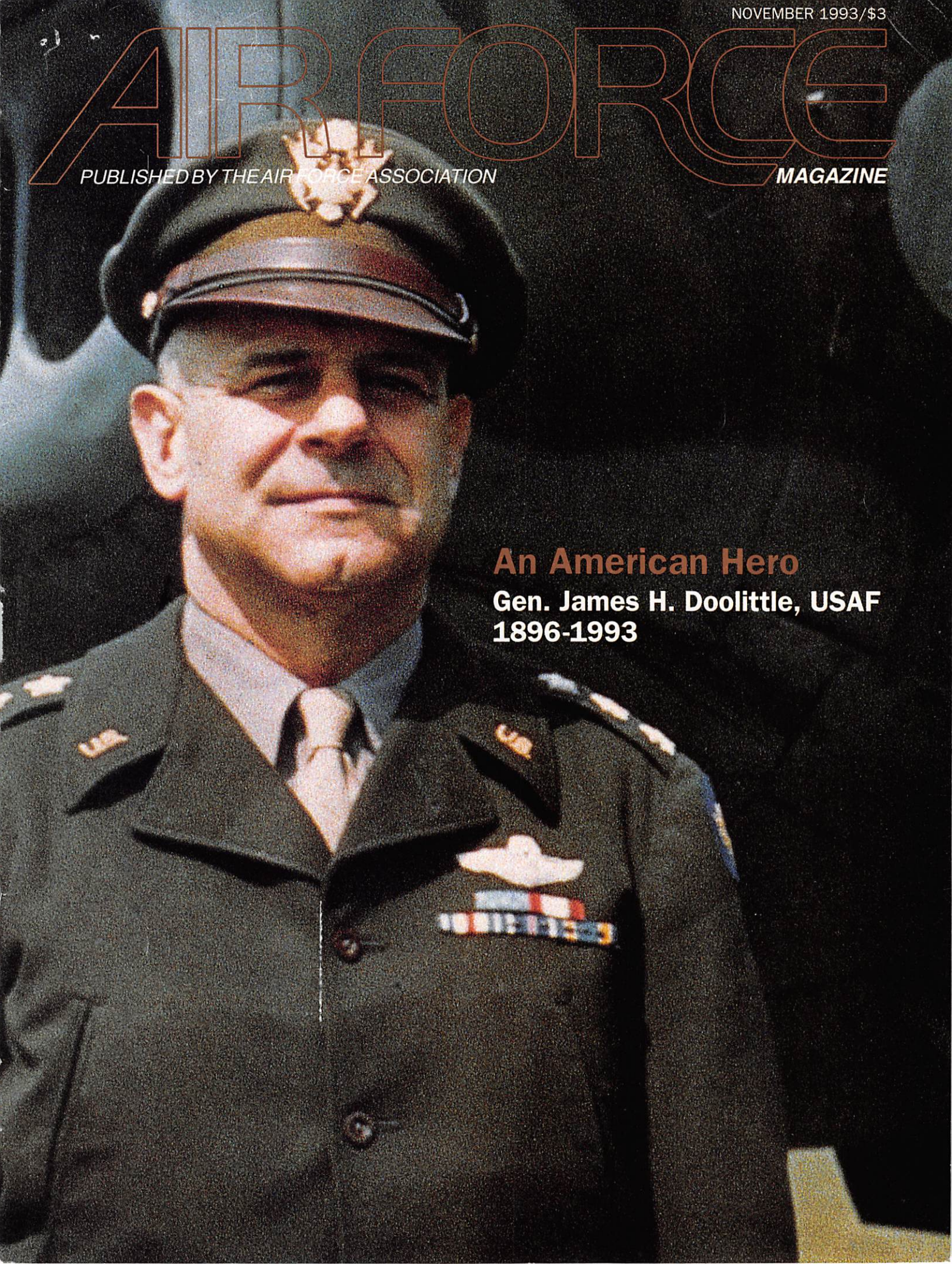


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MAGAZINE



An American Hero

**Gen. James H. Doolittle, USAF
1896-1993**



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Few ever took larger gambles, with higher payoffs or with more spectacular success, than Jimmy Doolittle, a one-of-a-kind aviation pioneer.

An American Hero

OF THE world's renowned pilots, one always stood out above the others: James H. "Jimmy" Doolittle—boxing champion, racing and stunt pilot, aviation record-setter, scientist, Air Force general, outdoorsman, and advisor to Presidents. Unusual accomplishments were the hallmark of his life, which ended September 27 at his home in Pebble Beach, Calif. General Doolittle was ninety-six years old.

His life intersected with many of the most critical moments in the history of aviation and airpower. One of his accomplishments proved to be an aviation milestone—his 1929 demonstration that pilots could fly their aircraft at night and through bad weather without ever seeing the ground, using instruments only. [See "Flying Blind," *September 1989*, p. 138.] It was not the first nor last time that he would prove himself a master of the calculated risk.

Highly Competitive

Jimmy Doolittle was born in Alameda, Calif., on December 14, 1896, and spent his early years in Nome, Alaska, where his father was a carpenter and his mother a seamstress. Those were the Gold Rush days, when thousands of people followed their dreams of quick wealth to the edge of the Bering Sea.

Young Jimmy was shorter than his playmates and was continually forced to defend himself against older and bigger boys. Wiry, tough, and highly competitive, he learned to take care of himself and sought to excel in everything he attempted. Jimmy's mother, convinced that there was a better life for her son in the States, returned with him to California when he was twelve. His father remained in Alaska and never lived with the family again.

Like so many lads in those days after the Wright brothers proved that heavier-than-air flight was possible, Jimmy tried to build a glider and crashed several times. He took up boxing and, at age fifteen, became amateur bantamweight champion of the west coast. He liked acrobatics and practiced handstands and tumbling by the hour.

He attended Los Angeles Manual Arts High School, where he learned carpentry, metalworking, and mechanical drawing. From there he entered the University of California, where he studied mineral engineering and continued, against his mother's wishes, to box. She needn't have worried. Doolittle was so aggressive that he held the intercollegiate lightweight and middleweight championships simultaneously.



By C. V. Glines





In 1925, Jimmy Doolittle won the Schneider Trophy in a Curtiss R3C-2 (above), setting a new world speed record. At right is Doolittle with the Laird Super Solution, which he belly-landed after the landing gear failed in a test flight.

When the US entered World War I, Doolittle enlisted as a private in the US Army's flying training program. He completed ground school and flight training and was commissioned as a second lieutenant in March 1918. He had hoped to fly combat missions in France, but the war ended before he could get there.

Doolittle decided to remain in uniform. During the next few years, he served as a gunnery and flight instructor and became widely known for his daring low-altitude aerobatics at air shows. He was assigned to the Air Service Mechanical School in San Antonio, Tex., and became intensely interested in aircraft engines, structures, fuels, and lubricants. He then decided to continue his military career because he felt he would have the opportunity to combine his flying skill, his interest in science, and his inclination for tinkering with mechanical things.

In the early 1920s, US Army pilots were encouraged to keep aviation in the news and make the public aware of what airplanes promised for the future. To do his part, Doolittle conceived the idea of setting a coast-to-coast speed record. He modified a de Havilland DH-4 two-seat training plane, adding extra gas tanks so he could make the 2,200-mile flight with only one fuel stop. In September 1922, he flew from Pablo Beach, Fla., to San Diego, Calif., becoming the first pilot to fly across the continent in less than a day. Several years later, this feat brought him the Distinguished Flying Cross.

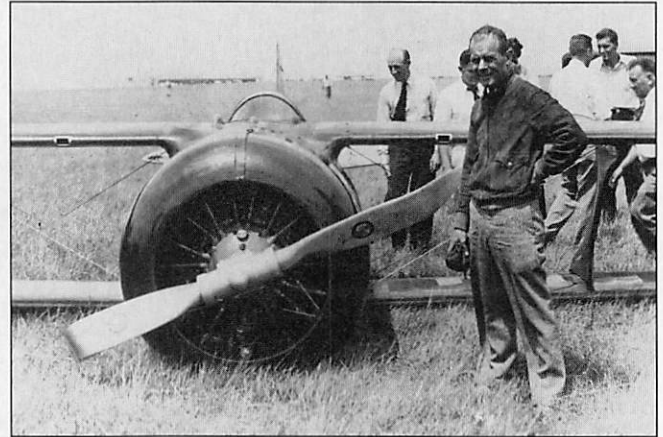
Doolittle subsequently was assigned to McCook Field in Dayton, Ohio, where he quickly established a reputation as a fearless pilot and repeatedly risked his life to test the flight characteristics and limitations of experimental aircraft. At McCook he carried out what were later described officially as "extremely valuable aircraft acceleration tests." These later earned him a second Distinguished Flying Cross.

Ever on the lookout for more flying experiences, Doolittle volunteered for special training with the Navy, flying high-speed seaplanes. In 1925, he won the Schneider Trophy, piloting a pontoon-equipped Curtiss R3C-2 to a new world speed record. To increase his value to the Army, he requested the opportunity to attend Massachusetts Institute of Technology. There he received a master's

degree in aeronautical engineering and a doctorate in aeronautical science, the latter being one of the first granted in the United States.

At age twenty-eight, he completed his academic work. He returned to McCook Field and flight testing. By this time, he had become well known throughout the military services. It fascinated newspaper reporters that a daring test and stunt pilot could earn the highest academic degree from a prestigious university.

His fame led Curtiss Aircraft in 1926 to borrow Doolittle to demonstrate the company's new P-1 Hawk fighter in South America. The trip would add considerably to the Doolittle legend.



Night of the Pisco Sours

Jimmy Doolittle didn't know what to expect when he stepped off the boat in Santiago, Chile. He imagined he would be expected to put on a one-man aerobatic show for Chilean officials. However, he found that he was only one of several salesman-pilots there. German and Italian firms had sent their best flying machines and pilots. The Chileans wanted pilots and planes to compete in order to determine which aircraft to buy for Chile's Air Force.

Several nights before the competition, Chilean Air Force pilots held a cocktail party in the officers' club, where they introduced Doolittle to a delicious and powerful drink called a "pisco sour." During the evening, conversation turned to Douglas Fairbanks, the famous actor of silent films whose legendary balcony-leaping and sword-fighting antics captivated huge and enthusiastic South American audiences.

Doolittle could not speak Spanish, but he sensed the admiration that his hosts had for the handsome American actor. In a moment of puckishness, Doolittle declared to his amazed hosts that, in his view, Fairbanks was not an especially talented acrobat and that "all American kids can do those things."

To the Chilean pilots, this statement needed proving. Doolittle now had to demonstrate that *he* could tumble, leap, and do handstands as easily as Fairbanks. He bent down, rose into a handstand, and began walking on his hands through the club lounge. When he stood up to polite applause, he thought he should do more. He did a couple of backflips, then walked over to a balcony overlooking a courtyard and eased up into a handstand on the railing. Again he received applause, but Doolittle wasn't through

yet. He grasped the narrow stone ledge of the balcony with one hand and extended his body parallel to the ground—a feat requiring strong arms and a knowledge of body leverage.

There were shouts of “Bravo!” and “Olé!” as the daring American seemed suspended in space. Then Doolittle felt something give way. The ledge, made of sandstone, crumbled, and he plunged to the courtyard two floors below as the onlookers screamed.

Doolittle was rushed to the hospital, where X-rays showed he had broken both ankles. There was no doubt that he should not fly in the competition, but there were no other US pilots to fill in.

Doolittle was furious at himself. He knew that, when his friends in the US found out about his foolishness, he’d be the laughingstock of the Air Corps. As doctors put casts on both legs, they told him he would have to remain in bed for several weeks and wear the casts for at least two months. The pilots from the other countries would be able to demonstrate their planes without facing an American challenge.

A German ace, Karl A. von Schoenebeck, was scheduled to show off a new Dornier fighter, which many believed to be the best in the competition. Doolittle, however, was certain that the P-1 Hawk was better and intended to prove it. He asked his mechanic to get the plane ready for flight and install some clips on his flight boots to keep his feet from slipping off the rudder pedals.

A few days later, as the President of Chile and hundreds of cheering spectators watched von Schoenebeck put the Dornier through an aerobatic routine of loops, rolls, and inverted flight, Doolittle painfully climbed into the Hawk’s cockpit.

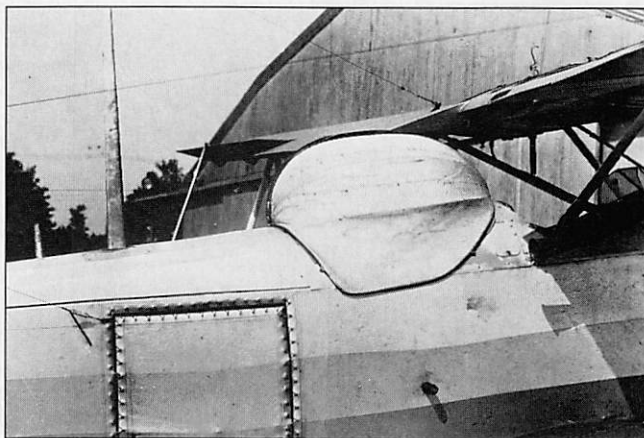
Doolittle started up the Hawk’s engine and roared into the air. The American fighter climbed to the German’s altitude and then roared by him in a pursuit pass. Von Schoenebeck, sensing the challenge of a dogfight, zoomed after the P-1. He found that Doolittle was always on his tail and couldn’t be shaken. The speedy American fighter badly outclassed the Dornier, which by comparison suddenly seemed clumsy.

The German pilot broke off the engagement and headed back for the airport. Fabric had begun to tear away from the Dornier’s top wing; the plane had exceeded its limitations and was in danger of coming apart. As his adversary landed, Doolittle circled and then roared inverted across the breadth of the field only a few feet off the ground, drawing wild cheers from the crowd. When he landed and slowly extracted himself from the cockpit, it finally hit the audience that not only had the American beaten the German but had done so with both legs in casts!

With his legs in splints, Doolittle continued his demonstrations in other South American countries. When he returned to the US, doctors had to reset his ankles, requiring a hospital recovery period of six weeks.

“Spur of the Moment”

Though his body was inactive, his mind wasn’t. He wanted to do something with an airplane that no one else had ever done—fly an outside loop. He had always wondered if a human being could survive this maneuver, which subjects both pilot and plane to severe strain. One might build an aircraft strong enough to hold up under the stress, but what about a man’s body? The centrifugal



Above is the Consolidated NY-2 in which Doolittle in 1929 became the first pilot to fly “blind.” He considered this his finest contribution to aviation.

force might be strong enough to burst the blood vessels in the human head.

Doolittle calculated the degree of strain that would be placed on an aircraft and concluded that the Curtiss Hawk could take the pressure. He wasn’t sure that he could say the same thing about his body.

Once he was out of the hospital and flying again, Doolittle spent many hours practicing dives, tucking under, and attempting to climb back on top of the loop. He found the physical discomfort severe but bearable. On May 25, 1927, he completed the world’s first outside loop, a feat witnessed by other pilots at McCook Field.

When the press asked why he did it, Doolittle grinned and replied, “Don’t know why I did it. Just thought of it on the spur of the moment.”

Doolittle began looking for tougher challenges and more durable contributions to the advancement of aviation. At about that time, Daniel Guggenheim, a wealthy industrialist and philanthropist, established a \$2.5 million fund to promote “the art, science, and business of aviation.” His son Harry, a former Navy flyer, served as president of the fund.

In one phase of its work, the fund was to be used to study



Doolittle (in civilian hat) toured Europe in the 1930s for Shell Oil Co. and Curtiss-Wright to promote aviation. He was assisted by Capt. John K. “Joe” Cannon (at right, with helmet and goggles).



The General and AFA

In the immediate post-World War II years, Jimmy Doolittle was a forceful figure in the fight for a separate Air Force and for the establishment of a strong and independent Air Force Association. The two endeavors were inextricably linked.

Doolittle had long believed that the US should create an aviation service equal to the Army and Navy, but this task became urgent after the war. He and Gen. H. H. "Hap" Arnold, Chief of Staff of Army Air Forces, took immediate steps to create the vehicle to promote the Air Force and airpower.

To this end, the two senior generals arranged a meeting of ten top wartime USAAF leaders, who met on October 12, 1945, at the University Club in New York, N. Y. Their purpose was to lay the foundation for an AAF veterans organization that would push to make the Air Force a reality and that also would be the civilian vanguard for military airpower.

In the next several months, General Doolittle played a direct and energetic role in organizing AFA. During this time, the Association set up headquarters in Washington, D. C., determined its structure and mission, and drafted a constitution and bylaws. In January 1946, General Doolittle became AFA's first president. He also directed the creation of AFA units around the country, and, in the organization's first year, its membership swelled to more than 126,000.

General Doolittle presided over AFA's first National Convention, held September 15-16, 1947, in Columbus, Ohio, and on September 17 became the Association's first elected chairman. The next day—September 18, 1947—President Truman signed the legislation that created a separate Department of the Air Force.

Though AFA's principal goal had been achieved, General Doolittle continued to take an active part in Association business. Seldom in the early years did he miss an AFA Board meeting or National Convention. He participated in numerous AFA national defense symposiums and seminars, often serving as moderator. Even after relinquishing his formal positions, he continued to attend AFA functions around the country.

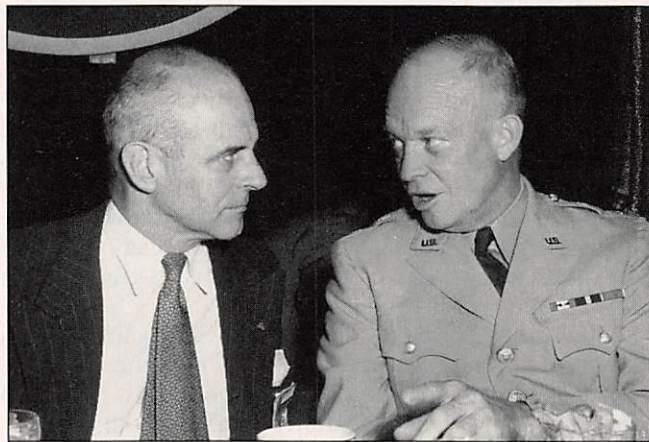
In 1974, at the request of AFA, the General lent his illustrious name to a scholarship effort managed by AFA's Aerospace Education Foundation—the Doolittle Fellows Program. He served as keynote speaker at the 1978 National Convention. In 1984, he was on hand for the dedication of AFA's new National Headquarters Building in Arlington, Va., just across the Potomac River from the nation's capital. In 1986, at the age of eighty-nine, General Doolittle and many of his Tokyo Raiders came to AFA's "Gathering of Eagles" in Las Vegas.

AFA officials last paid a formal call in August 1990, when four senior leaders met the General in his home in Pebble Beach, Calif. Those present remember that, though he was almost ninety-four, General Doolittle was as vigorous and friendly as ever.

—John O. Gray

ways to ensure safe and reliable flight even in poor weather conditions. A Full Flight Laboratory was set up at Mitchel Field on Long Island, N. Y., in late 1928. The laboratory's officials borrowed Doolittle from the Army to take charge of a broad range of flight experiments, one of which was flying "under the hood," or without being able to see where one was flying. Lt. Ben Kelsey joined him to fly as safety pilot while Doolittle was flying under the hood. Two aircraft—a Vought O2U-1 Navy observation plane and a sturdy Consolidated NY-2 Navy/Army trainer—were purchased for the tests.

Researchers began to test various cockpit instruments and radio navigation aids. Doolittle flew hundreds of flights in the NY-2, testing foreign-made instruments. The artificial horizon and directional instruments invented by Elmer Sperry



Above left, Doolittle discusses the organization of AFA with actor Jimmy Stewart and Gen. Carl A. Spaatz. Above, he talks with Gen. Dwight D. Eisenhower at an AFA function.

and the sensitive altimeter perfected by Paul Kollsman proved to be the right combination for totally "blind" flight.

Doolittle described his blind landing technique:

"The plane was put into a glide at 60 mph, with some power on, and flown directly into the ground. Although this was about 15 mph above stalling speed, the landing gear absorbed the shock of landing and, if the angle of glide was just right, the airplane didn't even bounce. Actually, after a while, it was possible to make consistently perfect landings by this method."

Experiments were also conducted using ground and airborne radio navigation aids then being perfected so that pilots could navigate from point to point by "homing" in on radio transmitters.

By the fall of 1929, Doolittle had made more than 100 flights in the NY-2 under the hood with Kelsey as safety pilot. Harry Guggenheim planned to observe such a flight, but Doolittle was ready to demonstrate that he could successfully fly blind solo. On September 24, 1929, fog enshrouded Mitchel Field. It was an ideal time for a blind flight. Ground radios were manned, the plane was readied, and Doolittle eased into the cockpit.

A "Sloppy" Landing

"I taxied out and took off," he explained later. "I came through the fog [on top] at about 500 feet and made a wide swing coming around into landing position. By the time I landed ten minutes after takeoff, the fog had just started to

lift. About this time, Mr. Guggenheim arrived, so we decided to do an 'official' under-the-hood flight. I'd just made a real flight in the fog so I wanted to go alone, but Mr. Guggenheim insisted that Ben Kelsey be taken along as safety pilot.

"We both got into the plane, and the hood over my cockpit was tightly closed. I taxied out and took off toward the west in a gradual climb. At about 1,000 feet, I leveled off and made a 180-degree turn to the left, flew several miles, then made another left turn. The airplane was now properly lined up on the west leg of the Mitchel range, so I started a gradual descent. I leveled off at 200 feet and flew level until I passed the fan marker on the east side of the field. From this point, I flew the plane down to the ground using the instrument landing procedure we had developed. Despite all my previous practice, however, the approach and landing were sloppy."

The approach and landing may have been sloppy by Doolittle's standards, but it was a safe landing, and Ben Kelsey never touched the controls. The flight marked the beginning of the end of the "seat-of-the-pants" era of aviation. The achievement did not completely solve the problems of instrument flying, but it was a significant start. It was Doolittle's finest contribution to aviation.

When the instrument flying experiments ended, Doolittle began to take stock. He believed he could not support his mother, mother-in-law, wife, and two sons on the low pay of a lieutenant. He resigned his regular commission in 1930 and accepted a commission in the Air Corps Reserve as a major. He was hired by Shell Oil Co. to head its newly established aviation department. His job was to demonstrate the capabilities of the airplane, keep aviation in the public eye, and thereby advance the development and use of Shell aviation gas, oil, and lubricants. He decided to spend the next three years setting point-to-point speed records and entering air races.

The Mystery Ship

Though Shell gave Doolittle a Lockheed Vega to fly on company business, he bought a damaged Beech Travelair for air races. He modified its fuselage and controls, hoping to make it the world's fastest plane. The press dubbed the result "The Mystery Ship."

Doolittle took the plane for a test flight. After putting it through some routine aerobatics, he made a speed run across the field and watched the airspeed indicator climb to nearly 300 mph. Pleased with this performance, he leveled off, then suddenly heard the ominous sound of bending metal. The plane began to vibrate, and Doolittle knew his prized possession was falling apart. The wings began to disintegrate.

There was only one thing to do. He unfastened his safety belt and bailed out. Once before, in warm-up flights for a demonstration at the 1929 Cleveland Air Race, an airplane had lost a wing and Doolittle had jumped, so this was the second time a parachute had saved his life. This time, the plane was his, and he could ill afford its loss.

Saddened but undaunted, Doolittle borrowed a plane built by E. M. "Matty" Laird, the "Super Solution," and entered the 1931 Bendix Race. He won the Bendix Trophy



Shell Oil gave Doolittle a Lockheed Vega to fly on company business, but he bought a Beech Travelair for air races. He modified its fuselage and controls, trying to make it the world's fastest plane, but it crashed on a test flight.

but, to the amazement of the crowd in Cleveland, quickly gassed up the plane and took off for Newark, N. J. He was trying to break the coast-to-coast record set by Frank Hawks the year before. Even though he had to fly through a line of strong thunderstorms, Doolittle set a new record, becoming the first pilot to cross the continent in less than twelve hours.

Doolittle planned to enter the 1932 Bendix Race with the Super Solution. On a test flight in Kansas, however, the landing gear failed and Doolittle had to bring it down with one gear up, damaging the plane so extensively that it could not be repaired in time for the race.

Several aircraft manufacturers offered replacements. One of these, Zantford D. Granville, offered Doolittle his "Gee Bee" R-1 racer, considered by many to be the most dangerous plane ever built. The stubby racer seemed to have no wings or tail, only a powerful engine. Doolittle was intrigued by the plane but, since it had little fuel capacity, he decided to skip the long-distance Bendix race and instead compete against the world's best sprint aircraft in the closed-course Thompson Trophy Race. In a test flight of the Gee Bee, he found it extremely unstable and so sensitive on the controls that he inadvertently snap-rolled twice while making his first flight.

In a preliminary run with the Gee Bee, Doolittle broke the existing speed record with an average of 296.287 mph and won a prize of \$1,575. Two days later, he won the Thompson Trophy Race and its \$4,500 prize by beating the fastest pilots in the world.

No More Races

His hair-raising experiences with the Gee Bee caused Doolittle to wonder if racing, with its many accidents and deaths, really advanced the cause of aviation. He had had his share of crashes and mishaps and twice narrowly escaped death. A few weeks after the Thompson Race, he announced to a surprised public that he was through racing. He never raced again.

Between 1932 and 1940, Doolittle devoted his time to promoting the development of 100-octane gasoline. In those days, large aircraft engines used 91-octane fuel. Larger engines could be designed to propel an aircraft faster and higher and carry heavier loads, but their in-



Above, a B-25 heads to Eglin Field, Fla., to train for the Tokyo Raid. Below, right, is Doolittle's B-25 crew: (left to right) Lt. Henry A. Potter, Colonel Doolittle, SSgt. Fred A. Braemer, Lt. Richard E. Cole, and SSgt. Paul J. Leonard.

creased compression required a higher rating for smoother burning and decreased detonation. If larger and faster aircraft were to be built, higher-octane fuels would have to be developed.

At Doolittle's urging, Shell assumed the financial risk on the venture, even though there were no engines capable of using such fuel at that time. Doolittle then convinced engine manufacturers to build more powerful engines, which later contributed to the Allied victory in World War II. He never received sufficient credit for this contribution to aviation, though it was surpassed in importance only by his blind-flying experiments.

In 1933, Doolittle and his wife Joe went on a five-month world tour. He put the Curtiss Hawk through its awe-inspiring paces at each stop and was always invited to visit the host nation's commercial and military aviation facilities. These visits gave Doolittle unusually sharp insight into local thinking and planning with respect to aviation.

What he saw alarmed him. The US, he concluded, was falling behind in aviation, especially military aviation. He began to speak out about his concerns. The Depression had generated severe cutbacks in US military appropriations, but other nations, such as Japan and Germany, were forging ahead with new planes and armament.

In 1937, Doolittle visited Germany. He was appalled to discover that Germany, which under the terms of the Treaty of Versailles was not even supposed to have an air force, was in fact building hundreds of planes and readying itself for war. He visited again in 1939 and came away even more concerned. He rushed home to report what he saw to Maj. Gen. Henry H. "Hap" Arnold, Chief of the Air Corps, and was so sure that war was inevitable that he left his lucrative job with Shell to return to the Air Corps as a major at one-third of his civilian salary. He reported for active duty on July 1, 1940.

Because of his experience in industry and his "can-do" spirit, Doolittle was assigned to General Motors' Allison engine plant at Indianapolis, Ind., and then to Detroit, Mich., to assist in converting the American automobile industry to mass production of warplanes. After the attack on Pearl Harbor, he was ordered to Washington, promoted to lieutenant colonel, and put in charge of several special projects.

Shock Value

One of these was to plan a surprise air attack on Japan. [See "The Doolittle Raid," April 1992, p. 54.] In its final form, it called for launching normally landbased B-25 medium bombers from the deck of an aircraft carrier, a feat most thought impossible. Volunteer crews were selected, and Doolittle supervised their training at Eglin Field, Fla., where Lt. Henry L. Miller, a Navy pilot instructor, taught the pilots how to take off in short distances with heavy loads. On April 1, 1942, at Alameda, Calif., the Navy embarked sixteen bombers aboard the carrier *Hornet*. The mission plan called for the *Hornet* battle group to draw within 450 miles of Japan and launch



its aircraft, which would then bomb five major cities. US planners hoped that, though the actual damage would not be great, the shock of coming under attack would deal a serious psychological blow to Tokyo and boost American and Allied morale.

As the task force steamed westward, Japan suspected an attack. When it didn't come as expected, Japanese fear subsided. However, when the task force was within 650 miles of the home islands on April 18, 1942, it was detected by a Japanese fishing boat serving as a picket ship. At that point, Doolittle decided the mission should begin earlier than planned.

All aircraft took off successfully and flew at wave-top level toward their targets. Japanese fighters fired on several, inflicting only minimal damage and preventing none from dropping their bombs and escaping. After the raid, fifteen of the B-25s headed for China; one, low on fuel, headed for Russia, which was still neutral in the Pacific War. Soviet authorities seized this plane; its crew members were interned for more than a year but eventually escaped to Iran. They returned to the US in May 1943.

As a result of their earlier takeoff, the remaining B-25s arrived over the Chinese mountains after dark in stormy weather with gas running low. It was raining hard, and the airfield beacon at their destination airfield had not been set up. None of the crew members knew exactly where they were. Three of the planes had ditched. The crews of the other twelve planes—including the one carrying Doolittle—bailed out. It was the third (and last) time Doolittle relied on a parachute to escape a plane and save his life.

One Raider died on bailout; two more drowned trying to swim to shore. Eight were captured by Japanese troops,

given a mock trial, and sentenced to death. Of those eight, three were executed by a Japanese firing squad and one died of malnutrition. The other four, their sentences commuted to life imprisonment without hope of parole, survived forty months of torture, beatings, and starvation. They were released after Japan agreed to an unconditional surrender in August 1945.

Doolittle thought his first combat mission was a complete failure. He had lost all of his planes. He thought he might be court-martialed, but he had seriously misread the situation in Japan and the United States. The Japanese people were shocked at this surprise intrusion into their homeland. They had been told their country could never be attacked by a foreign nation. What made the shock more profound was that it had been launched from a carrier, precisely as the Japanese had done at Pearl Harbor only a few months earlier. For the US, which had suffered one defeat after another to the Imperial Japanese forces, the raid provided a great morale boost. As for Doolittle, he skipped the rank of colonel entirely and was promoted to brigadier general. When he returned to the US, President Franklin Roosevelt gave him the Medal of Honor.

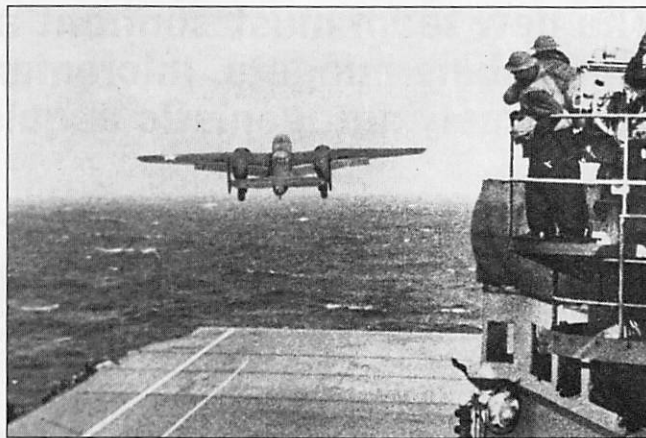
In time, Doolittle was promoted to major general and assigned to head Twelfth Air Force in North Africa after the Allied invasion. The going was not easy. German defense forces put up heavy flak over every target, and the toll on American planes was high. But Doolittle's personality and presence built a contagious *esprit de corps*. German and Italian defenses were overcome, and US aircraft pounded enemy supply lines. Doolittle headed Fifteenth Air Force briefly, then was promoted to lieutenant general and ordered to England in 1944 to take command of Eighth Air Force.

Under New Management

Soon after arriving in England, Doolittle changed the tactics of fighters that were used mostly to escort and protect American bombers against enemy fighter planes during raids over Germany. He had noticed a sign over the doorway of a fighter group commander's office which read, "The first duty of Eighth Air Force fighters is to bring the bombers back alive." Doolittle ordered the sign removed. "From now on," he said, "the first duty of our fighters is to destroy German fighters!"

From that time on, US fighter pilots took the offensive and went after German interceptors with a vengeance. Germany's surrender on May 7, 1945, was partly attributable to this important change of tactics at a critical time. In later years, Doolittle remembered it as the most important decision he made during the war.

Doolittle returned to civilian life with Shell but was frequently called on to head scientific and military boards, commissions, and task forces. He advocated the creation of a separate air force and was active in the 1947 effort to establish the Department of Defense with three separate military services. He was one of the founders of the Air Force Association and became its first president [see box, p. 22].



Doolittle chose to fly the first B-25 from the deck of the carrier Hornet toward Tokyo, assuming the most dangerous assignment (due to the short takeoff distance).

As a senior Shell executive, Doolittle flew the company plane, a North American B-25, but realized he couldn't stay as proficient as he should. He decided to quit piloting in 1951. "My office was in New York then," he said, "so, to get rid of the temptation, I had the plane transferred to the West Coast. I never flew as pilot in command again."

In 1959, Doolittle retired from the Air Force Reserve as a lieutenant general, becoming the only Reserve officer ever to retire at that rank. In 1985, he was promoted to full general; his fourth star was pinned on by President Ronald Reagan and Sen. Barry Goldwater. He served on the boards of several large corporations until his late eighties.

During his busy years as a military and racing pilot, scientist, and military leader, he formed a personal philosophy, which he once described in these words:

"I believe every person has been put on this Earth for just one purpose—to serve his fellow man. It doesn't matter how he does this. He can build a bridge, paint a picture, invent a labor-saving gadget, or run a gas station. The point is, he should try to leave the Earth a better place than he found it. If he does, his life will have been worthwhile. If he doesn't do what he can within his own limitations, he is destined to be unhappy."

In his final years, General Doolittle became an elder statesman whose wise counsel and guidance were sought in every phase of aviation and aerospace science. He always thought he had been extremely lucky and never thought of himself as a bold, superbrave pilot. He laughed when he was reminded that he was known as the "master of the calculated risk."

"I have always tried to be conservative," he told me. "I've always tried to do something new, but before exhibiting that new thing to the public, I practiced it again and again to be sure the hazard was minimized as much as possible. My calculations didn't always work out precisely. Otherwise, I wouldn't have had to jump out of an airplane three times to save my neck." ■

C. V. Glines is the author of four books about the life of Gen. Jimmy Doolittle: Doolittle's Tokyo Raiders, Four Came Home, The Doolittle Raid, and Jimmy Doolittle: Master of the Calculated Risk. He also assisted the General in the writing of his memoirs, I Could Never Be So Lucky Again, published in 1991.

The new team must confront a force drawdown, diminishing budgets, micromanagement, and an “extremely antagonistic acquisition environment.”

Materiel Command Faces Uncertainty

By James W. Canan, Senior Editor

THE AIR FORCE is fast becoming a US-based expeditionary force heavily reliant on three new major commands—Air Combat Command and Air Mobility Command for combat operations and Air Force Materiel Command for the weapons and logistics that make them possible.

AFMC's importance to USAF is beyond question. For example, roughly two-thirds of all Air Force personnel in Operation Desert Storm were logisticians. The loggies supported the flying squadrons in fine style. Warplanes and other equipment held up remarkably well under tough conditions. Their high reliability and maintainability were a tribute to the acquisition and logistics worlds, since combined in AFMC.

There was a down side, however, to the disproportionately high number of Air Force logisticians in the Persian Gulf War. USAF obviously had a long way to go in becoming the lean, rapid-reaction force of its best-laid plans. Squadrons deployed to the theater of operations had to take along a lot of logistical baggage, even though an extensive support infrastructure awaited them in Saudi Arabia. They will not find the likes of it anywhere else the next time around.



Concern for AFMC's five Air Logistics Centers (ALCs) runs high, though they received an eleventh-hour reprieve from the Base Realignment and Closure Commission this year. Above, a C-130 prepares for maintenance at Ogden ALC at Hill AFB, Utah. Opposite, an aircraft small-parts repair mechanic at Ogden guides C-5 landing gear wheels from stripping tanks to prepare them for plastic blasting.

Photos by Ross Harrison Koly