

The Doolittle Raid— 75 Years Later

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Two weeks after the 7 December 1941 Japanese attack on Hawaii, President Franklin D. Roosevelt informed the chiefs of the Army, Navy, and Army Air Forces (AAF) that he wanted to strike back at Japan to boost American morale—a request he repeated in the ensuing weeks.¹ Their problem was how to accomplish the president's objective since the heart of US naval power in the Pacific lay on the bottom of Pearl Harbor. The United States did not have an aircraft able to reach Japan from the closest American land base.

Two individuals independently came up with the ideas that produced the Doolittle Raid: Navy captain Francis Low and Lt Col James “Jimmy” Doolittle—a famous pre-war military test pilot, civilian aviator, and aeronautical engineer and now special assistant for Lt Gen Henry “Hap” Arnold, AAF chief. Low was the assistant chief of staff for antisubmarine warfare for Adm Ernest J. King, chief of naval operations. His observation of Army pilots making bombing passes on an outline of a carrier deck painted on the airfield at Norfolk Naval Base, Virginia, on 10 January 1942, sparked the idea of launching Army bombers from an aircraft carrier.² On 3 February, Low had two B-25s—each with a pilot and copilot—loaded onto the Hornet, the Navy's newest carrier, at Norfolk. When the carrier was past the Virginia capes, the aircraft flew off of the carrier's deck without difficulty.³

Meanwhile, General Arnold had asked Colonel Doolittle to determine the best aircraft for such an attack. The aircraft required a 2,400-mile cruising range and a 2,000-pound bombload and yet needed to be small enough so that a “reasonable” number of them could fit on the back half of an aircraft carrier. Doolittle settled on the Army's newest aircraft, the B-25B. Since the B-25's range was only about 1,300 miles, the aircraft would require modifications to double its normal fuel capacity.⁴ Also, the B-25 had minimum self-defense capability—two machine guns in a top turret, two in a belly turret, and one in the bombardier's nose—and fighters would be unable to accompany the bombers.⁵ Doolittle would have to rely on the element of surprise to compensate for the aircraft's minimum protection.

The final plan envisioned a Navy task force of two aircraft carriers—one to carry the aircraft for the raid and one to protect the task force—as well as escort and support ships that would sail westward until the force was about 400 miles from Japan. The planes would launch at night, fly toward Japan, and arrive over their target cities

right after sunrise. Then, after dropping their bombs, the aircraft would fly 1,200 miles from Japan across the East China Sea to China and land on airfields just inside Chinese-held territory before sundown.⁶ The plan was bold and innovative with many risks but, if successful, could pay strategic dividends.

With the president's and service chiefs' approval of the raid's concept, Doolittle chose the 17th Bombardment Group (BG) (Medium) at Pendleton Field in northeast Oregon to provide the crews and aircraft for the raid. As the first group equipped with B-25s, it had the most experienced crews in flying the new aircraft. On 3 February, the War Department transferred the 17 BG to Columbia Army Air Base, near Columbia, South Carolina, to conduct antisubmarine patrols off the east coast of the United States, and Doolittle had 24 aircraft diverted to Mid-Continent Airlines in Minneapolis, Minnesota, to receive additional fuel tanks and other needed equipment.⁷

The group officially arrived at Columbia on 9 February. Around 16 February, Doolittle arrived at Columbia and informed only the group commander of the true nature of the mission. Doolittle then briefed the crews that he was looking for volunteers for a highly dangerous, secret mission that would contribute to America's war effort but provided no additional information. Because everyone volunteered, Doolittle and the group's three squadron commanders selected the best 24 crews for the mission.⁸

Those crews flew the modified bombers from Minneapolis to Eglin Field, Florida, and arrived between 27 February and 1 March 1942, along with 60 enlisted support personnel (fig. 1).⁹ For the next three weeks, the crews trained in simulated carrier takeoffs, low-level and night flying, low-altitude bombing, and overwater navigation. Each morning, the crews readied their aircraft at Eglin's main airfield and conducted the day's training operations at various Eglin auxiliary fields or over the Gulf of Mexico. Navy lieutenant Henry Miller, a flight instructor from nearby Naval Air Station (NAS) Pensacola, supervised the short takeoff training and later accompanied the Raiders aboard the *Hornet*.¹⁰



Courtesy of Doolittle Raider Organization

Figure 1. Some of the Doolittle Raiders in the officer quarters on Eglin Field in March 1942. Left to right: 1st Lt Richard Joyce, 1st Lt Richard Cole (with dark necktie), 1st Lt Henry A. Potter, 1st Lt William Fitzhugh (with magazine), 1st Lt Carl Wildner (without hat), and officer with back to camera unknown

The 17 BG enlisted men and Eglin technicians also made additional modifications to the aircraft. These included the installation of a collapsible fuel tank and more fuel cells in the fuselage, removal of the belly turret and a heavy tactical radio, installation of deicers and anti-icers and steel blast plates around the upper turret, and installation of mock gun barrels in the tail.¹¹ They also fine-tuned new carburetors for the aircraft engines to obtain the best possible engine performance and fuel consumption rate for cruising at low altitudes.¹²

Doolittle had the top-secret Norden bombsights removed from the aircraft to prevent them from possibly falling into Japanese hands and—because of their relative inaccuracy at the medium altitudes—planned for the actual raid. Capt Charles Ross Greening, pilot and armament officer, created an aiming sight, dubbed the “Mark Twain,” which Eglin’s sheet-metal workshops manufactured for about 20 cents each. It proved to be relatively accurate in the actual attack.¹³

Early morning on 23 March, Doolittle received the word from General Arnold to leave Eglin Field and fly to the Sacramento Air Depot, McClellan Field, California. Although early-morning fog, rain, and the aircraft modifications had reduced the planned training time (about 50 hours total) by 50 percent, Doolittle in his postraid report to General Arnold noted the crews had reached a “safe operational” level.¹⁴ McClellan Field technicians conducted last-minute inspections and made final modifications to the aircraft.¹⁵ After arriving at NAS Alameda, California, on 31 March, the Navy squeezed 16 onto the rear of the *Hornet’s* flight deck, leaving about 450 feet for the aircraft’s takeoff run.¹⁶

At 0848 on 2 April, the *Hornet* left San Francisco Bay with 71 AAF officers and 130 enlisted men aboard, her escort, and supply ships (fig. 2). A few days later, this task force rendezvoused with the USS *Enterprise*, commanded by Vice Adm William Halsey Jr., and her escort ships north of Hawaii. The *Enterprise’s* aircraft would protect the task force from a Japanese air attack as the *Hornet’s* aircraft were below on the hangar deck.¹⁷ By early morning 18 April, the combined force had reached a point about 750 miles east of Japan.



Courtesy of US Navy

Figure 2. Doolittle Raid aircraft on the rear flight deck of the USS Hornet in April 1942 somewhere in the Central Pacific

Unfortunately, at 0558 on 18 April, Navy scout planes discovered a Japanese picket boat, which the USS *Nashville* sank by gunfire. Not sure if the patrol boat had sent a message of the sighting—although it had but could not send a second, confirmatory message before it sank—Doolittle and *Hornet* skipper Capt Mark Mitscher decided to launch the B-25s immediately (fig. 3). The launch was 10 hours earlier and about 250 miles farther east of Japan than planned. All 16 aircraft had taken off safely between 0820–0919. One Sailor, however, lost an arm when a sudden movement of the carrier caused him to step back into the prop wash of aircraft 10.¹⁸



Courtesy of US Navy

Figure 3. Most of the Doolittle Raiders on the deck of the USS *Hornet* in April 1942 somewhere in the central Pacific. (Left) Lt Col James Doolittle and (right) Capt Marc Mitscher, USN, commander of the USS *Hornet*

Six hours after launch, now about noon Tokyo time, the B-25s arrived over Japan. They climbed to 1,500 feet and began their bombing runs on their designated targets in Tokyo, Yokohama, Yokosuka, Nagoya, Kobe, and Osaka. The B-25s encountered light anti-aircraft fire and a few enemy fighters, but none were lost to enemy fire. The crews of two aircraft shot down three Japanese aircraft and strafed additional military targets. Doolittle later reported that the mock gun barrels in the aircraft tails apparently succeeded in warding off enemy fighters during the raid.¹⁹

After the attacks, 15 of the 16 aircraft headed southwesterly across the East China Sea toward eastern China for friendly airfields. However, the earlier-than-planned launch caused all 15 to run low on fuel as they approached the Chinese coast. Only a tailwind that increased the ground speed during their flight allowed them to get that far. Additionally, by then, night had closed in and forced all 15 crews to ditch along the China coast or bail out over eastern China around 2200.

Within hours of launching from the *Hornet*, the pilot of aircraft 16, Capt Edward York, realized that his engines were burning fuel at an unexpected high rate. Civilian technicians at McClellan Field had changed the settings of his aircraft's carbure-

tors. Realizing that his aircraft would not reach China, York headed toward Vladivostok in the Soviet Far East.²⁰

Although the Soviet Union was an ally of the United States in the war against Nazi Germany, it was not at war with Japan because of a prewar neutrality treaty and, as a result, interned the crew and confiscated the aircraft. After 13 months of internment, many US government attempts to repatriate the crew members and three moves that placed them at Ashgabat, 20 miles north of the Iranian border, the People's Commissariat for Internal Affairs (NKVD) or Soviet secret police arranged to smuggle the Americans into Iran, and they soon returned to the United States.²¹

During the next several days, Chinese soldiers and guerrillas scoured the countryside and rescued 69 of the Raiders from thousands of Japanese soldiers, also looking for them. Two crewmen drowned when their aircraft crashed off the Chinese coast, and one died after bailing out. The Japanese army captured eight and tried and executed three as war criminals, and one of the remaining five died while in prison. Office of Strategic Services agents rescued the remaining four from a Japanese prison in Shanghai in August 1945. Also, seven crew members sustained injuries serious enough to require medical treatment. The Chinese people paid dearly for helping the Americans to safety—the Japanese army destroyed many villages and murdered up to 250,000 Chinese.²²

Initially, Doolittle felt that the raid had been a terrible failure: loss of all of his aircraft, the whereabouts of many of the crewmen unknown, and little actual damage to Japan's military capabilities. He fully expected to be court-martialed on his return to the United States. Instead, President Roosevelt awarded him the Congressional Medal of Honor and promoted him to brigadier general. All 80 Raiders received the Distinguished Flying Cross and decorations from the Chinese government, and those Raiders killed or wounded received the Purple Heart.²³

Although Doolittle had such despondent thoughts right after the Raid, the effects of the attack had significant and long-ranging implications and, even today, provide those interested in studying the raid with some lessons learned. The most notable and immediate effect was the tremendous boost in national morale when Americans woke up the next day to newspaper headlines and radio journalists proclaiming "US Bombs Tokyo." This was the first good news after four months of doom and gloom, from the surprise attack on Hawaii on 7 December to the surrender of about 12,000 American and 65,000 Filipino soldiers in the Bataan Peninsula to the Japanese. The raid came less than 10 days after the worst defeat in American history.²⁴ It provided the first inkling of hope of eventual victory.

Additionally, Japan had not been attacked by outsiders since the thirteenth century when typhoons (the "divine wind" or kamikaze) had destroyed separate Mongol fleets in two attempts to invade Japan. Thus, Japanese leaders had encouraged a sense of invulnerability among the Japanese people. The Doolittle Raid shattered that perception, which continued to diminish as Allied victories across the southwest, central, and western Pacific accumulated after mid-1942. Also, Japanese leaders pulled back four frontline fighter squadrons to defend the home islands from another American attack, an attack that did not occur until late 1944.

The raid also confirmed the Japanese leaders' decision eight days earlier to halt their advance into the Indian Ocean and toward India for a naval operation to extend

their eastern defense line further east toward Hawaii and seize Midway Island. Such an operation, they believed, would draw out the American carriers missed at Pearl Harbor—and America's only offensive military power in the Pacific at the time—into a battle where Japanese naval aircraft would destroy them. (President Roosevelt had told newspaper reporters that the Doolittle aircraft had come from Shangri-La, the fictional land of James Hilton's novel *Lost Horizon*, but the Japanese leadership reasoned that they had to come from an aircraft carrier.) That operation led to the resounding American naval victory at Midway, 5–7 June 1942. During the battle, the Japanese navy lost four fleet carriers, about 275 aircraft, and 2,400 men including experienced pilots and aircraft mechanics versus American losses of one carrier, 150 aircraft, and 307 men.²⁵ That victory stopped the Japanese advance eastward and, within months, placed them on the defensive.

There are other tactical defeats from history that eventually produced strategic results. For example, in seven years of war during the American Revolution, the Americans won only a handful of major battles but still won the war. From the autumn of 1780 to the summer of 1781, American guerrillas fought the Southern Campaign with only two major victories—King's Mountain and Cowpens—yet Lord Cornwallis abandoned South Carolina and marched his army north to Yorktown, Virginia, where he became trapped and eventually surrendered to Gen George Washington in October 1781. During the Southeast Asia War, the Viet Cong guerrillas and North Vietnamese army won very few major battles but eventually won the war in April 1975.

The Doolittle Raid can also teach leaders—officers and enlisted—about decision making, innovative thinking, and risk taking. As previously noted, Captain Low and Colonel Doolittle independently put together an out-of-the-box, innovative plan to achieve the president's objective of a retaliatory attack on Japan. As they thought about how to carry out the idea, neither of them restrained their thinking to the standard, accepted contemporary ideas about the use of Army medium bombers and carriers. When Doolittle received the code phrase to leave Eglin Field for McClellan Field early on 23 March, the crews had completed only about 50 percent of his original training program. Nevertheless, he deemed what they had accomplished “operationally” sufficient—a partial solution instead of a 100 percent. The modifications to the raid bombers made by gunners, flight engineers, and ground crew were as audacious and successful as those made by the planners and aircrew.

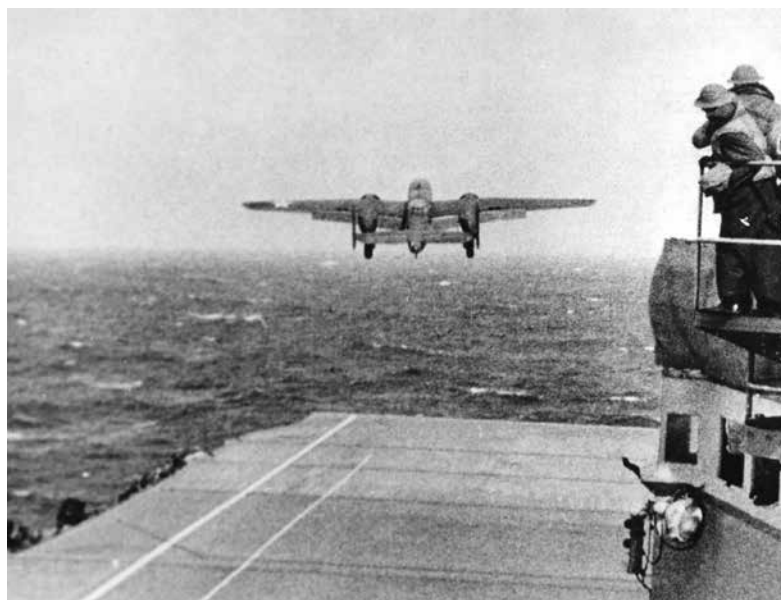
Both Doolittle and Mitscher knew that the earlier-than-planned launch on 18 April would place the aircraft at the end of their fuel reserves, but the two commanders, in weighing the options, risked launching early to carry out the mission. As a retired Air Force lieutenant colonel on active duty from 1976–2003, I served in a generally “no-mistake” Air Force. In many cases, members were fired or discharged for one mistake out of 99 successes. Such an atmosphere limited risk-taking and innovative thinking out of fear of punishment and possible forced departure from the service. Think back to Doolittle's thoughts right after landing in China and on the trip back to the United States.

As important as it is to have innovative thinkers who do not constrain themselves to standard operating procedures, it is equally important to have leaders, such as General Arnold, who are receptive to “outlandish” ideas. Imagine if Arnold had been a standard, conservative leader, like the British and French generals who—

time and again—ordered their soldiers into futile frontal attacks against the German trenches, barbed wire, and machine guns from October 1914 to early 1918, resulting in millions of casualties. Such a leader would have told Low and Doolittle to go back to the drawing board and develop “a more reasonable” idea. Instead, Arnold told them to test the idea; consequently, Doolittle got the go-ahead to plan the mission, train the crews, and carry out the mission.

Another example of innovative thinking is the Air Force’s use of the B-52 Stratofortress and B-1B Lancer. These aircraft were designed to drop nuclear weapons in case of nuclear war. However, the Air Force has most successfully used these nuclear-capable strategic bombers—armed with 12 (B-52) or 24 (B-1B) Joint Direct Attack Munitions (warheads with a Navstar Global Positioning System tail kit for guidance)—for close air support in Operations Enduring Freedom and Iraqi Freedom, given the extreme accuracy of the weapon.

Finally, the raid known as Special Aviation Project No. 1 was the first big joint operation since the Union’s siege of Vicksburg, Mississippi, 18 May–4 July 1863, commanded by Gen Ulysses S. Grant.²⁶ This successful operation involved major units of the Union Army and Navy and ended with the capture of Vicksburg, giving the Union complete control of the Mississippi River and splitting the Confederacy. From the development of the initial concepts by Navy captain Low and AAF colonel Doolittle in early January 1942 to the launch of the Raiders’ aircraft off the *Hornet* on 18 April 1942, Navy and AAF members worked together to achieve the successful launch of Doolittle aircraft (fig. 4). Such collaboration serves as a model for joint operations during and since World War II.



Courtesy of US Navy

Figure 4. Aircraft no. 1, flown by Lt Col James A. Doolittle, right after its takeoff from the deck of the USS Hornet on the morning of 18 April 1942

Today's armed forces face numerous challenges—threats from peer states, rogue states, and nonstate actors; increasing numbers of cyber attacks and international and domestic terrorist attacks; diminished national defense budgets that have limited new weapon systems acquisition; reduced manning end strengths; and aging weapons systems. The days of unlimited budgets and standardized, conservative decision making are gone. Given the challenges of today's world and the foreseeable future, America's military forces need leaders willing to accept innovative, out-of-the-box solutions to problems and followers willing to provide them without fear of retribution if the solution fails—in other words, more Arnolds and Doolittles. Although the Doolittle Raid occurred 75 years ago, it still deserves study by the military leaders of today and tomorrow. ✪

Notes

1. James H. "Jimmy" Doolittle, *I Could Never Be So Lucky Again: An Autobiography* (New York: Bantam Books, 1991), 230–31.
2. *Ibid.*, 233–34.
3. *Ibid.*, 238–39.
4. *Ibid.*, 229, 232.
5. *Ibid.*, 246.
6. *Ibid.*, 234–35.
7. *Ibid.*, 239–43.
8. *Ibid.*, 243.
9. Carroll V. Glines, *The Doolittle Raid: America's Daring First Strike against Japan* (Atglen, PA: Schiffer Publishing, 1991), 28–29.
10. Doolittle, *Could Never Be So Lucky*, 243–44.
11. Glines, *Doolittle Raid*, 32–33.
12. *Ibid.*, 42–43.
13. Doolittle, *Could Never Be So Lucky*, 246.
14. *Ibid.*, 245–49; Ted Briscoe, *Rising into the Storm: America's Daring April 18, 1942 First Strike against Japan* (Missoula, MT: Pictorial Histories Publishing, 2013), 42–43; and Glines, *Doolittle Raid*, 32.
15. Doolittle, *Could Never Be So Lucky*, 251–54.
16. *Ibid.*, 255–56.
17. *Ibid.*, 256–57.
18. *Ibid.*, 274–75; and Glines, *Doolittle Raid*, 67–72, 74–76.
19. Glines, *Doolittle Raid*, 77–110.
20. *Ibid.*, 110–13, 158–69; and Col Edward J. York, interview by Dr. James C. Hasdorff, 23 July 1984, transcript, 22–23, 26–27, 39–45, Air Force Historical Research Agency, Maxwell AFB, AL, K239.0512-1592, doc. no. 0106800.
21. Glines, *Doolittle Raid*, 113–14.
22. Doolittle, *Could Never Be So Lucky*, 282–83, 547–54; and Glines, *Doolittle Raid*, 150–53.
23. Glines, *Doolittle Raid*, 85–86.
24. "World War II: Battle of Bataan," *about.com*, 7 January 2016, <http://militaryhistory.about.com/od/WWIIPacific/p/World-War-Ii-Battle-Of-Bataan.htm>.
25. US Navy, Office of Naval Intelligence, "Summary of Our Losses," *The Battle of Midway, 3–6 June 1942* (Washington, DC: Office of Naval Intelligence, 1943), <http://ibiblio.org/hyperwar/USN/USN-CN-Midway/index.html#CONT>.
26. Doolittle, *Could Never Be So Lucky*, 238.



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