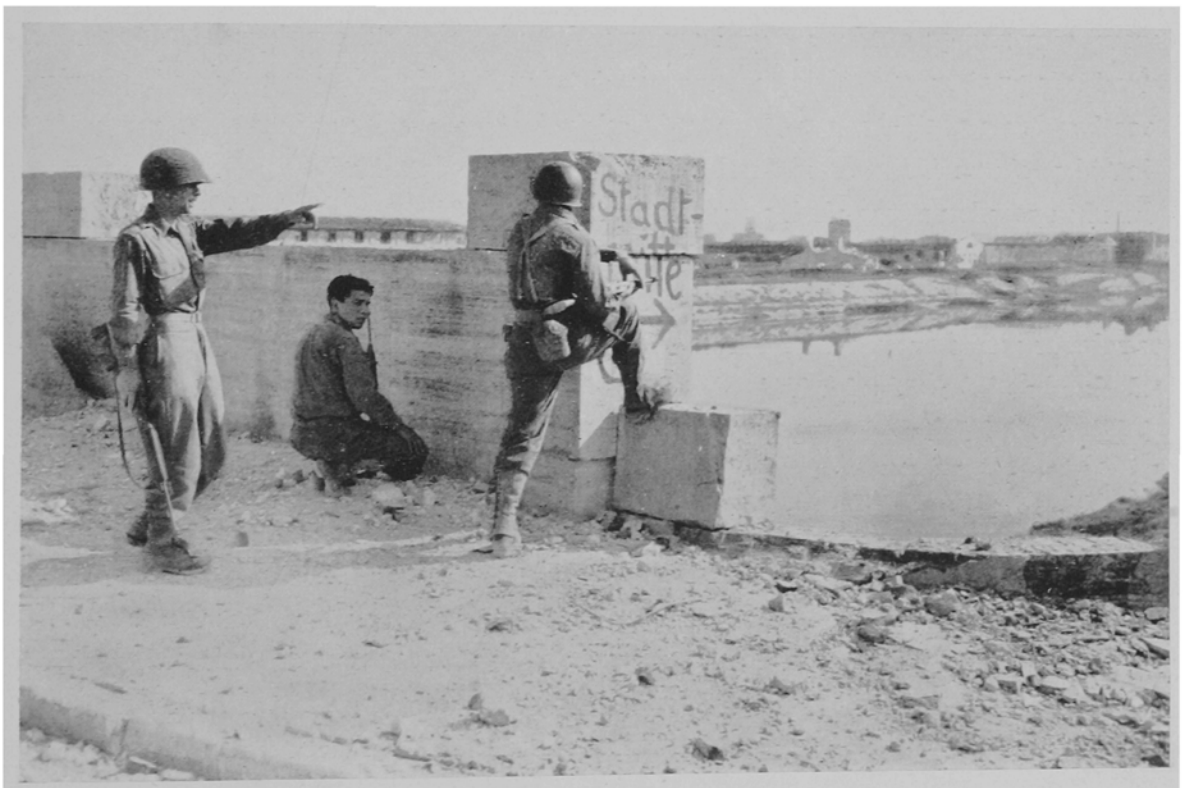
B. *ACTION ON THE RIVER FRONT*

As our troops continued in their positions on the south bank of the Arno, the foe built up his defenses considerably, using the river levees as a first line; he also adopted the American plan of using a minimum number of troops on the line. German defenses consisted of a series of strongpoints and machine-gun positions on or near the north bank of the river with liberal use of mines, particularly in areas in which crossings might be attempted. Where houses were built close to the river the foe installed machine guns in casemates, backed up with light antiaircraft guns. The Pisa area particularly was organized for defense; to the east advance machine-gun posts were augmented by mortars situated fairly close to the front and by some artillery. The Germans made frequent use of self-propelled artillery pieces which fired missions and then moved to new positions. Other artillery installations also moved frequently and made much use of alternate positions. These tactics increased the difficulty of accurately determining the location and amount of enemy artillery north of the Arno. The Germans also had built some coastal defenses along the shore of the Tyrrhenian Sea. Aerial reconnaissance indicated machine-gun positions, barbed wire, pillboxes and mined areas along the coast. As the month of August passed there were evidences of enemy activity and installations echeloned to the north, evidently designed to permit an orderly and slow retreat when the Allied troops resumed their offensive.

Fifth Army troops used generally the same system as the Germans with forward machine-gun and listening posts backed up by mortars and artillery. Main bodies of the troops were bivouacked far enough from the river to be out of artillery range of all but the heaviest German field guns. Approximately one man was on the front line for each three in the rear. German artillerymen used their ammunition



The partisans of Leghorn were typical of the patriots we met north of Rome.



In the southern half of Pisa our troops maintained constant guard.



A patrol halts before moving up to the Arno in the vicinity of Pisa.



40-mm guns guard the ships and trucks in the harbor of Civitavecchia.

sparingly. Harassing fire was placed on roads in the front-line areas, and occasional shelling by a few long-range guns was received farther into our lines.

About two miles east of Pisa the river formed two large horseshoe bends to the north; here the Fifth Army lines ran across the open ends, leaving the Germans on both banks of the river inside the bends. The main American outpost lines for about two weeks were located an average of a mile or more south of the river, but between 7-10 August the forward outposts were pushed generally to the embankment of the railroad line which paralleled the river and Highway 67 and was located on an average of about one-half mile south of the stream. The ground between these posts and the river formed no-man's land where frequent patrol clashes took place. In Pisa, Pontedera, and at scattered other spots our forward lines were located on the banks of the river.

The front settled down to artillery exchanges and to routine but aggressive patrolling. Since the river was shallow—not over waist deep in many places—it was comparatively easy for patrols of both sides to cross under cover of darkness on raiding or reconnaissance missions. The German patrols were very aggressive and remained sensitive to any increased activity on the American side of the Arno. Allied artillery was greatly superior to that of the Germans, and Fifth Army also had several hundred tanks and tank destroyers available, the guns of which were used extensively in destructive or harassing fires. Ammunition for 75-mm and 3-inch guns was more plentiful than standard artillery shells and was used on a lavish scale. The Germans heavily shelled that part of Pisa lying on the south side of the Arno. Little Fifth Army fire was sent directly into the northern portion of the city; it was later discovered that the famous Leaning Tower and most of the other well known structures there had escaped all but superficial damage. American artillery carried out an organized program of counterbattery fire and systematically destroyed enemy occupied houses and observation posts. Frequently tanks and other vehicles carried out large-scale demonstrations as part of the detailed cover plan to hide the real offensive intentions farther to the east. Smoke pots and camouflaged dummy installations were other deceptive devices used in the daylight. Numerous artillery concentrations were laid down with every available artillery, tank, and tank destroyer piece utilized to simulate heavy artillery preparation. At the same time movement of troops and supplies into the area south of Florence was conducted at night in the greatest secrecy.

Mortars and artillery in normal firing destroyed a large number of small boats the Germans were using on the river and knocked out footbridges which the foe had installed in the horseshoe bend sectors. Enemy rear areas received both day and night batterings. American daylight movements were kept to a minimum except

those ordered as demonstrations. On their side the Germans kept under cover during the day as roving patrols of Allied aircraft and keen-eyed artillery forward observers made large-scale movements on the north bank extremely dangerous.

C. *SUMMARY OF THE CAMPAIGN*

The pursuit action of Fifth Army from Rome to the Arno River marked an entirely new phase of the Italian campaign. Tactics of mobile warfare, fast moving forces, and swift changes in the situation came into use for the first time since the fighting north of Naples. Pursuit above Rome was faster and on a greater scale than that from Naples to the Winter Line. Once the main German defenses south of Rome had been smashed, Fifth Army had the enemy on the run and kept him moving until our forces were forced to pause along the line of the Arno for necessary resting, regrouping, and improvement in supply. Although the new front in western Europe detracted somewhat from public appreciation of the action in Italy, the military gains were among the greatest recorded on the peninsula.

Fifth Army was constantly on the offensive throughout the six weeks of pursuit. Occasionally the enemy was able to reduce the tempo of the drive to the north, but never was he able to mount a counterattack in sufficient strength to cause great concern. Delaying and rearguard actions proved the enemy policy throughout; he bought as much time as possible to enable him to complete the work on his Gothic Line defenses and reorganize his battered troops.

Our pursuit of the foe continued beyond Rome without a let-up. VI Corps and II Corps, after taking the city, immediately pushed on to the north. Three days after the capital fell, the 34th Division captured the port of Civitavecchia, ensuring a forward supply base for continued northward action. The Army line had been advanced generally 60 miles north of Rome by 10 June, when IV Corps and the 36th Division took over the chase along the western half of the Army zone. On the eastern flank the FEC relieved II Corps along the general axis of Highway 2, sending its streamlined Pursuit Corps made up of the 1st Motorized Division and the 3d Algerian Division into action above the line of Tuscania—Viterbo.

Great changes in the composition of Fifth Army then began. On 15 June VI Corps was relieved from the Army and assigned to Seventh Army. The 3d and 45th Divisions, the 1st Special Service Force, and many other units also were placed under Seventh Army control. The British 1 and 5 Divisions left General Clark's command. This reduction in strength did not slow the pursuit. On 26 June the 36th Division, after driving up the coast beyond the port of Piombino, was relieved by the 34th Division and also became part of Seventh Army. The 1st Armored

Division came back into the line on the right of the 34th Division, providing a two-division punch for IV Corps as the troops advanced into more difficult country against increasing resistance. On the right the FEC maintained the pace of the advance. In the first of a series of reliefs which were to see all the French troops taken out of Fifth Army and placed in Seventh Army, the 1st Motorized Division left the lines on 24 June; it was replaced by the 2d Moroccan Division.

The first severe enemy resistance was met about 20 June on a line north of the Ombrone and Orcia valleys. On the coast the 34th Division fought three days before fanatical troops of the German 16th SS Panzer Grenadier Division were driven from the town of Cecina on 2 July. Inland strong defensive positions on hills north of the Orcia River held up the FEC for five days, 22-26 June, but finally concerted action by the French and the 1st Armored Division along the inter-corps boundary outflanked the enemy strongpoints and enabled the center and right of Fifth Army to forge ahead. The city of Siena fell to the FEC on 3 July. On 4 July the 4th Mountain Division took over from the 3d Algerian Division, which moved to Naples. The Pursuit Corps headquarters was also placed under Seventh Army and became the 1st French Corps.

The line of Highway 68 now behind them, Fifth Army troops were ready for the last dash to the Arno River and the great port of Leghorn. IV Corps committed great strength for the final drive. The strongly reinforced 34th Division continued up the coastal flank; the fresh 88th Division relieved the 1st Armored Division on the right; and the 91st Division, in action for the first time, was committed in the center between the 34th and 88th Divisions during the final phase. A six-day stand in and around the hilltop town of Rosignano near the coast marked the final German effort to stave off capture of Leghorn. After house-to-house and hand-to-hand fighting in the town, the 34th Division finally cleared it on 8 July. The key mountain defenses farther inland were broken the same day. Leghorn fell on 18 July when the 34th Division and attached units entered it from the south and from the east. On 8 July the 88th Division launched a successful attack on Volterra and continued pushing north toward the river. On 13 July the 91st Division concentrated its power in a narrow zone between the 34th and 88th Divisions. The FEC, awaiting final relief from Fifth Army, moved forward slowly and captured Poggibonsi on 14 July. On 22 July all remaining French were relieved by British troops as Eighth Army assumed command of the eastern part of Fifth Army zone.

Troops of the 91st Division reached the Arno at Pontedera on 18 July, and within a few days both flanks of the Army moved up to the line of the river. Elements of the 91st Division attached to the 34th Division entered the southern half of Pisa on 23 July; 3 days later, when extensive regrouping of troops was started, the forward outposts were generally along the south bank of the stream, approximately

150 miles north of Rome. About 20 miles beyond the river lay the Apennine Mountains, bristling with the publicized German Gothic Line defense works, which barred the way to the industrial cities in the Po Valley north of the mountains.

The two months' campaign to the Arno was costly to both sides, but much more so to the Germans since their casualties had been heavy and their replacement problem much greater. In prisoners alone the advance from Rome to the river saw Fifth Army units capture 14,226 uninjured Germans with more than 2000 additional prisoners evacuated through medical channels. The 162d Turcoman Grenadier Division was practically wiped out, losing over 2500 men as prisoners. The 19th and 20th GAF Field Divisions also were roughly handled, the former losing nearly 1200 men to Allied captors. It was not until the lines were definitely stabilized that the heavy flow of Germans to Fifth Army prisoner of war cages ceased; 28 July was the first day since the start of the summer offensive that no prisoners were received. On the material side losses in German military transport were figured in the thousands; scores of towed artillery pieces and antitank guns were destroyed or captured. Approximately 200 tanks and self-propelled guns were knocked out, the 1st Armored Division alone claiming 40 Mark VI Tiger tanks out of the total.

Fifth Army, its troops constantly on the attack, also had suffered considerable personnel losses. Battle casualties for the Army totaled 17,959. American units had 1933 killed, 8777 wounded, and 549 missing. French casualties amounted to 1342 killed, 5016 wounded, and 322 missing. Major American ordnance losses for the pursuit included 100 light tanks, 151 medium tanks, and 40 tank destroyers.

D. *ADVANCE OF EIGHTH ARMY*

See Map No. 1

The advance of Fifth Army to the line of the Arno River was paralleled on the east by Eighth Army. The northward movement was slower than that of the Americans since the British and Allied troops were more thinly disposed across a front nearly three times the width of that of Fifth Army. By 15 August, however, Eighth Army had captured Florence and was well north of the port of Ancona on the Adriatic coast.

On 5 June when the Americans began pushing beyond Rome, Eighth Army troops were disposed as follows: on the left flank 13 Corps, composed of the 6 South African Armoured Division, the British 6 Armoured Division, the British 4 and 78 Infantry Divisions; in the center 10 Corps, with the 8 and 10 Indian Infantry Divisions and the 2 New Zealand Infantry Division; on the right flank 5 Corps, operating under command of AAI and composed of the Italian Utili and the

4 Indian Infantry Divisions. Eighth Army had two corps in reserve, the 1 Canadian Corps (1 Canadian Infantry Division and 5 Canadian Armoured Division) and the 2 Polish Corps (3 Carpathian and 5 Kresowa Infantry Divisions). Eighth Army thus had 12 divisions with 2 divisions additional in the independent 5 Corps. The British plan of pursuit called for 10 and 13 Corps to follow the enemy, prevent transfer of troops to the Fifth Army front, and reach the line Terni—Narni—Orvieto in preparation for a drive on Florence. 5 Corps was to contain the enemy on the Adriatic coast and follow any withdrawal.

1. *Action to the Lake Trasimeno Line.* Spearheading its pursuit with armor, 13 Corps advanced with two columns abreast. On the left the 6 South African Armoured Division led, followed by the 78 Division on the axis of Highway 6; on the right tanks of the 6 Armoured Division moved up the Palestrina—Tivoli road. Behind them came the 4 Division. By dark on 6 June the left column had advanced 18 miles north of Rome after it left Highway 6 and continued north on Highway 3; the right column by-passed Rome and moved up Highway 4. On the night of 9 June 10 Corps took command of the right column, leaving 13 Corps with only the 6 South African Armoured Division and the 78 Division. These two units were directed against Orvieto with the mission of clearing the area east of Lake Bolsena to the west bank of the Tiber River.

The next morning the South Africans attacked against heavy resistance which set the pattern for the next three days; however, by 13 June Orvieto was in sight. The 78 Division came abreast. On the morning of 14 June both divisions moved through Orvieto, which the Germans had evacuated, the 78 Division continuing its advance north on Highway 71, and the South Africans swinging northwest. The armored division traversed difficult country and encountered many demolitions but forged ahead to take Allerona on 15 June. Heavy rains slowed operations for two days until an armored task force advanced through the infantry and occupied Chiusi on the morning of 20 June. Part of the town was lost in a counterattack the same night, and the force was temporarily stalled. Patrols reported stiff resistance could be expected south and west of Lake Trasimeno.

10 Corps, meanwhile, moved to clear Highway 5, the main lateral highway between Rome and the Adriatic port of Pescara. The Corps had the 2 New Zealand Division on the right, the 8 Indian Division on the left, and the 10 Indian Division in reserve. The New Zealanders began a push up Highway 82 to clear the Avezzano area while the 8 Indian Division thrust up the Frosinone—Subiaco—Arsoli road. In four days this mission was accomplished. The 8 Indian Division reached Subiaco late on 6 June, against little opposition, but it was handicapped by many demolitions. By the morning of 10 June reconnaissance elements struck northwest while the main body occupied Avezzano.

After Highway 5 was secured 10 Corps struck toward Narni and Terni, two important links in an extensive road net. Considerable regrouping of troops took place before this operation. The 6 Armoured Division and the 4 Division were transferred from 13 Corps, but the latter reverted a few days later. The 2 New Zealand and 10 Indian Divisions remained in position and came under Army control. The boundary between 13 and 10 Corps was fixed on the Tiber River, which narrowed the 10 Corps zone considerably. The armored troops resumed the advance on 10 June and reached Highway 3 on 11 June; two days later tanks entered Narni. The Indians moved up with little fighting and on 14 June contacted the 6 Armoured Division at Terni.

Having secured this road net, 10 Corps attacked toward Perugia, an important rail and highway communication center east of Lake Trasimeno. The 6 Armoured Division moved up Highway 79 to Todi and thence north to Perugia while the 8 Indian Division advanced along Highways 79 and 75. By 17 June the armor was seven miles south of Perugia, and the city was occupied three days later. The tanks pushed up Highway 75 until stopped by heavy fire near Magione. On the Corps right flank the Indians reached Foligno without any enemy contact, crossed the Chiascio River on 18 June, and pushed north to seize the important road junction northeast of Perugia.

2. *The Advance to Florence and Ancona.* By about 20 June Eighth Army was against a continuous line of enemy resistance which ran on an east-west line through Lake Trasimeno. The area east of the lake was especially suited for defense. The impassable water barrier of the lake itself guarded the flank; east of the lake was a series of high mountains south of Magione protecting the entrance to the Tiber Valley. The country east of the Tiber was even more mountainous so the main effort of the Army was shifted to 13 Corps in the better, but still difficult country west of the lake.

The 4 Division was brought into the center of 13 Corps, which massed 3 divisions on a front of about 15 miles. By 24 June plans were completed for an attack by the South Africans to clear Chiusi and Sarteano, with a push in the center by the 4 Division and an attack up Highway 71 by the 78 Division. The South Africans attacked the morning of 24 June and took Sarteano; the enemy in the Chiusi sector pulled back to avoid being cut off. A bridgehead was established on 27 June over the Astrone River. Highway 73 was reached and crossed on 5 July when determined resistance stopped the division which prepared a new co-ordinated attack.

In the narrow central zone of the 4 Division heavy resistance was met from the start, but the advance of the South Africans forced an enemy withdrawal in the center on the night of 27-28 June. By the end of the month the division had captured its first objectives and was advancing steadily against light enemy rearguard

actions, reaching the line of Highway 73 on 5 July. Fierce opposition was met from Germans entrenched in the hill country east of Arezzo as the enemy sought to defend the Arezzo—Florence highway, his main supply and withdrawal route.

To break the Lake Trasimeno line on the Corps right the 78 Division astride Highway 71 was forced to make a frontal assault over the Pescia River. Heavy casualties were suffered when the crossing was successfully accomplished on 24 June. Close contact was maintained with the enemy until an abrupt withdrawal by the Germans was followed into Castiglione on the morning of 29 June. Although Highway 71 north of Castiglione ran through good tank country, it was first necessary to clear the hills on the left. In slow, heavy fighting the hills were swept, and on 3 July the division advanced through Cortona where the 6 Armoured Division relieved it.

The attack of 13 Corps on 24 June made itself felt along the 10 Corps front, and two days later the withdrawal of enemy forces allowed the occupation of some of the mountains east of Lake Trasimeno. By 30 June all German strongpoints within a radius of six miles north of Perugia had been liquidated. Both the 6 Armoured Division and the 8 Indian Division were transferred to 13 Corps; 10 Corps received the 10 Indian Division and orders to follow up any enemy withdrawals.

13 Corps now found its drive to the Arno Valley blocked by five enemy divisions on a defensive line running from Arezzo west to Siena, all through mountainous country. The plan to break this position called for rolling up the enemy right flank and an advance up the east side of the Arno Valley by the 6 Armoured Division with a wide thrust on the left by the 6 South African Armoured Division. The 4 Division in the center would advance up the west side of the Arno toward Florence. The 2 New Zealand Division came under 13 Corps on 11 July to clear the mountains which threatened the flank of the tank push up Highway 71. The New Zealanders and the 8 Indian Division were also to take over the right half of the Fifth Army zone later in July.

The 6 Armoured Division met heavy resistance but by dawn on 15 July had taken Arezzo; advancing rapidly, it crossed the Arno that night. The capture of Arezzo brought the hub of the highways on the Corps right flank under control, and the 6 Armoured Division could protect this flank as the main attack on Florence developed. Tanks cleared the eastern bank while the 4 Division advanced slowly against heavy opposition on the west side of the Arno. On 28 July it attacked the enemy on Mount Scalari, where twin 2500-foot peaks lay directly across the line of advance. After a hard fight the southern slopes were taken, and the enemy positions southwest of the Arno began to fall apart under the pressure of the attack. The Germans began to pull their troops across the river, falling back in good order behind

delaying actions and demolitions. On 4 August the 4 Division reached the Arno just east of Florence.

On the left flank of 13 Corps the 6 South African Armoured Division began its attack on 15 July along the route Radda—Greve—Impruneta—Florence. After temporarily stabilizing the line while relief of the French was carried out on the left the division resumed its advance through the mountains. When the high ground was cleared, the division launched a heavy attack through the center on 1 August. Strada Chianti fell and tanks and infantry occupied Impruneta on 3 August. Troops moving up Highway 2 above Casciano encountered many mines and booby traps. During the night of 3-4 August the Germans evacuated the area south of Florence, leaving only a few snipers to contest the last few miles into the southern part of the city. Forward troops, reaching the banks of the Arno in Florence on 4 August, found all the bridges destroyed except the Ponte Vecchio, where demolished buildings had blocked the approaches and rendered it useless. The enemy continued to occupy the main part of the city north of the river, and Eighth Army paused while the remainder of the river line was consolidated.

After their relief of the FEC the New Zealanders continued north in the old French zone against moderate opposition, slowly clearing the area south of the Arno. Following ten days of fighting, the Germans evacuated in front of the New Zealanders on the night of 3-4 August; contact was made the following day with the South Africans in the southern outskirts of Florence. On the extreme left the 8 Indian Division had easier going. Attacking on 3 July astride the Certaldo—Castelfiorentino road, the Indians took the latter town the next day, cleaned out the area around it, and advanced in strength toward the river. After clearing Empoli the division turned eastward, crossed the Pesa River, and linked up with the New Zealanders. Thus by 4 August Eighth Army held the line of the Arno east of Fifth Army.

The Adriatic side of the Italian front, where 5 Corps with the 4 Indian Division and the Italian Utili Division had long confined its activities to patrolling, came to life on 8 June when the Germans began to withdraw north in conformity with their retreat on the west. Allied troops followed the withdrawal and advanced for almost two weeks without a major contact. On 15 June the 2 Polish Corps took over the 5 Corps zone, relieving the 4 Indian Division with the 3 Carpathian Division. At the same time the Utili Division was renamed the Italian Corps of Liberation. These two units continued northward toward the important port of Ancona, the Poles advancing up Highway 16 along the coast and the Italians up Highway 81.

Most of the towns were found to be undefended or in the hands of Italian partisans until the line of the Chienti River was reached. The 5 Kresowa Division was moved into the line between the other two divisions as the Corps prepared

to force a crossing. On the night of 29-30 June, however, the Germans withdrew again. The Allied units followed them on across the Potenza River, and some elements were beyond the Musone River before fierce resistance forced them back to the south bank. A heavy German counterattack supported by Tiger tanks was beaten off during the night of 2-3 July; by the evening of 5 July Badia was cleared; and Osimo was finally occupied two days later.

The 5 Kresowa Division met fierce resistance south of the Musone River until the fall of Osimo; the enemy then withdrew north to the hills where he could command the roads to Ancona with his artillery. On the morning of 3 July the Italians attacked toward Filottrano in an effort to clear the hills; after six days of seesaw fighting the town was taken and finally held on 9 July. The Poles then launched a co-ordinated attack on the positions defending Ancona. The plan called for a breakthrough on the Osimo—Agugliano axis and exploitation to the coastal highway above Ancona, thus outflanking the port. The 5 Kresowa Division was to make the main thrust while the Italians attacked northward to protect the left flank. Supported by the Desert Air Force, the attack began the morning of 17 July. Opposition was stiff, but the first day saw all initial objectives taken. The next day the enemy scrambled back across the Esino River, giving up the entire area around Ancona which the 3 Carpathian Division occupied after an almost unopposed advance up Highway 16. In a week of local gains the line was pushed far enough north to place Ancona out of artillery range, and Eighth Army held a port for use as a forward supply base for operations against the Gothic Line, eliminating the necessity for the long overland haul from Bari.

From 5 June to 4 August Eighth Army covered a distance of about 145 miles from Rome to Florence and 125 miles along the Adriatic from Ortona to Senigallia north of Ancona. A total of 7656 Germans was taken prisoner. British and Dominion units lost 2304 killed, 9973 wounded, and 767 missing in action. Polish elements suffered casualties of 399 killed, 1735 wounded, and 42 missing; Italian losses amounted to 154 killed, 517 wounded, and 75 missing.

*Supporting Activities*A *AIR FORCE ACHIEVEMENTS*

During the Rome—Arno phase of the Italian campaign the Germans suffered heavily from air attacks as well as from ground assaults, particularly in the early days of their flight northward. Fighters and medium bombers of XII Tactical Air Command provided air support for Fifth Army throughout the entire pursuit action. In a defensive role they maintained such superiority that the Luftwaffe was almost never seen in the daylight and only seldom at night. In an offensive role fighter-bombers ranged far and wide across the front and into the enemy's rear, constantly harassing him with armed reconnaissance missions and smashing vital objectives in planned attacks. Farther back, B-25 and B-26 medium bombers pumelled lines of communication, dumps and troop concentration areas.

The air force had especially good hunting in the early days of battle north of Rome when enemy forces were still in wild retreat and were clogging the roads. On one highway leading away from the capital by actual count an average of 10 vehicles per mile were seen destroyed for a distance of 50 miles along the road. Columns of enemy machines, lined bumper to bumper, were mercilessly strafed and bombed. From the fall of Rome until 19 June approximately 1000 sorties per day were flown in support of ground troops. More than 1000 German vehicles were claimed destroyed, about the same number damaged, and between 600 and 800 railroad cars destroyed or damaged. The number of personnel casualties inflicted could not be estimated. As the lines became less fluid and the Germans reorganized to some degree, achievements were not as spectacular but good results were obtained, particularly farther to the rear of the enemy lines where efforts were directed primarily to the destruction of communications.

On 10 July AAI ordered the bombing of bridges across the Po River. It had been hoped some of these bridges might be captured intact when Fifth and Eighth Armies entered the Po Valley, but by that date it had become apparent that a rapid

breakthrough to such a depth was impossible. Bombers and fighter-bombers, turned loose in the valley, rapidly knocked out many of the bridges and by the end of July the air force reported principal rail routes across northern Italy from the French frontier to the Adriatic Sea had been cut at least temporarily. Bridges, railways, and roads closer to the front lines also were heavily blasted.

To improve pin-point bombing of ground targets located directly in the path of the advancing troops, a new method of air-ground liaison was tried out between the 1st Armored Division and the 344th Fighter Group. Patrols of fighter-bombers appeared over the front lines at pre-determined times. If no specific target was designated by ground elements, these planes attacked targets of opportunity wherever found. If ground forces desired a definite target covered, they made contact with a Cub observation plane containing an artillery observer, and this Cub in turn directed the attack of the bombers. Gun positions were favorite targets for such attacks. Lack of sufficient worthwhile objectives was the principal drawback to the experiment.

When Rome was captured, it was estimated the German air force in Italy consisted of 100 Messerschmitt 109 fighters with an additional 15 planes of this type for use in tactical reconnaissance; 45 Focke-Wulf 190's, equipped as fighter-bombers; and 20 Junkers 88, Junkers 188, and Messerschmitt 410 long-range reconnaissance craft and bombers. In addition there was an undetermined number of obsolete German and Italian aircraft of various types which were used mainly for night operations against Allied troops and installations. Some of these training units were based in Yugoslavia and had been in action against the Partisans there, but as the lines progressed northward Allied troops in Italy came within their range. Outmoded Junkers 87's, the once-feared Stuka dive bombers, were frequently used for night bombing during the light of the moon. Night patrols of our Beaufighters shot down a number of these, and our heavy anti-aircraft guns accounted for several. By the middle of August the enemy's air strength had been reduced by losses and withdrawals to approximately 70 Messerschmitt 109 fighters and the same number of reconnaissance craft as at the fall of Rome. All fighter-bombers had been moved to bases outside Italy.

While the tactical units of the air force battered the enemy ground forces directly, strategic bombers based in Italy engaged in a co-ordinated campaign against German oil supply centers and factories. Results of this campaign were noted in large numbers of German army vehicles abandoned due to lack of gasoline. Air evacuation of our wounded soldiers was stepped up greatly during the period, more than 8000 casualties being flown from forward stations to rear area hospitals by army transport planes.

B. *FUNCTIONS OF SUPPLY*

The period of resting and regrouping of Fifth Army along the Arno also provided time for building up supplies for the future operations. Supply lines had been long and strained in the early stages of the pursuit, with truck transportation being almost the only available means of getting supplies forward. Basic requirements, however, had always been met, and, as the lines moved northward and good ports were captured, salvage and repair crews followed quickly to put these facilities in order.

The first supply convoy entered Civitavecchia on 11 June. Though the port had been badly damaged, its availability greatly eased the supply problem. The first LST poked its bow doors into a berth on 12 June, and two days later Liberty ships began unloading in the roads. Cargo began coming ashore at the rate of 3000 tons a day, while the amount of supplies unloaded at Anzio decreased in proportion. Land supply lines were thus shortened approximately 75 miles. By 20 June wreckage had been cleared sufficiently to enable Liberties to berth alongside the docks. Unloading of supplies was increased to 5000 tons daily. The Army's rapid advance shortly thereafter opened the harbor at Piombino, also badly damaged by our own bombing and by German demolitions. The first salvage party arrived there on 28 June, and three weeks later facilities had been improved to such an extent that two Liberty ships could berth at the docks at the same time and shore steam cranes were again in operation.

Capture of the smaller port of Santo Stefano, located across a large lagoon from Orbetello, southwest of Grosseto, helped the fuel supply situation. The first tanker entered this port about 1 July. Petroleum storage tanks were repaired, and installation of pipelines aided in the distribution of gasoline and oil. A 6-inch line with a daily capacity of more than 400,000 gallons was laid from Santo Stefano to the mainland and began functioning on 2 July. A 4-inch line carrying from 150,000 to 170,000 gallons daily was in use as far north as Cecina by mid-August, and plans were ready for installation of lines between Leghorn and Florence when practicable.

Supply dumps began operating in the vicinity of Piombino about the same time as at Santo Stefano; from then on the Army forward dumps were kept as close as eight to ten miles behind the front. The fine port of Leghorn was almost completely destroyed by the Germans. Within eight days after its capture, however, the first convoy of salvage ships arrived, and work in restoring the harbor facilities progressed rapidly despite protracted shelling by heavy German artillery and railroad guns located north of Pisa. All classes of supplies poured into these liberated ports, and big reserve stocks were built up while combat losses were replaced.

The two most important obstacles which had to be overcome by quartermaster units were lack of communications and shortage of transportation. Supplies of all

description were available in abundance; the difficulty arose in moving them from base depots, rapidly becoming more distant from the front, to points at which they would be easily accessible to consuming troops. There simply were not enough two and one-half ton cargo trucks and trucks of other types available to meet the demand. Leading combat troops advanced so fast that signal corps linemen were not always able to keep wire communication with them, but this difficulty was not nearly as serious as the lack of vehicles.

The necessity for establishing dumps closer to the fighting front than had previously been the policy stemmed largely from the critical highway truck transportation situation. The forward units had to be supplied with large numbers of trucks from Army transportation battalions in order to move combat troops close behind the retreating Germans. Great amounts of ammunition were being expended, and first priority on supply trucks went for this item. Thus a greater demand on supply transportation had to be met by fewer trucks traveling a much longer distance. Rail and pipeline construction could not begin to keep up with combat advances and it became necessary each time truck transportation was available to haul supplies as far forward as possible. Stretching of the supply lines necessitated the spreading of personnel with many units operating several dumps simultaneously. At one time the 90th Quartermaster Railhead Company was operating six truckheads. Sterilization and bath units for exchanging clothing were extremely hard-pressed to keep up with troops they were to service.

The accelerated pace of combat was reflected most clearly in consumption of Class III supplies. In April Fifth Army had used 6,818,088 gallons of gasoline. This expenditure increased in May to 8,514,655 and in June to 11,947,986. Sufficient bulk tankers were not available to move this great quantity of fuel with the result that trucks of smaller capacity had to be used to haul gasoline and oil, which in itself caused greater fuel consumption in addition to the combat demands. The volume of can and drum filling at the Army base dump in the Piombino area was the largest in the United States Army during July and August. Approximately 200,000 gallons of gasoline were made ready for shipment each day.

Stocks of all types of supplies which had been built up at Anzio sustained virtually the entire Army drive immediately north of Rome until Civitavecchia and Piombino became available as supply bases. Diminishing enemy air activity over these ports to a negligible volume enabled their full use. Because of the speed of the progress of the fighting to the north and because of the uncertainty of transportation, Class II and IV sub-depots were established. As combat made sites available, sub-depots were set up at Grosseto, stocked from Civitavecchia, and at Cecina, stocked from Piombino.

During the rest period along the Arno troops in reserve were given a 10% over-strength issue of B rations, and even during the period of heavier fighting this type issue was made whenever possible. During August 91% of the food ration issued was type B, the highest percentage of the Italian campaign to that time. Throughout the hot summer months mobile refrigerator vans were used extensively to deliver fresh meat, butter, and eggs to the troops. Since refrigerated storage space at Piombino was very limited, most of this ration had to be trucked from Civitavecchia, many of the vans covering 225 miles per day. French and Moslem troops departed late in July, but in August the Brazilians arrived and the problem of supplying food to foreign troops again arose. The Brazilian menu, however, did not differ greatly from the American B issue though it included more sugar, lard, and salt requirements, the sugar going for the tremendous amount of coffee consumed daily by the South Americans. Some American items, such as tomato juice, dried beans of all types, and rice were not included in the issue to these troops.

Salvage operations were also hampered by scarcity of transportation. Despite the fact that it was known that a tremendous amount of salvage was strewn along the length of Italy from the Garigliano to the Arno, little of it could be processed. The bulk of it, however, was collected at numerous salvage collecting points. The arrival of the 299th Quartermaster Salvage Repair Company in July enabled a greater amount of salvage to be reclaimed. This company took charge of repair of the salvage, and accordingly the regular salvage collecting companies, which had been doing this work in addition to their own, were released to bring in damaged articles. Collection points were established in forward areas and a systematic search was made in each locality for abandoned supplies. Class II and IV articles were quickly replaced in combat units after they turned in old or worn out pieces to the salvage yard. Supplies in the dumps grew in volume and variety. The first trickle—later a steady stream—of supplies began to come from slowly restored Leghorn.

C. *ENGINEER ACCOMPLISHMENTS*

Engineer organizations of all echelons, both combat and service, contributed materially to the rapid advance to the Arno. Because the availability of road nets was most important, not only for the advance of forward elements but for supply routes as well, the bulk of the engineering effort was centered on reopening and repairing the routes which were systematically destroyed by the enemy. Combat engineers followed close behind the leading elements of the infantry and armor, ready to bulldoze by-passes or install temporary bridges. Enemy demolition of practically every bridge and scores of culverts necessitated this close support. Engineers of

the 34th Division, advancing along the coast, constructed 14 culverts, installed 510 feet of bridging, and graded 74 by-passes during the month of July. Inland in the more rugged mountains, where more extensive repairs were required to permit passage of heavy vehicles of the 1st Armored Division, 37 steel treadway bridges were installed. Many by-passes, some of which were as long as five miles, were constructed in this zone. Mechanical engineering equipment was used to the maximum. Bulldozers of the ordinary type and armored bulldozers proved invaluable. In some instances improvised armored machines were made by constructing armor-plated cabs in which the driver could work and receive some measure of protection from small-arms fire and shell fragments.

Engineers of the attacking divisions were closely followed by corps engineers equipped to carry out more permanent repairs and improve the hasty work done during the course of battle. The 1108th Engineer Combat Group, which supported the advance of both II and IV Corps during June, constructed 3 wooden bridges, installed 130 feet of Bailey bridging, and repaired 38 culverts. In addition it graded 176 miles of road. As the advance became slower and German demolitions increased in number and efficiency, its work increased. During July the Group put in 8 Bailey bridges, erected 9 bridges of other types, constructed 51 culverts, filled 55 craters, improved 34 by-passes, and graded 306 miles of road. Longer lasting improvements were made by Army engineers following farther behind the advance. Thirteen semi-permanent steel bridges with a total length of over 1000 feet were erected by these heavy engineer units. Three large Bailey bridges were put up, 1 of 270-foot length over the Tiber River and 1 360 feet long across the Albegna River along Highway 1. This road and Highway 2, the main axes of Army advance, received most of the heavy repair and maintenance work. Many miles of the highways were given macadam surfacing; at Piombino an overpass was constructed across Highway 1 to eliminate traffic problems around the big supply dumps built up there. Italian engineer battalions were put under command of Fifth Army to augment these rear area construction crews.

All engineer units engaged in removal of minefields, although combat troops as well as engineering specialists lifted thousands of mines which the Germans left behind during the course of their retreat. Millions of gallons of water were delivered to troops. The Army engineers issued approximately 1,000,000 maps in the 7 week period of advance to the Arno. In at least one instance forward units were supplied with maps by airplane since their movement was so rapid in the early stages of the pursuit that ground messengers could not deliver the maps in time.