On April 18, 1942, at approximately 8:20 a.m., 16 B-25 bombers under the command of Lt. Col. James H. “Jimmy” Doolittle began taking off from USS Hornet, about 750 miles east of Japan. About noon, local time, they struck factories and other industrial targets in six Japanese cities.

The attack had minimal effect on Japan’s military or industrial capabilities and was carried out at the cost of all the bombers in the raid. Seven airmen died or were killed after being captured. Four spent the duration of the war as POWs.

Still, the mission had a profound effect on Americans, Japanese military leaders, and the Japanese people during the ensuing months. Seventy-five years later, the Doolittle Raid still has important lessons to teach.

Two weeks after Japan’s Dec. 7, 1941, attack on Pearl Harbor, President Franklin D. Roosevelt asked the Chiefs of the Army, Navy, and Army Air Forces (AAF) to plan a retaliatory strike on Japan to boost American morale. He repeated that request over the following weeks. Since the bulk of the US Pacific Fleet’s battleships lay on the bottom of Pearl Harbor and American aircraft of the time could not reach Japan from the closest American land base, the service Chiefs wondered how they could carry out the President’s request.

On Jan. 10, 1942, Navy Capt. Francis S. Low, assistant chief of staff for anti-submarine warfare on the staff of Adm. Ernest J. King—head of the US Fleet and soon to become Chief of Naval Operations—watched two Army pilots conducting mock bombing passes on an outline of a carrier deck painted on the airfield at Norfolk Naval Base, Va. The drill gave him the idea to launch Army bombers from an aircraft carrier.

At Low’s direction, troops loaded two Army B-25s onto Hornet, the Navy’s newest carrier, at Norfolk. The carrier sailed about 100 miles into the Atlantic and launched the two aircraft from its deck without difficulty.

Meanwhile, Doolittle, a military test pilot, famed civilian aviator, and aeronautical engineer of the interwar years, was now special assistant to Lt. Gen. Henry H. “Hap” Arnold, Chief of the Army Air Forces. Doolittle was already trying to figure out which bombers could carry out an attack on Japan.

The needed aircraft had to have a 2,400-mile cruising range, a 2,000-pound bomb load, and be small enough that a reasonable number would fit on an aircraft carrier deck. Doolittle decided on the B-25B, then the Army’s newest aircraft. It would be modified to carry double its normal fuel load and, thus, extend its range.
Once Roosevelt and the service Chiefs approved the concept for the retaliatory raid, Doolittle chose the 17th Bomb Group (Medium), assigned to Pendleton AAF, Ore., to provide aircraft and crews. He picked the unit because it was the first group to fly B-25s.

On Feb. 3, the War Department ordered the 17th BG to Columbia Army Air Base, near Columbia, S.C., ostensibly to conduct anti-submarine patrols off the American East Coast. Doolittle diverted 24 of the group’s aircraft to Mid-Continent Airlines of Minneapolis, where they would get additional fuel tanks and other modifications.

The 17th Bomb Group began arriving at Columbia on Feb. 9, followed by Doolittle himself a few days later. He informed only Lt. Col. William C. Mills, the group commander, about the upcoming mission. Addressing the crews, Doolittle said he was looking for volunteers for a highly dangerous and
secret mission that would contribute to America’s war effort, but he gave no other details. When the entire group volunteered, Doolittle and the group’s squadron commanders selected the best 24 crews for the mission.

The chosen men picked up the modified B-25s at Minneapolis and flew them to Eglin Field, Fla., arriving between Feb. 27 and March 1. With them came 60 enlisted personnel. During the next three weeks, the crews practiced carrier takeoffs, low-level and night flying, over-water navigation, and low-altitude bombing at various Eglin auxiliary fields and over the Gulf of Mexico. The Navy provided Lt. Henry L. Miller, a flight instructor from nearby NAS Pensacola, to supervise the short-takeoff training. (See “The Raiders at Eglin,” April 2015, p. 71.)

Between training missions, the bomb group’s enlisted men and Eglin technicians made additional changes to the aircraft. They installed a collapsible fuel tank and more fuel cells in the fuselage, de-icers and anti-icers in the wings, steel blast plates around the upper turret, and mock gun barrels in the tail. They removed the belly turret and a heavy tactical radio. The mechanics also fine-tuned new carburetors for the aircraft engines to obtain the best possible engine performance and fuel consumption rate for low-altitude cruising.

Doolittle had the top-secret Norden bombsights on the aircraft removed. They wouldn’t be of much value at the medium altitudes from which the raiders would strike, and it was too great a risk that they would fall into enemy hands.
Instead, Capt. Charles R. Greening, pilot and armament officer, created an aiming sight dubbed the “Mark Twain.” The sights were built in Eglin’s sheet-metal workshops for about 20 cents each, and Doolittle later said that they were relatively accurate in the actual attack.

Early on March 23, Arnold called Doolittle at Eglin Field and informed him that it was time to move the secret operation to McClellan Field, Calif., for final inspections and modifications to the aircraft. They would then fly to NAS Alameda for loading onto Hornet. Though bad weather and installation of the modifications had reduced the planned training time (about 50 hours total) by 50 percent, Doolittle said in his postraid report to Arnold that the crews had attained a “safely operational” level.

Between March 31 and April 1 at Alameda, the Navy loaded 16 of Doolittle’s B-25s onto Hornet’s flight deck. This left about 450 feet of deck for the aircraft to make their takeoffs.

Commanded by Navy Capt. Marc A. Mitscher, Hornet left San Francisco on the morning of April 1, with 71 Army Air Forces officers and 130 enlisted men aboard, escorted by supply ships. A few days later, the task force met up with the carrier USS Enterprise and its escorts, commanded by Vice Adm. William F. Halsey Jr., north of Hawaii. Because Hornet’s fighters were below on the hangar deck, Enterprise’s aircraft would protect the task force in case of a Japanese attack. By early April 18, the combined task force was about 750 miles east of Japan.

At about that moment, Navy scout planes detected a Japanese picket boat, and USS Nashville sank it by gunfire. The picket boat had sent Japan a message of the sighting but didn’t confirm the message before it was sunk. Faced with the potential loss of surprise, Doolittle and Mitscher decided to launch the B-25s immediately, fully 10 hours and some 250 miles farther east than they had planned. All 16 aircraft took to the air safely, but a sailor lost an arm when he stepped back into the prop wash of an aircraft.

Wave-hopping as they approached the coast, the planes were seen by Japanese fishing boats. Six hours after takeoff, the B-25s arrived over Japan. Climbing to 1,500 feet, the American bombers started their runs on targets in Tokyo, Yokohama, Yokosuka, Nagoya, Kobe, and Osaka.

None of the B-25s were lost to enemy anti-aircraft fire or fighters, and two of the crews shot down three Japanese aircraft between them.

After dropping their bombs, 15 B-25s turned southwesterly across the East China Sea toward friendly airfields in eastern China. Unfortunately, the early launch took its toll and all of the raider aircraft were running low on fuel as they approached the Chinese coast. It was now night and 15 crews were forced to ditch along the coast or bail out over eastern China.

The pilot of the 16th aircraft, Capt. Edward J. York, realized within hours of launching from Hornet that his engines were burning fuel at an unexpectedly high rate. (Civilian technicians at McClellan Field had incorrectly changed the settings of his aircraft’s carburetors.) York, realizing that his aircraft would not reach China, turned northwesterly toward Vladivostok, in the Soviet Union.

The Soviet Union, allied with the US against Nazi Germany, was not at war with Japan, however, and it imprisoned the crew and confiscated the aircraft. It took 13 months of persistent US government efforts and three relocations to get the crew to Ashgabat, 20 miles north of the Iranian border. There, the Soviet secret police arranged to smuggle York’s crew into Iran.

Back in China, Chinese soldiers and guerrillas—and Japanese soldiers—searched for the Americans. Two Doolittle Raiders drowned when their aircraft crashed off the Chinese coast, and one died after bailing out. Most of the raiders found their way into friendly hands, but the Japanese army captured eight of them and executed three as war criminals. One of the remaining five died as a prisoner of war, and in August 1945, Office of Strategic Services agents rescued the remaining four from a Shanghai military prison.

In retaliation for Chinese help in rescuing 69 raiders, the Japanese army destroyed numerous villages and killed up to 250,000 Chinese.
Surveying his own wrecked aircraft, Doolittle mused to SSgt. Paul J. Leonard, his engineer-gunner, that he would probably be court-martialed. The raid, he said, had caused little actual damage to Japan’s ability to make war, he’d lost all 16 aircraft, and at the time, didn’t know where the other aviators from the mission were.

Rather, unbeknownst to Doolittle, Roosevelt promoted him to brigadier general and awarded him the Medal of Honor. All 80 raiders received the Distinguished Flying Cross and other decorations from the Chinese government. Those killed or wounded received the Purple Heart.

Despite Doolittle’s pessimism about the effects of the raid, it did have significant and long-term implications. First, it provided a tremendous boost to American morale. Newspaper headlines and radio journalists proclaimed “Tokyo Bombed”—the first bit of good war news after a litany of evil tidings from the Pacific. There had been four months of American defeats since Pearl Harbor, including the surrender of about 12,000 Americans and 65,000 Filipino soldiers in the Bataan Peninsula—the worst defeat in American history. The raid gave Americans hope for eventual victory.

Roosevelt told reporters the American aircraft had come from Shangri-La, the fictional land of James Hilton’s novel, Lost Horizon, but the Japanese leadership figured out that the bombers had come from an aircraft carrier.

The raid cracked the sense of invulnerability that Japanese leaders had encouraged among the Japanese people since the 13th century, when Mongol fleets foundered in the last attempt by outsiders to invade Japan. The raid gave Americans hope.

The ensuing Battle of Midway, June 5-7, 1942, was a resounding American naval victory. It cost the Japanese navy four carriers, 275 aircraft, and 2,400 men. Worse, the casualties included Japan’s most experienced naval pilots and aircraft mechanics. The US Navy, meanwhile, lost much less: one carrier, 150 aircraft, and 307 men. The Battle of Midway stopped Japan’s advance to the east and soon put it on the defensive.

The Doolittle Raid is a lesson for officers and enlisted alike about decision-making, innovative thinking, and risk-taking. Low and Doolittle independently developed an unconventional plan to answer Roosevelt’s request for a retaliatory strike. Arnold also demonstrated his leadership by giving the go-ahead for an unusual idea.

During the three weeks at Eglin Field, weather and aircraft rework cut Doolittle’s training time by half, but he judged the crews adequately prepared.

On launch day, Doolittle and Mitscher both knew that launching the bombers early would mean they’d be nearly out of fuel by the time they reached the China coast, but they took the risk to accomplish the mission.

Finally, the raid, known as Special Aviation Project No. 1, was the first major joint operation since the Civil War, when Gen. Ulysses S. Grant, using Army and the Navy units, captured Vicksburg, Miss., in 1863 after a two-week siege.

Throughout the concept development to the launch off Hornet, Navy and Army Air Forces members worked together to achieve something unprecedented.

The Doolittle raid showed the value of approaching threats with new thinking when the conventional approach won’t work. It demonstrated that military leaders must be willing to accept innovative solutions to modern problems—by creating an atmosphere that will produce such ideas and people willing to provide them—and accept a degree of calculated risk.