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John J. Sullivan

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The Botched Air Support of Operation Cobra

JOHN J. SULLIVAN

In the early morning of 25 July 1944, General Omar Bradley studied the broken cloud cover in the skies over Normandy and prayed that the force of 1500 heavy bombers approaching the French coast would find weather conditions clear enough to bomb German positions near St. Lo. Throughout First Army and Supreme Headquarters Allied Expeditionary Forces (SHAEF), hopes were high for the operation. It would begin with a carpet bombing followed closely by a ground offensive spearheaded by VII Corps. Allied forces needed a successful offensive. Since D-Day, General Bradley's First Army had been mired in a slugging match with German forces among the marshes and hedgerows of Normandy's bocage. The virtual stalemate brought to mind the costly trench warfare of World War I. Allied forces pushed slowly south from the invasion beaches, paying a high price for each yard. Infantry companies sustained 90 percent of the casualties.¹

Allied planners had not fully anticipated the difficulties the country presented to an invading army. The hedgerows were walls of earth supporting a tangled growth of bushes, vines, brambles, and trees. They enclosed small pastures which became virtual citadels when defended skillfully. Laced with twisted, toughly rooted trees, they made formidable barriers for tanks. German soldiers dug tunnels in the hedgerows to establish defensive positions in depth. Marshes, ditches, pools, and canals made movement difficult and dangerous. Eroded, sunken lanes were mined and covered by artillery or mortars.²

There were other complications as well. Stormy weather in June and July handicapped Allied air forces. The constricted lodgement area lacked space for ground and air units waiting in the United States and England for employment in France. And supply channels were choked by a shortage of working ports.³

As the difficulties increased, Supreme Commander Dwight Eisenhower and his chief subordinates became targets for increasingly sharp criticism. US Secretary of War Henry Stimson returned from a visit to Normandy deeply disturbed about the slow pace of operations. Newspapers started criticizing the performance of the Allied armies.⁴

Eisenhower's lieutenants reacted to the complaints by striking at each other. The Deputy Supreme Commander, Air Chief Marshal Arthur Tedder, charged Ground Forces Commander Bernard Montgomery with timidity and a lack of drive. Tedder feared that Montgomery's excessive caution would permit the Germans to recover from the devastation rained on the French transportation system, at heavy cost, by Allied air forces.⁵ Given enough time, the Germans might build an impenetrable cordon around the lodgement area.

Tedder's low opinion of Montgomery was reciprocated. Montgomery told associates that his "main anxiety these days is the possibility that we should not get the full value from our great air power . . . . The man who ought to keep the whole show on the rails is Tedder; but he is weak and does nothing about it."⁶

Nor was General Bradley free from criticism. General George S. Patton, Jr., who waited impatiently in Normandy for a chance to command an army in battle, made it known that he could break through in three days if he commanded First Army.⁷

Montgomery's anxiety about air power was shared by Lieutenant General Carl A. Spaatz, who commanded the United States Strategic Air Forces (USSTAF). Early in June he had warned Ike that ground commanders did not understand how to employ the air power available to them. They could imagine no better use for heavy bombers than to "plow up several square miles of terrain in front of ground forces to obtain a few miles of advance."⁸ Spaatz's complaint referred to a plan circulating within SHAEF calling for heavy bombers to lay a carpet of bombs along a small section of the line, followed by a powerful ground attack designed to break through the German front.

John J. Sullivan was an aviation radioman with the 3rd Marine Air Wing during World War II, and a rifleman with the Army's 38th Infantry Regiment during the Korean War. He received B.A. and M.A. degrees from the New York State College for Teachers (Albany) and then taught mathematics and history in New York schools. He also has done postgraduate work in historical research at New York University.

The proposed carpet bombing would require the closest possible cooperation between air and ground forces, but the tangled state of Eisenhower's air organization made such cooperation far from certain. Bitter, protracted arguments at the highest Allied levels about the extent of Eisenhower's authority over air forces had resulted in compromises which failed to establish clear lines of command. At the center of the controversy was the reluctance of airmen to relinquish strategic bombers to Eisenhower for support of the invasion of France. The heavy bombers had their independent mission designed to make a decisive contribution to victory. Many airmen considered their diversion to ground support to be tragically wasteful.

Eisenhower did not agree with the airmen and held stubbornly to his conviction that he must command all available air power that could make the invasion less hazardous. After months of wrangling, Ike was given the strategic air forces, but he had to agree that they would not be commanded by his air commander, Air Chief Marshal Trafford Leigh-Mallory, an airman considered by many to be unqualified to direct strategic air forces. Deputy Supreme Commander Tedder was assigned the responsibility for directing all air forces participating in the invasion. Leigh-Mallory would command only the Allied Expeditionary Air Forces (AEAF), which were equipped for tactical use alone.⁹

A bad situation was worsened by personality conflicts. General Spaatz had opposed Leigh-Mallory's directives repeatedly and had lost confidence in the AEAF commander's judgment. Despite the criticism that swirled around him, however, the air marshal retained Eisenhower's support. Ike appreciated Leigh-Mallory's dedicated efforts to use the full weight of Allied air power in support of ground forces. Leigh-Mallory became the leading proponent of carpet bombing. In his diary he recorded: "When I first propounded the scheme of full air support to the Army, Air Chief Marshal Tedder was not present, but General Marshall was. He thoroughly agreed with it . . . I believe that Ike will back me."¹⁰ On 10 July he vowed: "Either I am to be allowed to direct, if necessary, the whole Air Forces available to the full and immediate support of the Army, or I shall resign on that issue. If Tedder does not like it, then he or I will go."¹¹

As ground progress lagged, Leigh-Mallory's position strengthened. He advised and encouraged General Bradley to plan an operation employing carpet bombing. Bradley had received a promise of 1200 heavy bombers from Spaatz if the situation required them. After VIII Corps' attack in early July bogged down, Bradley searched for a section of his front on which to lay a bomb carpet.¹² He focused on St. Lo, with its network of roads that could support mobile operations. A straight stretch of highway northwest of St. Lo could serve as a checkline for high-altitude bombers. As First Army neared this highway, Bradley ordered planning intensified for just such an operation, to be code-named Cobra.¹³

First Army sustained 40,000 casualties as it pushed south to St. Lo, capturing that flattened city on 18 July. It was time to activate Cobra. After a meeting with his corps commanders on 19 July, Bradley flew to AEAF headquarters at Stanmore, north of London, to explain Cobra to the air commanders and win their cooperation.¹⁴

Bradley asked for a force of heavy bombers unprecedented in number, wielding devastating power. Their bombs would saturate a rectangular area approximately one mile by five miles, located just south of the St. Lo-Periers road (see map). To insure a tremendous blast effect which would stun German defenders, bombing would be completed in one hour. To avoid cratering which could slow the attack, Bradley wanted only light bombs used.¹⁵

Airmen at the Stanmore meeting listened patiently as Bradley dealt with matters more within their field than his. No one really knew much about carpet bombing. Eighth Air Force had little experience with it. The size of the safety zone evoked considerable discussion. The Eighth Air Force representative advised a troop withdrawal from current positions of 3000 yards. Even this distance, he warned, would not preclude the possibility of gross errors of bombing that could cause bombs to fall on First Army positions.¹⁶

While Bradley may not have known much about the operations of heavy bombers, he did know that a bombardment preliminary to an attack had to be followed up quickly by the assault troops. He proposed a withdrawal of only 800 yards. A compromise withdrawal of 1250 yards was adopted. This zone, added to a strip 250 yards wide assigned to Ninth Air Force fighter-bombers, meant the assault troops would be at least 1500 yards north of the target area for the heavy bombers.¹⁷

General Bradley had given much thought to the heavy bombers' approach to the target area. He wanted them to fly parallel to the St. Lo-Periers highway, and south of it. If they did not fly over his troops, he reasoned, they could not bomb them accidentally.¹⁸ To the First Army commander, the St. Lo road was an outstanding terrain feature, but to airmen at 15,000 feet, it was not so prominent. Moreover, airmen recognized at once that a parallel approach to the target was not feasible; 1500 heavy bombers could not be flown through a chute one mile wide in an hour.¹⁹ A north-south approach was the best way to fly the mission in the opinion of the airmen. It offered a checkpoint in the Normandy coastline, while the St. Lo road, north of the target area, would serve as a line on which bombardiers could make accurate range sightings. No other approach allowed this. If bombardiers judged range correctly on a perpendicular path, errors of deflection would merely cause bombs to fall on German-held terrain. Further, the perpendicular approach minimized exposure of bomb-laden aircraft to antiaircraft fire.²⁰

An unfortunate misunderstanding developed at the Stanmore meeting. Bradley failed to comprehend that a perpendicular approach was necessary. He assumed airmen would try to send the bombers on a path parallel to the front line. He left the meeting pleased with what he believed had been promised. Airmen had been unusually cooperative, not voicing their customary doubts about the wisdom of using strategic bombers in close support of ground troops.²¹

Operation Cobra was scheduled to begin on 21 July. Orders went out to all concerned air and ground force headquarters. VII Corps field orders urged assault troops to "vigorously push the attack across the highway to insure annihilation of any remaining enemy."²² These words hint at what was a general hope, that the attack would meet little resistance after such a cataclysmic bombing. Infantry troops hated to give up ground they had fought for; 30th Division soldiers were directed to make their withdrawal to create a safety zone "at the last practicable moment."²³ AEF's field order left "routing and altitudes of air formations to be coordinated directly between commands." This same order urged bombardiers not to bomb short, implying a perpendicular approach.²⁴ Eighth Air Force field orders made the point specific. Bombardiers were cautioned to avoid bombing short "because the penetration route is directly over friendly troops."²⁵

Cobra called for a maximum effort from American air forces. Fighter-bombers of the two tactical air commands, IX TAC and XIX TAC, would start the operation by glide-bombing a strip along the St. Lo-Periers road. As the fighter-bombers completed their attack, the lead formation of 1586 heavy bombers would arrive, flying a north-south route at not more than 15,000 feet. Eighth Air Force would attack in three waves, each wave taking 15 minutes, with five minutes between waves. The target area would be pounded with elemental fury—saturated with 50,000 general purpose and fragmentation bombs, most of them of the 100-pound size, with a few 500-pound general purpose bombs and some 260-pound and 120-pound fragmentation bombs. Special enemy strongpoints would be marked with red smoke by artillery shells. Formations of 12 to 14 aircraft would drop their bombs when signaled to do so by a lead bombardier. Medium bombers of Ninth Air Force would attack targets in the German rear after the heavies had finished. Eighth Fighter Command would provide area cover.²⁶

Weather caused several postponements of Cobra. During the respite, at the urging of Leigh-Mallory, Major General Hoyt Vandenberg, AEAf Deputy Commander, questioned Eighth Air Force operations officers closely about the bombers' approach to the target area. He was told that a parallel approach was impossible in the time permitted for bombing. Soon after this query, Vandenberg was contacted by Major General Fred Anderson, Deputy Commander for Operations for USSTAF. Anderson, who had commanded Eighth Bomber Command, was an authority on daylight heavy bomber operations. He told Vandenberg "he was worried about the repercussions that might arise and that he wanted it clarified that the time factor which was set by AEAf was the controlling one for their direction of attack." Vandenberg promised to explain this to Leigh-Mallory: "I called him," Vandenberg recorded, "and suggested that perhaps Bradley might prefer to extend the time . . . and thus allow parallel bombing . . . [He] assured me that he had just spoken to Bradley and that the additional time to deliver the bombing attack was too great for Bradley to accept and that, therefore, he [Bradley] had decided to accept the additional risk of perpendicular to the road bombing."²⁷

Normandy weather continued foul through 23 July. Weather experts predicted very questionable conditions for Cobra on 24 July, but much improved on the 25th. Leigh-Mallory turned down an Eighth Air Force request for a postponement and ordered the Cobra bombing to begin at 1000 hours on 24 July.²⁸

In his postwar memoir, General Bradley described the tension in Eisenhower's command on the eve of Cobra:

Cobra thus assumed vast importance in my mind. If it succeeded, I was certain it would give everybody a much-needed shot in the arm. It would help eliminate the back-stabbing. It would put such momentum in the war that the

very speed of it would heal the seams in our rupturing alliance. Conversely, if it failed, it could develop into much more than another military setback. It could bring on dangerous open warfare in the alliance that might lead to Monty's relief and perhaps Ike's and my own.²⁹

Early in the morning of 24 July, Cobra was postponed to 1200 hours because of heavy cloud cover over the target. Leigh-Mallory arrived at Bradley's headquarters at 1120, where he hoped to see improvement in the weather.³⁰ The weather forecasters had been accurate. A thick overcast ruled out precision bombing. Leigh-Mallory's order to postpone Cobra reached the Eighth Air Force commander, General James H. Doolittle, too late to recall most of his heavy bombers before takeoff.

The lead bomber division, the 2nd Bomb Division of Eighth Air Force, found too much cloud cover over the target and did not attack. Mission orders warned that aiming points had to be visually identified before bombing. A single bomber released its bombs on an Allied airstrip when its bombardier accidentally flipped a toggle switch. The 3rd Bomb Division encountered great difficulty identifying its targets through the clouds. Only three tactical units, each composed of 12 to 14 aircraft, attacked their primary target.

Cloud conditions had improved when the 1st Bomb Division reached the target area, although visibility was still poor. Some of its aircraft received the recall message, but 317 heavy bombers dropped 10,124 high-explosive bombs and 1822 fragmentation bombs. Some fell short. A lead bombardier had difficulty with his bomb release mechanism, and part of the bomb load was released unintentionally. Other aircraft in the unit salvoed their bombs when the lead ship was seen to do so.³¹

On the ground below, Major Chester Hansen, an aide to General Bradley, waited for the heavy bombers. His diary recorded his feelings:

Soon the heavies came in, we heard them long before seeing them. Heavy roar up above the clouds which were now about 8000 feet with small patches of blue beginning to show through. Ground grunted and heaved as the first cascade of bombs came down, horrible noise and the shuddering thunder that makes the sound of a bomb so different from that of artillery. Suddenly when the next flight came over there was a sharp deadly screaming whistle . . . . We dove to the ground . . . . The ground shook and 500 yards in front the angry black spirals of dirt boiled out of the ground. Doughboys on the road had taken cover in ditches.³²

The gross errors in bombing had a deadly impact on units of the 30th Division, killing 25 soldiers and wounding 131.³³

In his anger Bradley sought reasons for the tragedy and grasped one when he learned that the bombers had approached the target area from the north—a perpendicular approach. He collared Leigh-Mallory, demanding to know why the bombers had flown over his troops. Pleading ignorance, Leigh-Mallory promised to check with Eighth Air Force and report back.³⁴ This response, reported by Bradley, was exceedingly strange. It contradicted Vandenberg's statements, and indicated, if true, that the AEF commander did not know a primary fact about the operation he was coordinating.

Major General J. Lawton Collins, commander of VII Corps, worried about the safety zone his troops had relinquished. Soon after news of the postponement reached him, he made a difficult decision; he ordered the 30th, 4th, and 9th Divisions to advance at 1300 hours to retake the safety zone.³⁵ The infantry encountered sharp fighting but regained the key highway and misled some German commanders into thinking an American attack had been repulsed.³⁶

Bradley spent a miserable day pondering the fate of Cobra. Leigh-Mallory reported tardily at 2340 that the bombing could be executed next day, but only on a perpendicular approach. The physical facts of time and space had not altered. Seeing no alternative, Bradley accepted the condition. Cobra was rescheduled for 0900 on 25 July, with some precautions hastily added by Eighth Air Force to reduce the chance of gross bombing errors.³⁷

Eighth Air Force ground crews worked through the night, preparing bombers for the mission. At 0614 on 25 July, aircraft of the lead division began to assemble over England. A weather aircraft carrying an air commander, a meteorologist, and a bombardier flew to Normandy to reconnoiter the target. At 0800 hours the air commander reported that the target area was clear, but cloud cover with a base of 14,000 feet along the route would force many bomb units to descend from planned altitudes. Bombardiers would have to recalculate bombing data hurriedly and reset their bombsights.³⁸ These adjustments would loosen the formation, with consequent spreading of bomb patterns.³⁹

At 0939, as fighter-bombers flashed over the highway in their bombing attack, B-17s and B-24s of Eighth Air Force approached the St. Lo-Periers road. Bombardiers searched for landmarks that would identify targets. Great clouds of dust and smoke billowed up from the ground. Red smoke from marker shells blended with bomb bursts and muzzle flashes of artillery.⁴⁰ A breeze from the south wafted a dense pall of smoke northward, obscuring parts of the road. The urgent requirement to concentrate the bombing into an hour meant that smoke did not clear between attacks by successive waves of bombers.⁴¹ Some planes bombed from 12,000 feet, which brought them closer to enemy antiaircraft fire.⁴²

By Eighth Air Force standards the bombing of 25 July was good. All three bomb divisions covered their targets well.⁴³ A total of 1495 heavy

bombers attacked their primary targets, dropping 2060 tons of high-explosive bombs and 2346 tons of fragmentation bombs.⁴⁴

Gross errors in bombardment had been anticipated. It was unlikely that they could be entirely avoided in such a massive operation, especially with new bombing methods involving many thousands of fallible airmen and an enormous quantity of complicated equipment.⁴⁵ Bombs fell within the confines of First Army positions because of human errors. Two lead bombardiers released bombs without making positive identification of their targets. A command pilot caused short bombing when he mistakenly assumed his wing was supposed to bomb as a unit.⁴⁶

The 30th Infantry Division was hit again and suffered staggering losses: 61 killed, 374 wounded, 60 missing, and 164 cases of shock (euphemistically labeled combat fatigue). These casualties exceeded those of any other single day in combat in the history of this renowned division.⁴⁷ The regimental history of the 120th Infantry describes some of the terrible events:

Huge flights of planes [arrived] in seemingly endless numbers . . . . Fascinated, we stood and watched this mighty drama . . . . Then came that awful rush of wind—that awful sound like the “rattling of seeds in a dry gourd,” . . . . The earth trembled and shook. Whole hedgerows disappeared and entire platoons were struck, huge geysers of earth erupted and subsided leaving gaping craters . . . .⁴⁸

In all, 111 men of the VII Corps were killed by Eighth Air Force bombs on 25 July. General Leslie McNair, former commander of the Army Ground Forces, was with the assault troops to observe the performance of units whose organization and training he had profoundly influenced. He died when a bomb obliterated his trench.⁴⁹

Despite the bombing errors, American infantry units attacked with only minor delays. Resistance was surprisingly firm. German soldiers had learned to protect themselves from air attack as they coped with overwhelming Allied air supremacy. Sheltered in tunnels, trenches, and dug-in armored vehicles, many German soldiers survived bombs that fell near them.

The surprisingly tough defense put up by German troops is explained in a report on Operation Cobra by Major Kenneth Hechler of the US Army Historical Division, based on a thorough investigation in 1944:

The bombing caused an estimated 700 German casualties and 601 reported American casualties. In view of the fact that only 37 planes bombed north of the bomb safety line, it seems safe to assume that the disproportionately small number of German casualties was due to the fact that they were well dug in, whereas only a small fraction of the American troops had dug foxholes.⁵⁰

Soldiers of US VII Corps dig out after the Cobra bombardment.

Not all German units escaped heavy losses. Panzer Lehr Division occupied a section of the line attacked in the Cobra bombing. Its commander, Generalleutnant Fritz Bayerlein, testified:

The bombings completely destroyed our forward positions. That the attacking US infantry nevertheless encountered resistance is due to the fact that the reserves at battalion, regiment, and division levels had been held in position immediately behind the line of resistance . . . . Particularly tenacious resistance was offered by antiaircraft and other artillery batteries which had escaped destruction and were employed in infantry action.⁵¹

Heavy fighting continued throughout the afternoon of the 25th. It appeared that First Army had failed to break through the German lines.⁵² Anger about the performance of Eighth Air Force spread through SHAEF. Ike's Chief of Staff stung General Doolittle by charging that the bombing mishaps occurred because airmen had a lack of enthusiasm for ground support.⁵³ General Spaatz told Eisenhower that Bradley had been warned there would be casualties: "We were attempting to place too heavy a concentration in too small an area."⁵⁴

In its diary entry for 25 July, First Army recorded, "This day, a day to remember for more than one reason, did not bring the breakthrough for which we had all hoped."⁵⁵ Pessimism widely prevailed. Yet that pessimism did not influence General Collins, who remained close to the attacking troops, seeking clues to German intentions and capabilities. Although his infantry divisions had met unexpectedly stubborn resistance and had failed to capture their primary objectives, Collins sensed a lack of consistency in the enemy's defense. Should he commit his armored divisions? On the afternoon of 25 July, Collins ordered his armor to attack the following morning.⁵⁶ That decision led to the breakthrough that Cobra planners had hoped for. By late afternoon of 26 July, American forces had broken entirely through the German front. The bombing had disrupted German defenses more than Allied commanders had at first perceived.

On 25 July, one of the most significant days of the European campaign, General Bradley dictated a memorandum leveling charges against airmen, particularly Eighth Air Force, charges he repeated emphatically in books he wrote after the war.⁵⁷ He condemned the perpendicular approach of the bombers to the target, calling it a primary cause of the bombing casualties. He claimed that airmen had promised him to make the bomb run parallel to the road and south of it. "It was duplicity," he wrote, "a shocking breach of good faith."⁵⁸

This claim is false. Many airmen told Bradley that a parallel approach was impossible given the size of the target area, the number of bombers, and the time permitted for bombing.

Bradley suggested that a parallel approach would have made it impossible to spill bombs on First Army positions. This too is false. Errors of deflection could have caused bombs to fall on American positions. Regardless of approach, smoke and dust would have obscured parts of the St. Lo road, making it difficult for air crews to identify aiming points. As Spaatz explained to Ike, airmen were trying to drop too many bombs on too small a target in too short a time. They were trying to meet Bradley's requirements during a desperate crisis for First Army.

General Bradley and his subordinate commanders bore full responsibility for any failures to disperse troops in trenches, foxholes, and shelters as safeguards against bombing accidents. Dispersed troops consume precious time to move into assault formations after a preliminary bombardment ends. Lives saved by measures taken to avoid bomb casualties might have been lost by giving the enemy time to recover from the bombing before the assault troops could reach him. Bradley decided that the swift assault was the more important need.

Others also share some of the blame for the operation's Pyrrhic success. Deputy Supreme Commander Tedder failed to exercise close

supervision of Cobra's air operations as he was charged to do. It was unwise to assign Leigh-Mallory to coordinate the efforts of air and ground units participating in Cobra. The AEAF commander lacked experience directing heavy bombers, and his relations with American airmen were severely strained. A British officer assigned to SHAEF described his amazement over the role of Leigh-Mallory: "Tedder still delegates the planning and conduct of air operations to this man in whom nobody has any confidence, a man who in addition to a widespread reputation for incompetence, has a peculiar knack of rubbing everybody up the wrong way with his pompous, arrogant attitude."⁵⁹

And indeed, a large share of the responsibility for the waste and losses incurred in the botched operation on 24 July must be assigned to Air Chief Marshal Leigh-Mallory. He overruled experienced weather and operational personnel at Eighth Air Force who strongly recommended postponement of Cobra to the 25th. He failed to position himself on the 24th to receive timely, accurate data about weather so that if necessary he could postpone the operation before it started. A recall of so many loaded bombers presented enormous difficulties. The start-and-stop orders to bomb meant that American infantry divisions had to retake the safety zone, suffering heavy casualties in doing so.

Further, Eighth Air Force bomber crews found their task complicated by smoke from bomb blasts and artillery shells. In view of the importance of the St. Lo-Periers road as an aiming checkpoint for bombers at high altitude, the decision to send fighter-bombers to bomb first was unwise, another example of the poor supervision of Cobra.

The failures of coordination in Eisenhower's command should not surprise anyone who appreciates the complexities always associated with command of combined and joint forces. In 1944 the air forces were still part of the Army, of course, but in effect had achieved virtual autonomy. Thirty years of interservice squabbles about the role of air power had left Army air and ground officers deeply suspicious of each other. General Bradley was typical of many ground officers in his opinion that airmen were overpaid, overpromoted, overdecorated, and incorrigible publicity-seekers who invariably claimed for themselves a far greater importance in the nation's military establishment than their battlefield record warranted. Even forty years after the war, Bradley's memoirs failed to acknowledge the great benefits that air supremacy gave his forces in France—supremacy that had been won by Eighth, Ninth, and Fifteenth Air Forces in fierce air battles over Germany.

With regard to allied cooperation, General Eisenhower was determined to go the last mile in achieving and maintaining it. Also, he was loyal to his subordinates to a fault, especially to those who were British. His attitude on allied cooperation is well known, but most of his American commanders believed he held them to a higher standard than he did their

British counterparts. It is perhaps Ike's determination to foster harmonious relations with allies, and his loyalty to subordinates, that explain his patient, unwavering support of Leigh-Mallory in the face of the constant criticism. This raises an important question, as pertinent today as it was then: how much command failure should be tolerated in the cause of allied harmony?

These issues of alliance discord, interservice disagreement, and personality conflicts among commanders can be considered constants, deserving as much and perhaps even more attention today than they did in 1944. Without a doubt the problems attending Operation Cobra dramatized such enduring questions as whether the theater commander should command all the assets, including strategic air, brought to bear in his theater; whether strategic employment of air assets in a given instance is ultimately more efficacious than tactical employment; and whether combined and joint doctrine for close air support of ground operations in high-intensity war can ever be truly perfected and successfully implemented.

It was the courage, skill, and determination of soldiers and airmen, and the leadership of commanders such as General Collins, that made Operation Cobra succeed in the end despite the technical mishaps in the bombing support. Journalist Ernie Pyle was present during the Cobra bombing. Later he evaluated the operation:

I have a hunch that July 25 of the year 1944 will be one of the great historic pinnacles of this war. It was the day we began a mighty surge out of our confined Normandy spaces, the day we stopped calling our area the beachhead and knew we were fighting a war across the whole expanse of France.⁶⁰

Pyle's hunch was right.

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59. Nigel Tangye, diary, 14 October 1944, Archives of the Imperial War Museum, London.
60. Ernie Pyle, *Brave Men* (New York: Henry Holt, 1944), p. 432.