a few had been saved by FFI action. Piles of destroyed German equipment along the roads attested to the accurate fire from Allied aircraft. Ground troops sometimes had to use bulldozers to clear paths through the wreckage and the dead horses, from which hungry civilians had already cut steaks.[25]

The VII Corps, on the army right, had also received orders on 31 August to change direction. Instead of driving northeastward from Montcornet and Rethel toward Namur and Liège, Collins was ordered to turn north and drive through the towns of Avesnes, Maubeuge, and Mons. General Collins' first concern was for the gap that would develop on the right between his corps and the Third Army. When he asked Hodges who was to fill the gap, he learned that that was his own problem. Though Collins thought at first that he would have to leave a division behind for the purpose, he decided instead to cover the gap with the 4th Cavalry Group, reinforced by a battalion each of light tanks, motorized artillery, tank destroyers, and infantry, three Engineer companies, and a platoon of a Medical collecting company. Even though he had been diverted to the north to trap Germans, Collins still had his eyes fixed on the West Wall. Anxious to continue northeastward across the Meuse, he instructed the 4th Cavalry not only to maintain contact with Patton but also to seize a Meuse bridgehead near Mézières. Meanwhile, he swerved the 3d Armored Division—which was moving toward Sedan and Charleville—onto new roads to the north toward Hirson and Vervins. The 9th Division was to protect the right flank; the 1st Division was to come up on the left to reinforce the armor.[26]

The 3d Armored Division drove due north on the highway through Vervins, and by nightfall of 2 September spearheads were approaching Mons. Hodges, who had notified Corlett and Gerow on 1 September that there was talk of swinging eastward again toward the Rhine, was unable to reach Collins by telephone that day. Thus, he did not transmit news that might have acted as a brake on the VII Corps drive to the north. On 2 September Hodges received instructions to "curl up" the VII Corps short of Mons and hold because of gasoline shortages. But again he was unable to get word to the leading elements of the corps. On the morning of 3 September the 3d Armored Division took firm possession of Mons. Yet armored columns were strung out for twenty-five miles behind, as far back as Avesnes. By that time the 9th Division on the east flank had moved to Charleroi, and 1st Division units were pushing into Avesnes, on the tail of the armored units.[27]

The apparent absence of enemy forces in the Avesnes–Mons area was deceptive. In reality the First Army maneuver initiated on the last day of August had not been in vain. Though the comparatively few prisoners taken by XIX and V Corps indicated that the Germans had escaped those northward thrusts, in-

[25] CI 32 (4th Div); 3d Armored Division, *Spearhead in the West*, p. 78.

[26] 12th AGp Immed Rpt 73, Cavalry as a Task Force, 8 Oct; Interv by author with General Collins, 2 Sep 55; VII Corps Opns Memos 79 and 81, 30 Aug and 1 Sep (confirming oral orders, 30 and 31 Aug); VII Corps G–3 Per Rpt 86, 1 Sep.

[27] VII Corps Sitrep, 3 Sep; 3d Armd, 1st, and 9th Div AAR's, Aug and Sep; Sylvan Diary, 1 and 2 Sep.

creasing contact with German troops along the Avesnes–Mons line indicated that many Germans had not evaded VII Corps.

Thousands of Germans were in fact moving into the area southwest of Mons, generally along the axis of the Amiens–Cambrai–Mons highway. While the 3d Armored Division set up a line of north-south roadblocks along the Avesnes–Mons road to cut further German movement toward the northeast, the 1st Division attacked northwest from Avesnes into a confused and milling mass of retreating enemy. Blocked on the east by the 3d Armored Division, pushed on the west by the XIX Corps near Valenciennes, hemmed in on the south from Cambrai to Landrecies by the V Corps, about to be cut off on the north by the British advance beyond Tournai, and jabbed on the southeast by the 1st Division, a large, amorphous enemy group was pocketed.

Many of the troops trapped near Mons belonged to three corps—the *LVIII Panzer*, the *II SS*, and the *LXXIV*—that had earlier been under the control of *Fifth Panzer Army*. Near St. Quentin on the last day of August, the three corps headquarters had been out of contact with any higher command. Without instructions from above, the three commanders conferred and decided to form a provisional army among themselves. Straube, the *LXXIV Corps* commander, assumed command of the other two corps, while his staff began to function as the provisional army headquarters.

Straube was completely in the dark on what was happening outside his immediate area but, from Allied radio broadcasts and from meager reports occasionally delivered by subordinate headquarters, he estimated that the provisional army was in imminent danger of encirclement. Deciding to withdraw to an area that was naturally suited to a defensive effort, he chose the canal and marsh region near Mons. Since he realized that the faster-moving Americans still might encircle the troops of the three corps, who for the most part traveled on foot, he started an immediate well-planned and well-organized movement.

The main units that Straube controlled were remnants of the *3d Parachute Division,* "almost insignificant in numbers"; the *6th Parachute Division,* which had a strength of about two infantry battalions plus a few heavy-caliber weapons; the *18th Luftwaffe Field Division,* in one-battalion strength; and two infantry divisions that were "hardly useful." Around these forces had gathered fragmentary units, stragglers, depot personnel, and a host of miscellaneous troops. Harassed from the air, ambushed by Resistance groups, attacked by Allied spearheads, finally encircled near Mons, the provisional army, with little ammunition, fuel, or communications, blundered into American roadblocks and upon contact was thrown into confusion.[28]

During the night, for example, a German half-tracked vehicle stumbled on a Sherman tank installed as a road obstacle. Other American tanks nearby opened fire down a straight stretch of road. When an early round set a German vehicle ablaze, illuminating others, it was "like shooting sitting pigeons." At daybreak tankers of the 3d Armored Division discovered that they had destroyed a column a mile long. During the ensuing confusion, when Medical Corps

[28] MS # B–157 (Dingler).

personnel captured a German general, it "did not seem at all unusual." [29] Pfc. Gino J. Merli of the 18th Infantry, who feigned death when his machine gun section was overrun, remained at this weapon throughout the night; at dawn more than fifty enemy dead were found nearby.[30] The encircled Germans, who had been thinking of flight, were in no mood to fight, and only a few, including headquarters personnel of the *LVIII Panzer* and *II SS Corps*, escaped. On the afternoon of 3 September alone, the 3d Armored and 1st Divisions took between 7,500 and 9,000 prisoners. The IX Tactical Air Command claimed the destruction of 851 motor vehicles, 50 armored vehicles, 652 horse-drawn vehicles, and 485 persons.[31] In three days about 25,000 prisoners were taken, remnants of twenty disorganized divisions. These potential defenders of the West Wall were thus swept off the field of battle.[32]

The head-on encounter at Mons was, from the tactical point of view, a surprise for both sides. Neither Americans nor Germans had been aware of the approach of the other, and both had stumbled into an unforeseen meeting that resulted in a short, impromptu battle.[33]

While American troops were sweeping Germans into prisoner of war compounds, the plans for future action were again being changed. Part of the reason was the desire to correct a hundred-mile gap between the First and Third Armies, but the underlying basis for the change was a belief that practically no external conditions would interfere with an Allied drive to and across the Rhine.

Broad Front versus Narrow

On 1 September, at the height of the accelerated American pursuit, SHAEF became operational on the Continent with headquarters in the Cotentin near Granville. General Eisenhower, in addition to exercising the Supreme Command, assumed personal command of the ground forces, thereby replacing the pro tem commander, Field Marshal Montgomery.[34] The change in the command structure brought the Allied organization to full flower. The British Second Tactical Air Force, with headquarters on the Continent, was from this point on to be associated with the 21 Army Group. The Ninth U.S. Air Force, also established on the Continent, was to assist the 12th Army Group, as well as the 6th Army Group in southern France, which was to become operational under the control of SHAEF two weeks later.[35]

[29] Interv with 1st Lt. C. A. Wollmer, Hosp Intervs, IV, GL-93 (316).

[30] Merli was awarded the Medal of Honor.

[31] VII Corps G-3 Per Rpt 89, 4 Sep. S. Sgt. Edward A. Patyniski and Pfc. Roy V. Craft of the 18th Infantry and Pvt. Melvin V. Pardee of the 18th Field Artillery Battalion were awarded the DSC for distinguished action, the latter two posthumously.

[32] MS # B-346 (Blauensteiner); First U.S. Army, *Report of Operations*, I, 30ff.; Pfc. Arnold J. Heidenheimer, *Vanguard to Victory, History of the 18th Infantry, 1776–1954* (Aschaffenburg, Germany, 1954), pp. 24–25.

[33] Bradley, *Soldier's Story*, p. 408; FUSA AAR, Sep; Interv by author with General Collins. General Montgomery later was under the impression that the pocket had centered on the Forêt de Compiègne. Montgomery, *Normandy to the Baltic*, p. 213.

[34] A detailed account may be found in Pogue, *Supreme Command*, pp. 261ff. Montgomery was promoted to the rank of field marshal, effective 1 September.

[35] See SHAEF Msg, FWD-13188, 24 Aug, in SHAEF G-3 Ops A 322.011/1. As the German air defense and "early warning system" seemed about to be "crumbled to pieces," increasing numbers of Allied Air Force ground stations began to be moved to the Continent. Harris, *Bomber Offensive*, pp. 229–30.

The alteration in the command of the ground forces had long been planned. In anticipation that General Eisenhower would take control of the land warfare beyond the Seine, General Montgomery had made his plans for the advance beyond the Seine on the basis that he would direct only those forces on the routes north of the Ardennes.[36] General Bradley had done the same for Patton's subsidiary drive south of the Ardennes.

Though General Eisenhower sought to take effective control of all ground action, it was difficult to accomplish, not only because SHAEF was far from the front but also because signal facilities were in short supply. General Eisenhower had foreseen the problem as early as 19 August, when he had dictated for the record:

> Obviously, communications from the senior fighting commanders to their divisions on the front took precedence over the establishment of communications for SHAEF headquarters. Our woeful insufficiency in Signal troops has made it impossible, as yet, to provide for me on the Continent a headquarters which would permit me to discharge all the responsibilities devolving upon me and at the same time take over the broad operational coordination necessary between Army Groups. Even now, with all available US signal units allocated to Bradley, his communications with Patton are ordinarily limited to radio telephone or laborious code, and to his rear they are no better. . . .
> . . . the very signal units I need have had to be given to Bradley so that he could keep in even sketchy contact with the rapidly changing situation.
> Some time ago I ordered my staff to be ready to function on the Continent September 1st. I still hope to make that date, although it is much earlier than any of the technicians believed it could be done.[37]

It was nevertheless done although, during the next few weeks, it would seem that immediate and firm direction and control were sometimes lacking.

To SHAEF at this time the hostile army appeared to be "no longer a cohesive force but a number of fugitive battle groups, disorganized and even demoralized, short of equipment and arms." The German strategic situation presented signs of so much deterioration that recovery no longer seemed possible. Political upheaval within Germany or insurrection within the Army seemed likely to hasten the end of the war.[38]

The success of the subsidiary Allied invasion of western Europe by way of southern France underscored the apparent hopelessness of the German situation. The DRAGOON forces, primarily American and French, had had little difficulty in landing in southern France west of Cannes on 15 August and in driving up the Rhône valley. SHAEF had estimated that DRAGOON would have no direct effect on OVERLORD until the forces from the Mediterranean moved well over three hundred miles to Dijon, and that this was hardly to be expected before November.[39] Yet at the end of August, in addition to having captured the major port of Marseille, the Allied forces in southern France were approach-

[36] See 21 AGp Dirs, M–519 and M–520, 20 and 26 Aug, SGS SHAEF File 381, Post-OVERLORD Plng, I.

[37] Butcher Diary, entry 19 Aug; see Eisenhower to Marshall, 24 Aug, Pogue Files, and Memo, Eisenhower for Bedell Smith, Comd Organization, 22 Aug, SGS SHAEF File 381, Post-OVERLORD Plng, I.

[38] SHAEF Weekly Intel Summary 23, 2 Sep, SHAEF G–2 File; FUSA G–2 Est 24, 3 Sep; TUSA G–2 Est 9, 28 Aug; see Pogue, *Supreme Command*, pp. 244–45.

[39] PS SHAEF (44) 11 (Final), Post-NEPTUNE Opns, 17 Aug, SHAEF File 18008, G–3 Plans.

ing Lyon, little more than a hundred miles short of Dijon.[40] Since German withdrawal all along the Western Front made the juncture of OVERLORD and DRAGOON forces foreseeable in the near future, an Allied *coup de grâce* seemed in order. How to deliver the coup became the subject of much discussion in early September.

The discussion was an outgrowth of differences apparent as early as 19 August, when General Eisenhower had decided to cross the Seine and initiate pursuit operations without waiting for a more secure logistical basis. He had then thought of following the preinvasion plan of splitting his forces equally to make a dual thrust toward the Ruhr by routes north and south of the Ardennes. General Montgomery, in contrast, had favored a single drive north of the Ardennes directly toward the Ruhr. The result in late August had been a compromise that leaned toward Montgomery's point of view. Three armies carried the main effort north of the Ardennes, while Patton's Third Army, making the subsidiary effort, had had its gasoline supplies curtailed.[41]

On 2 September, as Eisenhower met with Bradley, Hodges, and Patton, he reinstituted what later came to be called the broad-front strategy. Hoping to keep the enemy stretched so that he would be unable to organize an effective defense at the West Wall, General Eisenhower allocated gasoline stocks to the Third Army just as Hodges' First Army was running out of gas at the Belgian border and sent both U.S. armies toward the Rhine. Patton was to advance toward Mannheim and Frankfurt; Hodges was to shift from his northward course—which pointed across the British routes of advance in Belgium—to an eastward axis toward Koblenz and Cologne. To cover the gap that had opened between the First and Third Armies, Hodges was to send one corps through the Ardennes, a route not recommended by the preinvasion planners.[42]

At this particular moment, Dempsey's Second British Army was in the midst of a spectacular advance. Having crossed the Somme River at Amiens on 31 August and again between Amiens and Abbeville on 1 September against disorganized resistance, British armor drove into the industrial region of northern France. Outflanking Arras, bypassing Lille, moving through Douai and Tournai, armored spearheads swept across the Belgian border and took Brussels, Antwerp, and Ghent on 3, 4, and 5 September, respectively. With three armored divisions in the lead and with infantry mopping up, the British advanced 250 miles in six days to the Albert Canal between Antwerp and Hasselt.

Crerar's First Canadian Army had similar success. Moving out of the Rouen bridgehead on the last day of August, armor began pursuit action while infantry turned to the ports. Infantrymen took Dieppe and le Tréport on 1 September and St. Valery-en-Caux the following day. While the 1 British Corps swung toward Le Havre, the 2d

[40] See Robert Ross Smith, The Riviera to the Rhine, a volume in preparation for the series UNITED STATES ARMY IN WORLD WAR II.

[41] See Ltr, Eisenhower to Bradley, 29 Aug, 12th AGp File Mil Objs, ML–205.

[42] 12th AGp Memo for Rcd, 2 Sep, ML–205; see Eisenhower Msg, SHAEF FWD–13765, 4 Sep, 12th AGp File 371/3, Mil Objs, I. A detailed account of the high-level discussion is found in Pogue, *Supreme Command*, pp. 252–55.

Canadian Corps moved through the coastal belt, invested Boulogne, Calais, and Dunkerque, and took Ostend by 9 September. Armored troops had meanwhile crossed the Somme River near Abbeville on 2 September and driven toward Belgium. Held up briefly by resistance near Bruges, the mobile elements were at the Belgian-Dutch border and within striking distance of the Schelde estuary by the second week in September. The Canadians had overrun the flying bomb launching sites in the Pas-de-Calais by 6 September, although the Germans began two days later to fire V-weapons from the Netherlands and continued to do so until almost the end of the war.[43]

Impressed by the development of the pursuit and particularly by the capture of Brussels and Antwerp on 3 and 4 September, Field Marshal Montgomery began to believe that the Germans in the west were so weak as to be incapable of withstanding a major Allied effort. He concluded that the war could be ended at once by a thrust launched immediately to Berlin via the Ruhr. He proposed to the Supreme Commander on 4 September that all the Allied resources available on the Continent be allocated for this drive, a strong single thrust that General Eisenhower later misunderstood to be "pencillike." [44]

General Eisenhower, who had two days earlier made it possible for Patton to resume operations and who had thereby instituted a broad-front movement, justified his course of action, which was more cautious than Montgomery's, by a reasoned statement. Eisenhower did not believe that the Allies could support a drive to Berlin, and he thought that the Allies first needed to attain the successive objectives of breaching the West Wall, crossing the Rhine on a wide front, and seizing the Ruhr and the Saar. An advance on the entire front, he argued, would compel the Germans to stretch their meager forces to the breaking point and would imperil the rear of the *Army Group G* forces retreating from southern France. He also thought it desirable to keep Patton moving because he wanted the Allies to take advantage of all existing lines of communication. If, however, Montgomery needed additional assistance, Eisenhower was willing to give him SHAEF's strategic reserve, the Allied airborne army, which could help Montgomery seize crossings over the Rhine, help him make a deep advance into the Ruhr, and enable him even to threaten Berlin. The only factor, he said, that limited optimism for future operations and ruled out what he interpreted as Montgomery's proposal for a thin thrust to Berlin was logistics, already "stretched to the limit." [45]

It was just the logistical situation that made Montgomery feel that the Allies could afford only one effort. He wanted it to be a strong effort, and he believed that it should be aimed through the Ruhr and toward Berlin.[46]

[43] The last flying bomb was launched from the Pas-de-Calais on 3 September. Harris, *Bomber Offensive,* p. 236. Between 13 June and 1 September the Germans had launched an average of 102 V-1 bombs daily, of which 2,340 reached London. Helfers, Employment of V-weapons by the Germans During World War II, p. 34.

[44] Montgomery to Eisenhower, M-160, 4 Sep, Pogue Files.

[45] Eisenhower to Montgomery, FWD-13889, 5 Sep, and Eisenhower Memo for Rcd, 5 Sep, Pogue Files. Wilmot, *Struggle for Europe,* pages 466 and 468 suggests that the Americans perhaps thought Montgomery too timid to direct pursuit operations.

[46] Montgomery to Eisenhower, 7 Sep, Pogue Files.

Yet SHAEF judged Montgomery's suggestion too optimistic. Eisenhower provided him additional support, particularly in locomotives and rolling stock, but he refused to allay Montgomery's basic dissatisfaction over what Montgomery considered an unrealistic Allied dispersion of effort. During early September Eisenhower continued to allocate fuel supplies on a broad-front basis. Bradley managed to keep an uneasy gasoline balance between the two U.S. armies, his principal motive apparently the desire to keep Patton moving. With Hodges oriented toward Cologne, Bonn, and Koblenz, and Patton toward Mannheim and Mainz, and, if possible, Karlsruhe, it was clear that General Eisenhower preferred to use all the routes toward Germany, good and bad alike.[47]

The Nature of the Pursuit

The Allied advance toward the West Wall was spectacularly fast and fluid. It operated with a minimum of control and a maximum reliance on subordinate commanders. Unit dislocations, changing routes of advance, and an overriding fluidity resulted. When gasoline stocks permitted, the pursuit resembled a stampede of wild horses. The dust that was kicked up did not obscure the fact that a mass Allied movement east of the Seine took place, a gigantic and sometimes haphazard closing action of all available forces toward Germany in which a frantic search for a bridge still intact was often the most significant detail. "There have been so many changes in the First Army direction," an observer wrote, "that indeed it seems at times as if those 'on top' did not have an altogether clear and consistent conception of the direction from which they wish to cross the German frontier." [48]

Thinly spread, both laterally and in depth, the armies overran and liberated northern France, most of Belgium and Luxembourg, and parts of the Netherlands. Reconnaissance units and cavalry swept far and wide, clearing great areas, particularly on the flanks, to free infantry and armor for advance along the main highways. Various patriotic groups were helpful.[49] Local Resistance members usually appeared soon after the arrival of American troops in a town, and they quickly formed into units and marched out to clear the countryside of German stragglers and to guard bridges and lines of communication. Individuals sometimes accompanied Allied reconnaissance units. Civilians cleared a number of obstacles, in at least one case repairing a destroyed bridge before the arrival of Engineer troops. Engineer support platoons often accompanied cavalry ahead of the main body of troops to remove obstacles before they could delay the advance. The artillery was usually unable to displace fast enough to get into action, and even the light artillery did comparatively little firing.[50]

[47] Bradley, *Soldier's Story*, pp. 410–14; 12th AGp Ltr of Instrs 8, 10 Sep (confirming oral orders); see also the provocative discussion in Wilmot, *Struggle for Europe*, pp. 458ff. and 482ff.

[48] Sylvan Diary, 2 Sep.

[49] See David Ryelandt, "The Resistance Movement," in Jan Albert Goris, ed. and translator, *Belgium under Occupation* (New York: Moretus Press for the Belgian Government Information Center, 1947), pp. 191ff.

[50] CI 32 (4th Div); 4th Div AAR, Sep; First U.S. Army, *Report of Operations*, I, 35.

There was only sporadic contact with the enemy along the fronts of the onrushing armies. Only in a few instances did the Germans try to make a stand, usually at river-crossing sites. The inadequacy of the German forces, their lack of communications, their drastic shortages of equipment, and what seemed to be command confusion on the lower levels led to the abandonment of any pretense of re-establishing a line anywhere except at the West Wall. Occasional roadblocks (usually no more than several felled trees), a few destroyed bridges, and feeble rear-guard action characterized the opposition. A typical rear guard was composed of a small group of infantry and perhaps one or two tanks or mobile guns stationed at a town or road center until direct pressure or an outflanking move prompted withdrawal. Resistance was spotty and without consistent plan. Many bridges were abandoned intact. Few cities or towns were defended. Inadequate and haphazard strongpoints, frequently placed at illogical locations and often undefended, did little to slow the Allied advance. Road marches punctuated by occasional skirmishes of short duration and involving a company or at most a battalion for only several hours characterized the action.

Although the enemy could do little to hinder, shortages of supplies markedly slowed the advance. Since 3 August, when the Allies had turned eastward toward the Seine, logistical considerations had been subordinated to prospects of immediate tactical advantage.[51] Pushing the advance in a gamble for quick victory had entailed a ruthless disregard for an orderly development of the logistical structure. The normal logistical structure based on a depot system could not be established under the pressure of supplying forward units on a day-to-day basis during the war of movement. The result was that 90 to 95 percent of all the supplies on the Continent at the end of August lay in depots near the original invasion beaches. Virtually no supplies existed between these stocks and the army dumps three hundred miles away. With supply loads being carried increasingly farther forward and carriers requiring more and more time to complete longer round trips, the deliveries to the armies dwindled during the last

LIBERATED. *French girls knock down German headquarters sign.*

[51] The following is taken from Ruppenthal, *Logistical Support, I,* 483ff., 499ff., 544ff., 553ff., 562–63, 572ff.

few days of August to several thousand tons per day.

The planners had intended to rely on the excellent French railways for long-distance hauling, but Allied air attacks and French sabotage had virtually demolished the railroad system. The reconstruction of damaged rail lines, which required repair of choke points, rail centers and junctions, bridges, tunnels, viaducts, roundhouses, machine shops, and rolling stock, could not keep pace with the advancing forces. As early as June, when it had become apparent that paralyzing German mobility by destroying the transportation system would mean similar paralysis later for the Allies, supply chiefs had begun to request that facilities be spared and had started to hope in earnest that the Germans would not destroy them in retreat. Though the rail lines east of Paris were in better shape, the hub of the system around the French capital had been heavily damaged. By 30 August two main railroads were open as far as the capital, but the mutilated rail yards of Paris and the destroyed Seine River bridges prohibited through traffic. Small tonnages could be routed forward through Paris only after 4 September. Not until mid-September, although bottlenecks around Paris and the shortage of rolling stock still inhibited railway traffic, would the railroads begin to assume their hoped-for importance as long-distance carriers. By then the pursuit would be over.

Motor transport played a much larger role on the Continent than had been planned, and consequently theater facilities were neither well suited nor well prepared for extensive operations because of shortages of vehicles and properly trained drivers. One of the most dramatic logistical developments was the organization by the Communications Zone of the Red Ball Express, a long-distance through-highway system inaugurated late in August. Designed as an emergency expedient to support the Seine crossings by getting 82,000 tons of supplies to the Chartres–Dreux area by 1 September, the Red Ball Express became an institution that lasted until November and operated east of the Seine as well. On 25 August Red Ball convoys began to use two parallel one-way round-trip routes from which all other traffic was excluded, and before long more than a hundred truck companies were involved. On 29 August, for example, 132 truck companies—6,000 vehicles—moved more than 12,000 tons of supplies. Operating day and night and without blackout precautions, the Express delivered 135,000 tons of supplies to army service areas by mid-September.

The cost of this achievement was high—mounting strain on personnel and equipment, continual use of vehicles without proper maintenance, rapid deterioration of equipment and roads, abuse of vehicles by overloading and speeding, a large number of accidents caused by driver fatigue. The Red Ball fostered the habit of poor road discipline, offered opportunity for malingering, sabotage, and black marketeering, and tempted combat units to hijack and otherwise divert supplies. Haste contributed to poor documentation of shipments and concomitant sparse information on the status of supply. "Red Ball was part of a gamble, part and parcel of the tactical decision to cross the Seine

and exploit to the full the existing tactical advantage." [52]

Because the Communications Zone refrained from moving its depots forward in the interests of conserving transportation facilities, the armies took over much of the hauling. Their supply vehicles sometimes had to make round trips of up to three hundred miles. Bradley had instructed Patton and Hodges to leave their heavy artillery west of the Seine so that artillery cargo trucks could be used to transport supplies, and Hodges, for example, formed between ten and twenty provisional truck companies from these vehicles to help his forty-three Quartermaster truck companies.

The Allies also transported supplies by air, though the advantages of speed and freedom of movement were often offset by low volume and tonnage capacity, uncertainty of available aircraft, inadequate ground facilities at loading and landing sites, the possibility of enemy interference, and the hazard of weather. As a result, air supply could only be regarded as an emergency measure. However, under the direction of the Combined Air Transport Operations Room (CATOR), a special AEAF staff section that acted as a regulating station for all air supply missions, small shipments to ground forces began in June, medical evacuation commenced in July, and on 19 August more extensive air shipments started. By 25 August over 4,000 tons of supplies had been delivered to forward ground units, mainly whole blood and such signal equipment as field wire and radio parts. At the end of August, competing demands of the various armies, the civil relief program for Paris, and planned airborne operations reduced air deliveries to a trickle, but an enlarged airlift was resumed on 6 September. From 19 August to mid-September, American planes carried a total of 20,000 tons of supplies, of which about 13,000 tons were delivered to the 12th Army Group.[53]

By far the most important requirement of the pursuit was gasoline. During the week of 20 August, when most of the units of both U.S. armies were for the first time engaged in a war of movement, the daily consumption of gasoline ran well over 800,000 gallons. By 28 August the Communications Zone transportation resources were spread so thin and the lines of communication extended so far that daily deliveries could no longer be relied on. Increasing gasoline demands were due not only to the requirements of the combat forces but also to the ever-growing requirements of the carriers—Red Ball trucks alone consumed more than 300,000 gallons per day.

Gasoline was only one of many requirements. The troops of a single division ate about thirty-five tons of field rations a day, besides expending ammunition and wearing out clothing and equipment. Fortunately, captured German items sometimes alleviated shortages. A German dump in Namur, Belgium, for example, provided beef and canned plums and cherries; a candy factory yielded flour and sugar; a warehouse full of salt was worth its weight in gold. Yet captured stocks hardly fulfilled requirements and exactly when

[52] Ruppenthal, *Logistical Support, I, 572.*

[53] See Leigh-Mallory, "Despatch," Fourth Supplement to the *London Gazette* of December 31, 1946, pp. 83–84.