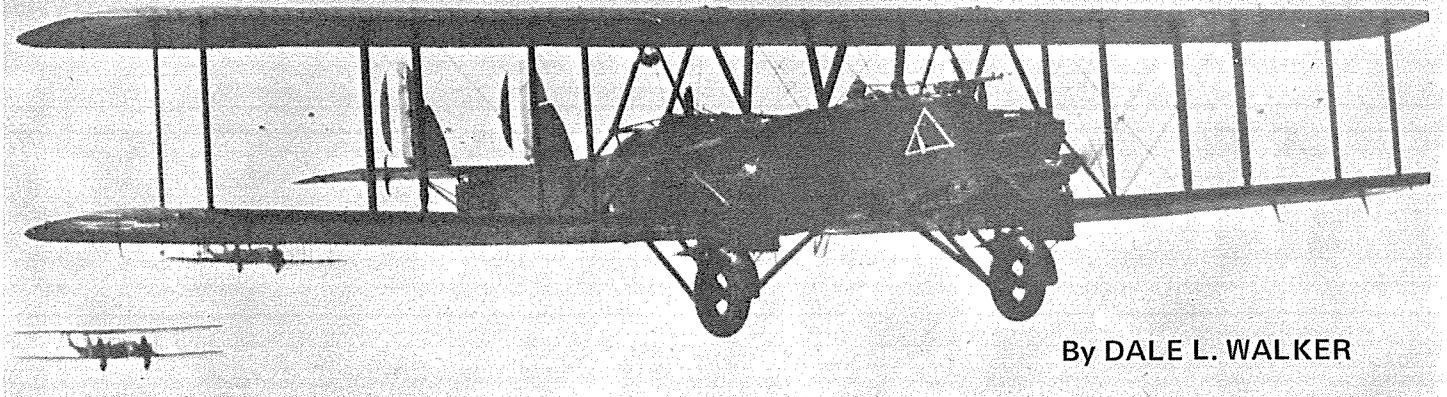


THE BOMBING AT VIRGINIA CAPES



By DALE L. WALKER

Martin Bombers of 96th Bomb. Sqdn participated in the bombing at Virginia Capes.

(Photo USAF)

World War One was a curtain-raiser in the birth of Air Power. Between the opening guns of August, 1914, and the signing of the Armistice in November, 1918, aerial activity was the least of the three elements of warfare.

When the U.S. entered the War in Europe in April, 1917, only 26 qualified combat pilots were available for duty, flying 51 obsolete and four obsolescent airplanes. When the war ended, the U.S. Air Service counted 45 squadrons with 740 planes in the Zone of Advance which managed to rack up a very creditable 781 enemy aircraft destroyed (plus 49 balloons).

The air arm grew in unprecedented fashion because of the War and with it grew the prominence of a man later to be termed a "maverick," Gen. Billy Mitchell. Despite Mitchell's inspired contributions as a combat commander, and despite the great personal intrepidity of the Air Service's great Aces like Eddie Rickenbacker, Frank Luke and Raoul Lufbery, World War One was a trench war — with all the chilling attributes of that now-dead description. Aside from Jutland, there were no great sea battles, and

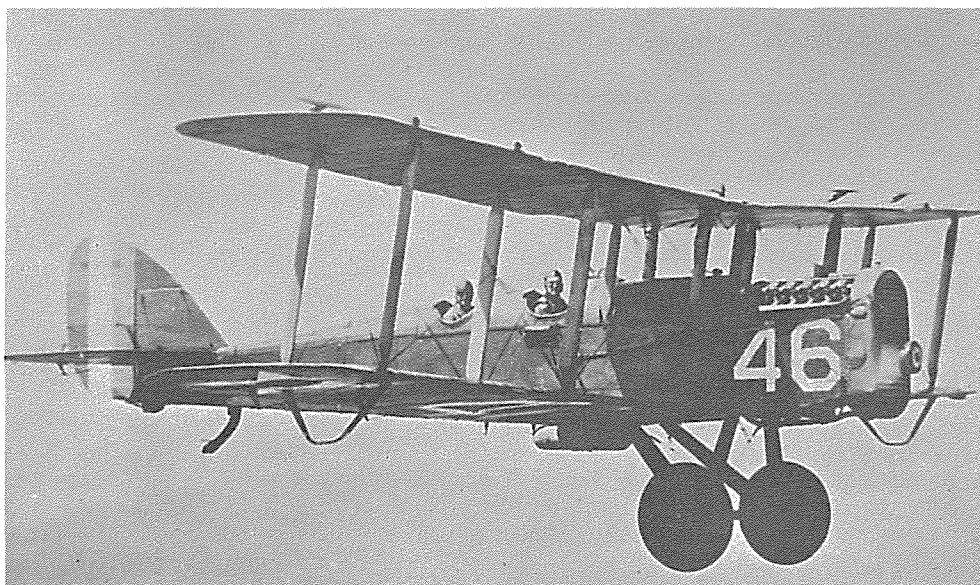
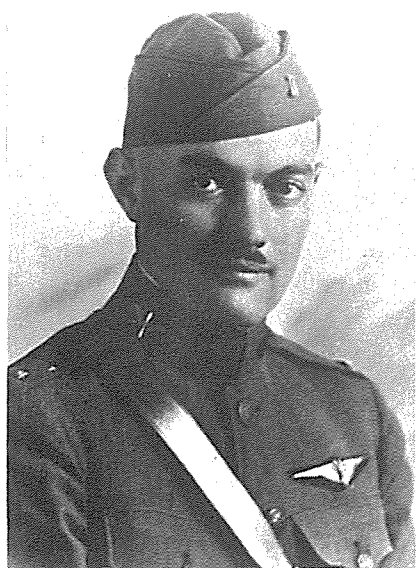
aside from the exploits of the daring young men in their flimsy machines, there were no decisive air battles in the War.

Air Power was still a nascent force when the curtain rang down on November 11, 1918, but when Billy Mitchell returned home from France after the hostilities ended, he brought the birth certificate with him. All that remained was to fill out the time and place.

El Pasoan Stacy C. Hinkle was there when Air Power, spelled with capital letters, was born 32 months after the Armistice. The event, not so blessed — at least in the eyes of real and potential enemies — that Hinkle and his fellow airmen were witness to and participants in, took place 65 miles out to sea off Cape Charles, Virginia, on July 22, 1921. Also involved in the tableau where military history was being written, were hundreds of spectators including army and navy brass, three cabinet officers — War, Agriculture and Navy Secretaries, eight senators, a dozen congressmen, newspapermen and armaments experts. There were also 70 or 80 aircraft of sharply contrasting design,

The German dreadnaught **OSTFRIESLAND**, variously described as "unsinkable," and most heavily armed, was taken at the end of WWI for the U.S. Navy, and became one of the targets used in the ordnance tests of 1921. (USAF)





Lt. Stacy Hinkle, left, in a 1918 photograph. At right, one of the DH-4's drawn in for the bombing trials.

(Photo — USAF)

from sleek pursuit planes to mammoth, lumbering bombers and graceful, pontooned Navy machines; there were bombs of every size and outline from little 25-pounders to monsters weighing a ton; there were Navy fliers and Army Air Service pilots, observers, bombardiers (such as Stacy Hinkle), and there were four scarred German warships riding at anchor on the water, their decks painted with great target circles of concentric red, white and blue.

Hinkle, in recounting the events off the Virginia Capes 50 years ago, likes to recall the words of Navy Secretary Josephus Daniels (1913-1921), who scoffed at the idea of airplanes sinking naval warships: "I will stand on the bridge of a battleship bareheaded," he said, "while the airmen bomb it and, by God, expect to remain safe."

"It's a good thing he didn't follow through on that," Hinkle remarks.

When 1st. Lt. Stacy Hinkle received his orders at Ft. Bliss on May 11, 1921, to report to Kelly Field, Texas, en route to Langley Field, Virginia, "for temporary duty in Project

B in conjunction with experiments in bombing naval vessels from aircraft," he had already served three years as bomber, gunner, and pilot in the fledgling Army Air Service. His duty at this time was with the U.S. Army Border Air Patrol, created on June 19, 1919. The Border Air Patrol, which consisted of seven squadrons of 85 airplanes and 175 pilots (at peak strength), flew reconnaissance missions along the 2,000-mile U.S.-Mexican border from San Diego to Brownsville, Texas. The need for the patrols became great following the June, 1919, attack on Ciudad Juarez by Pancho Villa's rebel soldiers and Hinkle was one of 35 flying officers sent to the Bliss airfield when the Patrol was created. He had been an engineering student at the Carnegie Institute of Technology in Pittsburgh when the U.S. joined the War in Europe. After training at Princeton University and Ellington Field (where he graduated from the Bombing Training School), he was commissioned in August, 1918.

Three months before Hinkle reported for duty at Langley in Virginia, the Secretaries of War and Navy had mapped out a plan whereby certain German warships (obtained by

The German cruiser FRANKFORT was the target of U.S. Army, Navy and Marine pilots on July 19th. Navy F-5L's flew over at 9:45 A.M. in this photo by the Air Service Photographic School. It was sunk later in the day. (USAF)



the U.S. under terms of the Treaty of Versailles) would be used for a series of Navy ordnance tests. Through the efforts of Gen. Mitchell — the kind of nagging and prodding that was to make him famous as the military's leading maverick and grittiest exponent of Air Power — the Army Air Service was invited to participate with a limited number of small aerial bombs. Under Mitchell's guidance, the invitation blossomed into a full-fledged exercise to show the recalcitrant, old-line salts of the Navy that the highly-touted unsinkable dreadnaughts of the day were in reality not only vulnerable but eminently sinkable.

Langley Field was located on the water on the lower west side of Chesapeake Bay near the village of Hampton and adjacent to Fort Monroe. It was (and is) a historic place and history was once again about to be written there. Capt. John Smith had established his colony a few miles up the James River from Hampton Roads, and nearby General Cornwallis had surrendered his British troops to George Washington. At Hampton Roads itself, on March 9, 1862, the engagement of the Confederate "Merrimack" and Union "Monitor" occurred.

Hinkle and his fellow pilots' schooling at Langley, in preparation for the Virginia Capes missions, consisted of bombing, the study of bombs and detonators, bombsights, tactical methods of attacking seacraft and actual flying practice in aerial bombing, using DH4-Bs against the outline of a battleship made with a two-foot-wide strip of white lime, and also against the hulks of old and partially-submerged Navy ships in Chesapeake Bay.

Three great problems faced Mitchell's Langley Field air crews, Hinkle says. The first was the need for bigger bombs — 100 and 250-pounders were all that were available at the time — and bigger planes to carry them. Mitchell had the arsenal at Aberdeen, Maryland, working overtime on larger size bombs and they soon turned out a 600-pounder that Mitchell believed would pack enough wallop to sink torpedo boats and sub-chasers. He estimated that 1,000-pounders would be necessary for cruisers and 2,000-pound giants for the battleship.

Mitchell and his airmen were also taking a close look at the available planes to carry the bomb loads. In the Langley Field hangers were DH4-Bs which could carry a 400-pound bomb load plus their full tank of about 100 gallons of fuel. Also on hand were two English Handley-Page bombers capable of a 2,000-pound load, an Italian Caproni bomber that could carry a 1,500 pound load, some SE-5 British fighters capable of small 100-pounders for dive-bombing against ship personnel, and an experimental plane called the Curtiss Eagle (which Hinkle learned to fly), which Mitchell thought might carry a 2,000-pounder.

The key to the heavy bombs was in a newly developed twin-engine bomber called the MB-2, developed by Glenn L. Martin.

The third problem, ironed out in the 11th hour, had to do with a suitable bombsight. Until Lawrence Sperry of the Sperry Instrument Company came down to Langley from Long Island with his experimental gyroscopic sight, bomb-sighting was done with a crude mechanical tubing-and-wire arrangement that could compensate for ground speed and altitude but not for drift or for lateral or longitudinal position of the plane.

"Things were pretty crude for the bombardier," Hinkle says. "One way we had of keeping the plane on a level course was to have a string tied to each of the pilot's arms. The bomber, in the rear cockpit, would pull the string on either the right or left arm to have the pilot raise or lower a wing."

Lawrence Sperry's invention eliminated the need for strings

and tubing. His bombsight was built on a gyroscopic principle that maintained its position regardless of the position of the aircraft, thereby greatly increasing the accuracy in sighting.

Ironing out the problems with bombs, airplanes and bombsights was coupled with Gen. Mitchell's conclusion, based on the best information he had from his armaments advisors, that it would be next to impossible to sink an armored ship by direct bomb hits. Such direct hits would result in extensive damage above the waterline — disrupting communications and ventilation systems, superstructure, gun turrets, engine-rooms and the like — but would not actually sink the ship.

Billy Mitchell's mission, and the mission of all his fliers, was to show that Air Power could SINK an enemy ship, not just cripple it.

The answer lay in the development of blockbusting, one-ton TNT bombs equipped with a special timing mechanism. As Stacy Hinkle puts it, "A near miss on the target was preferred over the direct hit. In theory, the bomb should hit in the water, very close to the craft, exploding a certain distance under water causing a terrific water pressure from under the ship's hull that would spring her plates open under the waterline, causing her to capsize."

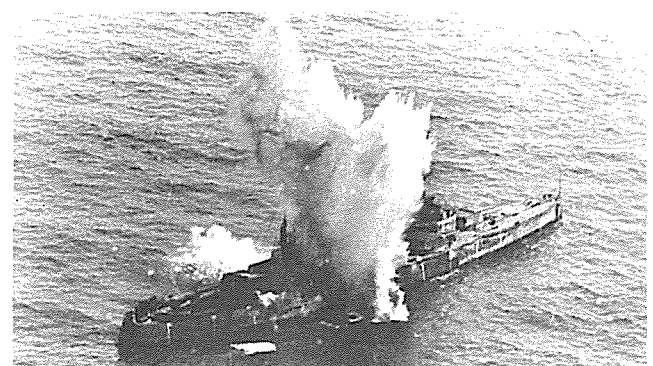
By the time June, 1921, arrived, most of the plans were in readiness. The "Project B" target area was located 65 miles off the Virginia Capes — Cape Charles, 97 miles from Langley Field. The Navy strung out a line of destroyers seven miles apart from Thimble Shoals lighthouse in lower Chesapeake Bay to the target area to insure rapid pick-up of any air crew having to ditch in the Atlantic waters. All fliers wore kapock-filled life-jackets which had been tested for buoyancy.

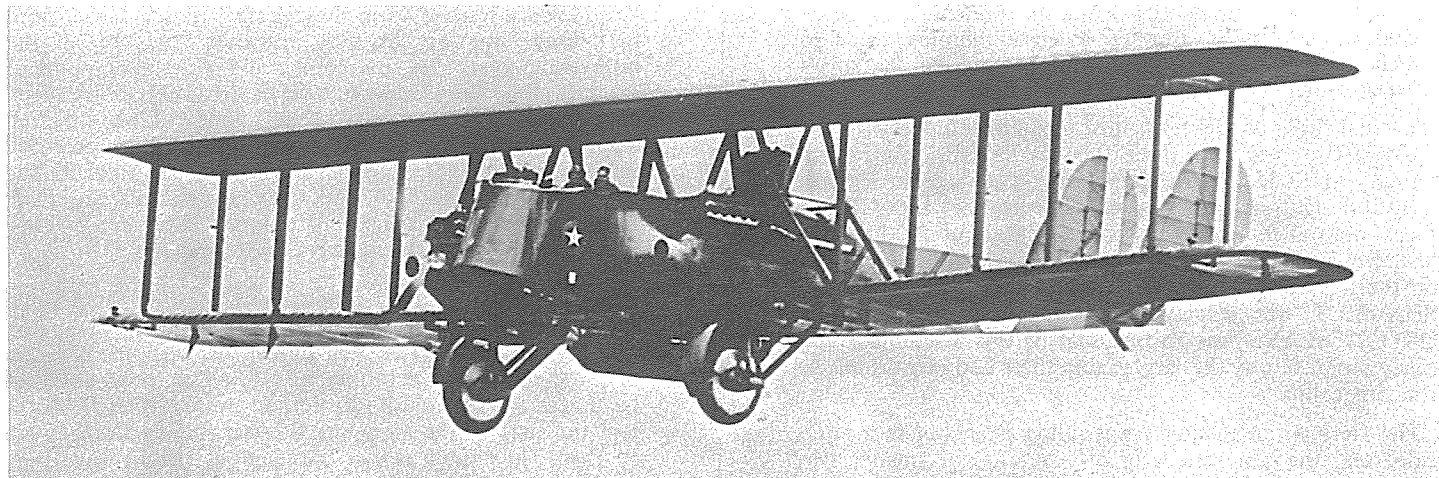
Soon the other ships in the exercises took their places. The U.S.S. HENDERSON and U.S.S. SHAWMUT were selected as control and observation ships. The SHAWMUT carried a large white canvas on her forward deck and when it was not visible, there was to be "no bombing," and when it was showing, it was "go ahead." The Atlantic fleet also assembled — light battlewagons, cruisers, destroyers and auxiliary vessels. The armed ships were to take part in the artillery sinking of the German target ships "after the bombing had failed to sink them."

The "Observing Board" consisting mostly of Navy admirals, engineers and other experts, was stationed aboard the HENDERSON and SHAWMUT and was to make periodic trips to the target ships after each bombing phase to inspect the damage.

Early in June, 18 new MB-2 Martin bombers began arriving and the 14th Bombardment Squadron, to which Stacy

OSTFRIESLAND was damaged in the bombing runs on July 20th, enough to require shifting ballast to maintain level. (Photo — USAF)





Final blows were struck by MB-2's carrying 2,000 pound bombs on July 21st: OSTRIESLAND slips under a few minutes after mid-day, (Photo — USAF)

Hinkle was assigned, was formed to fly them. On June 21, the first bombings were scheduled.

The first two missions were relatively minor exercises leading up to the crucial tests against the heavy German warships FRANKFORT and OSTFRIESLAND. The initial target was a submarine, the U-117, an Atlantic nemesis of Allied shipping during the First War. Only two runs of Navy F-5-L seaplanes, dropping 12 163-pound bombs in 16 minutes, were necessary. The U-117 sank so quickly the observation team aboard the HENDERSON barely had time to see her slip beneath the choppy sea.

Next, on July 13, the German destroyer G-102 was the target. After runs with small personnel bombs, the DH4-Bs and Martins took over and soon the G-102 began to sink, struck critically by the first 100-pounder dropped, then by a 300-pounder scoring a bulls-eye down her smokestack, causing the ship to nose down with stern high in the air. As she slid from view, the water boiled up and debris swirled in her wake.

On July 19, the German light cruiser, FRANKFORT of 5100 tons, was struck by air units of the Army, Navy, and Marines, dropping "light" 100 and 300-pounders on her. Inspectors from the SHAWMUT reported severe damage to the superstructure and deck of the FRANKFORT but reported that her hull, protected with heavy armor plating was undamaged.

The Navy, convinced that aerial bombing would not sink the FRANKFORT, made plans to proceed with the destruction of the cruiser with gunfire from destroyers and the SHAWMUT ordered Army bombers from Langley Field not to come to the target area. This order was soon countermanded, however, and a Martin squadron was permitted to proceed. Stacy Hinkle was with the squadron as bombardier in an MB-2 piloted by Lt. Leo Post.

As the Martin flight arrived on target, Hinkle recalls, "we had to circle and circle, with our gas supply getting lower and lower, while the inspectors from the SHAWMUT continued their work. Finally at about 4 p.m., the squadron commander, Captain Lawson, wirelessed the SHAWMUT — 'We must begin bombing within 15 minutes. Fuel limited. Unless permitted to attack within 15 minutes, planes will have to turn back.'" The inspectors quickly withdrew from the FRANKFORT and the Martins changed formation from a "V" to a single line column flying in a huge circle around the warship.

Hinkle says, "The first plane dropped its 600-pound bomb at 4:15 p.m. Eleven of these 600-pounders were dropped

by four planes in 10 minutes, scoring two direct hits on the deck of the FRANKFORT and a third in the water close to the hull. This was the bomb that sealed the fate of the FRANKFORT."

The combined bomb power caused the ship to list heavily to port, then to stand perpendicularly in the water showing her rudder, then to glide nose first into the sea, leaving only a large bubble-filled spot on the sea to momentarily mark her grave.

"It is not possible to describe the thrill, the exhilaration, the feeling of achievement of those of us in the Martins," Hinkle says, "to see the damage done to that ship and to see it plunge out of sight. This was proof positive that 'air power' could sink large seacraft."

Still the big test awaited. She was one of the Kaiser's "unsinkables," the OSTFRIESLAND, a 10-year-old, 27,000-ton, battle-scarred veteran of the hellish Jutland battle in the North Sea in 1915, the most heavily armored battleship in the world. After receiving 18 direct hits from British warships at Jutland, she had made her way toward Wilhelmshaven, the great German seaport, when she struck a mine. Although severely damaged, she was still able to make her escape and survive the war. Mitchell described her as "like a grim old bulldog . . . sullen and dark and we knew we had a tough nut to crack."

Two days were set aside for the OSTFRIESLAND: July 20-21. The July 20 attack was made by both Army and Navy planes with bombs ranging in size from 230 to 600-pounders.

After the squally, windy weather cleared on July 20, five Army Martins, each carrying three 600-pound bombs, left Langley Field, flying in circles around the target while the SHAWMUT's umpires examined the damage caused by the Navy planes. The Martins dropped 11 of the 600s in ten minutes, making two direct hits on the hull and four in the effective zone around the ship. Later, six Navy F-5-Ls dropped eight 550-pounders which concluded the first days' work. The inspection team found the OSTFRIESLAND shipping water astern and in the port engine room causing the ship to list enough that bilges were opened to ship more water forward to even her keel.

July 21 dawned clear and sunny and eight Martins left Langly at about 7 a.m., each armed with 1,100-pound bombs. Accompanying the flight were two Army blimps, a Navy rescue plane, photographic DH-4s and General Mitchell in his well-marked DH-4B. The Martins began the attack at 8:35 a.m. The OSTFRIESLAND had settled in

the water about three feet from the previous day. Five 1,100-pounders were dropped in eight minutes three of which made direct hits. The inspectors found the ship's forward boiler rooms demolished.

The final flight of eight Martins, including Hinkle with Lt. Carlisle Graybeal, and three Handley-Pages took off from Langley at 10:55 a.m. Hinkle recalls, "The target area was a beautiful sight. A large number of seacraft of the Atlantic Fleet were anchored over a wide area about 2,000 yards distance from the target with the SHAWMUT control ship on the west side of the group about 1,000 yards closer. The SHAWMUT was displaying the 'go ahead' signal. The OSTFRIESLAND was to one side of this assemblage and easily stood out as the largest ship there and identifiable as the target ship.

"The German dreadnaught was riding at anchor in a fairly calm sea, the sun reflecting off the tops of small waves about her. Her large guns could plainly be seen extending out of her six revolving turrets on the top deck, with smaller caliber guns mounted on 'set backs' on each of her sides between the waterline and the top deck, moving through 180 degrees between fore and aft. The top deck was cluttered with objects that looked like torpedo tubes and other equipment. It was an emotional sight to see this 'unsinkable' ship ready for us to try and prove her no match against aircraft and one-ton bombs."

The first 2,000-pounder was dropped at 12:18 p.m., followed in quick succession by others. "At 12:24, one hit the side armor," Hinkle remembers, "a few feet aft of the bow on the port side, glancing off and exploding under water. This one bomb would have sunk the ship because when she finally turned over, water was streaming out of several large holes in both her side and bottom plates."

Other 2,000-pounders followed, and the dreadnaught began to sink by the stern. Two of the bombs — the fourth and fifth dropped — were also critical wounds. At 12:33, she took a heavy list to port and three minutes later her stern section disappeared beneath the water. Simultaneously, the great North Sea veteran began turning over, exposing fully two-thirds of her bottom from the mainmast forward, covered with silvery sea water and barnacles that caught the sun's rays and glinted like diamonds. Upside down and with her bow high out of the water, the great Leviathan slid down stern first into the ocean, coming to rest 500 feet below, until only a few feet of her inverted bow was visible.

She was 546 feet long and, as if putting off the final ignominious moment, about 50 feet of her bow was visible for a moment until it dropped forward and out of sight at 12:40 p.m. — 22 minutes after the first one-tonner struck home.

In the aftermath of the sinking, General John J. Pershing wired Gen. Mitchell, "Congratulations to you and the entire aircraft brigade on your brilliant performance today." Mitchell, after the OSTFRIESLAND sank, banked his plane around the transport HENDERSON and the gallery of VIPs on board waved and shouted their congratulations as he buzzed around their ship. He could well have been sky-writing "I told you so."

While some shouted their congratulations, the chins of some of the naval officers dropped, some admirals and captains dabbed at their eyes. As one reporter put it, they "seemed to be watching the end of an era which began when Rome crossed the high seas and smote Carthage." The reporter struck very close to the truth. The outcome of the bombings was a death knell to the Navy's revered idea of being "the first line of defense." Ironically, U.S. Air Power — while certainly born that sunny July day off the Virginia Capes — had still to struggle for recognition.

"The lessons learned from these tests," Hinkle says, "were first used, not by us, but *against* us. In all the intervening years, the first combat use of aerial bombing of seacraft was the Japanese attack on Pearl Harbor on December 7, 1941 — that 'day of infamy.' Three hundred and sixty airplanes from a 33-ship Japanese task force 200 miles northwest of Hawaii (incidentally as Mitchell had predicted years earlier) sank four of our Pacific Fleet battleships, a mine layer and a target ship and severely damaged 12 others, killing over 3,500 personnel."

On September 12, 1921, Hinkle was transferred to Kelly Field and eventually to Ft. Bliss. Congressional apathy toward the Air Service led Hinkle, as with many other officers, to lose his determination to make the Air Service his career and he voluntarily retired in December 1922, to join the staff of the Mine and Smelter Supply Company in El Paso. He retired as vice-president of the firm in 1964. Active in retirement, Hinkle has written two books on his experiences in the Air Service, "Wings and Saddles" (1967), and "Wings Over the Border," (1970), both published by the Texas Western Press at the University of Texas El Paso.

In reflecting on the bombings and the great figure of Project B, Billy Mitchell, Hinkle says, "He martyred himself. He went too far in criticizing his superiors but he was fighting short-sightedness and closed minds. I was told of an incident that occurred just before Mitchell's court martial. He came into his adjutant's office with a prepared statement he was about to give the press. The adjutant read it and said, 'General, you can't say these things. You'll be court-martialed.' Mitchell replied, 'I know it.' I knew Billy Mitchell well and liked him immensely. He was a fast talker, a fast walker, an absolutely sincere man of unlimited capabilities. In my opinion his court martial and forced retirement from the Air Service was one of the greatest tragedies in military history."

Of the missions themselves, Hinkle says, "From May 11, 1921, when I left Fort Bliss, to October 27, when I returned, was the most eventful and exciting period of my Air Service career. I had been privileged to participate in one of the first outstanding exploits of the young Army Air Service in developing an air capability that had been previously unknown — a capability that changed the methods and tactics of future warfare. I am sure the relatively few officers and enlisted men who as a team under General Mitchell had accomplished this feat did not realize the great importance these exercises would have nor how far and how large Air Power would grow."

Editor's note: for further discussion of the theory of air power see Wilson, Donald, M/Gen, USAF (Ret). "Origin of a Theory for Air Strategy." *AEROSPACE HISTORIAN*, Vol. 18, No. 1, Spring, March 1971. pp. 19-25.

ABOUT THE AUTHOR

Dale L. Walker of El Paso, Texas, is Director of the News and Information Office at the University of Texas at El Paso. His interest in aviation history centers mainly around the WWI era and he has written widely on the Lafayette Escadrille. His obituary of the late RAdm Edwin C. Parsons appeared in the *JOURNAL*, Volume 13, and his obituary of the late E.F. Hinkle was read into the Congressional Record by Representative Tom Morris of New Mexico. Walker knew both of these men personally, as well as Henry S. Jones of Florida, one of the two survivors of the Escadrille, and has been a longtime friend of Stacy C. Hinkle, also of El Paso, the subject of the present article which is based on interviews with Hinkle. Walker is co-author of the biography of John Reed, *The Lost Revolutionary* (Harcourt, Brace & World) and has written many magazine articles on a broad variety of subjects concerning Western and military history and biographical subjects. He is a native of Decatur, Ill., a Navy veteran, and is married and has five children.