The 2016 George C. Marshall Lecture in Military History

Projecting American Power in the Second World War*

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Abstract

Arguably the greatest self-inflicted catastrophe in human history, the Second World War resulted in an estimated 60 million dead. Unprepared when the war began, the United States quickly gathered momentum to become the decisive economic power, with an unprecedented ability to project that power through the Atlantic, the Pacific, the Mediterranean, and elsewhere. While in the European theater the Soviet Union emerged as the preeminent killing power among the Allies, the United States demonstrated logistical brilliance, firepower, mobility, mechanical aptitude, and an economic preponderance that produced much more than the Axis powers, all while committing a smaller proportion of the country's gross domestic product to the war than any other major belligerent.

The author John Updike described World War II as the twentieth century's central myth; he called it "a vast imagining of a primal time, when good and evil contended for the planet, a tale of Troy whose angles are infinite and whose central figures never fail to amaze us with their size, their theatricality, their sweep."

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The war lasted 2,174 days, and by the end had become the greatest self-inflicted catastrophe in human history: an estimated 60 million dead. That's 27,600 dead every day for six years, 1,150 an hour. If you were a German boy born between 1915 and 1924, the odds were one in three that by 1945 you would no longer be alive. Sixty million dead in six years means a death every three seconds. *One, two, three*—snap! *One, two, three*—snap! That's World War II.

George C. Marshall, the U.S. Army chief of staff who lends his good name to this lecture, called it a "great and terrible epoch," and new words would be required to describe it, words like "genocide" and "superpower," a neologism coined in 1944. Old words assumed new usages, words like "Holocaust." The war ranged across six continents, on those titanic, three-syllable battlefields that still serve as historical mile posts—Stalingrad, Tarawa, Anzio, Normandy—as well as in improbable settings rarely associated with the Second World War, places like the Aleutians, Madagascar, Syria, and Darwin, Australia.

This gathering of historians evokes a quote from W. G. Sebald, an elegant German writer who was born in Bavaria in 1944 and died in a car wreck in England in December 2001. Sebald said, "We have appointments to keep in the past, in what has gone before and is for the most part extinguished, and [we] must go there in search of places and people who have some connection with us from the far side of time."

Toward that end, I'd like us to keep another appointment in the past, almost seventy-two years past, on the morning of 15 May 1944, at St. Paul's School on Hammersmith Road in London, a Gothic building of red brick and terra-cotta, where Churchill, Patton, Omar Bradley, Bernard Montgomery, King George VI, and several dozen other American and British commanders gathered to review the final plan for Operation OVERLORD, the invasion of Normandy. They met in an auditorium known as the Model Room, sitting on nine rows of hard wooden benches normally used by school boys-the poet John Milton had attended St. Paul's, among other English luminaries. Even in mid-May it was cold as a meat locker in the Model Room because German bombs had broken all 700 windows at St. Paul's; many of the generals were bundled up in their overcoats. On the floor in the cockpit of the auditorium, there was an enormous plaster relief map of the Normandy coast where the River Seine spills into the English Channel, at a scale of six inches to the mile, and as the plan was reviewed, a British brigadier wearing no-skid socks shuffled across this floor map with a pointer to indicate various locations on what in three weeks would become the world's most famous battlefield: the beaches, for instance-Utah, Omaha, Gold, Juno, Sword— and towns like St. Lô, Cherbourg, Caen, and Paris.

The man running that conference is Dwight David Eisenhower. In the late spring of 1944, he's fifty-three years old; he's smoking four packs of cigarettes a day, his blood pressure is 176 over 110; that's stage-two hypertensive. He's a four-star general at the time of Normandy, but he's still in ascent, rocketing from lieutenant colonel to five-star in forty-two months, an average of six months between promotions. President Franklin Roosevelt has selected him as supreme commander of the Allied Expeditionary Force because he is, as the president says, a "natural leader . . . with exceptional political instincts." He has a knack for getting along with the British, notwithstanding the Anglophobia that infests the senior American ranks; unlike most of his U.S. Army peers, he likes the British, and he has adopted words like "petrol" and "tiffin." It drives George Patton insane. He also has been chosen because he has exceptional organizational gifts. Eisenhower describes himself as "chairman of the board," that's the phrase he uses—chairman of the largest martial enterprise in the Western world.

The immediate task at hand is to project power in the most fundamental sense: to catapault an army across that "ugly piece of water called the English Channel," which is how the official U.S. Army history would describe it. That alone was among the most complex undertakings in the history of warfare. The Channel is only twenty-one miles wide at its narrowest, but for nearly a thousand years invading armies facing a hostile shore across the English Channel had found as much grief as glory. One British planner suggested that "the only solution was to tow the beaches over *already* assaulted." The U.S. War Department had even pondered tunneling beneath the seabed: a detailed study deemed the project "feasible," requiring one year and 15,000 miners to excavate 55,000 tons of spoil. Wiser heads questioned "the strategic and functional" complexities of that plan, such as the inconvenience of the entire German Seventh Army waiting for the first miner's head to pop out of the tunnel. The study was shelved, and planners resumed more conventional thinking about the approaches to Normandy.

Eisenhower and his lieutenants were immersed in a vast array of problems in the spring of 1944, so vast that they had their own acronym: PINWE, Problems of the Invasion of Northwest Europe. At one point there was concern that German pilots planned to drop rats infected with bubonic plague on English cities, and Allied authorites offered bounties on rat carcasses to test for plague. There were fears that Germany would try to disrupt OVERLORD with "radioactive poisons," and Geiger counters were stockpiled in London to detect radioactivity.

The United States had accumulated 160,000 tons of chemical munitions for potential use in Europe and the Mediterranean. Anxiety mounted that Hitler would resort to chemical warfare if Germany faced imminent defeat. A secret Allied plan, to be enacted only with Eisenhower's authorization, called for retaliatory air strikes by American and British planes, dropping phosgene and mustard gas bombs. There were *two* target lists for chemical attacks in northwest Europe: one list, intended to minimize civilian casualties, targeted a half-dozen German headquarters and innumerable bridges. The *second* list virtually guaranteed massive civilian casualties, by targeting telephone exchanges from St.-Lô to Le Mans, as well as French villages used as German garrisons, and rail junctions at Versailles, Avranches, and elsewhere.

Similar, if a bit less theatrical power-projection was occuring simultaneously in the Pacific. And of course we had allies who also were projecting power, especially in Eastern Europe. Although this evening I'm focused mostly on the United States, let's acknowledge that when we talk about American dominance, we ought not to suggest that the United States was the preeminent *killing* power. Soviet forces killed roughly nine times more German soldiers than Britain and the United States combined. The Red Army suffered more combat deaths at Stalingrad alone than the U.S. armed forces sustained in the entire war. Of a Soviet population of 190 million, 14 percent perished; of the American population of 130 million, about one-third of 1 percent perished.

The United States had been among the last of the large powers to be drawn into the conflagration, but very quickly the war encumbered all of America. When the war began in earnest on 1 September 1939, with the German invasion of Poland, the United States Army—still at peace—was a puny weakling. By one measure, it ranked seventeenth among armies of the world in size and combat power, just behind that perennial military powerhouse, Romania. The U.S. Army in the late 1930s comprised 190,000 soldiers, at a time when 9.5 million Americans were unemployed. The Army would grow to 8.3 million in 1945, a forty-four-fold increase; by that time, unemployment had dropped to fewer than 1 million. A total of 16,112,566 Americans served in uniform in World War II, again in a country of 130 million; virtually every family had someone they loved in harm's way, virtually every American had an emotional investment in *our* military, virtually everyone had skin in the game.

Projecting power required *man*power, lots of manpower. By 1944, 11,000 young men were being drafted into the Army and Navy every day, at a rate of 4 million a year. One in three GIs had only a grade school education; only one in four held a high school diploma; slightly more than one in ten had attended college for a semester or more. A private, by the way, earned \$50 a month, although if he was awarded the Medal of Honor, and survived the experience, he got an extra \$2 in his paycheck.

The typical soldier was five feet eight inches tall and weighed 144 pounds, but the Depression had been very hard on the nation's health. The desperate need for bodies in uniform, especially infantrymen to go to places like Normandy, led to the drafting of what were known as "physically imperfect" men. (I know many women consider that phrase redundant.) Standards had been lowered to accept defects that once would have kept many out of uniform earlier in the war. For example, draftees at one time had to have at least 12 of their natural 32 teeth; by 1944, how many teeth did you have to have to be drafted into the United States Army? *Zero.* That's because the Army and Navy had drafted one-third of all civilian dentists in the United States; collectively they extracted 15 million teeth, filled 68 million more, and made 2½ million sets of dentures, all enabling each GI to be able to "masticate the Army ration."

By 1944, a man could be drafted with 20/400 vision, if correctable to 20/40 *in one eye*; the armed forces made 2.3 million pairs of eyeglasses during the war. The old joke had come true: the Army didn't examine eyes, it just counted them. In fact, you could be drafted with only one eye; or if you were completely deaf in one ear; or if you had lost both external ears; or if you were missing a thumb or three fingers on either hand, including your trigger finger.

Venereal disease had kept men out of uniform early in the war, but that restriction also was lifted and the Army soon was drafting 12,000 men a month with V.D., most of them syphilitic. How could they do that? *Penicillin*. The extraordinary discovery by British scientists of the antibiotic agent in the 1920s was followed by a massive effort by the Americans and British to take a substance that had been made by the gram, and produce it by the kilo and even by the ton.

Mental and personality standards for service in the armed forces also had been loosened. In April 1944, the War Department decreed that draftees need have only a "reasonable chance" of adjusting to military life, although psychiatric examiners at draft boards were advised to watch for two dozen "personality deviations," including silly laughter, sulkiness, resentfulness to discipline, and other traits that would seemingly disqualify every teenager in the United States.

Why these extreme measures to fill the ranks? Because of the crying need for soldiers, especially infantrymen, and especially riflemen. Even in a country of 130 million, we were running out; the British *did* run out. The war remained brutal and voracious to the very end. In April 1945, the last full month of war in Europe, more than 10,600 American soldiers were killed in action in Europe, nearly as many as had been killed in June 1944, the month of invasion. It was awful virtually to the last gunshot.

The war cost U.S. taxpayers \$296 billion—that's \$4 trillion in today's currency. To help underwrite a military budget that increased 8,000 percent, President Roosevelt expanded the number of taxpayers in this country from 4 million to 42 million. The U.S. armed forces grew 3,500 percent, while building 3,000 overseas bases and depots, and shipping 4.5 tons of matériel abroad for each soldier deployed, plus another ton each month to sustain him. By the way, for every combat soldier in the Pacific, the American Army had 18 support troops sustaining him.

Which takes us back to the spring of 1944. When that conference occurs at St. Paul's School on 15 May, American soldiers by the tens of thousands are pouring into Britain every week. Since January the number of GIs there had doubled, to 1.5 million. (It's a country about the size of Oregon.) Of the U.S. Army's eighty-nine divisions, twenty now could be found in the United Kingdom, with thirty-seven more either en route or earmarked for the European theater. They came through Liverpool, and through Swansea, Cardiff, Belfast. But most came into Glasgow and adjacent Greenock, more than 100,000 in April 1944 alone; 15,000 at a time arrived on each of the two *Queens—Elizabeth* and *Mary*—ships that could haul an entire division apiece, *and* outrun German U-boats to make the crossing from New York in five days.

We can see them, can't we? Down the gangplanks they tramp, names checked from a clipboard, each soldier wearing his helmet, his field jacket, and a large celluloid button color-coded by the section of the ship to which he had been confined during the passage. Troops each carry four blankets to save cargo space. Deluded officers can be seen lugging folding chairs, pillowcases, and tennis rackets. A brass band and Highland pipers greet them on the dock; Scottish children raise their arms in a V for Victory. Combat pilots who have fulfilled their mission quotas, and are waiting to board ship for the return voyage, bellow, "Go back before it's too late!" or "What's your wife's telephone number?" Each arriving unit is listed in



U.S. men and matériel arriving on Omaha Beach, 8 June 1944 [U.S. Army Signal Corps photograph 193082, courtesy Naval History and Heritage Command]

a master log called the Iron Book; another manifest, the Forecast of Destination, shows where every company would bivouac, momentarily, in Britain.

Then they fall in, four abreast, into columns and march from the dock to nearby troop trains, to be hauled to 1,200 camps and 133 airfields across the British Isles. An overeducated lieutenant wrote to his mother that "this country reminds one constantly of Thomas Hardy," but nowhere in *Tess of the d'Urbervilles* do we encounter the 400,000 prefabricated huts and 279,000 tents erected to accommodate this Yankee horde, supplementing 112,000 borrowed British buildings. GIs called this new world "Spamland," but the prevailing odor came from burning feces in coal-fired incinerators operated by the U.S. Army School of Hygiene.

Despite improving logistics, confusion and error abounded: the American juggernaut included millions of tons of matériel, most of it carried across the Atlantic in cargo ships that arrived days if not months after the troops on those fast *Queens*. Truck drivers were separated from their trucks, drummers from their drums, chaplains from their chalices. Thousands of items arrived with indecipherable bills of lading or without shipping addresses other than GLUE (the codename for southern England), or BANG (code for Northern Ireland), or UGLY (code for unknown). The British Transport Ministry allocated 120 berths for U.S. Army ships in May, but an extra 38 arrived. Almost half the cargo carried on these orphan vessels eventually was dumped outside various ports—including 5,000 tons of peanuts and 50,000 portable radios subsequently lost to exposure. GIs claimed that the Army was cutting red tape—lengthwise.

The loading of invasion vessels bound for the Far Shore—that's what they called Normandy—had begun on 4 May 1944, and it intensified as the month wore away. Seven thousand kinds of combat necessities had to reach the Norman beaches in the first four hours, from surgical scissors to bazooka rockets, followed by tens of thousands of tons in the days following. Responsibility for embarkation

fell to three military bureaucracies with acronyms evocative of the Marx Brothers: MOVCO, TURCO, and EMBARCO. Merchant marine captains sequestered in a London basement near Selfridges department store prepared loading plans with the blueprints of deck and cargo spaces spread on huge tables; wooden blocks scaled to every jeep, howitzer, and shipping container were pushed around like chess pieces to ensure a fit. Soldiers in their camps laid out full-sized deck replicas on the ground and practiced wheeling trucks and guns in and out.

A great deal had been learned from earlier amphibious invasions, in North Africa, Sicily, Salerno, Anzio, the Pacific. A vast flotilla of amphibious vessels had been designed and built by the thousands in the previous two years, like the LST—landing ship, tank—with clam shell doors and a bow ramp, each capable of carrying twenty Sherman tanks and putting them right on the beach. More than 1,000 LSTs were built during the war.

In twenty-two British ports, stevedores slung pallets and cargo nets into holds and onto decks, loading radios from Pennsylvania, grease from Texas, rifles from Massachusetts. For OVERLORD, the U.S. Army had accumulated 301,000 vehicles, 1,800 train locomotives, 20,000 rail cars, 300,000 telephone poles, and 7 million tons of gasoline, oil, and lubricants. SHAEF—Supreme Headquarters, Allied Expeditionary Force—had calculated *daily* combat consumption for each GI, from fuel to bullets to chewing gum, at 41.298 pounds per soldier.

Again, we can see it, can't we? Day after night after day, war matériel cascading onto the wharves and quays, a catalogue Homeric in magnitude and variety: radio crystals by the thousands, carrier pigeons by the hundreds, one hundred Silver Stars and three hundred Purple Hearts—soldiers called the Purple Heart "the German marksmanship medal"—for every American major general to award as warranted. Also: 600,000 doses of penicillin, fifty tons of sulfa, and 800,000 pints of plasma, meticulously segregated by black and white donors. A company contracted to deliver 10,000 metal crosses missed its deadline; instead, Graves Registration units would improvise with wooden markers. Cotton mattress covers used as shrouds for the dead had been purchased on the basis of one for every 375 man-days in France. That formula unfortunately proved far too optimistic. In July, with supplies of mattress covers dwindling, quartermasters would be forced to ship another 50,000.

This is big-league power projection, and it was only the beginning. In the European theater alone, the American "prodigy of organization"—that was Churchill's phrase—would ship matériel ranging from 800,000 military vehicles to footwear in sizes 2A to 22EEE. U.S. munitions plants during the war turned out 40 billion rounds of small arms ammunition, plus 56 million grenades. By 1945, the United States had built two-thirds of all ships afloat, *worldwide*, and was making half of all manufactured goods, *worldwide*.

World war is a clash of systems: which system can generate the combat power to prevail, whether it's in the form of the 12,000 Allied airplanes aloft on D-Day; the ten-to-one advantage in artillery ammunition often enjoyed by the Allies; the mass production of penicillin and proximity fuses; the ability to design, build, deliver, and detonate an atomic bomb? Which system can produce and educate men—and they were mostly men, which is why the war took so long—the men capable of organizing the shipping, the rail and truck transportation, the stupen-dous logistical demands of global war?

Some historians have long argued that in a fair fight, *mano a mano*, when one American infantry battalion fought one German battalion, or a regiment fought a regiment, the Germans were usually better. A fair fight! Who wanted a *fair* fight? Germany, despite an undeniable genius for tactical and operational warfare, could not muster the wherewithal to cross the English Channel, twenty-one miles wide, to invade Britain.

The United States projected power across the Pacific, the Atlantic, into the Mediterranean, Southeast Asia, the seven seas, the infinite skies. Power projection, adaptability, versatility, ingenuity, preponderance—*those* were the salient characteristics of the U.S. military in World War II. The enemy was crushed by logistical brilliance, firepower, mobility, mechanical aptitude, and an economic juggernaut that produced much, much more of nearly everything than Germany and the other Axis powers could make—bombers, bombs, fighters, transport planes, mortars, machine guns, trucks. Yet the war absorbed barely one-third of the American gross domestic product, a smaller proportion than that of any major belligerent. A German prisoner complained, "Warfare like yours is easy." But of course there was nothing *easy* about it.

What did it cost, besides \$296 billion? Well, thirteen U.S. divisions in Europe suffered at least 100 percent casualties; five more exceeded 200 percent. From all theaters, American service casualties in the war included 1,700 left blind; 11,000 with at least partial paralysis of one or more limbs; and 18,000 amputations among U.S. soldiers.

Aggregate numbers illuminate how unspeakably inhuman the war was; teasing out the deaths one at a time affirms our humanity. As we look at these big arrows on the map, and contemplate the greatest self-inflicted catastrophe in human history—60 million dead—it's proper to bear in mind the miraculous singularity of death. Each of those deaths was as unique as a fingerprint or a snowflake.

Patricia O'Malley was a year old when her father, Major Richard James O'Malley, a battalion commander in the 12th Infantry, was killed by a sniper in Normandy. After seeing his headstone for the first time in the cemetery above Omaha Beach she wrote: "I cried for the joy of being there and the sadness of my father's death. I cried for all the times I needed a father and never had one. I cried for all the words I had wanted to say and wanted to hear, but had not. I cried and cried."

The Australian war correspondent Osmar White, who bore witness both in the Pacific and with Patton's Third Army in Europe, later wrote: "The living have the cause of the dead in *trust.*" As a historian, I believe that we, the living, 323 million strong in America today, have the cause of the dead in trust.

About 400,000 Americans died during the war, including 291,000 killed in action. In 1947, the next-of-kin of the identifiable American dead who had been buried overseas filled out Quartermaster Form 345, a one-time option offered by the U.S. government, whether to have their sons—and they were mostly sons—

brought home for reburial, or to have them interred in one of more than a dozen American Battle Monuments Committee Cemeteries abroad. Almost 40 percent chose to leave their soldier overseas; 60 percent brought them home, at a cost of \$564.50 for each disinterment, regardless of where they were to be ultimately buried, something only a rich, victorious nation could afford. Every grave was opened by hand, and the remains of every dead soldier dusted with an embalming compound of formaldehyde, aluminum chloride, wood powder, clay, and plaster of Paris. They were then placed in a metal casket with a satin pillow; labor strikes in the United States caused a shortage of casket steel, and repatriation was further delayed by a dearth of licensed embalmers. In warehouses at Cherbourg, Cardiff, and elsewhere, the dead accumulated.

Finally the *Joseph V. Connolly*, the first of twenty-one ghost ships from Europe, and the Pacific, sailed from Antwerp with more than 5,000 soldiers in her hold. On 27 October 1947, the *Connolly* berthed in New York. Stevedores winched the caskets from the ship two at a time in specially designed slings, and a great diaspora began as these dead and those that followed traveled, mostly by rail, across the republic for burial in their hometowns or in national cemeteries.

Among those waiting was Henry A. Wright, a widower who lived on a farm in southwestern Missouri, near Springfield. One by one his dead sons arrived at the local train station: Sergeant Frank H. Wright, killed on Christmas Eve 1944 in the Bulge; then Private Harold B. Wright, who had died of his wounds in a German prison camp on 3 February 1945; and finally Private Elton E. Wright, killed in Germany on 25 April, two weeks before the war ended. Gray and stooped, the elder Wright watched as the caskets were carried into the rustic bedroom where each of those boys had been born. Neighbors kept vigil overnight, carpeting the floor with roses, and in the morning, they bore the brothers to Hilltop Cemetery for burial, side by side.

That's how the dead came home. But what of their belongings, what of the things they carried? Even before the dead came home, these things had been coming back. At a large warehouse on Hardesty Avenue in Kansas City, the U.S. Army Effects Bureau had begun as a modest quartermaster enterprise with a half-dozen employees in February 1942. That expanded to more than a thousand workers, and by August 1945, they were handling 60,000 shipments a month, each laden with the effects of American dead from six continents.

Hour after hour, day after day, shipping containers were unloaded from rail freight cars onto a receiving dock and then hoisted by elevator to the depot's tenth floor. Here the containers traveled by assembly-line conveyor belt from station to station down to the seventh floor, as inspectors pawed through the crates to extract pornography, ammunition, perhaps amorous letters from a girlfriend that would further grieve a grieving widow. Workers used grinding stones and dentist drills to remove corrosion and blood from helmets and web gear; laundresses took pains to scrub bloodstains out of field jackets and uniform blouses. A detailed inventory was pinned to each repacked container before it was stacked in a storage bin. And all the while banks of typists in a huge adjacent room hammered out correspondence to the next-of-kin, up to 70,000 letters a month, the gist of which was this: "Dear Sir/ Dear Madam, we have your dead son's stuff. Do you want it back? Where should we send it?"

Over the years, Effects Bureau inspectors found tapestries, enemy swords, a German machine gun, an Italian accordion, walrus tusks, a shrunken head, a tobacco sack full of diamonds. Among thousands of diaries also collected in Kansas City was a small notebook that had belonged to Lieutenant Hershel G. Horton, twenty-nine years old, of Aurora, Illinois. Shot in the right leg and hip during a firefight with the Japanese in New Guinea, Horton had dragged himself into a grass shanty, and over the several days that it took for him to die, he had scribbled a final letter in the notebook. It began: "My dear, sweet father, mother, and sister. I lay here in this terrible place, wondering *not* why God has forsaken me, but why He is making me suffer."

The first duty is to remember. Our recent poet laureate, Natasha Trethewey, ends her poem "Pilgrimage," which is about a visit to Vicksburg, with these lines: "In my dream,/ the ghost of history lies down beside me,/ rolls over, pins me beneath a heavy arm." My ambition, as someone who has devoted a professional lifetime to writing about war, is for our countrymen to feel that heavy arm.