



How the War Was Won: Air-Sea Power and Allied Victory in World War II by Phillips Payson O'Brien.

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Throughout the Cold War, Western accounts of World War II emphasized the British and American roles in defeating Nazi Germany and Imperial Japan, most often with accounts of ground combat on French beaches, in Belgian forests, and on coral atolls across the Pacific. The conclusion of the Cold War brought reappraisals of the communist nations' contributions, based largely on newly accessible Soviet archives. Russian and Chinese armies got credit for tying down German and Japanese ground forces while the western Allies trained and deployed combined-arms teams across the Atlantic and Pacific to secure victory. Phillips O'Brien (Univ. of Glasgow) maintains that the war was won by the Western Allies' air and naval forces. That he needs to stress this at all reflects the current frosty relations between the Western powers and both China and Russia.

While O'Brien's thesis seems more persuasive for the Pacific theater, where forces deployed across vast swaths of ocean but fought mostly small battles on small islands before air forces delivered the coup de grâce, the author extends his argument to the European theater as well:

While the overwhelming consensus of historians is that Germany was defeated primarily through the interaction of the large land armies on the Eastern Front, this is true only if one believes that the number of soldiers deployed was the best indicator of national effort. On the other hand, if economic, technological, and overall domestic allocation of resources is a better measurement, the air-sea war between the Germans and the British and Americans was the defining campaign of the war—by a considerable measure. This contest was by far the more modern of the two, involving the most advanced, expensive machinery, in the largest quantities and controlled by the best-trained warriors. It cost the most, destroyed the most and determined strategy for the last three years of the war. That the Eastern Front was responsible for the greater human suffering is undeniable. But this human suffering should not obscure the fact that it was a secondary theater in terms of production and technology, where force was actually used in a far more limited front-based manner which caused considerably fewer choices to be made and smaller amounts of equipment to be utilized and destroyed. (484-85)

Though these claims about the decisive role of economics and technology are accurate, it is not made clear just how they brought about Adolf Hitler's suicide once ground forces entered Berlin. The Allied air and naval war contributed to this, but the red hordes from the East were the decisive factor in ending the war in Europe.

O'Brien's methodology is essentially cliometric.¹ *How the War Was Won* contains a hundred "figures" (graphs, charts, illustrations) and thirty-three tables that effectively support his argument. The research here is most impressive, mining relevant (mostly English-language) resources.² Unfortunately-

¹ I.e., based on "the study of history using economic models and advanced mathematical methods of data processing and analysis"—*American Heritage Dictionary of the English Language*, 5th ed., s.v. "cliometrics."

². One notable omission is Ed Westermann, *Flak: German Anti-Aircraft Defenses, 1914-1945* (Lawrence: U Pr of Kansas, 2001).

ly, some of the charts are miniscule—one of them showing days of travel for twenty-two German divisions en route to the Normandy beachhead measures only one inch by two inches (372).

The book's eleven chapters shift between thematic and chronological approaches. Chapter 1, "The Dominance of Air and Sea Production," listing the relevant assets of each belligerent is compelling. ("Special weapons" such as like radar, rocketry, and the atomic bomb are discussed in a later chapter.) The definition of industrial "output" (27), however, is slippery, fluctuating between financial assets, man-hours, raw materials, and even sheer tonnage. Should, for example, planes be quantified in complete units produced, the number of engines, or the weight of aluminum used to build them, taking into account "the much larger four-engine bombers which needed considerably more aluminum?" (42). And, since armored fighting vehicles were seldom constructed of aluminum, is it meaningful to compare aircraft and armor production based on that material, even if one discounts "cost per unit?" (42, 47). Statistical analysis can clarify production decisions and resource allocation, but it can also obscure the complexities of industrial nation-states.

In his treatment of "transit" or "deployment" losses, the author uncovers a wealth of data on the damages sustained by the Germans and Japanese in simply transporting weapons, primarily aircraft, from factories to front lines. While the Allies lost few ships during the Battle of the Atlantic, chiefly due to inadequate training or gross navigational errors, the Germans and Japanese lost many aircraft to poor fuel management, navigational errors over the vast expanses of the Pacific, and flight-instrument conditions in Europe. And, too, fuel shortages inflicted by Allied bombers and ships slowed enemy training schedules in both theaters.

O'Brien compares in some detail the senior Allied air, ground, and naval leaders. Besides Winston Churchill and Franklin Roosevelt, who had both held major posts in their nations' naval bureaucracies, US Navy Admiral William Leahy emerges as the most gifted strategic thinker of the war. In contrast, the author sharply criticizes the British Chief of the Imperial General Staff, Lord Alanbrooke, and future US Secretary of State George Marshall. For him, Alanbrooke's "assumptions almost always proved wrong" (159), while Marshall was "the least important and effective of the Joint Chiefs of Staff... [If] one major correction ... needs to be made about Marshall, it is to de-emphasize his importance within the overall strategy of World War II" (150). This overlooks the wisdom of Marshall's decision to give Gen. Henry "Hap" Arnold the resources and manpower needed to build up the Army Air Forces (USAAF)—O'Brien believes he did so only at Roosevelt's direction—and insistence on a direct attack through France. In any event, superior technology and manufacturing capacity were far more essential to the air and naval forces than were especially brilliant strategic thinkers.

In his handling of mid-war grand strategy, O'Brien seems to make a case for a cross-channel attack in 1943 (favored, ironically, by Marshall himself), even without a year-long preliminary air campaign of the sort that ensured the success of the actual Normandy invasion in 1944—"when it came to aircraft, had the British and Americans focused outright on an invasion of France in 1943 they would have had sufficient air cover" (225). He also argues against costly "diversions" in the Mediterranean and Pacific, despite the precedent of critical losses inflicted on Japanese air strength at Guadalcanal (383). He suggests that, in the Mediterranean, Allied aircraft would have suffered attrition owing to climatic factors and a weak infrastructure. He ignores the fact that this was the only theater where the USAAF was heavily engaged in December 1942. It suffered heavy attrition only because the generally better weather allowed for more missions, leaving less time for proper maintenance and training.

Allied aircraft in the Mediterranean also dealt significant blows to a Luftwaffe fighting at a numeric disadvantage.³ O'Brien interestingly contends that the enemy's numerical inferiority could have been decisive in France in 1943 as well: "it is impossible to imagine how they would have been able to contest Anglo-American air dominance over any invasion attempt" (227). Conventional wisdom has it that the Combined Bomber Offensive, especially Operation Argument (Big Week) in February 1944, gave the Allies decisive air superiority before and during the Normandy invasion. Despite O'Brien's intriguing argument to the contrary, a 1943 D-Day would have been a far riskier proposition.

In a single (penultimate) chapter, O'Brien discusses "The Air and Sea War against Japan, 1942–1943." He includes here an important section on the morality of the fire-bombing of Japan's cities and the atomic attacks on Hiroshima and Nagasaki. After recalling that both George Washington and Abraham Lincoln had insisted upon the honorable treatment of noncombatants and civilians, he criticizes Gen. Curtis LeMay (and, to some extent, his military and political masters in Washington) for a descent into barbarity, but does not explore Americans' greater willingness to deploy military force against racial "others" in general and "Asiatics" in particular, including civilians.⁴

How the War Was Won is a novel, provocative, and well written⁵ study based on extensive documentary sources on both sides of the Atlantic. Its author's conviction that "the effectiveness of tactical air power over strategic ... was the most important lesson of the war, one that remains true to this day" (88) makes the book worth careful reading. With his emphasis on degrading an enemy's "mobility" (perhaps a nod to Basil H. Liddell Hart's "indirect approach"?) Phillips O'Brien offers a way forward for those working on "AirSea Battle," area access, and area denial problems in modern warfare. His work will engage and instruct historians of World War II as well as current military officers, strategists, and decision-makers.

3. Williamson Murray has found that, in July 1943 alone, the Luftwaffe lost 10 percent of its force defending Sicily: see *Strategy for Defeat: The Luftwaffe 1933–1945* (Maxwell AFB: Air U Pr, 1983) 164–65.

4. In his *The First Way of War: American War Making on the Frontier* (NY: Cambridge U Pr, 2005), John Grenier has argued that this propensity goes back to the nation's earliest days, suggesting that LeMay's actions were consistent with, not a departure from, past American practice.

5. There are, however, several typographic and other errors: e.g., read "Jabos" for "Fabos" (88), "Adler Tag" for "Alder Dag" (124), "George" for "Robert" Kenney (153), "ball turret" for "bell turret" (267), "Salina" for "Salinas" (428). The First Marine Regiment is conflated with the First Marine Division (426)—typically, "First Marines" means the *regiment*.