SEDUCTION IN COMBAT: LOSING SIGHT OF LOGISTICS AFTER D-DAY

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ABSTRACT

SEDUCTION IN COMBAT: LOSING SIGHT OF LOGISTICS AFTER D-DAY,
by Norman R. Denny, 82 pages.

One of the enduring controversies of World War II is the debate over the value of the Brittany campaign following the Normandy breakout. The Allies adhered to an Overlord requirement by sending Third Army west to seize port facilities in Brittany, while German forces were retreating to the east. A key objective in Brittany was the creation of a new port facility, Operation Chastity, at Quiberon Bay, on the Brittany peninsula.

Quiberon Bay was not seized and Operation Chastity was eventually canceled. The Allied campaign waged between August 1944 and May 1945 was plagued by logistics shortfalls. While some argue Third Army forces were capable of seizing the existing Brittany ports during the early days of the breakout, most agree this is not the case. The ability to seize Quiberon Bay however has received little attention. If secured in the early days of the breakout, Operation Chastity would have provided a key logistics source for Allied operations against Germany.

In the heady days following the breakout, may Allied leaders spoke of ending the war by year's end. Logistics constraints resulting from post D-Day decisions helped eliminate this possibility. Had Chastity been completed, that goal might have been achieved.

ACKNOWLEDGMENTS

I would like to thank first and foremost my wife for her support and patience during my pursuit of a second graduate degree. I would also like to thank my committee members and other CGSC staff members who helped guide and shape this thesis. Finally, I would like to thank the Director and management of the Missile and Space Intelligence Center who apparently never believed I would make it far enough through the acceptance process to actually get to a war or staff college.

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ACRONYMS

AAR	After Action Report
ADSEC	Advanced section, Communications Zone
Brig. Gen.	Brigadier General
CCA	Combat Command A
CCB	Combat Command B
COMZ	Communications Zone
ETOUSA	European Theater of Operations, US Army
FFI	French Forces of the Interior
LCT	Landing Craft, tank
LOC	Lines of communication
LST	Landing ship, tank
Lt. Gen.	Lieutenant General
Maj. Gen.	Major General
POL	Petrol, oil, and lubricants
SHAEF	Supreme Headquarters, Allied Expeditionary Force
TC	Transportation Corps

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CHAPTER 1

THE LUST FOR COMBAT

One of the primary concerns in the planning of Operation Overlord, the D-Day invasion of Europe, was the rapid acquisition of deepwater ports.[1] In many ways, Overlord was a race strategy; a race to capture ports through which more Allied troops and supplies could be funneled than German troops could be brought against the Allied beachhead. This need to rapidly acquire deep-water ports resulted in the development of Operation Chastity in April 1944. Detailing the creation on the Brittany peninsula of an entirely new port facility at Quiberon Bay, Operation Chastity was the last major revision to the Overlord plan.[2]

Overlord envisioned the establishment of a base of operations west of the Seine and north of the Loire River in western France. From this Allied lodgment, an attack against German forces would be launched only after sufficient men, material and port facilities were available.[3] In the weeks immediately following the invasion, the Allied forces were contained in a relatively small area behind the beaches and in the hedgerow terrain of the Carentan peninsula.

The selection of the Normandy beaches for the invasion site was a compromise between the rapid acquisition of the deep-water port facilities needed to support follow-on forces and suitable beaches close enough to airfields in Britain that continuous air coverage could be provided (see figure 1). A key objective of the Overlord plan was the acquisition first of the port of Cherbourg, then selected ports in Brittany and on the Loire River. According to the Overlord plan, only after the Allies had secured an adequate

lodgment area in northwestern France, would operations begin east of the Seine River, towards Paris and Germany. To succeed, they needed operating ports.

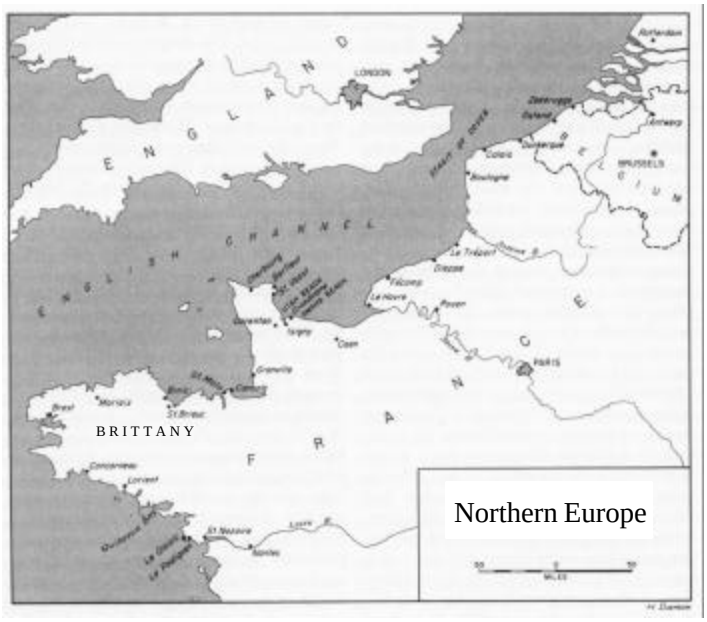

Figure 1. Ports Considered in Invasion Planning. *Source*: Roland Ruppenthal, *Logistical Support of the Armies*, vol. 1, Office of the Chief of Military History Series on the United States Army in World War II (Washington, D.C.: U.S. Government Printing Office, 1953), 188 (Modified).

From the start, things went wrong. The Overlord planners recognized the need to bring substantial quantities of supplies and men across the Normandy beaches until Cherbourg and the Brittany ports could be brought into operation. To increase the support over the beaches and minor Normandy ports, two artificial harbors, the Mullberries, were constructed and towed across the Channel. Two weeks after the invasion began, and only three days after beginning operation, one of the Mullberries was destroyed as a relatively

mild storm swept up the Channel. Compounding this loss was the failure of Allied forces to seize Cherbourg as planned and a delay in bringing it into service once seized.

Despite problems in moving supplies across the beaches and the delay in bringing Cherbourg into operation, logistics was not a problem during June and July. The British were encountering stiff opposition in their advance towards Caen and American forces were mired down in the bocage country, the hedgerows, beyond the Normandy beaches. Until the American breakout from the beachhead on 25 July, the cross beach capabilities coupled with the minor Normandy ports of Isigny, Grandcamp and Carentan had allowed a satisfactory build up of men and supplies in the beachhead area.[4]

On 25 July (D+49), Operation Cobra, the breakout from the Normandy beachhead, began. Although Allied forces were almost two weeks behind their pre-invasion timetable, they were about to catch up in a big way. Once free of the hedgerows, Lieutenant General (Lt. Gen.) George S. Patton's Third Army sent the VIII Corps racing into Brittany to seize Brest, Quiberon Bay, Lorient and St. Nazaire.

By 3 August, Major General (Maj. Gen.) Troy H. Middleton's VIII Corps was knifing into the Brittany peninsula, meeting only scattered, disorganized resistance. Elements of the 4th Armored Division, led by Maj. Gen. John S. Wood, were poised at the base of the Quiberon peninsula, with disorganized German forces retreating into Lorient, St. Nazaire and up the Quiberon peninsula. Here, on the brink of success, Allied forces stumbled. Maj. Gen. Wood saw American forces making spectacular advances eastward into central France while he headed west against little resistance. With a major Overlord objective in his grasp, Maj. Gen. Wood proposed to stop his westward movement, block the base of the Brittany peninsula and swing the majority of his forces

eastward towards Chartres. Maj. Gen. Wood considered this to only be a "slight modification of current plans."[5] After some delay, Maj. Gen. Middleton ordered the 4th Armored Division to hold a line along the Vilaine River, sealing off the Rennes to Quiberon region. Elements of the 4th Armored Division stopped roughly 10 miles short of the Quiberon Bay objective, despite facing minimal opposition. By the end of August, all of Brittany except for the critical ports of Brest, Lorient, St. Nazaire and the Quiberon peninsula were cleared. Without these facilities, the Brittany campaign truly was a wasted effort.

As American forces swept through Brittany and towards Paris, British forces drove eastward along the coast, isolating, but not immediately capturing Le Havre and Rouen. By late August the great Belgian port of Antwerp was in sight. One of the greatest port facilities in the world, Antwerp seemed to offer the answer to all the Allies nagging logistics problems.

At the end of August, with the capture of Antwerp in sight, British and American ground commanders came forward with their individual plans for rapid thrusts into Germany, thrusts that they felt would bring the war to a quick end. Field Marshal Bernard L. Montgomery advocated a British led campaign to the north. Sustained by port facilities captured along the way, this thrust would cross the Rhine, capture the Ruhr and push on to Berlin. To the south, the Americans were putting forward a plan that would have the American Third Army drive across the Rhine, possibly capturing Frankfurt.

Since the end of the Second World War, the benefits of these plans have been heatedly debated. If the Allies had given an all out effort to capture Berlin, many believe German resistance would have collapsed. The truth, however, is that neither plan was

logistically feasible. The American Third Army plan would have pushed ten or twelve divisions across the border, but only at the cost of stopping all other offensive actions (21st Army Group led by Field Marshall Montgomery). Montgomery's plan was even more ambitious and would have thrown forty divisions across the Rhine. Like the American plan, the northern thrust would have received all available supplies and required other Allied forces to go on the defensive. It also required more transportation support than was available on the continent. Even if the plan had been logistically feasible, only three corps, one with three U.S. divisions, would have been supportable as far forward as Berlin.[6] General Dwight David Eisenhower opted to continue giving priority to the northern push but to allow offensive actions by both 21st Army Group and Third Army. General Eisenhower has been criticized for not gambling all in the fall of 1944, but the Supreme Allied Commander made what may have been the only logistically supportable decision.

These offensive actions were conducted only at great costs. Supplies for both efforts continued to flow primarily from Cherbourg and across the Normandy beaches, as much as 450 miles to the rear. Because of the extensive pre-invasion bombing campaign, rail transportation in the Normandy-Cotentin region was severely damaged. In August and September of 1944, only about one-fifth of the Allied supplies were carried by rail, the remainder moved to the front primarily in improvised truck companies over a number of dedicated road networks, the most famous being the "Red Ball Express."[7]

As September began, almost 6,000 trucks in 132 truck companies were involved in moving supplies from depots near St. Lo in Normandy to the Third Army front east of Paris. Trucks were gathered by stripping combat and support forces of their organic truck

assets. The Third Army advance across France was rapid, and all the more impressive given the lack of transportation. A photograph of infantry riding on the back of tanks made great propaganda images but often the only other option available to the infantryman was to walk. XII Corps, one of two Third Army Corps east of Paris (the other being XX Corps), consumed between 200,000 and 300,000 gallons of gasoline for every 50 miles traveled. In support of these two Corps, the Red Ball Express consumed 300,000 gallons of gas per day.[8] Clearly, one third of the gasoline flowing to Third Army was consumed prior to it reaching the front-line units. American forces at the end of this strained logistics system were only provided with priority items and often lacked essential equipment because of the lack of an efficient distribution network. Some Third Army units were without field jackets and snow pack boots as late as February or March of 1945.[9]

On 7 September, three days after the capture of Antwerp, Supreme Headquarters, Allied Expeditionary Force (SHAEF) canceled the Quiberon Bay plan. On 9 September, General Eisenhower determined that the remaining major Brittany ports were no longer needed. These decisions seem rational, given the capture of Antwerp intact and the failure to capture the Brittany ports and Quiberon Bay area during the first days of August. By September, German forces inside the coastal pockets in Brittany were organized and entrenched. With Antwerp, a port rivaling New York Harbor in capacity, in his control and initial port operations expected by 1 November, General Eisenhower seems to have made a rational decision. Unfortunately, Antwerp was fifty-five miles inland, at the head of the Schelde Estuary. While Antwerp was captured on 4 September, the Canadian 2d Corps only began clearing the approaches to Antwerp on 1 November.

The estuary, which had been heavily mined, also had to be cleared. The first Allied liberty ship, the *James B. Weaver*, did not dock in Antwerp until 28 November.[10]

Even at the time it was made, the movement following the breakout from the Normandy beachhead west into Brittany, away from the main German forces retreating to the east, was questionable. This debate has continued. Given the collapsing German resistance towards the east, opening the way towards Paris and the German frontier, the continued commitment of American forces westward into the lightly defended Brittany peninsula seems to some foolish. Max Hastings, in *OVERLORD, D-Day and the Battle for Normandy*, calls the decision "ill-judged."[11] In his *History of the Second World War,* B. H. Liddell Hart said, "Only a few scattered German battalions lay in the ninety-mile-wide corridor between that point and the Loire. So American spearheads could have driven eastward unopposed. But the Allied High Command threw away the best chance of exploiting this great opportunity by sticking to the outdated pre-invasion programme, in which a westward move to capture Brittany ports was to be the next step."[12] Of the Brittany ports, only Brest was ever captured. Brest fell on 19 September after a long campaign and was so severely damaged that it was never brought into operation. German garrisons in the other Brittany ports were bottled up and surrendered only at the end of the war. Lt. Gen. Omar Bradley's campaign for Brest was criticized for wasting 10,000 American lives for no purpose.[13]

Given the controversy over the capture of Brittany and the battle for Brest, the failure to seize Quiberon Bay has in many ways been overlooked. One of the few to argue that failure to secure the bay was a strategic error was Colonel Harold Mack, USA, Retired. In a *National Security Affairs*, article written while attending the National

Defense University in 1981, Colonel Mack argued the failure to seize Quiberon Bay was, as he stated in his title, "The Critical Error of World War II."[14]

Had the preinvasion plans to capture the Quiberon peninsula been carried out, Max Hastings and Sir Basil Liddell Hart would be wrong, the campaign against Germany possibly shortened and American lives saved. Instead, decisions and actions by Maj. Gen. Wood (4th Armored Division), and Maj.Gen. Middleton (VIII Corps), Lt. Gen. Patton (3rd Army), and Lt. Gen. Bradley (U.S. Ground Forces), and General Eisenhower (Supreme Allied Commander) made the drive into Brittany fruitless and put in danger the U.S. advance into Germany and the Allies war in Northern Europe.

The Overlord plan placed capture of the Brittany ports at the top of the priority list. Given the extensive destruction of the port facilities at Cherbourg and Brest, the decision to abandon the Brittany ports had some merit, especially given the rapid advance up the channel towards Antwerp. Still, at the time Maj. Gen. Wood and his 4th Armored Division stopped short of the Quiberon Bay-Lorient facilities, the British 21st Army was still held up before Caen. Given the weak and disorganized forces opposing him, Maj. Gen. Wood's decision to halt his lightly opposed advance just short of his objectives was unfortunate; his failure to capture the Quiberon peninsula tragic. Admittedly the established Brittany ports of Lorient and St. Nazaire might have mirrored Cherbourg in the destruction inflicted by their German defenders and the Allied resources required to restore their operation. Quiberon Bay, however, was lightly defended, its potential value to the Allies unrecognized by the Germans and the resources required to bring it into operation almost negligible.

During September, Cherbourg's average daily production was 10,500 tons. Minor

Normandy ports produced an additional 3,300 tons daily. The Normandy beaches provided on average an additional 13,000 tons per day.[15] During the August-September pursuit of the Germans across France and Belgium, the Allied armies experienced almost constant shortages. Four-fifths of the supplies reaching the front were transported by truck.[16] Had Quiberon Bay been in production by the end of August, with connects into the French rail system, an additional 10,000 tons of critically needed supplies, enough to meet the shortfall in First and Third Army, could have been provided.

By December 1944, the Allied drive had ground to a halt. A lack of supplies during the critical September-November period limited the Allies ability to exploit the German collapse to its limit. In December, with the Normandy beaches closed, the Allies were receiving daily, 14,200 tons at Antwerp, 4,400 tons from Rouen, and 5,500 tons from La Havre, while Cherbourg's production dropped to 8,300 tons.[17] By December, some supplies where flowing to U.S. forces from ports in southern France but despite these additions, the supply situation was still inadequate. Had the Allies received an additional 10,000 to 30,000 tons of supplies a day during this critical period, the predictions of "Berlin by Christmas" might just have come true.

Allied forces suffered through the winter of 1944-45 at the end of an inadequate and inefficient supply network. The push across the Rhine was probably more the result of the general collapse of a Germany under attack from the east than of a powerful, overwhelming American and British force.

While most of Brittany was liberated, the detailed plans for capturing and operating the major Brittany ports were abandoned. The Brittany plans were shelved for a number of justifiable reasons, but the abandonment of Operation Chastity may have

resulted in extreme hardships for American troops, lost the Allies the chance to thrust deep into Germany in 1944 and delayed the war in the Pacific.

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[1]Roland Ruppenthal, *Logistical Support of the Armies*, vol. 1, Office of the Chief of Military History Series on the United States Army in World War II (Washington, D.C.: U.S. Government Printing Office, 1953), 188.

[2]Ibid., 179.

[3]Ibid., 178.

[4]Roland Ruppenthal, *Logistical Support of the Armies*, vol. 2, Office of the Chief of Military History Series on the United States Army in World War II (Washington, D.C.: U.S. Government Printing Office, 1959), 416-17

[5]Martin Blumenson, *Breakout and Pursuit*, Office of the Chief of Military History Series on the United States Army in World War II (Washington, D.C.: U.S. Government Printing Office, 1961), 360.

[6]Ruppenthal, Vol. II, 10-11.

[7]William F. Ross and Charles F. Romanus, *The Quartermaster Corps*: *Operations in the War Against Germany*, US Army in WWII Series (Washington, D.C.: U.S. Government Printing Office, 1965) 399.

[8]Blumenson, 691.

[9]Some members of the 301st Infantry Regiment of the 94th Infantry Division, fighting on the Saar Switch front, were without winter field jackets and snow packs into March of 1945. Based on an oral interview conducted by the author with his father, Sergeant Richard (NMI) Denny (Ret.) Sergeant Denny was a member of the 302nd Infantry Rgmt, 94th Infantry Division from February 1944 to May 1945. Interview was conducted in 1997 at Sergeant Denny's home in Decatur, Alabama and a copy is on file with the Combat Studies Institute, U.S. Army Command and General Staff College, Fort Leavenworth, KS.

[10]Ruppenthal, vol. 2, 110.

[11]Max Hastings, *Overlord: D-Day and the Battle for Normandy* (New York: Simon & Schuster, 1984), 282.

[12]B. H. Liddell Hart, *History of the Second World War* (New York: G.P. Putnam's Sons, 1971), 557.

[13]Omar N. Bradley, *A Soldier's Story* (New York: Henry Holt & Company, 1951), 366.

[14]Harold Mack, USA, Retired, Nation*al Security Affairs*, Issue Paper No. 81-1, article entitled "The Critical Error of World War II."

[15]Ruppenthal, vol. 2, 124.

[16]Ross and Romanus, 399.

[17]Ruppenthal, vol. 2, 124.

CHAPTER 2
DEFINING CHASTITY

Quiberon Bay is a large sheltered anchorage, approximately half way between Lorient and St. Nazaire on the southwest coast of the Brittany peninsula. Behind the Quiberon peninsula and a string of small islands is a sheltered anchorage for up to 200 ships, four minor ports, 3,000 yards of hard beach and access to multitrack rail lines leading towards Paris.[1] This anchorage aptly suited the Allies need for a safe, easily developed facility to support operations in northern France in the summer of 1944.

Behind Quiberon Bay, the hills of Brittany ran down close to the coast. Dotted with heavily forested areas and the always present Brittany hedgerows, the expansive bay extends south and east. The headwaters of Quiberon Bay are at the small town of Vannes. Thirty miles along the coast to the west lies the major port of Lorient, one of the primary U-Boat bases in Nazi occupied France. Between Vannes and Lorient, lies the Auray River, which empties into western Quiberon Bay at the small fishing village of Auray, and the Blavet River, which forms the headwaters of Lorient Bay. Jutting out into the Bay of Biscay approximately half way between Vannes and Lorient is the Quiberon peninsula, a ten mile long and one or two mile wide finger of land that dominates the entrance to Quiberon Bay. Ten miles off the tip of the peninsula is Belle Isle, measuring ten miles by three miles, the island dominates the approaches to Quiberon Bay. Thirty miles to the east-southeast of Vannes lies the other major U-Boat base on the Brittany peninsula, St. Nazaire, at the mouth of the Loire River (see figure 2).

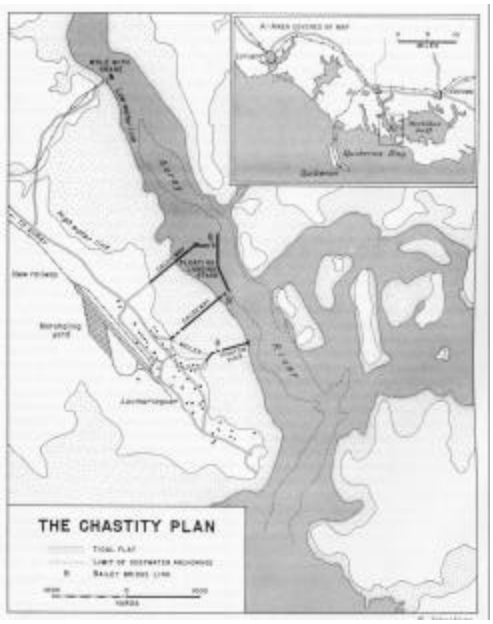

Figure 2. The Chastity Plan. *Source*: Roland Ruppenthal, *Logistical Support of the Armies,* vol.1, Office of the Chief of Military History Series on the United States Army in World War I (Washington, D.C.: US Government Printing Office, 1953), 295.

More important to the Allies than the minor ports in Quiberon Bay were the Auray River and a deepwater channel it formed near the fishing village of Locmariaquer. As the Auray River emptied into Quiberon Bay, its waters gouged out a deepwater pool, 3,000 yards long and 30 to 300 yards wide. The pool, a mere 300 to 500 yards out from the fishing village, was 80 feet deep and had a nearly vertical wall.[2] Operation Chastity intended to use this deepwater pool as a natural quarry. Fixed bridging equipment would connect the shore with floating piers, anchored beside the deepwater pool. Operation Chastity would have moorings for thirty ocean going vessels and berths where five ships could be off loaded directly into trucks. The plan was to develop Quiberon Bay to have a capability of 10,000 tons a day, 2,500 tons alongside the piers and 7,500 by lighterage

(off loading into smaller ships and landing craft) from ships in the deepwater pool. An existing mole would be modified for heavy lifts and a marshaling yard constructed.[3] Quiberon Bay would provide the Allies with 10,000 tons of critically needed supplies, supplies that could be moved inland primarily by rail. While the Mulberries used at the Normandy beaches provided roughly 6,000 tons of supplies a day, they had required 120,000 man months to construct. The facilities at Quiberon Bay would require a total of 4,000 man months to construct, with all the material transported in two Liberty ships and ten barges.

A review of the planned facilities at Quiberon Bay shows that these facilities could have easily been expanded. While Operation Chastity planned on 2,500 tons a day pier-side from five Liberty ships, this could have been expanded three fold, to 7,500 tons or more a day. The sheltered waters of Quiberon Bay and hard packed, light gradient beaches could also support the direct unloading of Landing ship, Tank (LSTs) at low tide, a capability fall storms threatened to end on the Normandy beaches. Expanded pier side capabilities, beached LSTs and the increased use of lighterage could have rapidly increased Quiberon Bay's output. A 30 March 1944 the Communications Zone (COMZ) document recommending approval of the projected stated the following capabilities by D+40:

> Cargo discharge capacity:
> a. An exhaustive study has been made of the discharge capability off all ports and beaches available. It develops that on D+40, the capability will be 26,000 tons per day. This capability is made up as follows:
> (1) Capacity for discharge from Liberty Ships to quaryside, 1,000 tons.
> (2) Capacity for discharge by use of Shallow Draft Coasters or Lighters, 22,000 tons.
> (3) Capacity for discharge by use of DUKWs, 3,000 tons.
> b. A similar breakdown on D+90 indicates the following:

(1) Capacity for discharge from Liberty Ships to quaryside, 7,000 tons.
(2) Capacity for discharge by use of Shallow Draft Coasters or Lighters, 28,000 tons.
(3) Capacity for discharge by use of DUKWs, 6,000 tons.
(4) Total 41,000 tons per day.[4]

Figure 3. LST Unloading in Normandy. *Source*: Harrison Standley Collection (US Army Center for Military History web-site, Art Collection, accessed 5 April 2003); available from http://www.army.mil/cmh-pg/reference/normandy/Pictures.htm; Internet.

Use of the extensive rail network in the region (which sustained much less damage that the rail facilities near the Normandy beaches) would have allowed supplies to flow to the front quickly and efficiently.[5] East of Paris, the rail network was virtually intact.

The capture of deepwater ports was a driving factor in the development of the Overlord plan. The difficult issue of drafting a plan that ensured sufficient deepwater ports would be acquired drove one staff officer to develop a parody called “Operation

OVERBOARD." In it the now unknown officer stated, "The general principle is that the number of divisions required to capture the number of ports required to maintain those divisions is always greater than the number of divisions those ports can maintain."[6] Operation Chastity was the final attempt in the development of Overlord to address this issue. The port at Quiberon Bay was intended to overcome, or minimize a logistics problem clearly understood by the Allies. In the 30 March 1944 document, COMZ personnel articulated the problems:

> 2. There are three (3) factors which limit the maintenance of an army overseas:
> a. Cargo discharge capability.
> b. Personnel and Equipment to forward to supply dumps within reach of the army.
> c. Road and Rail network from beaches and ports to supply dumps.
> 3. In the operation Overlord, all three of these factors are critical.[7]

The Chastity plan was approved on 22 April 1944.[8] The capture of Quiberon Bay was given the highest priority. This priority carried over into the hectic days following the invasion. On 14 June, First Army approved the Third Army plan for Operation Chastity. The XX Corps was directed to plan for the capture of the Quiberon Bay area and Belle Isle, a large island to the southwest of the bay.[9] Prior to and after the invasion, the need for deepwater ports drove operational and tactical decisions.

The Operation Chastity plan and Quiberon Bay were by no means perfect. Throughout the development of the plan, a number of problems and limitations surfaced. The material for the construction of the port in Quiberon Bay would be shipped around the Brittany peninsula from Great Britain. To reach Quiberon Bay, the Liberty ships and seagoing barges would have to pass Brest and Lorient. In the opinion of the SHAEF G-4 Division on 19 July, the project rested on the rapid capture of both Brest and Quiberon

Bay. Unless Brest was captured, shipping to Quiberon Bay would be, "impossible due to naval interference."[10]

Given the history of convoys in the hotly contested English Channel and other contested waters, this is likely an overstatement. Material destined for Quiberon Bay could be routed out into the Bay of Biscay and escorted. Clearly, movement of material by barge further out from the coast might place it more at risk to the weather, but not substantially. Even given some increased risk, the small number of ships and barges needed to construct the port facilities (two Liberty ships and ten barges) and the generic nature of the materials (standard bridging, mooring, and construction equipment) would seem to indicate an acceptable risk. This same argument holds true for the risk imposed by naval assets at Lorient. In the case of Belle Isle, the defenses of the island would have to be silenced at a minimum, given its strategic position. These defenses were known to be four radar sites, a Radio Direction Finding (RDF) site, a dozen strong points, ten medium guns in open positions and four howitzers, the largest two being of 175 millimeter caliber.[11]

A second limitation was the need for minesweeping. Again, this was recognized, planned for, and estimated to take seven days.[12] The third and greater problem was the expected weather. In the fall and winter, the Bay of Biscay frequently experiences gales. The Allies recognized that by October, these gales would impact operations within Quiberon Bay, likely causing lightering operations to cease, except in the sheltered waters of the Auray river.[13] Still, within this sheltered, deepwater pool on the Auray river, thirty ocean going vessels could be moored.

The Chastity plan was developed over several months to address a key limitation

in the Overlord plan. While the capture of Brest and Lorient were considered essential for the execution of Chastity, this was likely based on the movement of the initial construction assets and coaster traffic from Britain. While the ability included in Chastity to off-load coasters and LSTs was of significant benefit, the greatest benefit of Chastity, and desperately needed capability, was its ability to off-load Liberty ships quayside. This capability to handle ships coming directly from the US and the capability to move substantial portions of the material by rail were the key to Chastity's value. During a campaign noted for its innovation and rapid deviations from plans, the inability to recognize this key attribute of Chastity was regrettable.

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[1]Roland Ruppenthal, *Logistical Support of the Armies*, vol.1, Office of the Chief of Military History Series on the United States Army in World War II (Washington, D.C.: US Government Printing Office, 1953), 187.

[2]Col. Seymour A. Potter, Jr., "Quiberon Bay", *Military Review* 31, no. 6, (September 1951): 45-46.

[3]Ibid., 50.

[4]Headquarters, Forward Echelon, Communications Zone, European Theater of Operations, US Army document, Subject: Development of the Bay of Quiberon, 30 March 1944.

[5]Roland Ruppenthal, *Logistical Support of the Armies*, vol. 2, Office of the Chief of Military History Series on the United States Army in World War II (Washington, D.C.: US Government Printing Office, 1958), 148; and Martin Blumenson, *Breakout and Pursuit*, Office of the Chief of Military History Series on the United States Army in World War II (Washington, D.C.: U.S. Government Printing Office, 1961), 633.

[6]Ibid., 46.

[7]Headquarters, Forward Echelon, Communications Zone, European Theater of Operations, US Army document, Subject: Development of the Bay of Quiberon, 30 March 1944.

[8]SHAEF, G-4 Division, SHAEF document 475-GDS, 22 April 1944.

[9]After Action Report, Third Army, 1 Aug 1944-9 May 1945, vol. 1, The Operations, Chapter 1, p. 7 (vol. 1 & 2 reproduced jointly by 652nd Engineering (TOPO) BN., CO. B, 942nd Engineer AVN. (TOPO) BN.

[10]SHAEF G-4 Division Memorandum to Chief of Staff, 19 July 1944. Subject Chastity Project. Signed by R.W. Crawford, Major General, USA, Assistant Chief of Staff, G-4.

[11]SHAEF Report, Subject: Joint Operations Plan for US Forces for Operation Overlord, 16 June 1944, Change No. 1 to Annex 4, paragraph (j) Defenses of Belle Isle.

[12]SHAEF Headquarters Plan, Subject QUIBERON BAY Project, 11 April 1944 (21 A Gp/00/74/59/G(Plans), paragraph 6, signed by R. W. Beechem, BGS General, for the Commander in Chief.

[13]SHAEF Headquarters Plan, Subject QUIBERON BAY Project, paragraph 7.

CHAPTER 3

THE EVOLUTION OF CHASTITY

As previously stated, one of the key tenets of Operation Overlord was the rapid acquisition of deepwater ports. Cherbourg, on tip of the Cotentin peninsula, was the first major objective of the American portion of the operation. The overarching goal of Overlord was the development of a base of operations on the continent from which operations could be launched against Germany. The Allies envisioned Overlord as acquiring the geography, ports, depots, and transportation assets needed for follow-on operations. Operations west of the Seine or south of the Loire (beyond those required to secure St. Nazaire and Nantes) were not contemplated within the Overlord plan.[1]

The need to open ground operations on the continent was considered almost immediately after the British withdrawal in 1940 and was expressed in a series of operational plans. The British Roundup plan developed in 1941 was limited in scope, given a realistic assessment of British capabilities prior to the US entry into the war. Roundup was intended to exploit an already weakened Germany.[2] With the American entry into the war in Europe, a joint US-British concept, Operation Bolero, was developed in 1942, with the objective of entering the continent in 1943.[3] Bolero was a three phase concept; a preparatory phase covering the buildup and initial air and raider operations in 1942. A second phase consisted of the cross channel movement, with the third phase being the seizing and expanding of a beach head between Le Havre and Boulogne.

In the spring of 1942, German armies resumed their offensive in the east, again

apparently devastating Soviet forces. Concerned the Soviet will might collapse, the allies developed a modified plan to launch an early, though limited operation on the continent. This operation was titled Sledgehammer and was a modification of the earlier plans.[4]

The planning for these operations was driven and limited by logistics. The original Bolero plan envisioned a buildup of thirty US divisions. This would require a million men to flow into the British Isles, along with the supplies and infrastructure needed to support and train them. Shipping was a major limiting factor in the planning for the buildup.[5] Planning began at the height of the U-Boat war and as operations in the Pacific were getting underway. In addition, the British had requirements to move forces to the Middle East. Within weeks, the original estimate of thirty American divisions was scaled back to fifteen. In early May 1942, the plan called for a total of 1,042,000 men allocated as 240,000 to the Air Force, 277,000 Services of Supply (SOS), and 525,000 ground forces constituting seventeen divisions.

General George C. Marshall, Chief of Staff, strongly desired an early entry onto the continent. The British, perhaps more aware of the complexities of the operation, were more willing to consider alternatives. The realities of the war, pressure from the Russians and the political necessity to get US forces into combat in Europe, resulted in Operation Torch, the invasion of Northwest Africa in 1942.[6] The July 1942 decision to implement Operation Torch was made with the full acknowledgment that its impact would virtually eliminate the possibility of a cross channel attack in 1943. The plans for the invasion of the continent were further delayed by operations in the Pacific and Operation Husky, the 1943 invasion of Sicily.[7]

The European experience in World War II differed greatly from US experiences

in World War I. In the Great War, US forces entered the continent unopposed, primarily through the French port of Brest, and then deployed well behind the front lines to equip and train. US forces where shipped across the Atlantic on transports and disembarked in French ports. The planning encompassed in Operations Roundup, Bolero, Torch, Husky, and Overlord would be across opposed beaches and initially (with the exception of Torch) without the benefit of functioning deepwater ports. As planning for Bolero began and Torch was conducted, the Allies lacked even a single Landing Ship Tank (LST), the ship that proved to be the backbone for assault and supply efforts during Overlord. British experience in amphibious operations was largely tactical in nature, primarily commando operations and the debacle at Dieppe. Even experience gained during Operation Torch was of marginal value, given that the majority of the forces were deployed over great distances, the amphibious portion of the operation limited and ports captured intact and rapidly brought into operation. Of the lessons learned from Torch, the greatest might well have been in the area of logistics and the need to ensure close coordination between logistics and tactical planning and operations.[8] It was only with Operation Husky, the invasion of Sicily, that many of the concepts and techniques integrated into the Overlord plan were finally exercised and validated.

Development of the invasion plan continued and was accepted as Operation Overlord by Churchill and Roosevelt at the Quebec Conference in August 1943. Overlord would be the primary operation of 1944. Logistics and the need to acquire deep-water ports continued to drive the development of the plan. A second key consideration was the beaches selected for the initial assault, given that almost all the follow-on forces and logistics would flow across the selected beaches until captured ports could be put into

operations. The beach phase of the operation was envisioned as possibly lasting up to three months.[9] This beach requirement, the need for beaches wide enough and capable of landing the required items, with the ability to rapidly clear the beaches of incoming supplies and a location sheltered from the prevailing winds, led to the selection of Normandy as the invasion site.

Selection of the invasion site was driven by the port capabilities within reach. In an effort to evaluate sites during the plan development, planners broke the ports in northwest Europe into "port groups" (see figure 4).

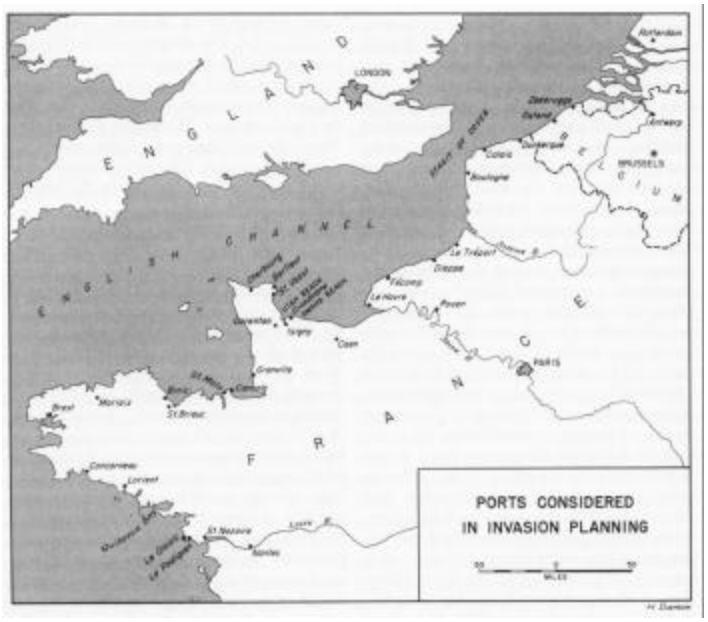

Figure 4. Ports Considered in Invasion Planning. *Source*: Roland Ruppenthal, *Logistical Support of the Armies*, vol. 1, Office of the Chief of Military History Series on the United States Army in World War II (Washington, D.C.: U.S. Government Printing Office, 1953), 180.

The port groupings were, the Belgian Group: consisting of Dunkerque and Antwerp; the Pas de Calais Group: consisting of Boulogne and Calais; the North Seine

Group: consisting of Dieppe, Le Havre and Rouen; the Normandy Group: consisting of Cherbourg, Caen and Granville; and the Brittany Group: consisting of St. Malo and Nantes.[10] These grouping drove much of the Overlord planning.

As the invasion plan developed, it was determined that no one group would be sufficient to sustain the invasion force when first opened. It was determined, however, that two adjacent groups could support the needs of the Allies. In the plan development, the Pas de Calais and Belgian groups where viewed unfavorably, given they where at the heart of the German defense system.[11] Among the remaining groups, the Normandy-North Seine ports provided the greatest capability in the smallest number of ports, but the Normandy-Brittany ports possessed the greatest overall capability. The actual location of the invasion at Normandy was in large part an outgrowth of Normandy's common position in these two alternatives. An invasion in Normandy allowed the Allies the option of moving to capture the North Seine or Brittany ports, depending on events.

Another determining factor in the selection of the invasion site was the ability to rapidly capture a major port. While men and supplies could be pushed across the beaches for a period of time, as the number of units on the continent and the scale of operations increased, it would have to be supported by deep draft ships unloading at quay side.[12] Cherbourg was the only major port in Normandy. While the disposition of German forces and beach fortifications were clearly factors in the selection of the invasion beaches, the overarching logistics needs ruled supreme in all the discussions.

Allied planners in 1943 estimated that eighteen division would have to be supported over the Normandy beaches during the first month of the invasion and twelve additional divisions supported during the second. These numbers included the impact of

pressing into operation every available port, regardless of size. Given doubts about weather and the ability to support the planning numbers with LST and Landing Craft Tanks (LCT), the Allies developed plans to construct artificial harbors, the Mulberries, in an effort to ensure adequate logistics support.[13]

Logistics concerns drove a number of the major Overlord revisions. On 18 February 1944, Allied leaders, meeting at the 21st Army Group headquarters, adjusted the mission of airborne forces. Both Lt. Gen. Bradley and Field Marshall Montgomery argued the importance of rapidly capturing Cherbourg and the need for concentrating airborne assets against this objective. As a result of this meeting, two US airborne divisions where shifted to targets on the Cotentin peninsula.[14]

A second major modification was the April 1944 inclusion of Operation Chastity into the Overlord plan. Based in part on Allied experience from Italy, the Overlord planners expected the ports in Brittany to be extensively damaged at the time of capture. Operation Chastity, with its rapid development of port capabilities at Quiberon Bay, helped to alleviate this problem and lessened the need to capture ports on the Loire River. Both St. Nazaire and Nantes had been considered for capture, but to utilize these ports would involve a major river crossing. Chastity provided essential deep-water capabilities unlikely to be available at the major ports by D+90.

The invasion of Italy had taught the Allies several lessons about the size of the initial invasion force, avoiding overly long supply lines, and the Allied ability to restore a port to service.[15] As the planning for Overlord went forward, planners made a number of assumptions. The Allies desperately needed deep-water ports, yet the Germans also recognized the importance of ports and were expected to conduct extensive demolition.

As a planning factor, ninety percent of the important quays and piers were expected to be unusable, although half should be brought back into operation with days.[16] It was also assumed the harbors would be littered with sunken shipping and material handling equipment damaged or destroyed. Finally, warehouse, road, and rail assets were also expected to be destroyed or damaged. This placed a heavy burden on the Corps of Engineers, who were tasked with bringing the ports back into operation for the Services of Supply, or Communications Zone (COMZ), as they were renamed. Once returned to service, the ports would be turned over to the Transportation Corps for operations.

The Allies placed great importance on Cherbourg during the development of Overlord, both for its early capture and rapid return to service. The Roundup/ Bolero/Overlord planners recognized early that there was an apparent shortfall in port capabilities. As the shortfall in logistics became more obvious, the capture date for Cherbourg was pushed forward and its production numbers increased. Cherbourg was expected to fall to the Allies on D+9 and to begin receiving supplies three days later.[17] Port capabilities were expected to rapidly rise to 5,000 tons by D+20 and 8,000 tons by D+90. This was not to be.

In addition to operating the ports, the Transportation Corps was also responsible for truck and rail transport associated with port clearance, depot operations and line-of-communications hauling. Early during the planning phase, the Transportation Corps had estimated a need for 240 truck companies to meet this need, assuming line-of-communication hauling would be limited to below 150 miles.[18] The planning staff cut this estimate to 100 companies, then later increased to 160 companies. By the time of the invasion, besides the organic motor assets of forces in the field, the Transportation Corps

planned on a force of 240 truck companies, 130 by D+41. These 130 companies were expected to move 23,700 tons per day by the end of June. While the Transportation Corps requested most of these companies be equipped with l0 ton flatbeds, an equipment shortage resulted in most being equipped with the smaller two and a half ton, 6x6 truck. The adequacy of the planned motor transportation assets after the first six weeks of the invasion was questioned by many within the planning staff.[19]

As previously mentioned, the rapid acquisition of deep-water ports drove many of the key decisions in the planning for Overlord. Shallow-draft, coastal, shipping (coasters) would play a key role in the early days of the invasion, along with LSTs. These shallow-draft coasters could be accommodated in the minor Normandy ports most likely to enter service first following the invasion. A total of 625,000 tons (deadweight) of coasters were designated to support the first weeks of the invasion. The majority of this shallow-draft shipping would be replaced by deep-draft, ocean-going, shipping by D+42. By this date, the coaster allocation would drop to 150,000 tons.[20] This relatively rapid release of coastal shipping was driven by a number of factors. While planners initially anticipated supporting the armies over the beaches and through shallow-draft ports, the intention was to ultimately utilize deep-draft shipping, much of it originating from the US and unloading directly onto the continent.[21] This would alleviate much of the congestion in the British ports, and free up the coasters to handle the routine commerce they normally were involved in performing. The Overlord plan envisioned that by early September an increasingly large percentage of the Allied supplies would come directly from the US, configured with boxed vehicles or heavy lift unitary loads.[22]

Overlord planners also recognized that during the days immediately following the

invasion the COMZ and Transportation Corps would rely exclusively on truck transportation given the expected destruction of the French rail system and short-haul distances involved. Yet, after D+40, rail was expected to play an increasingly important role. Detailed plans were compiled and units earmarked for rapidly restoring rail service between Cherbourg and Rennes, where the major Allied depot was planned. This rail link was expected to be fully operational by D+90. Once the rail link with Rennes was established, a double track link would be pushed east to Le Mans.[23]

While some rail assets were initially brought in across the beaches, Cherbourg would be the primary destination for rolling stock and rail borne supplies until the Brittany ports were seized and restored to service. Quiberon Bay would make extensive use of rail once it became operational. The further one moved away from the beaches of Normandy, the lighter the damage to the French rail network. East of Paris, the hub of rail lines in northern France, that network was virtually intact.

Within the development of the Overlord plan, logistics again and again drove tactical decisions. As the Allies poised on the brink of executing Overlord, logistics continued to be of concern. The Allies planned to push 1,338,900 men and 250,000 vehicles into the lodgment area within the first 90 days.[24] When logistics numbers placed limitations on operational plans, the operational plans were changed or logistic estimates revised. Operation Chastity was the last major logistics driven change to Overlord, but the need for port capabilities forced modifications up to the end. As the Allies embarked on the invasion of the continent, logistics was still an issue.

The final Overlord plan was clearly influenced by the Roundup, Sledgehammer and Bolero plans. Throughout this evolutionary process, the logistics issues associated

with achieving a lodgment on the continent were a driving factor. From the selection of the assault beaches, the initial objective of Cherbourg, the expansion into Brittany to capture ports and establish the facility at Quiberon Bay, logistics dictated much of the decisions. Operation Overlord was a race strategy and the deep-water ports the trophy.

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[1]Roland Ruppenthal, *Logistical Support of the Armies, v*ol. 1, Office of the Chief of Military History Series on the United States Army in World War II (Washington, D.C.: U.S. Government Printing Office, 1953), 178.

[2]Ibid., 52.

[3]Ibid, 53-4.

[4]Ibid., 54-55.

[5]Ibid., 53.

[6]The invasion of Northwest Africa was first envisioned as Operation GYMNAST at the ARCADIA Conference in December1941-January 1942. Ruppenthal, vol. 1, 53.

[7]Ibid., 331.

[8]Ibid., 99.

[9]Ibid., 180-1.

[10]Ibid., 179.

[11]Ibid., 180-81.

[12]Quay side refers to unloading alongside a quay, which is a "paved bank or solid artificial landing place beside navigable water for convenience in loading and unloading ships." Henry Bosley Woolf, Editor-in-Chief, *Webster's New Collegiate Dictionary* (Springfield, Massachusetts:G. & C. Merriam Company, 1977), 946.

[13]Ruppenthal vol. 1, 182-83.

[14]Ibid., 186.

[15]Ibid., 185, 211, and 212.

[16]Ibid., 286.

[17]Ibid., 292-93.

[18]Ibid., 553.

[19]Ibid., 315.

[20]Roland Ruppenthal, *Logistical Support of the Armies*, vol. 1, Office of the Chief of Military History Series on the United States Army in World War II (Washington, D.C.: U.S. Government Printing Office, 1959), 125-25.

[21]Ibid., 48.

[22]Ibid., 48.

[23]Ibid., 544.

[24]Joseph Bykofsky and Harold Larson, *The Transportation Corps: Operations Overseas*, US Army in WWII Series (Washington, D.C.: U.S. Government Printing Office, 1957), 233.

CHAPTER 4

THIRD ARMY'S APPROACH TO CHASTITY

With Operation Overlord, as with almost any plan, things went wrong right from the start. To provide initial logistics capabilities, the Allies built and towed two artificial concrete harbors, call Mulberries, to the Normandy beaches. Beginning operations on 16 June (D+10), they were unloading approximately 14,500 tons a day by 18 June. On 19 June, a relatively mild gale swept the English Channel, sending northeast winds and rough seas. When it subsided four days later, the artificial harbor off Omaha beach was wrecked, the shoreline littered with 800 beached ships and landing craft. The Omaha Mullberry harbor was never reconstructed. Only by beaching LSTs near high tide and unloading straight across the dried out beaches at low tide were the Allies able to continue the build up. Also, the short-term supply problem was minimized by the unexpected slow Allied advance beyond the beaches.

Cherbourg, the first major objective of Overlord, was originally scheduled for capture by 14 June (D+8) but slipped to 21 June (D+15) shortly before the invasion. Initial operations were to begin three days after its capture. Slowed in their advance up the Cotentin peninsula, American VII Corp forces captured the port only on 27 June. During the 21 days between the Normandy landings and the port's capture, Cherbourg's German defenders systematically destroyed the harbor facilities. The port was extensively mined, littered with sunken ships and the dock facilities destroyed (see figure 5). Initial lightering operations at Cherbourg only began on 16 July and the first Liberty ship off loaded at a reconstructed pier on 9 August, 19 days behind schedule.

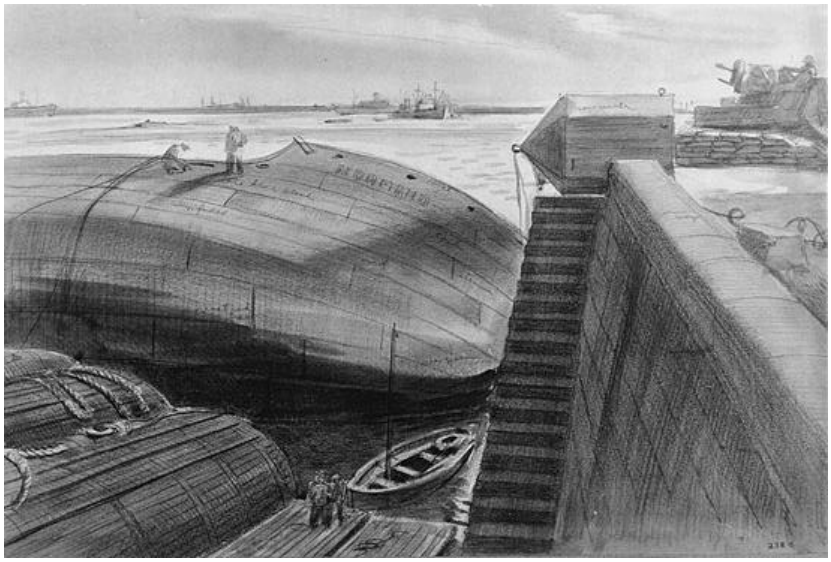

Figure 5. Scuttled Ship Cherbourg. *Source*: Mitchell Jamieson Collection, Charcoal & Wash, 1944 (U.S. Naval History Center web-site, Art Collection section, The Invasion of Normandy: Cherbourg page. Mitchell Jamieson #238b, Charcoal & wash, 1944, 88-193-IR. accessed 5 April 2003); available from http://www.history.navy.mil/ac/d-day/exdday/exdday23.htm:; Internet. Salvage crews worked to raise a sunken ship which lay off one end of the Transatlantique pier at Cherbourg. This deck was so badly wrecked and so many ships sunk around it, that it could not be used at all by Allied forces.

The Allies launched Operation Cobra on 25 July. Cobra opened with an intense aerial bombardment that in addition to devastating forward German forces also wounded 490 Americans and killed 111. Among those killed was Lt. Gen. Lesley McNair, the officer designated to assume command of 1st U.S. Army Group.[1] American forces attacked towards the west and by the 28th had achieved a breakthrough. By the first of August, Lt. Gen. Bradley assumed command of 12th Army Group, lead elements of which were just on the threshold of the Brittany peninsula. At the same time, Third Army came into existence under the command of Lt. Gen. Patton. The VIII Corps, under the

command of Maj. Gen. Middleton, which was now spearheading the breakout into Brittany, came under Patton's Third Army. The conquest of the Brittany peninsula was the mission of Third Army. The key to this mission was the acquisition of deepwater ports to support the arrival of follow-on forces and supplies a critical element of the Overlord plan. Third Army envisioned the campaign as consisting of two separate thrusts, one south across the base of the peninsula towards the Quiberon Bay area and a second towards Brest at the western end of the peninsula. As VIII Corps moved westward into Brittany, the Communications Zone was alerted to the task of opening and developing Quiberon Bay and the other ports immediately following their capture.[2]

Even as Third Army was being activated, General Eisenhower considered expanding its mission. In a 2 August message to General George C. Marshall, General Eisenhower stated that he believed the Allies would open the German's flank, allowing him freedom to select his course of action. Already realizing the potential for expanding beyond the initial lodgment envisioned in Overlord, Eisenhower, still acknowledged the importance of capturing Brittany, while recognized the potential for doing so with fewer forces.[3] On 3 August, Lt. Gen. Bradley revised Patton's mission, ordering the conquest of Brittany with the minimum forces necessary, while tasking the remainder of Third Army to move east and enlarge the lodgment area.

Despite the unexpected German collapse following Operation Cobra, the Allied leadership, at least down to the Corps level, was focused on Quiberon Bay. In a 2 August cable to General Marshall, General Eisenhower acknowledged the opportunity presented the Allies. Speaking of the possibility of turning the German flank, he stated, "In this event I would consider it unnecessary to detach any large forces for the conquest of

Brittany and would devote the great bulk of forces for the task of completing the destruction of the German Army, at least that portion west of the Orne, and exploiting beyond that as far as we possibly could."[4] Yet, in the same message he went on to state, "It is my hope that once we have secured the Brittany peninsula we will find that our total capacity for receiving and maintaining additional divisions has been increased and we can absorb all that can be brought in to us." He also stated, "One of these objectives is the Brittany peninsula, which we must have quickly." Even on 22 August, at the height of the pursuit to the east, General Eisenhower, in a cable to the Combined Chiefs of Staff, stated, "The speed of Bradley's advance to the region east of Paris will be governed by the speed at which the ports in Brittany can be cleaned up, and our supply situation improved." The same cable stated, "Currently also, the forces in Brittany are being reinforced so as to bring about the rapid capture of Brest and the ports on the southern coast of the peninsula. I repeat that it is absolutely mandatory for us to clean up our maintenance situation on the southern flank."[5] Clearly, General Eisenhower recognized the importance of the Brittany ports.

Likewise, Lt. Gen. Bradley, 12th Army Group commander also recognized the importance of Quiberon Bay. In his letter of Instructions Number 1, dated 29 July, Lt. Gen. Bradley outlined Twelfth Army Group's mission. It read: "Twelfth Army Group operating on the right (west) flank of the Allied Forces will drive southward and westward to gain possession of the whole COTENTIN and BRITTANY Peninsulas, secure ST MALO, the QUIBERON BAY port area and BREST at the earliest practicable date, and will capture other BRITTANY ports as necessary. Third Army operates on the right (west) of the First Army."[6] The document went on to state, "Third Army will drive

south in its zone and seize the area: RENNES – FOUGERES: Thence it will turn westward into BRITTANY with the mission of securing (1) ST MALO, (2) QUIBERON BAY area, and (3) BREST," Four days later, on 2 August, as the scale of the German collapse was becoming clear, Lt. Gen. Bradley reiterated the mission, "Third Army: --- forces will be pushed vigorously into the BRITTANY PENINSULA with the object of seizing QUIBERON BAY."[7]

Commanding Third Army, Lt. Gen. Patton, even as attention focused to the east and the retreating German forces, acknowledged the mission in Brittany. On 2 August, he reiterated the mission in verbal orders given to VIII Corps: "Simultaneously a strong column, leading with armor, followed by infantry, will seize RENNES and Quiberon BAY area."[8] On 8 August, after the end of mobile operations in the vicinity of Quiberon Bay, he ordered VIII Corps to "continue the capture of BRITTANY ports and the reduction of the peninsula."[9]

> Operation Cobra was a success and German forces began to reel back before the 12th Army Group in late July and early August. Faced with a long-standing mission to move west into Brittany and an emerging mission to pursue the retreating enemy eastward, Lt. Gen. Bradley adjusted his forces. (As U.S. forces broke free into Brittany, the ultimate mission, if perhaps not the ultimate reason, of those heading into Brittany appeared to be clearly understood down to the Corps level.)

The German forces in Brittany justified the reduction in Third Army forces. While the peninsula originally held 100,000 German field forces at the time of the D-Day invasion, by the end of July roughly 30,000 remained. Even these forces were questionable, the majority of the best combat elements having already been transferred to Normandy.[10] Those remaining forces, and what remnants were able to escape Normandy, were ordered by Hitler to hold the key Brittany ports, "to the last man, to the last cartridge."[11]

The other significant forces in Brittany, the French Forces of the Interior (Forces Francasise de l'Interieur, FFI) also now became a factor. Numbering roughly 24,000 armed personnel, the forces in Brittany were ordered on 3 August to begin a general uprising. Augmented by nightly supply flights, Jedburgh teams, and Special Air Service troops, the FFI conducted ambushes, rail interdictions, and reconnaissance activities.[12] On 4 August, Colonel Albert M. Eon, the commander of FFI forces in Brittany, and his staff was dropped in by parachute to coordinate resistance activities.[13] A night later, ten gliders loaded with weapons, ammunition, and vehicles were dropped into Brittany to assist in the capture of high ground north of Vannes, at the headwaters of Quiberon Bay.[14]

Heading Third Army's drive toward Quiberon Bay was Maj. Gen. John S. Wood, in command of the 4th Armored Division. He was tasked with driving his division across the base of the Brittany peninsula, from Pontaubault forty miles to Rennes, then another sixty to Quiberon Bay. Maj. Gen. Wood's division crossed the forty miles to Rennes on 1 August. His orders then were somewhat convoluted. VIII Corps Commander, Maj. Gen. Middleton's orders were to capture Rennes. Lt. Gen. Patton, who assumed command during the division's movement on Rennes, ordered the 4th Armored Division to move beyond Rennes and seize Quiberon Bay in order to seal the peninsula. Maj. Gen. Wood was much more in tune with Patton's philosophy of aggressively attacking, with little concern for one's flanks during an this phase of the battle, while Maj. Gen. Middleton was more inclined, like his fellow infantry officer, 12th Army Group Commander Lt. Gen. Bradley, to want secure flanks. The rapid expansion of the front during the early days of August, with units rapidly out running effective communications with corps and

army higher headquarters, compounded these differences.

Unable to seize the town of Rennes, the 4th Armor Division conducted a series of minor attacks on the town throughout 2 August, while elements of the 13th Infantry Division moved forward from the Cotentin peninsula to provide support. Once informed of the 13th Division's assumption of the mission of occupying Rennes, Maj. Gen. Wood proposed a radical revision to his mission. At this time the German Army appeared to be collapsing, with forces rapidly withdrawing or being thrown back in the east. This was the direction much of Third Army was headed, and Maj. Gen. Wood saw his area of operations, the Brittany peninsula, rapidly becoming a backwater, while the "real" fight was east, towards Chartres, Paris, and the Rhine.[15]

Maj. Gen. Wood sent Maj. Gen. Middleton a proposal, in the form of a sketched overlay, on 3 August proposing to bypass Rennes to the west and then drive south and west to seize Chateaibriant and Angers. Chateaibriant is thirty miles southeast of Rennes and over sixty miles east of Quiberon Bay, while Angers is seventy miles southeast of Rennes and a hundred miles east of Quiberon Bay. Maj. Gen. Wood felt this revision effectively met the intent of his orders by cutting off the Brittany peninsula. His revision ignored the conquest of Quiberon Bay, Lorient and St. Nazaire. Assuming the revision to his orders would be approved, Woods put the plan into action. Shortly after the proposal left Wood's headquarters, a field order was received from VIII Corps reiterating 4th Armored Division's mission of seizing Quiberon Bay. While Maj. Gen. Wood acknowledged the order, he still alerted the division to prepare to move on Chateaubriant.

The 4th Armored Division began its flanking movement around Rennes on 3 August. Little or no opposition was encountered as the armored forces covered between

sixty and hundred miles. As the day continued, Wood noted that Middleton had reported his maneuver and, later in the day received instructions to, "Secure Rennes before you continue."[16] Woods took this to be approval to continue moving east. By the afternoon of the same day, however, Wood halted the advance and redirected his forces to block the escape routes from Rennes. Doing so supported the 13th Infantry Divisions attack on Rennes and a secured Rennes would ensure the supply lines for the 4th Armored Division. By 4 August, the main roads out of Rennes were secured.

On 3 August, Maj. Gen. Middleton again modified the mission of the 4th Armored Division. He ordered Wood's division to secure the bridges along the Vilaine River, which flowed south from Rennes and emptied into the Atlantic, approximately midway between St. Nazaire and Vannes. The maneuver would place the 4th Armored Division thirty miles east of Quiberon Bay. A meeting between Middleton and Wood later in the day confirmed this revised mission. An indication of Wood's opinion on the division's original orders to move west into Brittany was clear in an exchange between the officers.

> Wood threw his arms around the corps commander in welcome.
> "What's the matter?" Middleton asked with dry humor. "Have you lost your division?"
> "No!" Wood replied. It was worse than that. "They"-- meaning the Allied command--"they are winning the war the wrong way."[17]

When the revised mission statement from VIII Corps reached Third Army, the Chief of Staff, Maj. Gen. Hugh J. Jaffey wrote to Middleton, stating that Lt. Gen. Patton "assumes that in addition to blocking the roads . . . , you are pushing the bulk of the [4th Armored] division to the west and southwest to the Quiberon area, including the towns of Vannes and Lorient, in accordance with the Army plan."[18]

On the 5th of August, Maj. Gen. Wood ordered the division Combat Command A (CCA) to move the seventy miles southwest to seize Vannes. Combat Command B (CCB) was ordered to drive to Lorient. Seven hours later, the CCA entered Vannes guided by FFI forces, which had already seized the Vannes airfield. The town was captured intact. The CCA was twenty miles from Auray and the deepwater pool of Operation Chastity. On the following day, Auray was secured and CCA forces pushed west towards Lorient. On 7 August, CCB reached the outskirts of Lorient. By the end of the day, CCA and CCB were able to form a defensive line outside Lorient, west of the Blavet River, effectively cutting Lorient off from Quiberon Bay by land. All that remained for Operation Chastity, was for the approaches to Quiberon Bay to be secured.

Maj. Gen. Middleton ordered the division to assume the defense. Lorient was assumed to be heavily defended, one of Hitler's "fortress ports." The German commander of Lorient, General de Artillerie Wilhelm Fahrmbacher later stated that the port would likely have fallen had Wood pressed an attack.[19] The 4th Armored Division remained on the defense outside of Lorient, within easy reach of the entire Quiberon peninsula. Only on the 8th of August did Wood receive permission from Middleton to send a force south to relieve a battalion outside Nantes, forty miles up the Loire River. Maj. Gen. Wood sent CCA. Against orders not to get involved in fighting in Nantes, CCA captured the city on 12 August. On 15 August, 4th Armored Division passed control of the area to the 6th Armored Division and began its long desired movement east. Maj. Gen. Wood had been in control of the Quiberon Bay area for nine full days, a period of relative inaction for the division. The 4th Armored Division, Third Army, and 12th Army Group would later regret this inaction.

[1]Lt. Gen. McNair was one of only two Lieutenant Generals killed in World War II, the other being Lt. Gen. Simon B. Buckner, killed the following year on Okinawa. Martin Blumenson, *Breakout and Pursuit*, Office of the Chief of Military History Series on the United States Army in World War II (Washington, D.C.: U.S. Government Printing Office, 1961), 236.

[2]Ibid., 347.

[3]Ibid., 431.

[4]Alfred D. Chandler, and Stephen E. Ambrose, *The Papers of Dwight David Eisenhower, The War Years, v*ol. 4, (Baltimore: Johns Hopkins Press, 1970), 2048-49.

[5]Ibid., 2087-88.

[6]Twelfth Army Group Directives, Letter of Instructions Number 1, 29 July 44, Regulation No. G-254, paragraph 1.c.(2).

[7]Twelfth Army Group Directives, Directive for Current Operations, 2 August 44, to Commanding General Third Army.

[8]Third Army After Action Report, Headquarters, Third Army, Memorandum, Subject: Confirmation of Verbal Orders, 2 August 1944, paragraph 2.a(2).

[9]Third Army After Action Report, directive, SUBJECT: Confirmation of Fragmentary Orders, 8 August 1944, paragraph 1.d and 2.a.

[10]Blumenson, 342.

[11]Ibid., 340.

[12]SHAEF, "A short history of the organization of the command of operations undertaken by the French Forces of the Interior," written by General Koenig, undated, post-war, former military delegate.

[13]Blumenson 354-55.

[14]Ibid., 355.

[15] Letter from Wood to the Office of the Chief of Military History, 24 Mar 54, referenced in Blumenson, 359.

[16]Ibid., 360.

[17]Ibid., 362.

[18]Ibid., 362-63.

[19]Ibid., 364.

CHAPTER 5

THE PRICE OF RENOUNCING CHASTITY

In the weeks immediately following the Normandy invasion, the minor ports in the area, along with the invasion beaches, were expected to provide the needed buildup in logistics supplies and troops. A list of the ports, with expected opening date and capability, are shown in table 1. By late July, a port related logistics problem was obvious, port throughput and initial operating dates were not meeting planning estimates. By the end of June, 25,000 tons of supplies were scheduled to be flowing through Cherbourg, the minor Normandy ports of Isigny and Grandcamp, and across the invasion beaches each day. In actuality, an average of 19,000 tons reached the continent. Cherbourg, the first deepwater port captured, was scheduled to provide 6,000 tons of supplies a day by the first week in July. The port was not opened until 16 July. By 25 July, 150,000 tons of supplies were to have passed through Cherbourg; in fact it provided a mere 18,000 (see table 2).[1] Only the limited tactical gains on the ground, plus the resulting decrease in consumption, kept this from being an immediate crisis.

As the Allies entered mid-July, planners began to acknowledge that the capture of the Brittany ports would slip by a month. This delay in bringing Quiberon Bay into operation made weather and its potential impact on Chastity an issue. On 12 July, the COMZ was tasked with reconsidering the operation. One alternative was to replace Quiberon Bay with a port developed at Cancale, on the north coast of Brittany. This would eliminate the problem of naval interference should the capture of Brest and Lorient be delayed, and Cancale would offered better protection for shipping from the prevailing

Table 1. Beach and Port Plans for Operation Overlord

Port or Beach	Opening Date	At Opening	Discharge Capability (in Long Tons): D plus 10	D plus 30	D plus 60	D plus 90
Total	.....	.....	14,700	27,200	36,940	45,950
OMAHA Beach	D Day	3,400	9,000	6,000	5,000	5,000
UTAH Beach	D Day	1,800	4,500	4,500	4,000	4,000
Quineville Beach	D+3	1,100	1,200	1,200	1,000	1,000
Isigny	D+11	100	0	500	500	500
Cherbourg	D+11	1,620	0	6,000	7,000	8,000
MULBERRY A	D+12	4,000	0	5,000	5,000	5,000
Grandcamp	D+15	100	0	300	300	300
St. Vaast	D+16	600	0	1,100	1,100	1,100
Barfleur	D+20	500	0	1,000	1,000	1,000
Granville	D+26	700	0	700	1,500	2,500
St. Malo	D+27	900	0	900	2,500	3,000
Brest & Rade de Brest	D+53	3,240	0	0	3,240	5,300
Quiberon Bay	D+54	4,000	0	0	4,000	7,000
Lorient	D+57	800	0	0	800	2,250

Source: Roland Ruppenthal, *Logistical Support of the Armies*, vol. 1, Office of the Chief of Military History Series on the United States Army in World War II (Washington, D.C.: US Government Printing Office, 1953), 464.

Table 2. Port Performance June/July 1944

Performance	Total	Omaha	Utah	Cherbourg	Minor Ports
6 - 30 June					
Planned capacity	408,550	226,500	133,450	34,000	14,200
Actual discharge	289,827	181,691	108,136	None	4,558
1 - 25 July					
Planned capacity	725,000	300,000	175,000	150,000	100,000
Actual discharge	446,852	273,678	144,314	17,656	37,362

Source: Roland Ruppenthal, *Logistical Support of the Armies*, vol. 1, Office of the Chief of Military History Series on the United States Army in World War II (Washington, D.C.: US Government Printing Office, 1953), 464-66.
winds during the fall and winter. The anchorage would hold twenty deep-draft Liberty

ships, ten less than the Auray deepwater pool at Quiberon Bay, but would be available earlier. Cancale's location would also shorten the sailing time from British ports and the site could be tied into the Cherbourg-Rennes rail and road network. The team also considered increasing the capabilities of Brest following its capture. A disadvantage of Cancale was the poor suitability of the beaches. A week after beginning, the COMZ committee elected not to recommend the cancellation of Chastity. Logistics data indicated the cancellation of Chastity, even with development of Cancale and increased production at Brest would still result in a reduction of the numbers of division's supportable by year's end by six. In the end, SHAEF G-4 recommended the operation go ahead unless proven unfeasible.[2] In an effort to compensate for the delay in capturing the Brittany ports, final discharge numbers for Cherbourg were raised to 20,000 tons.[3]

On 25 July, Operation Cobra was launched in an effort to break through the German lines. Within three days, a total of four Allied corps were being pushed through the breach. On 1 August, 12th Army Group became operational, as did Third Army under it. By the first week of August, Third Army had turned west and overrun the Brittany peninsula, invested the ports of Brest, Lorient, and St. Malo while also pushing east, almost to Le Mans. Third Army, by 7 August, had also closed its portion of the Avranches corridor.[4]

By 17 August, the initial lodgment area envisioned in Overlord between the Seine and Loire rivers had been occupied. On 17 August the northern Brittany port of St. Malo fell to the Allies. On 19 August, General Eisenhower elected to deviate from the Overlord plan and continue the pursuit of the disorganized German forces as rapidly as his logistics system would allow. On 25 August, Third Army elements still in Brittany began the

assault on Brest.[5]

In the last days of August, the First Army liberated Paris. Third Army crossed first the Marne River and then the Meuse River to capture Verun, St. Miheil, and Commercy. To the north, First Army reached Soissons, while 21st Army Group crossed the Sommes to capture Amiens.[6] As the month of August ended, the detailed logistics plan laid out in Operation Overlord was in shambles and COMZ planners, much like the Germans, were scrambling to adapt. On 4 September, the answer to all the Allied logistics problems seemed to be at hand as British forces captured Antwerp.[7]

In 1938, the port of Antwerp handled 60 million tons of cargo from 12,000 ships, rivaling New York City. On 4 September 1944, the port, with its 625 cranes, 500 miles of rail lines and deepwater berths was captured intact.[8] With Antwerp in Allied hands, Eisenhower on 9 September 1944 decided to abandon all plans for the Brittany ports, now hundreds of miles behind the front.[9]

General Eisenhower desperately needed Antwerp. The Allies were still largely supplied across the Normandy beaches, with lines of communications extending over 300 miles to the rear. During August, the Allies landed 1,112,771 tons of material on the European continent; 536,775 over the Normandy beaches, 266,644 at Cherbourg, 134,852 in minor northern European ports and 174,500 in Southern France.[10] This was 265,730 tons behind preinvasion estimates and the Normandy beaches were expected to close during September because of expected Channel gales. General Eisenhower stated that seven to ten days of bad weather in the Channel might “paralyze” Allied operations.[11]

When the Operation Cobra breakout began in late July, the Allies were at D+21,

but held on a line the Overlord schedule called to be captured by D+15. By 24 August, the Allies had reached the extent of the Overlord lodgment area, eleven days earlier than the planned D+90 date. For the Allied logisticians, the ground war had advanced in thirty days what was planned to take seventy-five. Rather than an orderly expansion of the lodgment area, with planned depots, operational ports, pipelines and defined lines of communications, they were faced with a wide front hundreds of miles beyond the depots behind the Normandy beaches. Those ports north towards Belgium were only recently captured or still in German hands. By 12 September (D+99), the Allies had reached the Overlord D+350 line.

Roland Ruppenthal, in *Logistical Support of the Armies*, offered several appropriate quotes: "A German general is once said to have remarked that blitzkrieg is paradise for the tactician but hell for the quartermaster." Ernie Pyle, the popular wartime newspaper columnist, described the operations of August and early September as "a tactician's hell and a quartermaster's purgatory."[12] The German general, Plye, and Ruppenthal seem to have gotten it right. By the end of July, the Normandy beaches were performing well, Cherbourg production was ramping up, and the minor Normandy ports were performing at their maximum capability. Despite falling below estimates, a surplus of material was on hand. As August began, there were no critical shortages.[13] By the end of August, there was still material in the supply dumps behind the Normandy beaches and on the docks of Cherbourg; unfortunately, the Armies desperately needing these supplies were sometimes over 300 miles to the east. The Overlord plan for a robust supply system with intermediate supply depots was in shambles. Armies in Belgium and on the German frontier continued to draw directly from the Normandy dumps. The Armies desperately

required fuel, food and ammunition. The critical distribution shortfalls however, were transportation assets.

On 30 August, Patton's Third Army stretched from Brest to the Meuse River. Two of his Corps, XX and XII, were over three hundred miles east of the Normandy supply dumps, while VIII Corps at Brest was two hundred miles to the west. On this date Third Army requested a total of 33,500 tons of supplies from the COMZ 6,000 tons for daily requirements and 12,500 tons of Class II and IV, as well as 15,000 tons ammunition to bring it up to authorized levels.[14] First Army, which was almost as far from the Normandy beaches, required 5,500 tons for daily requirements.[15]

Also on 30 August, Lt. Gen. Bradley, his G-4 and Brig. Gen. James H. Stratton, COMZ G-4, met to discuss the logistics situation. Brig. Gen. Stratton estimated thar COMZ could supply 11,400 tons of supplies a day to Chartres, southwest of Paris. Chartres was 190 miles behind Third Army's front lines at Commercy. The COMZ problem was not supplies, which were available behind the Normandy beaches, but transportation. Of the 11,400 tons promised, 5,400 tons were expected to move by rail, while the remaining 6,000 tons would be trucked. Based on this 11,400 ton estimate, Lt. Gen. Bradley and his 12th Army Group staff allocated the tonnage between First and Third Armies. Lt. Gen. Patton would receive 2,000 tons a day, while Lt. Gen. Hodges was to receive 5,000 tons.[16] Any quantities over the allocated 7,000 tons were to be divided equally between them. Once First Army's requirement was met, the remaining supplies would go to Third Army. And so, as the Third Army poised on the brink of plunging into Germany, it was allotted 2,000 tons a day against its requested daily minimum of 6,000 tons. This pattern of 12th Army Group receiving significantly less

than it requested and then allocating it where First Army received preference continued for weeks.

Within the Overlord plan, an orderly scheme was envisioned for the establishment and support of supply depots. The plan envisioned the primary depot to be established in the open areas south of Rennes. This was the objective of the initial rail reconstruction effort that began at Cherbourg. From this primary supply depot, a series of intermediate and advanced depots would be established.

In actuality, the Overlord depot plan never solidified. The initial problem was the confinement of the Allies to the beachhead area and the inability to establish an orderly layout of supply depots. Once the breakthrough occurred, any semblance to the original plan disappeared. In order to establish intermediate and advanced depots, sufficient transportation assets needed were not on hand. Following Operation Cobra, this was never the case. The COMZ did attempt to implement the plan, first beginning a depot ten miles south and west of the invasion beaches at St. Lo. As the breakout accelerated, the Vire-Villedieu area, a further ten miles to the south-southwest was selected for a major depot but abandoned within days of becoming operational. Beyond Vire, Alencon, 80 miles from the beaches, was considered but rejected for the Le Loupe area east of Chartres (110 miles from the beaches).[17] Other sites were considered, some selected, and most abandoned in the heady days of August 1944.

In the end, the single greatest impediment to the establishment of these depots was the lack of transportation assets to move the material from the beaches. By early August, the Allied armies were being stripped bare of truck assets in an effort to support the breakthrough. During this period, engineering, artillery and air defense units where

immobilized through this requisitioning. Where available, rail was used to the maximum extent possible, but the rail links south of the beaches and Cherbourg were only beginning to recover from the pre-invasion bombing and sabotage campaigns.

Third Army struggled to adapt to the changing logistics picture following the initial breakout from the beachhead. Initially, Third Army and COMZ Advanced Section (ADSEC) trucks carried supplies directly to the forward supply points. This proved effective initially, but as Third Army lines extended beyond 100 miles, forward transfer points were established by 13 August at Laval, forty miles west of Le Mans. Here, Third Army trucks would move supplies forward from Laval, while ADSEC assets supplied the Laval transfer point. The transfer point was moved a week later to Le Mans, but was already 100 miles behind the front when it opened. Third Army desired a transfer point near Foutainebleau, south of Paris, or on the east bank of the Seine. The best COMZ could accomplish was to move the transfer point to Ablis, twenty miles east of Chartres. By the first week in September the Ablis transfer point was 200 miles behind the Third Army front.

> Throughout August, Allied forces had moved forward, gaining ground planners had expected would take a year in a little over a month. The COMZ and ADSEC had struggled first to use and adapt the Overlord plan, then, as the LOCs grew into hundreds of miles, struggled to get the essential items to the front. Items, such as clothing and maintenance parts, were dropped in the prioritization effort in favor of rations, fuel and ammunition.
> Fuel became a constant consideration for Allied planners as the lines-of-communications extended. At no point following the invasion was there a problem getting sufficient fuel onto the continent. The problem was getting the fuel from the dumps in Normandy to the fast moving armies in the east. With the capture of Cherbourg on D+21, the Allies received at least one pleasant surprise among the wreck strewn, heavily demolished port facilities. A major tank farm, three miles south of the main port was captured intact. Capable of holding 500,000 barrels, the facility exceeded the planned capacity for Cherbourg. The Overlord plan envisioned the use of pipelines constructed behind the advance for much of the support. The rapid

collapse of the German's defense following Operation Cobra impacted this plan, much as it had all the other logistics plans. From its origins during the Cobra breakout, Third Army lived virtually hand-to-mouth as far as fuel was concerned. Despite an inability to maintain adequate supplies on hand, fuel needs did not limit Third Army operations until mid-August. In part this was the result of lower consumption by First Army as it attacked against a more organized enemy. A tabulation of First and Third Army fuel use is noted in table 3. By the third week of August, both First and Third Armies were on the move, at the cost of 800,000 gallons of fuel per day.[18] As the Allies pushed east, the COMZ assets were stretched to the limits. Beginning on the 26th, both First and Third Army had less than a days supply of fuel on hand. In an effort to address these limitations, some forces resorted to highjackings. As with the other classes of supply, it was the lack of transportation assets that was the limitation.

In an effort to provide POL to the front, every means of transportation was used. The original Overlord plan called for the construction of a pipeline from Cherbourg to the

Table 3. Gasoline Supply of First and Third Armies
(Number of Gallons)

	First Army				
	Daily		Daily		
	Average	Daily	Consump-	Balance	Days
Week Ending	Receipts	Issues	tion	on Hand a	of Supply
5 August.	b	b	429,039	b	10.5
12 August.	b	274,000	292,458	4,055,930	4.4
19 August.	b	338,000	337,000	3,486,600	3.9
26 August.	454300 c	453,000	501,500	253,320	0.7
2 September.	546,400 c	436,000	485,190	206,340	0.3
9 September.	540,000 c	370,000	530,218	350,255	0.0
16 September.	475,600 c	498,000	b	b	0.0

	Third Army				
	Daily		Daily		
	Average	Daily	Consump-	Balance	Days
Week Ending	Receipts	Issues	tion	on Hand a	of Supply
5 August.	121,500	105,000	b	514,415	1.3
12 August.	396,800	313,000	b	846,600	1.0
19 August.	367,900	360,000	b	193,260	0.3
26 August.	285,700	b	350,000	b	0.6
					0.0
2 September.	200,100	b	202,382	b	e
9 September.	423,300	333,173	b	b	1.1
16 September.	428,600	464,800	b	b	0.7

a At end of period
b Data not available
c Based on assumption that 85 percent of total gasoline received was motor vehicle gas and resultant tonnage converted at 368 gallons per ton
d Stored in First Army depot, but not available for issue because of distance to rear
e Less than 0.1.
f Figure for 10-16 September based on tonnage received converted to gallons.

Source: Roland Ruppenthal, *Logistical Support of the Armies*, vol. 1, Office of the Chief of Military History Series on the United States Army in World War II (Washington, D.C.: US Government Printing Office, 1953), 503.

large planned depot near Rennes. A second pipeline was to be constructed from Quiberon Bay and joint the system at Laval.[19] Following the breakout, efforts were made
to push the pipeline forward, along a route modified to account for the major effort being made in the east. Efforts to construct the pipeline were limited by poor construction techniques, a lack of priority for moving pipeline materials forward, and a tendency to pump gas out at an intermediate site rather than fill a new section. Still, despite these restrictions, by mid-September the pipeline had reached Chartres.[20] As the Allies entered September, logistics capabilities proved inadequate and the armies began to grind to a halt. Growing out of this desperate need to support the fast moving front, the Red Ball Express was born.

The Red Ball Express grew out of the realization that existing techniques and resources were unable to support the on going offensive. While the idea of one-way loop roads had been considered by the COMZ prior to the invasion, the concept had never been exercised. On 25 August, the first convoy of trucks from 118 dedicated truck companies rolled out. Between 25 August and 5 September, which was the first planned completion date for the effort, the Red Ball Express delivered approximately 89,000 tons of supplies to the Chartres transfer points. The effort was expanded and on 10 September the eastern limit shifted to Soissons, for First Army, and Rozay-en-Brie and Sommesous, in support of Third Army. As the Allied armies ground to a halt in mid-September, the Red Ball Express had delivered 135,000 tons of supplies.[21]

The Red Ball Express augmented other road and rail efforts. Through their combined efforts, supplies residing primarily behind the Normandy beaches were hauled to armies approaching the Dutch and German borders. In doing so, the Allies paid a high price. For every gallon of gas provided to Third Army, another was consumed in getting it there. The continually increasing need for trucks resulted in assets being stripped from wherever available. Lt. Gen. Bradley ordered both his Armies to leave their heavy artillery west of the Seine, with the trucks committed to logistics hauling and eliminating the need to move heavy artillery to the front.[22] In supporting the Red Ball Express, the transportation units on the continent paid a high price in equipment and manpower (see figure 6).

Given the almost complete air supremacy the Allies achieved, air defense units were stripped of their trucks and even airlift was pressed into the effort to supply the

forward troops. Both transport aircraft and bombers were utilized and supplied a total of 23,000 tons per day of material in late August through mid-September.

"Some of you may not come back. A French convoy has been reported on the road."

Figure 6. French Convoy. *Source*: Bill Mauldin, *Up Front* (New York: Henry Holt and Company, 1944), 108.

As the Allied armies pushed across France and into Belgium, they were supported through a single deepwater port, Cherbourg, the Normandy beaches, and a growing number of shallow-draft ports. One unintentional ramification of this failure to seize and develop deepwater ports was the continued reliance on coaster shipping. From the high of 625,000 tons at the beginning of the invasion, all but 150,000 were to be released to return to activities in the United Kingdom by D-42. This did not happen and had a direct and adverse impact on the British economy. Coasters handled much of the United Kingdom's coal, iron, and steel traffic. Initially, two-thirds of the British coaster fleet was tied up in the 625,000 tons dedicated to Overlord and the failure to release this shipping resulted in the shutting down of as much as one-fourth of UK blast furnaces.[23] Only when the port of Antwerp became operational in December, was it possible to release even

50,000 tons of shipping.

One response to the failure to acquire deepwater ports was the allocation by the US of additional LSTs, previously and earmarked for the Pacific. A second detrimental outcome of the failure to open deepwater ports was the tying up of ocean-going shipping. As the dates for opening Cherbourg, Quiberon Bay, Lorient, and Brest continued to slip, ocean-going shipping began to accumulate in British and US ports. As the invasion began, the COMZ had requested 285 ships be loaded in support of operations on the continent. As the Allies were contained within the beachhead at Normandy, the COMZ reluctantly reduced this figure to 250 ships, 175 destined for unloading directly onto the continent. Based on an estimated ability to off-load 27,000 tons in September, and 40,000 tons in the following months, the COMZ stated a need for 265 ships per month after the breakout.[24]

By the end of August, the Allies had 160 to 170 loaded ships idled in European waters.[25] This backlog of shipping was so large that it was beginning to affect operations in the Pacific. Washington stepped in to restrict the flow of shipping and supplies to Europe. The shipping problem became so critical that some ships were returned to the United States still partially loaded. Twenty-one ships containing approximately 35,000 tons of steel landing mats were ordered back to the East Coast, only to be turned around and sent back to Europe in the next convoy.[26] The supply problem was aggravated by the fact that supplies now arriving from the United States were boxed for off loading on the continent at pier side, using heavy cranes. Piers and cranes expected to be in the Brittany ports and Quiberon Bay.

As ships lay at anchor in British ports the average time for unloading increased,

reaching over forty-six days in early August. The COMZ was effectively using this shipping as floating warehouses. Rather than unloading quayside, most of the ships off-loaded on the continent into lighters. Given that these ships were loaded with the expectation of direct unloading via heavy cranes onto piers or quays, this was clearly a much less effective means of operations.

The Allies fully expected Antwerp to solve all of their logistics problems. The port was capable of simultaneously off loading twenty-three liberty ships, with a discharge capability of up to 100,000 tons a day. Antwerp was close to the front lines and had excellent clearance facilities in the form of rail lines, marshaling yards and barge canals.[27] By the second week in December, Antwerp was handling 19,000 tons a day, although by this time a number of problems with port clearance were uncovered. A bridge blocking the Albert Canal had resulted in almost 200 loaded barges backing up around the port. A lack of depots to handle and store off-loaded material resulted in 85,000 tons temporarily stored in the port area. A lack of rail cars aggravated the problem. Antwerp was operating at twenty percent of its full capabilities. Then, in late December, the Germans began their winter offensive on the western front, the Battle of the Bulge.

The flow of material from Antwerp, an objective of the German offensive, stopped until the German advance could be halted. By the end of December, the flow of material from Antwerp dropped to 13,700 tons a day and continued to drop to 10,500 tons a day during the first two weeks of January 1945. By early January, 3,500 loaded rail cars were sitting in and around the port.[28] Antwerp, which in August and September held such promise for the Allies, never met their expectations. American troops suffered

through the winter of 1944-45 at the end of a long, inefficient supply system. Actual tonnage figures for continental ports between D-Day and the end of the conflict in Europe are included in table 4.

As the Allied armies poised on the borders of German, the reality of logistics, as much, if not more than the strengthening German resistance, brought the headlong pursuit to a close. As mentioned previously there have been numerous controversies spawned by the decisions made between the breakout during the last days of July and the slow grinding halt of mid-September. Following General Eisenhower's 17 August decision to pursue the retreating Germans beyond the Seine, the original boundary of the Overlord plan, the controversies begin.[29] Should Field Marshall Montgomery's proposal that 21st and 12th Army Groups be consolidated in a single, 40-division drive along the coast.

Table 4

TONNAGES DISCHARGED AT CONTINENTAL PORTS: JUNE 1944 - APRIL 1945

Year and Month	Total Antwerp	Omaha Ghent	Utah Southern	Cherbourg	Normandy	Brittany	Le Havre	Rouen
		Beach	Beach		Minor Ports	Ports		
			France					
1944								
June	291,333	182,199	109,134	None	None	None	None	None
	None	None	None					
July	621,322	356,219	193,154	31,658	40,291	None	None	None
	None	None	None					
August	1,112,771	348,820	187,955	266,644	125,353	9,499	None	None
	None	None	174,500					
September	1,210,290	243,564	150,158	314,431	100,126	75,198	None	None
	None	None	326,813					
October	1,309,184	120,786	72,728	365,603	58,816	77,735	61,731	26,891
	None	None	524,894					
November	1,402,080	13,411	12,885	433,301	48,707	64,078	148,654	127,569
	5,873	None	547,602					
December	1,555,819	None	None	250,112	50,749	27,327	166,038	132,433
	427,592	None	501,568					
1945								
January	1,501,269	None	None	262,423	47,773	None	198,768	157,709
	433,094	15,742	385,760					
February	1,735,502	None	None	286,591	41,836	None	195,332	173,016
	473,463	69,698	495,566					
March	2,039,778	None	None	261,492	39,691	None	192,593	268,174
	588,066	172,259	547,503					
April	2,025,142	None	None	181,043	47,542	None	165,438	240,708
	628,227	277,553	484,631					

Source: Roland Ruppenthal, *Logistical Support of the Armies*, vol. 2, Office of the Chief of Military History Series on the United States Army in World War II (Washington, D.C.: US Government Printing Office, 1959), 105.

Montgomery envisioned a drive to seize Calais and Antwerp, to destroy the German armies along the coast, clear the V-1 launch sites, and secure necessary ports.

Lt. Gen. Bradley and Lt. Gen. Patton proposed a drive in the south through the Saar, aimed at breaching the Rhine near Wiesbaden and Mannheim.[30] Eisenhower's decision to provide First Army in support of Field Marshall Montgomery's 21st Army Group effort, and his decision to provide the bulk of the logistics support to this effort, at the expense of Patton has generated a great deal of debate. Equally controversial was the decision to enter the Brittany peninsula, given the fact that none of the major ports were seized and a considerable number of lives were lost in taking Brest.

Given that logistics lay at the heart of many of these decisions, it is regrettable that the full potential of Quiberon Bay was not recognized by these decision makers. Most controversial decisions were dictated by a lack of supplies and transportation assets. Operation Chastity and the capabilities of Quiberon Bay could well have eliminated the need for these decisions at all.

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[1]Roland Ruppenthal, *Logistical Support of the Armies*, vol. 1, Office of the Chief of Military History Series on the United States Army in World War II (Washington, D.C.: US Government Printing Office, 1953), 464.

[2]Ibid., 471-72.

[3]Ibid., 473.

[4]Ibid.,478-79.

[5]Ibid., 479.

[6]Mary H. Williams, *Chronology, 1941-1945*, Office of the Chief of Military History Series on the United States Army in World War II (Washington, D.C.: US Government Printing Office, 1960), 255-58.

[7]Jeffery Williams, *The Long Left Flank*, (London: Leo Cooper Publishers, 1988), 82.

[8]Roland Ruppenthal, *Logistical Support of the Armies*, vol. 2, Office of the Chief of Military History Series on the United States Army in World War II (Washington, D.C.: US Government Printing Office, 1959), 105.

[9]Ibid., 16.

[10]Ibid., 124.

[11]Joseph Bykofsky and Harold Larson, *The Transportation Corps: Operations Overseas*, US Army in WWII Series (Washington, D.C.: U.S. Government Printing Office, 1957), 307.

[12]Ruppenthal, vol.1, 489.

[13]Ibid., 489.

[14]Third Army requested 1,411 tons of POL and 2,545 tons of ammunition daily during this period. Ruppenthal, vol. 2, 491.

[15]Ibid., 491.

[16]Ibid., 491.

[17]Ibid., 494-95.

[18]Ibid., 504.

[19]Ibid., 510.

[20]Ibid., 514.

[21]Ibid., 567-68.

[22]Ibid., 570.

[23]Ruppenthal, vol. 2, 125.

[24]Ibid., 126-27

[25]Bykofsky, 386.

[26]Ruppenthal, vol. 2, 131.

[27]Ibid., 45-48.

[28]Ibid., 113.

[29]Martin Blumenson, *Breakout and Pursuit*, Office of the Chief of Military History Series on the United States Army in World War II (Washington, D.C.: US Government Printing Office, 1961), 658.

[30]Ibid., 658-9.

CHAPTER 6

THE SINS OF THE FATHERS

On 8 September, 1944, the 94th Infantry Division began crossing the beaches of Normandy to join Operation Overlord.[1] Assigned to Ninth Army, VIII Corps, the 94th, under the command of Maj. Gen. Harry Malony, relieved the 6th Armored Division in the seizure of Lorient and St. Nazaire. Their mission before the Brittany ports, which by now held roughly 21,000-25,000 German forces at Lorient and 35,000 at St. Nazaire, was a combination of containment and training for the division.[2] Upon assuming his mission, Maj. Gen. Malony was specifically instructed to contain the German forces and not to attack.[3] Four days earlier, on 4 September 1944, the British Second Army captured the port of Antwerp with the port facilities virtually intact.[4]

By the time the 94th Division assumed the containment of Lorient, the German forces held roughly 100 square miles of territory, stretching from ten miles west of the port, to fifteen miles east and extending inland typically six to eight miles. The eastern most extent of the German territory included the narrow Quiberon peninsula. Also under German control was Belle Isle.[5] Contained within this small area was a mix of German army and naval units consisting of a hodgepodge of combat, support, and civilian forces, equipped with a variety of weapons. Included in these were a large number of artillery pieces, including coastal defense weapons measuring up to 340millimeter.[6] Activity along the Lorient front consisted mainly of small unit probes and artillery exchanges.

Almost from the moment the 94th assumed its mission in Brittany, Maj. Gen. Malony began to lobby for action in the east, much like each of his predecessors. In a

letter on 14 November, Lt. Gen.. Bradley wrote: “I realize that your division has been in its present role for some time and I would like very much to move you to a more active sector. This question has come up several times, but it has been impractical to make any change.”[7] Finally, in mid-November relief came in the form of the 66th Infantry Division. Having lost almost 800 men in a U-Boat attack while crossing the Channel, the division was deemed unsuitable for action in the east and directed to Brittany to relieve the 94th.[8] Throughout December, the divisions conducted a combined replacement/training evolution. During the final days of 1944, the 94th Division was loaded aboard French rail cars or trucks and shipped to the east. Those elements traveling by rail were transported in what were called 40-and-8s, rail cars capable of carrying 40 men or eight horses. Because much of the rail network leading east from Brittany had survived the pre-invasion bombing campaign relatively intact and because much of the division’s organic truck assets had been stripped away upon arrival on the continent, most of the division traveled by rail.[9] The movement was conducted in numbing cold.

The 94th was thrown into the bitter fighting along the French-German border in the area of the Saar Switch, in what was to prove the coldest winter in memory. The men of the 94th survived the winter of 1944-45 fighting with inadequate winter clothing, consuming monotonous K-rations, and constantly adapting to supply problems. Throughout the winter, German prisoners were searched for chocolates and sausages to vary the soldier’s diet while occupied farms were liberated of cheeses and wines (see figure 7). Haystacks encountered by the infantry were confiscated in order to line foxholes or blankets in an effort to combat the cold. Only in late February and March did snow-pak boots replace boots and leggings worn by the front line troops and field jackets

replace overcoats.[10]

"Git his pistol, Joe. I know where we kin swap it fer a combat jacket an' some boots."

Figure 7. Swap. *Source*: Bill Mauldin, *Up Front* (New York: Henry Holt and Company, 1944), 137. While Mauldin drew most of his cartoons during the Italian campaign, they were also a hit with soldiers in Northern Europe.

The 94th, along with the remainder of the allied forces, was sustained at the end of a tentative supply system reaching back to the Normandy beaches and a hodge-podge of minor ports stretching from Brittany to Belgium. The major focus of the Overlord plan was to force a lodgement on the continent and then rapidly acquire deepwater ports on the Brittany peninsula. Beginning on 6 June, events deviated from the plan.

Allied forces immediately encountered unexpected difficulties and fell behind schedule. Cherbourg, the first of the deepwater ports was captured days later than expected and took longer to bring into operation than was planned. Following Operation Cobra and the beachhead breakout, combat forces swept through Brittany, occupying the

peninsula, except for the all-important ports. The 4th Armored Division, commanded by Maj. Gen. Wood, battled across the Brittany peninsula towards the primary objective of Quiberon Bay and Lorient. Several opportunities to seize key Brittany ports were missed, and a combat commander fixated on pursuit of retreating German forces effectively gave the all-important facility of Quiberon Bay away. Much as Field Marshall Montgomery would do later at Antwerp, Maj. Gen. Wood seized the headwaters of Quiberon Bay, but failed to secure the bays approaches, despite the lack of opposition. In both cases, the Germans were able to later fortify the approaches to these key logistics facilities. In the case of Quiberon Bay, the Germans held the terrain until the end of the war. At Antwerp, the 1st Canadian Army, and particularly the 2nd Canadian Infantry Division fought a bitter campaign for the approaches to Antwerp, the result of another commander's decision turn a deaf ear to logistics concerns. After capturing Antwerp, Field Marshall Montgomery had stripped elements from the 1st Canadian Army, which was tasked with sealing off the Beveland Peninsula behind Antwerp and, ultimately, with clearing the approaches.[11]

There is a commonly accepted principle within the US Army today that "no plan survives the first contact with the enemy." In the case of Operation Overlord, this was certainly the case. One of the fundamental tenets of Overlord was the need to rapidly seize deepwater ports. While accepting the need to supply initial forces over the beaches of Normandy, the plan envisioned the rapid seizure of Cherbourg, followed by Brest, Lorient, and a number of minor ports. Also key to the apparent success of Overlord was the acquisition of Quiberon Bay and the construction there of a major port. Quiberon Bay offered the Overlord planners sheltered anchorage and desperately needed deepwater

berths. While the early phase of the buildup on the continent utilized equipment prepositioned or transshipped in Great Britain, the long range plan was to ship needed material straight from the US to ports on the continent. In order to work effectively and prevent an impact to planned operations in the Pacific, sufficient deepwater ports were needed. Quiberon Bay was a significant part of the answer.

That answer never materialized. Focused on the immediate tactical opportunity, Maj. Gen. Wood and the 4th Armored Division stopped roughly ten miles short of the Quiberon peninsula, terrain needed before for the construction of the Quiberon Bay logistics base could begin. While the seizure of Brest and Lorient were also considered key terrain, since they placed coaster traffic from Great Britain at risk, they were not key terrain for shipping coming directly from the United States. This failure to seize the approaches to Quiberon Bay by the 4th Armored Division was compounded a month later by the failure of Field Marshall Montgomery to secure the approaches to Antwerp. Antwerp, a port with the capability to meet most, if not all of the Allies port requirements, was captured intact. Unfortunately, the approaches were not cleared for almost three months. Again, the lure of short-term tactical and operational gains overruled the long-term strategic gains. The soldiers of the 94th Infantry Division, of the 4th Armored Division, and the rest of the Allied forces in Western Europe were hamstrung by logistics considerations. Throughout August and early September 1945, German forces in the west were retreating, often disintegrating before the hard pressing Allied forces. Advancing beyond the Seine, General Eisenhower rightly abandoned the concept of establishing a lodgment and methodical buildup on the continent in order to capitalize of the German collapse. Unfortunately, he and his subordinate commanders

also abandoned Operation Chastity, the Brittany ports and the approaches to Antwerp during their pursuit.

Had Maj. Gen. Wood and his 4th Armored Division at least seized the lightly held approaches to Quiberon Bay, pressing their assault on Lorient against its disorganized defenders, the logistics picture in Western Europe would clearly have changed. Had the port been seized in the first days of August, Operation Chastity could have been exercised. Initial efforts could have been rapidly taken to sweep the approaches to the bay and silence any naval gunfire threat on Belle Isle, around Lorient, or at the approaches to Brest. Captured in early August, the port could have been operational before the end of the month. Given the relatively intact state of the French rail system from Vannes eastward, the burden on the Red Ball Express and subsequent truck born logistics systems might well have been lessened. The ability to rapidly construct a port at Quiberon Bay and the ease with which it could be connected to this rail system, might well have provided the minimal tonnage of supplies needed to maintain the pursuit through the heady days of September. Quiberon Bay was intended to provide an initial capability of 4,000 tons a day. Within 30 days, this would increase to 7,000 tons, with the port ultimately producing 10,000 tons. Even given a deterioration of performance as the storms in October and November began, the port would have offered sufficient supplies in September to make up for the shortfalls experienced by both First and Third Armies. More importantly, the access to the relatively undamaged rail network along the north shore of the Loire River, offered the ability to push much of this tonnage via rail.

Had Quiberon Bay been brought into operation, the major advantage of the facility was its ability to handle deep-draft shipping. Given the ability to unload these

ocean-going vessels directly onto quays or piers, would significantly improve the speed with which shipping could be turned around and hasten the movement of this equipment to the front. Likewise, this rapid turn around of shipping would benefit Allied commitments elsewhere in the world.

Operation Overlord was envisioned as a race strategy, one in which the Allies bet they could rapidly push more men and equipment into Western Europe than the Germans could bring to bare on the lodgment. The Allied plan failed. Fortunately, the German plan put into effect following D-Day also failed and failed decisively. In September 1944, some within the Allied camp were talking of being in Berlin by year's end. Tactically, the collapse of the German forces presented that opportunity; unfortunately, the failure of Allied logistics precluded that option. Beginning with the Quiberon Bay and Brittany ports and followed by the failure to secure Antwerp, Allied logistics efforts became a game of improvise and react. Brest, Lorient, Quiberon Bay, and St. Nazaire never provided a single pound of logistics support to the Allied effort. Antwerp, captured in early September, only began to support the combat forces in early December. Just as the promise of Antwerp began to be realized, the German winter offensive, the Battle of the Bulge, threatened Antwerp and effectively bottled up the port just as it was beginning to produce. Supplies from Antwerp only began to influence the battle in mid-January and never reached the levels envisioned in the heady days of September 1944.

Despite the failure of the logistics aspects of Operation Overlord, the Allied offensive in Western Europe was successful. British, Canadian, Free French and US forces suffered, persevered and overcame. Combined with the much larger Soviet effort in the east, the Allied offensive liberated France, Belgium, Holland and Luxembourg,

defeated the Wehrmacht, ended the Nazi rule, and occupied Germany. General Eisenhower entitled his memoirs of the campaign, *Crusade in Europe*, perhaps it might better have been entitled, *No Amount of Planning can Compensate for Sheer Guts and Good Luck*.[12]

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[1]LT. Laurence G. Byrnes, *History of the 94th Infantry Division in World War II*, (Washington: Infantry Journal Press, 1948), 18.

[2]Ibid., 28-30.

[3]Ibid., 18.

[4]Jeffery Williams, *The Long Left Flank*, (London: Leo Cooper Ltd., 1988), 97.

[5]Martin Blumenson, *United States Army In World War II, The European Theater of Operations, Breakout and Pursuit*, Office of the Chief Of Military History Department of the *Army* (Washington D.C.: U.S. Government Printing Office, 1961) Map 9.

[6]Byrnes, 29.

[7]Ibid., 17.

[8]Ibid., 70-71.

[9] Oral interview conducted by the author with his father, Sergeant (Ret.) Richard (NMI) Denny. Sergeant Denny was a member of the 302nd Infantry Rgmt, 94th Infantry Division from February 1944 to May 1945. The interview was conducted in 1994 at his home in Pensacola, Florida and is held by the author.

[10]Ibid.

[11]Williams, 95-98.

[12]Dwight D. Eisenhower, *Crusade in Europe* (New York: Da Capo Press, 1979).

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